

reinventing the

michael galloway

AMERICAN DREAM

saving the suburbs

REINVENTING THE AMERICAN DREAM

Saving the Suburbs

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

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In Partial Fulfilment of the Requirements
for the Degree of
Master of Architecture



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ABSTRACT

This thesis examines the future of suburban environments and tactics for creating a more feasible suburban community through modifications of the existing elements of the site. The suburban environment may be revitalized through the introduction of mixed-use architecture as a new suburban typology. Through the merging of fore-closed, nonviable, and underutilized single family homes into vibrant mix-use centers the suburban environment can become a walkable, multi-functioning community capable of a fiscally and environmentally sustainable future. The suburbs must evolve into a more diverse environment in order to become a practical and efficient system. By restructuring the existing under-utilized infrastructure of the suburban environment into mixed-use nodes the suburban environment can progress into a productive and viable alternative to the current failed suburban framework. Shakopee, Minnesota is the site for the modification of the suburban.

Key Words:

Suburban, mixed-use, adaptive reuse, sprawl

PROBLEM STATEMENT



STATEMENT OF INTENT

Claim

Through the merging of foreclosed, nonviable, and underutilized single family homes into vibrant mix-use centers the suburban environment can become a walkable, multi-functioning community capable of a fiscally and environmentally sustainable future.

Actor: Suburban Environment
 Action: Creation of mixed-use suburban nodes
 Object: Underutilized single family homes
 Manner : Fusion of single family homes into mixed-use nodes

Premise

Changes to the current state of the suburban environment is needed to create a fiscally and environmentally sustainable habitat.

The creation of mixed-use centers within the suburban fabric would facilitate complex human interactions by making the mono-functional environment into a diverse multi-functioning community.

The suburban environment is currently in a state of decline. There is an excess of foreclosed and abandoned single family residences.

Multiple under-utilized or non-inhabited single family residences would be merged into mixed-use centers of "urban activity" within the suburban fabric.

Conclusion

The suburbs must evolve into a more diverse environment in order to become fiscally viable and environmentally sustainable.

Justification

By restructuring the existing under-utilized infrastructure of the suburban environment into mixed-use nodes the suburban environment can evolve into a productive and viable alternative to the current failed suburban framework.

TYOLOGY

Mixed-use architecture is a very broad typology that has the ability to encompass a wide assortment of separate typologies within a single entity. It is how these independent elements make a cohesive whole that makes mixed-use architecture a dynamic building type. This ability to bring together a variety of functions makes mixed-use architecture adaptable and resilient to change over time in order to meet the current needs of the occupant. This adaptability of mixed-use architecture is lacking in the suburban environment of today.

Suburban mixed-use architecture is a rather contradictory idea. The suburbs are based on the segregation of function with housing developments separate from office parks that are separated from the massive shopping centers. This system of segregation relies completely on the automobile as a means of travel. Reliance on the automobile causes an alienation of the resident from the environment they occupy. There is no connection to the just surrounding the user is simply passing by without any interaction with the environment or the other occupants, this is the current state of the suburb.

The insertion of a mixed-use typology into the single use suburban fabric will allow for a more dynamic environment by reversing the current trend of separating dwelling, retail, and business into separate districts while keeping the medium density environment that appeals to the current suburban inhabitants. The mixed-use typology has the ability to transform the mundane sea of single family residences into a holistic community capable of self sufficient lifestyle free of the confines from the dreaded commute. The suburbs lack a sense of community, the introduction of mixed-use architecture into the suburban environment will create nodes of human interaction that will facilitate the communal atmosphere.

This project also encompasses adaptive reuse of existing structure. Foreclosed, nonviable, and underutilized single family homes will be merged into a single mixed-use node for dynamic human interaction. Adaptive reuse in the suburban environment will allow for restructuring of typology and function with limited material and capital waste. There is a surplus of constructed suburban single use houses and an inverse deficit of complex spaces that provide a variety of services. Adaptive reuse of unsuccessful houses into mixed-use suburban nodes may allow the suburbs to become financially viable and provide income to an environment with a history of limited economical production.

The typologies of mixed-use and adaptive reuse architecture in the suburban environments is a relatively foreign concept. There is a small body of research on the subject, however, there is a substantial number of design competitions and symposiums focused on solving the problems of the suburban environment through the insertion of mixed-use and reuse architectural designs. This thesis continues the exploration of future possibilities for rethinking the suburban fabric.

PREMISE

The suburbs have failed. They have failed economically, socially, environmentally, politically, culturally, and architecturally. The question is now, what is to be done with the unsuccessful suburban landscapes? Are they to be abandoned, destroyed, or reclaimed?

The new sprawled suburbia is not practical and no longer is it desirable. The migration from the city to the suburb has been reversed. Foreclosures have forced many families out of their homes. Many suburban houses are left abandoned. There is an opportunity to utilize these available resources to produce a suburban environment that is sustainable, feasible, and desirable.

It is important to understand the factors that led to the current state of the suburban environment if a improved future is to be imagined. There are many cultural and economic aspects that converged to create the desire for a suburban lifestyle. Many of these desires still remain in an evolved state that the suburban environment has not yet adapted to. If the history of the suburbs is understood then the basic elements that originally set in motion this massive human migration an appropriate path for future suburban evolution may be constructed.

The exodus from the city to the suburbs was fueled by the veterans returning home from World War II and the economic boom that followed. This desire for home ownership was marketed as the "American Dream". This dream consisted of an automobile and the ownership of a house. This was the beginning of consumerism in America. The suburbs were marketed as an escape from the grime and poverty of the city. House shortages and government initiatives sparked entrepreneurs to create massive housing developments consisting of repetitive rows of houses.

Poverty has infiltrated the suburbs. The very reason for the rise of the suburban environment is becoming its eminent demise. The economic downturn has impacted the suburban environment much more than many of the resilient urban environments. The suburbs lack the ability to adapt to economic and cultural changes. High fuel costs and a culture of living beyond means has dried up the suburban capital. There is no production within the suburbs. Goods and services are imported from outside the suburban environments residential borders. This means that the suburban environment generates no income, it relies completely on the commuter and the urban economy to provide the revenue it requires to survive.

Currently there is a widespread disdain for the suburban environment due to the lack of a sense of place, connection, identity, and variation. The suburban environment is generic. Placemaking is a foreign concept to the suburban vocabulary of monotony and repetition. The suburban environment creates a disconnect between the basic functions of a successful economy. People are beginning to value environments free of the confines of automobile dependency. The suburban environment needs to adapt and overcome the dominance of the automobile if it is to survive.

The suburban environment needs to adapt to the changing times if it is to become a feasible framework for human habitation. This requires the insertion of a cultural and economic structure within the confines of the dwelling dominated suburban fabric. The suburban environment lacks architecture. It is filled, for the most part, with meaningless boxes that lack any direct connection to the occupant and do not meet the needs of specific communities. If architects infiltrate the monotony of suburbia there is hope for the creation of place and a connection to the outside world within the suburban environment. The suburban environment must evolve with the times if it is to survive. New ways of thinking must be developed and innovative alternatives must be discovered.

JUSTIFICATION

A substantial amount of resources have been invested in the suburbs. The quantity of infrastructure that has been created alone is enough to warrant reutilization of the current failed suburban state. If this ineffective inventory of constructed elements is reconfigured the amount of new material and additional financial strains could be significantly reduced compared to the potential creation of new productive environments.

The current practice of suburbia is not sustainable. Limiting the reliance on the automobile by creating mixed-use centers that provide the daily needs of the community creates a more environmentally sustainable future. The insertion of business in a historically residentially dominated landscape may allow the suburban environment to become fiscally sustainable. The suburbs are a capitalist machine that focuses solely on the potential immediate financial rewards. Creating community oriented centers out of the failed structures of the past has the capability of long term sustainable futures.

Historically the suburbs have been, for the most part, free from the attention of the architect. With precise planned intervention the suburban landscape can become a viable productive environment capable of adapting to the changing economic and cultural conditions. Architects have the ability to bring uniqueness and productivity to suburbs as well as create resiliency for adaptation to meet the needs of future occupants.

Retrofitting the suburban landscape may provide a unique frontier of architectural research, development, and implementation. If the architect is inserted into the suburban environment there is potential for a new means of income for the profession. Architects have the opportunity to reinvent the American dream and author a new way of thinking about suburban life. The topic of suburban futures is a varied and often controversial issue, however it is a practical concern that justifies consideration and action.

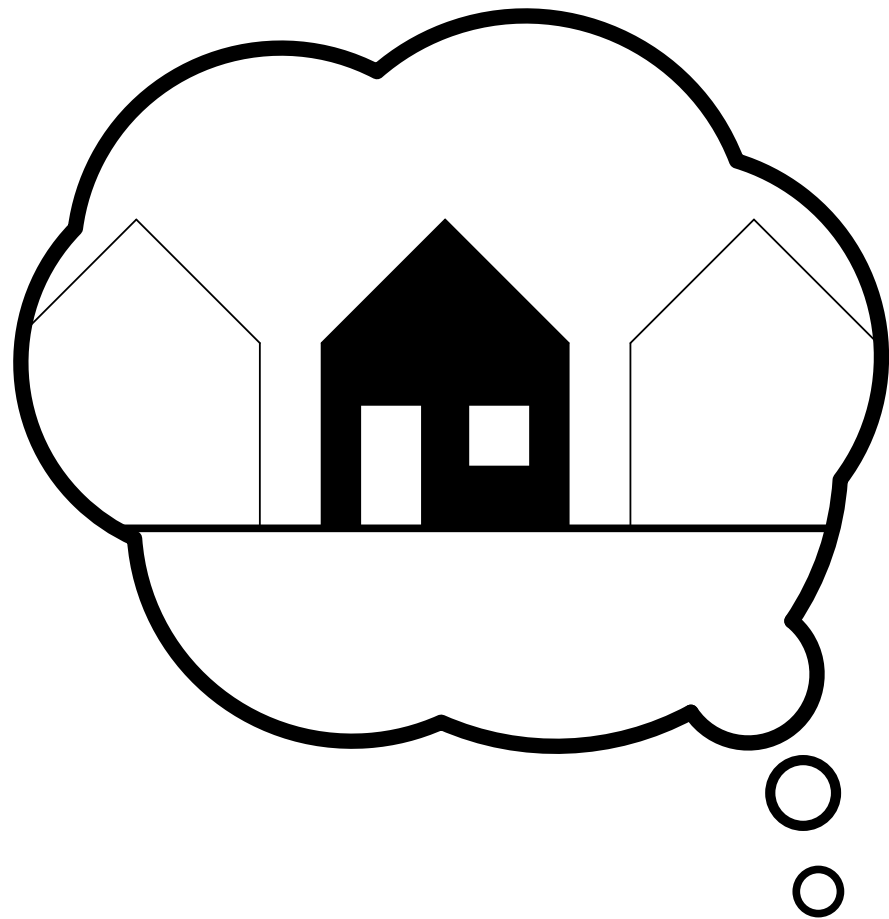
PROPOSAL

NARRATIVE

THE DREAM

As the economy suffers and a new generation of urban enthusiasts succeed the baby boomers with dreams of home ownership, the suburban environment is dying. Is it more responsible to abandon the failed suburbs to recreate our forgotten urban environments? We no longer have the luxury of waste. The suburbs have the potential to become a positive economic system as opposed to their current role as a financial burden on both the nation and the individual. If the vast amount of energy and material already spent on the suburban environment were reconfigured into a productive machine capable of dynamic social interactions that support a holistic community.

Understanding the American Dream and the emphasis that has been placed on home ownership is essential if the suburban landscape is to be transformed into an efficient environment. The house is seen as an extension of the individual it is seen as an indicator of success not a machine for living. The unnecessary dining rooms, sitting rooms, and extra bathrooms serve as symbols instead of functioning spaces. Thus, the single family residence has become an empty shell that emphasizes status instead of practicality, efficiency, or effectiveness. It is an actualization of excess. The single family home seeks excess as a measuring tool for wealth. When wealth is removed so is the possibility of the single family home.

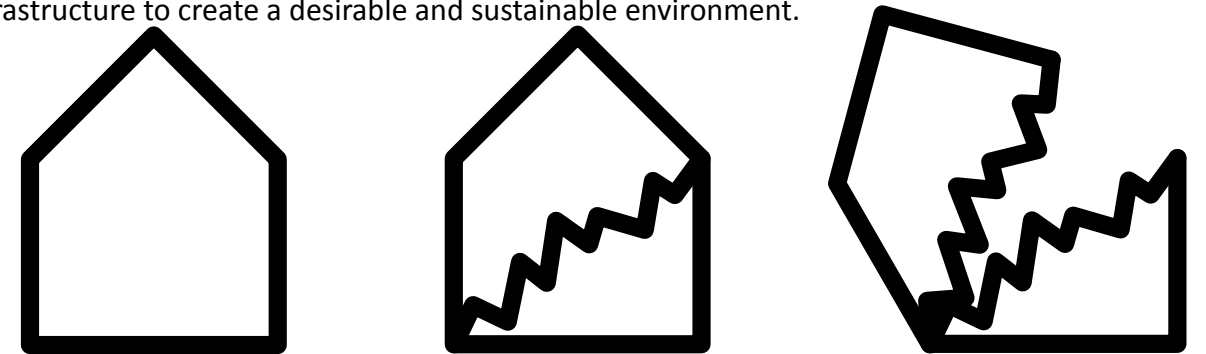


ECONOMY

The magic of home ownership is an illusion. Many suburban homes are actually owned by financial institutions who grant loans to the "home owner". The real world consequences of an impractical dream has created a housing crisis and contributed to the nation's economic collapse. The national economy was greatly affected by the real-estate bubble and subsequent defaulted mortgages to suburbanites who were often victims of predatory lending. The suburbs are a large cause of the economic crisis but they also have the ability to be a factor of positive economic change.

The current American culture is rooted in consumerism. Living beyond means has been an acceptable practice and over extending financially is the business model. Keeping up with the Joneses has reached a national scale. Reason, practicality, and function have become foreign terms to suburbia. Greed and short sighted ventures created a housing bubble which then produced a foreclosure crisis based on predatory lending tactics.

Poverty has infiltrated the suburbs. The suburban facade of wealth, safety, and decorum has been torn down. The perception of grandeur has been replaced with the realities of the current financial climate. Sprawl has imprisoned the poor as those with means flee to the reliability of the urban environment. The price of suburban properties is on the rise. Many cannot afford to leave the now inexpensive confines of the suburban environment. Instead of abandoning those who cannot migrate to the city the effective urban elements should be incorporated with the abundant suburban infrastructure to create a desirable and sustainable environment.



PRODUCTIVITY

The suburban mind-set must be altered if it is to evolve into a sustainable and productive environment. People need to be involved in the place in which they inhabit in order for an environment to be successful. There must be a relationship between people who create the suburban environment and those who dwell in it. The large scale developers, who are currently the shapers of the suburban landscape, have no connection to those who inhabit their sterile landscapes of monotony. A successful suburban environment must create a communal spirit that fosters pride and resiliency. Pride needs to be imported to suburbia.

The suburban system must become productive if it is to survive. It must strive to generate capital not simply consume resources as it currently does. It must be enterprising. No longer can it be socially or economically passive. It must gain the entrepreneurial spirit that originally produced the "American Dream". If the suburbs are to be successful they must become dynamic and adaptable. It must respond instead of being a response. A successful suburban environment must be a commune for capitalists not a consumerist compound. The suburbs must lose the suburbanites and replace them with individuals unsatisfied with the status quo and eager for progress.

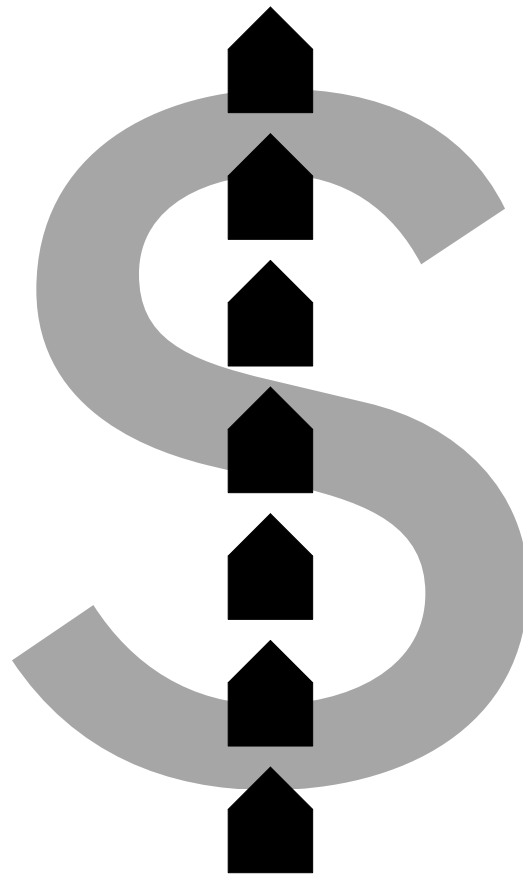
DESIGN

If the suburbs are to be saved, designers must understand what factors led to the creation of the suburban environment as well as the factors that has led to its failure. This requires the collection and analysis of economical, sociological, and anthropological data related to the suburban environment and its inhabitants. This information must be the foundation of re-imagined suburbia aimed towards the creation of a holistic community that compensates for the shortcomings of the current state of the suburban landscape.

There is a surplus of under-utilized property and material in the suburban environment. Multiple suburban assets can be refigured into a single node of urban activity that is more productive than the underutilized elements from which it is created. The insertion of mixed-use architecture into the suburban landscape would allow for the possibility of dynamic social, economic, and cultural interactions. The addition of new typologies would allow the suburbs to become self-sustaining and less reliant on the importation of goods and services from the urban environment.

Why has the suburban problem been ignored by the architectural community and society as a whole? It is not sexy. It is complex. Many people like the way it is, soccer moms with SUVs love it. Many companies depend on it the way it is, big box stores thrive on suburbanites. The reasons for the lack of architectural intervention in the suburban landscape must be understood and adapted if architecture is to become the savior of the suburb and in turn the suburb as a creator of much needed new architectural income.

Suburbia provides the opportunity for a new mode of architectural dialog. There is the possibility of a symbiotic relationship between the suburb and the designer. If designers immerse themselves into the suburban issues the suburban environment may become a sustainable system while providing a new means of employment for the struggling design professions. Architecture has the opportunity to rethink the American Dream.

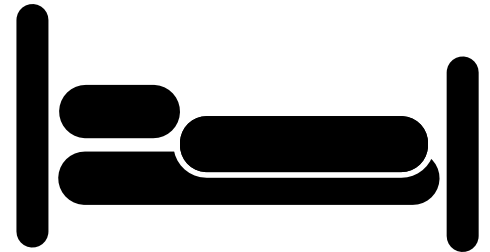


PROJECT ELEMENTS

RESIDENTIAL

2 bedroom/efficiency apartment units

The suburban environment has historically consisted mostly of affluent families which typically consists of a husband, wife, and children. Two bedroom and efficiency apartments will allow for more diversity in both economic position and household age/type. The introduction of a less expensive housing option within the consistency of single family residences will allow for a wide variety of occupants. In order for the suburban environment to become a cohesive well functioning system there must be diversity in age and income. The addition of apartment housing to the suburban environment will serve as an injection of density to the consistency of low density that dominates the stereotypical suburban environment.



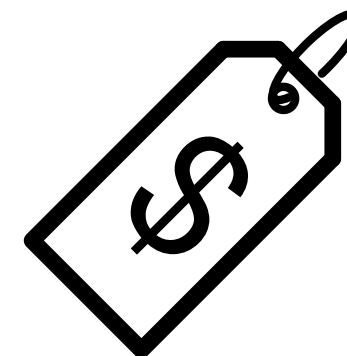
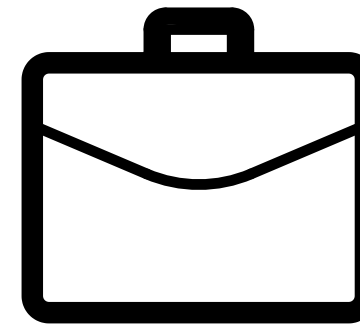
COMMERCIAL

Office
Retail

Convenience/Grocery Store

Mixed Retail

Restaurant



The insertion of office space into the residential suburban fabric will eliminate the need for the commute. It will generate revenue from within the suburb as opposed to importing income from outside the residential confines. Collaborative/communal office elements will allow for a large variety of different businesses and individuals to utilize a small amount of space. Spaces like conference rooms, administrative areas, and workspaces will be shared between all of the different occupants. This eliminates wasted space due to redundancy of spaces.

The introduction of retail space within the residentially dominated landscape will lessen the supremacy of the automobile created by the segregation of function that defines the suburban environment. It is essential that every day necessities are available within walking distance so daily automobile trips are not required. Retail spaces available to the residents of the immediate neighborhood will foster a local identity and culture. Income made in the community will stay in the community and create a economic cycle that will help to foster a financially sustainable future.

CLIENT / OCCUPANTS

The client for the mixed-use center is the community. The project is funded similar to how the stock market works. Shares will be purchased to finance the construction. Those share holders will be repaid by the tenants who are also community members. The project is funded by the community in order to create community jobs, profits, and services to benefit the community. In order for the project to be part of the culture and image of the community it must be owned by those who utilize it. It must create a sense of communal pride and value, this is only possible through a sense of ownership and a cooperative spirit. The community is taking out a loan for itself and its future.



This mixed-use project will involve the integration of drastically different occupants. This intertwining of functions and the associated occupants will create a vibrant environment throughout the day and week. During the day the retail and office spaces will be centers for commercial activity. In the evening the residential activity and restaurant patrons will create a lively atmosphere that promotes a sense of community. This mix of occupants and hours of activity will bring the activity of the urban environment to the suburb. The combination of functions will allow this project to act as hub for communal activity produced by its occupants.

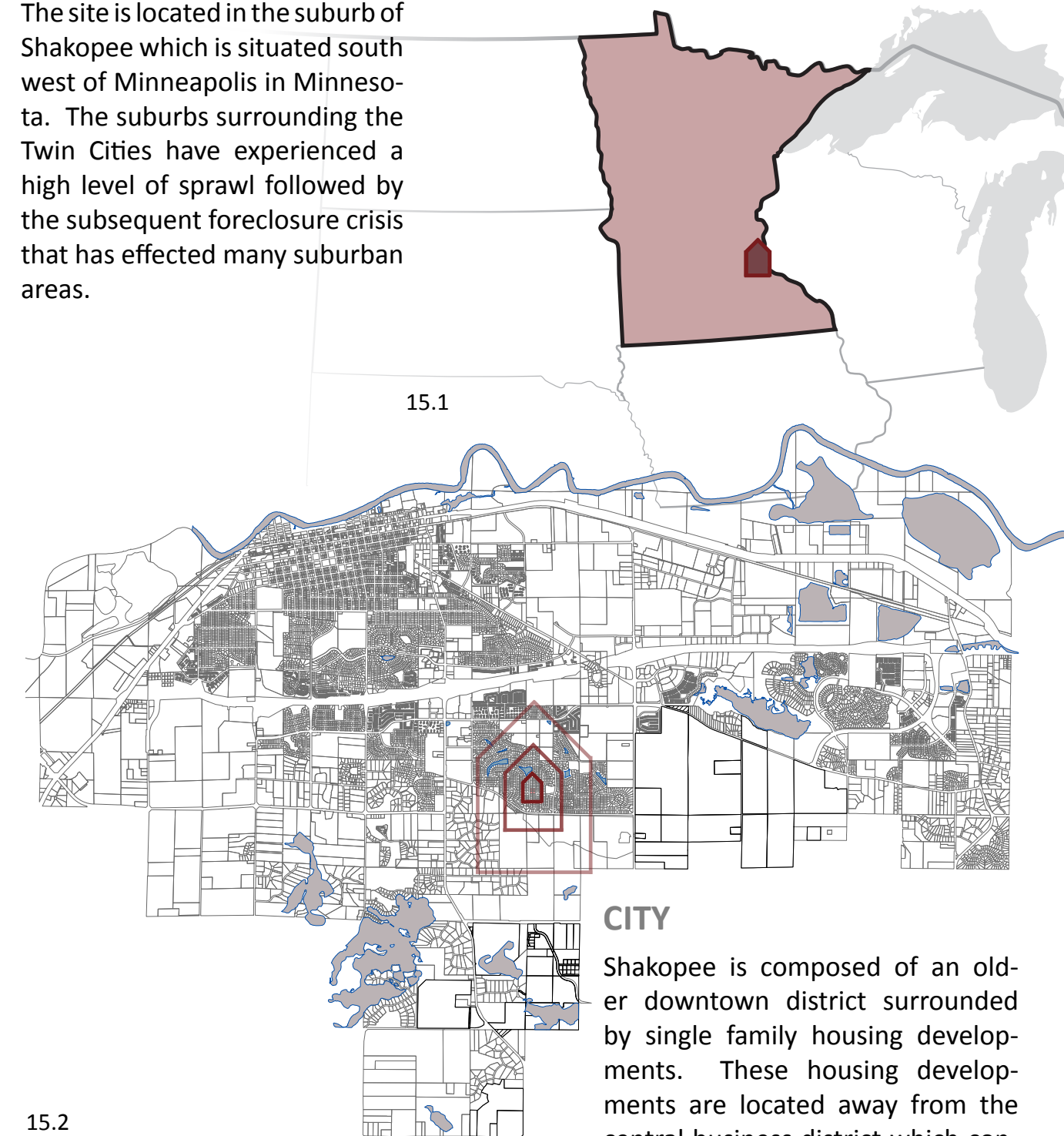
potential occupants

apartment residents
 office workers
 grocery store employees
 restaurant employees
 retail owner/employees
 customers

SITE

REGION

The site is located in the suburb of Shakopee which is situated southwest of Minneapolis in Minnesota. The suburbs surrounding the Twin Cities have experienced a high level of sprawl followed by the subsequent foreclosure crisis that has affected many suburban areas.



CITY

Shakopee is composed of an older downtown district surrounded by single family housing developments. These housing developments are located away from the central business district which contains the majority of the goods and services required for survival. This distance from dwelling to resources necessitates the use of a vehicle to perform daily activities.

SITE

The Pheasant Run housing development in Shakopee, MN is the location in which the site is located. It is a stereotypical suburban housing development composed of exclusively single family homes in a similar price range and containing similar aesthetic qualities.



16.1

City of Shakopee

The site is centrally located in the expansive housing development. This central location in an environment that does not provide essential daily requirements or diverse functions creates an environment dominated by the automobile. The insertion of a mixed-use entity that supplies the necessities of a successful holistic community would have the possibility of eliminating the monopoly the automobile holds on transportation in the community. A mixed-use node of urban interaction in this location would allow for the surrounding development to meet some of their needs without necessitating the use of an automobile.

The specific site includes four single family residences and an adjacent greenspace. The tight configuration of the individual houses allows for an augmentation involving the joining of the individual buildings into a single entity with a limited amount of additional materials. The houses are linked to a greenspace and pedestrian paths which allows the site to utilize existing, yet minimal, pedestrian traffic. This project will give function to the paths by creating a destination. The greenspace will enhance the possibility of the creation of a mixed-use node of human activity and a community center.

17.1
17.2

Cardinal Drive

2053
20612054
2062

Williams Street

Teal Street

Crane Street

The houses located on the site are typical middle class spec homes that lack cultural or regional significance. The site lacks a sense of place. The endless winding streets containing the same palette of analogous houses creates a disorienting environment void of any variety or dynamism. The park is underutilized due to its lack of connection to the community and the poor pedestrian circulation system that is sparse due to the lack of walkable destinations. The site is marooned in a sea of monotony.

18.1-5



2062 Williams Street 2054

The 2062 Williams Street residence is a foreclosed property meaning it is currently not a financially productive or viable entity. This allows for the removal of the house from the environment with reduced impact on the functioning housing supply and provides an opportunity to create capital from a financially unsuccessful structure. The reutilization of this nonviable entity will save the structure from becoming derelict and degrading the community's image.

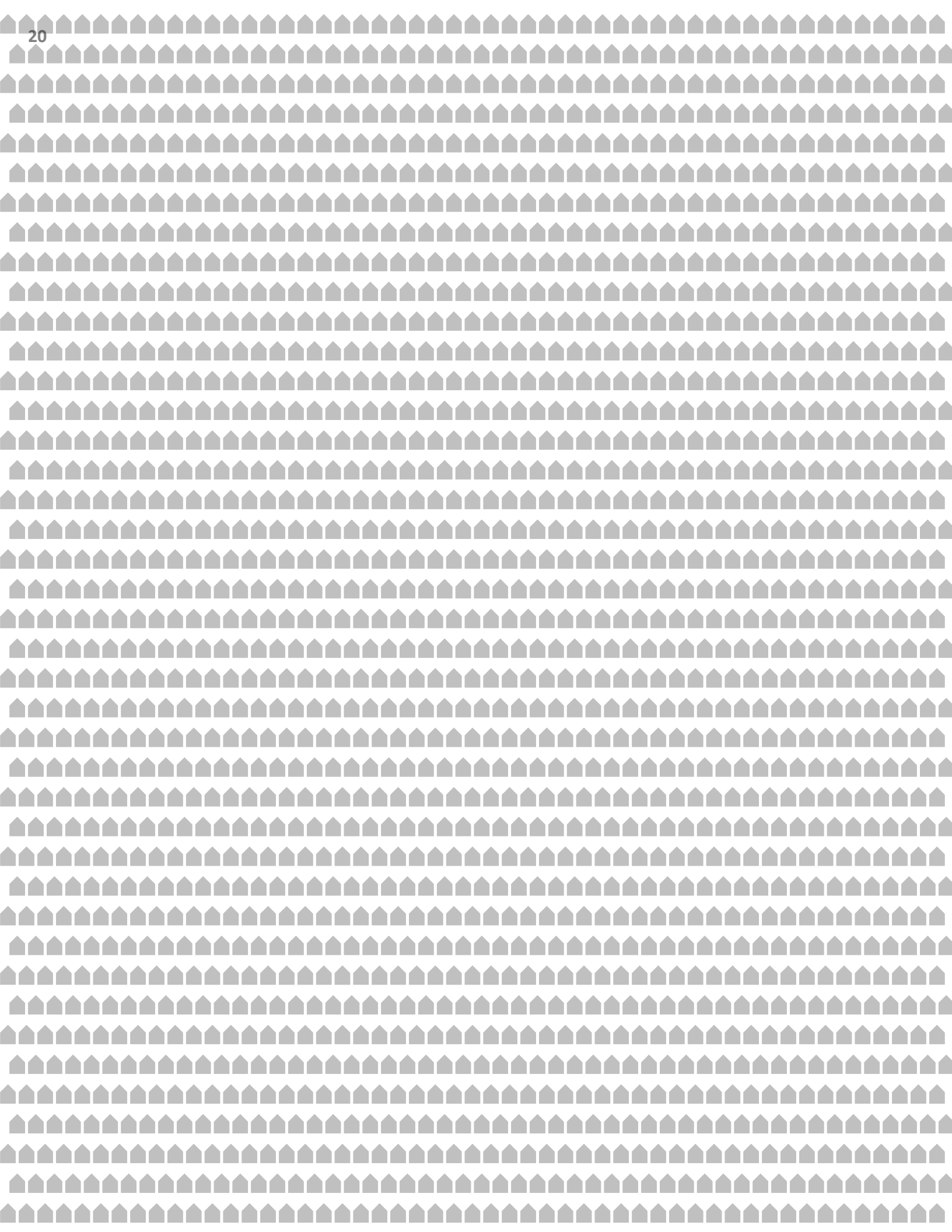
19.1-3



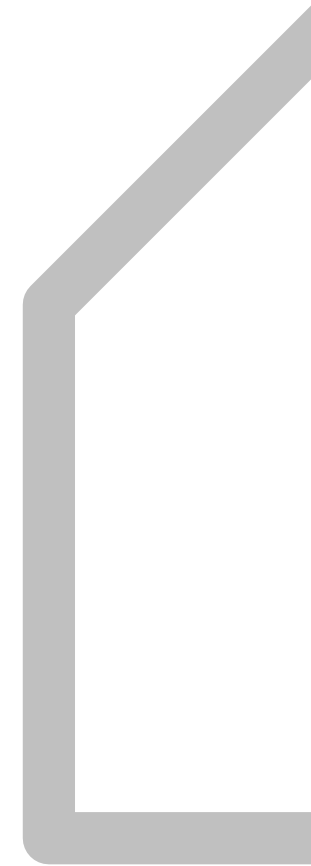
2053 Cardinal Drive 2061



PROJECT EMPHASIS



This project will explore the possibility of the creation of vibrant mixed-use center of human interactions utilizing existing nonviable suburban elements. Through the understanding of the social, economic, and theoretical factors this project will respond to the past, present, and future of the suburban environment in order to create a holistically sustainable future.



PLAN FOR PROCEEDING

RESEARCH DIRECTION

Research will be conducted in a variety of areas in an attempt to create a holistic understanding of the factors influencing the design of a suburban mixed-use center. The theoretical premise will be explored in detail in order to grasp the varied speculations of suburban futures. Mixed-use suburban reuse/retrofit will be researched to gain a thorough understanding of the project typology. The history of the suburbs and the events that lead to their rise and subsequent demise must be understood through investigation of suburbia’s historical context. The specific site will be researched and analyzed to properly understand the connections to the community so that it may utilize the site elements to their greatest capacity. Understanding the programming requirements of any mixed-use project is vital to the success or failure of the project and will be researched through the analysis of case studies and research of the needs of the specific community. All of these areas of research will be assembled in to one coherent body of knowledge that will inform the design of the project.

METHODOLOGY

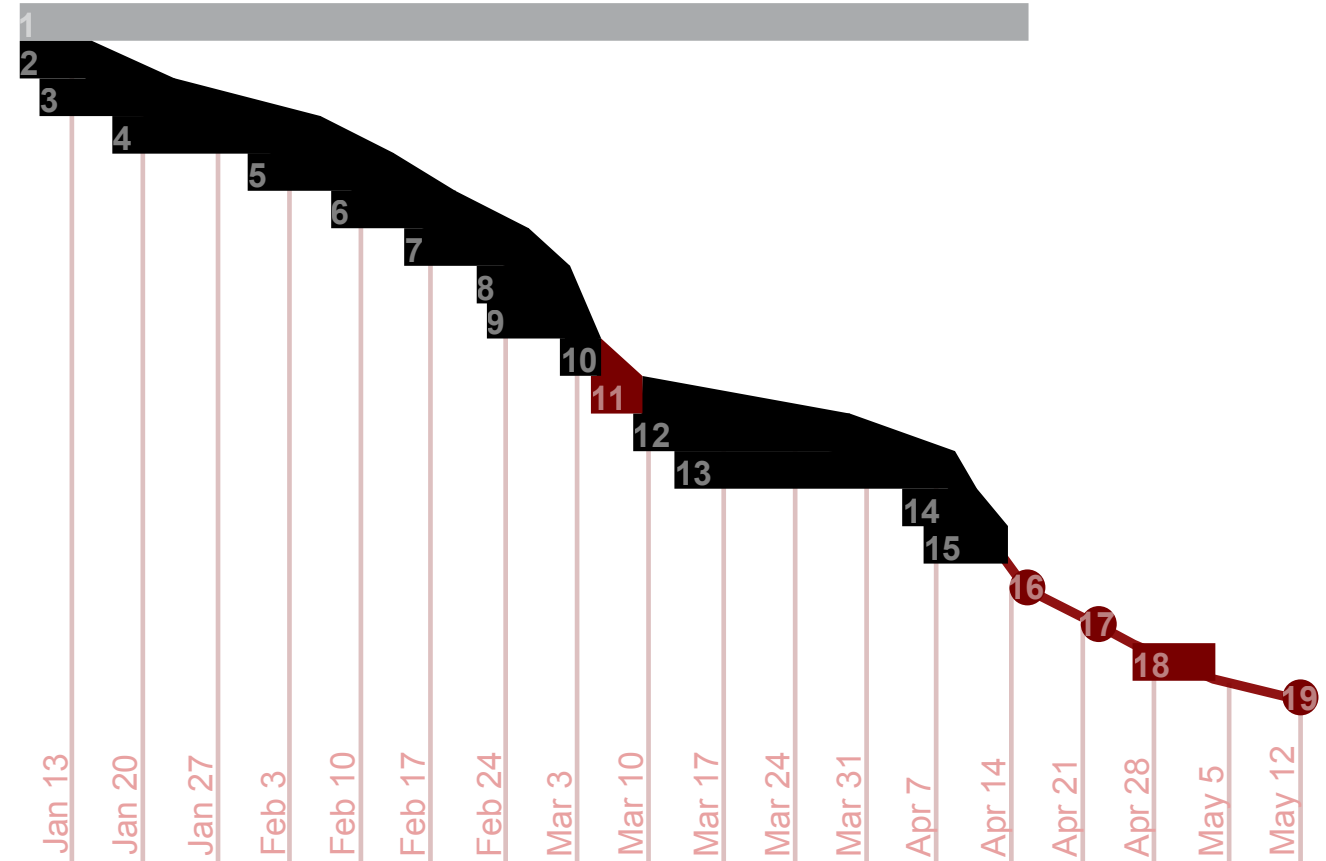
A mixed method of qualitative and quantitative analysis will be utilized to produce a comprehensive body of research that will aid in the project’s design. This strategy will involve a variety of techniques and recourses including graphic and digital analysis. The theoretical premise will guide the investigation using the concurrent transformative strategy. This research and analysis of varied nature will occur throughout the research process both graphically and textually in order to create a complete understanding of the information obtained. While a variety of research avenues will be explored, priority will be assigned to certain aspects based on the theoretical premise in order to create a path of concentrated discovery.

DOCUMENTATION

The accumulation and analysis of process material is vital to the success of the finished product. Careful consideration will be given to the compilation of process material throughout the progression of the design. Process/working materials will be submitted biweekly. Process materials will be collected following the completion of the project design and will be available for display.

DESIGN SCHEDULE

<u>Task #r</u>	<u>Task Name</u>	<u>Duration (Days)</u>	<u>Start</u>
1	Project Documentation	70	1/8
2	Context Analysis	5	1/8
3	Conceptual Analysis	9	1/10
4	Spatial Analysis	14	1/17
5	Floor Plan Development	10	1/30
6	Structural Development	8	2/7
7	Section Development	8	2/13
8	Material Development	8	2/14
9	Envelope Development	7	2/21
10	Review Preparations	2	3/1
11	Midterm Reviews	5	3/4
12	Review Revisions	14	3/11
13	Graphic Development	20	3/12
14	Presentation Layout	5	4/3
15	Plotting and Model Building	6	4/5
16	CD Due to Advisor	0	4/15
17	Install Exhibit	0	4/22
18	Final Thesis Reviews	6	4/25
19	Commencement	0	5/11



STUDIO EXPERIENCE

SECOND YEAR

FALL 2009

Darryl Booker

Tea House

Rowing Club

SPRING 2010

Joan Vorderbruggen

Montesori School

Bird House

Small Dwelling

THIRD YEAR

FALL 2010

Regin Schwaen

Hotel

Broadway Competition

SPRING 2011

Mike Christenson

Process Experimentation

FOURTH YEAR

FALL 2011

Don Faulkner

Hybrid Tall Building

KKE Competition

SPRING 2012

Paul Gleye

Urban Design (Lille, France)

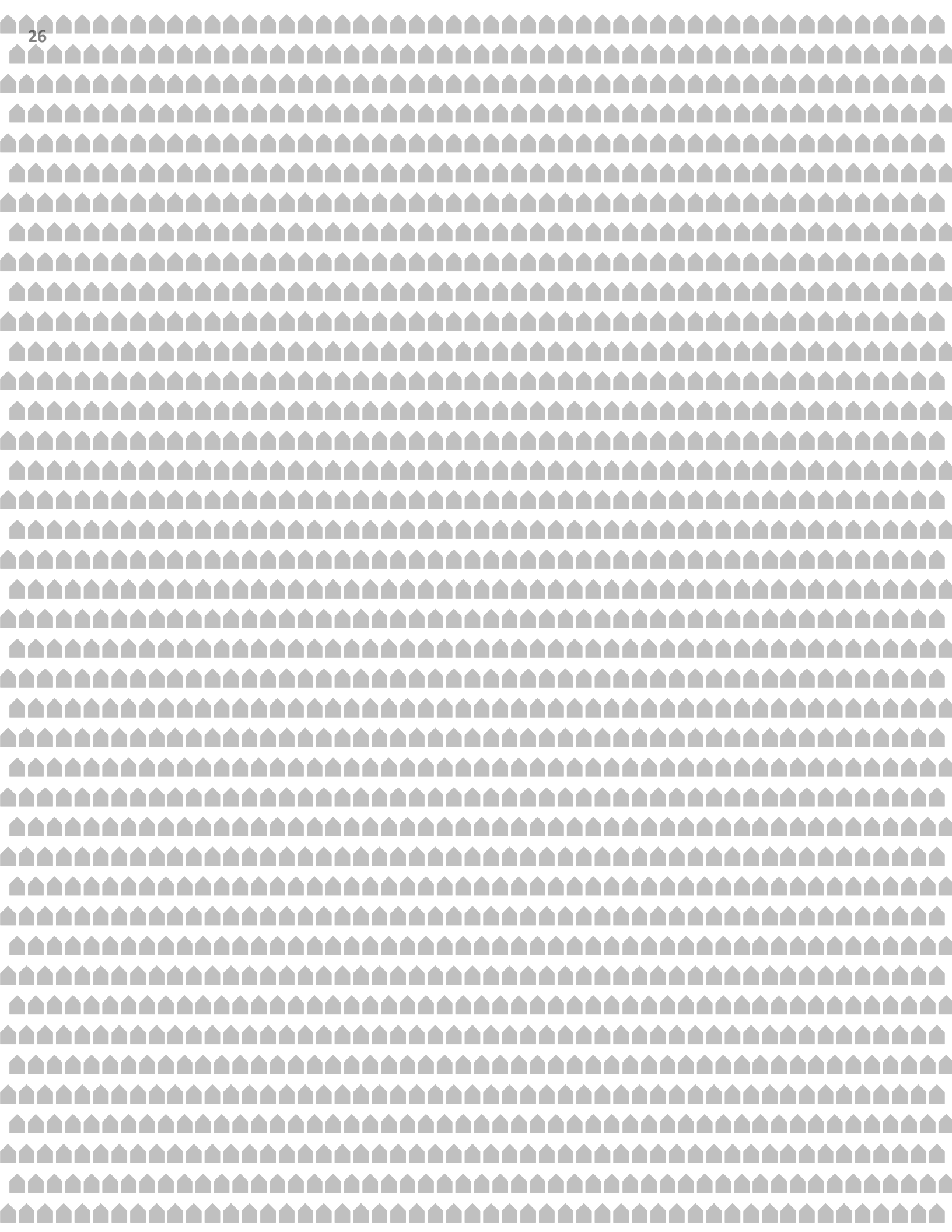
FIFTH YEAR

FALL 2012

Ron Ramsey

Chapel Addition

Sustainable Religious



PROPOSAL UNIFYING IDEAS

UNIFYING IDEA

DEFINING SPRAWL

If the suburbs are to be “saved” from their current unsustainable state the current unsustainable state must be understood, analyzed, and acted upon. An assortment of terms exist that attempt to loosely define the suburban environment. These terms are often subjective and broad in nature which makes it difficult to accurately define the characteristics of suburbia. There is need to define the elements of the suburban environment if they are to be augmented into a cohesive community.

“From the beginning, sprawl has been one of those words more useful in suggesting an attitude than in indicating any actual conditions”
Robert Bruegmann “Sprawl: A Compact History”

Sprawl is a term commonly used to describe the low density growth at a city’s perimeter. It is typically used as a derogatory term characterizing expanses of strip malls, parking lots, and of course the single family home that expand from a cities edges like a cancerous growth. The exact definition of sprawl is rather vague and encompasses a variety of ideas dealing with the suburban environment. The term contains connotations of an uncontrolled, unplanned, and undesired growth.

Independent of the exact characteristics of sprawl, it is reasonable to accept that sprawl exists at the periphery of American cities and this sprawl has a plethora of negative characteristics that have created a fiscally, culturally, and environmentally unsustainable environment. These unsustainable elements work off of each other in a sort of domino effect of non-viability. Each element of the suburban environment was created in a response to the element that it preceded. The subdivision exists, in part, because the car has become. The car dominates the suburban fabric because it is necessary to support the single family home. Because the car governs the suburbs big box stores and strip malls provide enormous parking lots... and the dominos continue to fall.

The suburban environment is largely an attempt to create an orderly system for living. The suburb is simple. It utilizes a small kit of parts. These components of suburbia look to serve human needs in a fashion that fosters waste and excess instead of function and productivity. The issue is not in the pieces that compose the suburban environment, the issue lies with the isolation of the elements and the priorities placed on certain components. The elements of an efficient and effective community are present in the suburban environment. However; due to zoning and code restrictions that were meant to create systematic growth, these parts are separated by distances that require automotive transportation to travel from one element to the next. The unintended result of this zoning is an environment dominated by the automobile and alienating to those who do not have access to automotive transportation. (Duany, Plater-Zyberk, & Speck 2010)

In the suburban environment the automobile is king and the single family home is its castle. Are sprawl and the suburban environment it created an inevitable evolution of the society in which it exists? The automobile made it possible for people to live outside of the city without isolating themselves from the urban environment entirely. FHA and VA programs after World War II encouraged the creation of new houses rather than restoration of existing denser environments (Hayden, 2003). The interstate highway system made automobile travel convenient. The creation of the American Dream as a migratory force ingrained the idea of home ownership as a necessary means of fulfillment. With these frameworks in place, moving to the suburbs seems logical.

If the only problem with suburbia is that it is not functional it may be acceptable. Many things are nonfunctional but are still acceptable. These things are commonly termed as luxuries and not only can they be tolerable, they are often encouraged. The problem with suburbia is that America can no longer afford the luxury of waste. Luxuries are purchased with excess capital which is nonexistent in the current economic environment. The suburban environment needs function and productivity because it cannot afford to continue without efficiency of recourses, both physical and fiscal.

The dominance of the automobile coupled with the separation of function found in the suburban environment has created an environment of excess infrastructure and a shortage of social interactions that create community. This sea of concrete and wire costs tax-payers money they do not have. It destroys productive farmland and turns potential profit into money pits that create a culture of living beyond one’s means. Suburbia feasts on over-consumerism and rejects community.

The single family home is a calculated machine for making money. It has evolved over the years from the “Cape Cod” houses of Levittown into the McMansions of the subdivision (Hayden, 2003). Contractors know how to make them efficiently. Developers know how to market them effectively. Banks know how to finance them economically. Consumers know how to occupy them socially. The single family home is as American as apple pie and equally as desirable to many American families. Aside from aesthetic, quality, and functional issues, the American single family home is an excellent value for its price. Square footage is currency with a known value. Foyers, dining rooms, and dens are more of a monetary assessment than a functioning space. Suburbia has transformed the home into a hollow statistic. It is less of a machine for living and more of a symbol of wealth and a means of profit.

Our society values seclusion under the facade of privacy. The suburban migration is essentially an exercise in mass isolation. It is a contradiction, an effort to separate from the population by going where the rest of the population is going. Suburbia is creating the environment it is attempting to escape minus the dynamic social aspects of the cohesive communities they are leaving behind. Technology allows for the substitution of physical interaction with digital interface. The television replaces recreation that once took the form of social activities that are convenient in a dense and diverse environment. The suburban environment is nurturing the death of society and the rise of the sitcom. The suburbs thrive on a dangerous combination of isolation and consumerism. Suburban dwellers are trying to keep up with the Joneses they only see when they are driving out of their garage. This way of life negatively affects both the economy and the culture of the nation. There is a noteworthy social difference between running into someone while walking down the street and running into someone in your car. Similarly, there is an economic difference between spending money at small businesses owned by a member of the community versus big box stores owned by some billionaire.

Sprawl consumes potentially productive farmland. This farmland is a potential generator of economic gains that would positively affect the economy. The expanse of single family homes not only does not generate profits but is an expense that impacts the economy on a global scale. Suburbia contains a disproportionate ratio of public to private expenditure. The amount of pavement the government must provide for a single family home in the suburban environment costs dramatically more than it would for an urban dwelling for that same family in a denser environment. This high ratio of public to private cost accounts for why the suburban municipalities are struggling to pay for themselves at normal levels of taxation (Duany et al., 2010).

Suburbia rose out of anti-urban attitudes, economic prosperity, government programs, and technological advancements (Bruegmann, 2005). These factors no longer exist in the capacity they once did. For this reason the suburban environment is no longer practical, desirable, or plausible. This non-viability can be seen in the economic collapse caused by among other things, predatory lending to finance single family home ownership and subsequent foreclosure crisis caused by an inability to pay back the loans on the single family homes. This combination of greed and living beyond means has led to an economy that cannot support the past system of excess in which the suburban environment was largely constructed.

The reasons sprawl came to be doesn't really matter when compared to the reality of the current state of the products of sprawl. The fact is that the current state of the suburban environment does not work. Economic events created largely from within the suburban environment have created an economy that can no longer afford the luxury of the suburb as it currently exists. Sprawl feasts on capital and discharges it as strip malls and vinyl clad boxes. When the capital is removed the sprawl dies. But what happens to the products of sprawl that exist after the money is gone?

HOW THE AMERICAN DREAM CREATED AN ECONOMIC NIGHTMARE

The global recession that began in 2008 is a complex event that has an immeasurable quantity of factors and attributes that led to and sustains America's economic downturn. Many economists claim that the recession ended or at least hit rock-bottom in 2009 but its effects are still greatly affecting the current economic environment. According to the U.S. National Bureau of Economic Research the recession began in December 2007 and ended in June 2009.

While banks and big business may be beginning to recover many aspects of the economy that affect the general public are continuing to decline. High unemployment remains a major social, political, and economic concern. The continuing decline in home values and increase in foreclosures and personal bankruptcies coupled with an escalating federal debt crisis, inflation, and rising petroleum and food prices has created an environment that lacks fiscal security.

Government programs such as American Recovery and Reinvestment Act of 2009 (Recovery Act), Emergency Economic Stabilization Act of 2008, Fraud Enforcement and Recovery Act of 2009 act as a Band-Aid for the problem. These funds create temporary jobs but do not create a sustainable system that will foster a viable future for the suburban environment. This issue with suburbia is not something that can be fixed by simply throwing some money at it and then letting it continue on its path. The suburban environment needs dramatic changes to the core of its being if it is to alter its future.

America's economy had relied on the housing market to sustain itself. When houses aren't being bought construction halts and the whole machine stops. Following the collapse of the housing market the American public was forced to shoulder the burden created by precarious investments and lending policies. In April of 2006 the national unemployment rate was 4.7% by April of 2010 that number had risen to 9.9%. (Bureau of Labor Statistics, 2011). The individual took the biggest hit as government assistance often favored the corporation over the individual.

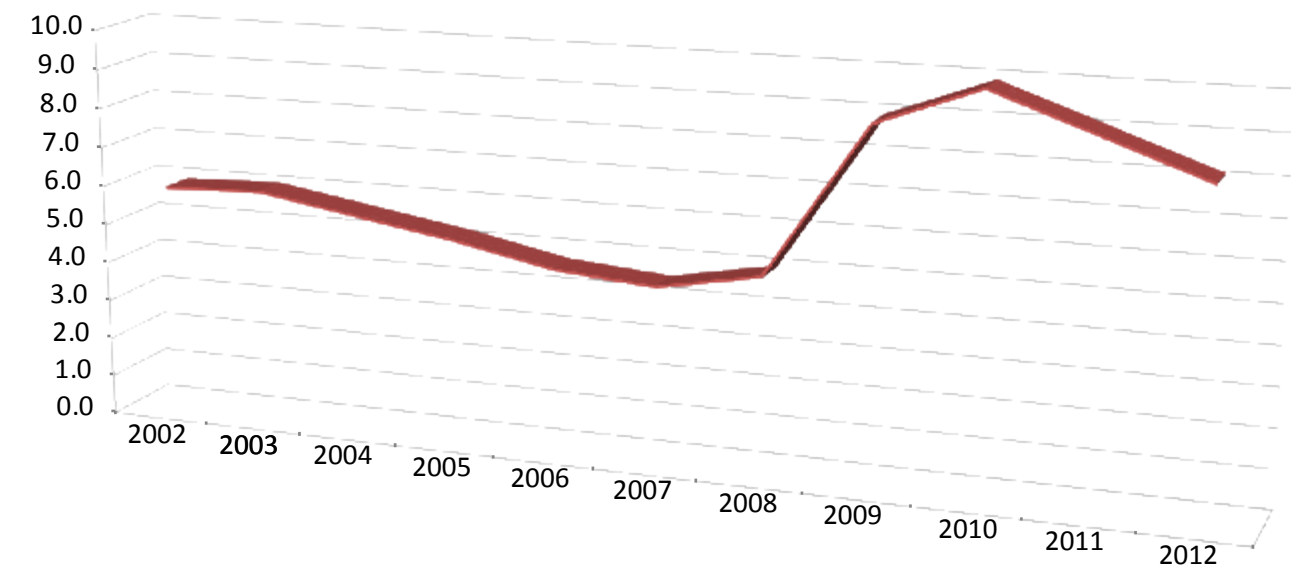
Income levels have dropped substantially with the inflation adjusted median male worker making \$32,137 in 2010, and \$32,844 in 1968 (Bureau of Labor Statistics, 2011). The average American today does not live as frugally as the 1968 counterpart. This decrease in capital clashes with an inverse increase in lifestyle expectations creates a disparity that produces a culture of living beyond one's means. As a nation, America is living beyond its means.

In 2011, real median household income was 8.1 percent lower than in 2007, the year before the most recent recession, and was 8.9 percent lower than the median household income peak that occurred in 1999 (DeNavas-Walt & Proctor, 2012). American's are not making the same amount that they were in past years but in the fast paced consumer dominated culture many are unwilling to sacrifice spending habits or make dramatic changes in their lifestyles that would allow them to live comfortably on their reduced incomes.

The middle class dropped from 61% of the population in 1971 to 51% in 2011. During the 2-year period from 2009 to 2010, approximately 28.0 percent of the population experienced what the US Census considered poverty for at least two month. Real median income declined for family households between 2010 and 2011 for the fourth consecutive year. These are numbers affecting suburban residents. Families are being hit hard by the recession and the suburban environment contains a large percentage of American families. (DeNavas-Walt & Proctor, 2012)

31.1

ANNUAL UNEMPLOYMENT PERCENTAGE



FORECLOSING THE DREAM

Foreclosures have drastically altered the perception of the suburban landscape. Boarded windows were usually attributed to urban environment but they have begun to bring blight into the suburban communities. This visual decline brings with it a loss of pride and a deterioration of the sense of superiority that has been present in suburbia since its introduction to the American landscape.

Not all suburbs are identical or even comparable in economic and environmental terms. It can be dangerous to stereotype every suburban environment as being a destructive economic and environmental catalyst. However, as a whole the suburban environment has played a major role in the recent economic recession. Many of these suburbs are in need of augmentation if they are to change their current trajectory as a financial burden on America's economy. Shakopee, Minnesota is one such suburban environment.

Foreclosures have greatly affected the suburban landscapes of Minnesota. Between 2005 and 2009 the percentage of mortgages in Minnesota that were that were in default and facing possible foreclosure quadrupled from 1.10% to 4.71%. In 2005 alone over 26,000 Minnesota homes were foreclosed. This drastic jump in foreclosures and overdue mortgages coincides with a severe increase in unemployment around the state. In 2006 Minnesota had an unemployment rate of 3.9% which reached a peak in 2006 at 8.5%. (Minnesota Housing Finance Agency, 2011)

Shakopee has a higher number of foreclosures per capita than the Minnesota average. In 2010 the average foreclosure percentage was at 1.42 with Shakopee having a 2.23 foreclosure percentage. (Residential Foreclosures in Minnesota Summer 2011.) Shakopee has an older established core but since 2000 its population has increased by over 80% (United States Census Bureau "2010 Census Redistricting Data (Public Law 94-171) Summary File"). Most of this new population moved into newly developed subdivision that were creating at the peak of the nation's housing boom which was followed by the bursting of the housing "bubble" and subsequent foreclosure crisis that is currently impacting the community. In 2003 906 single family homes were constructed. By 2008 this number had shrunk to only 112 new homes (Scott County Licenses & Permits).

The recession has greatly reduced the amount of manufacturing jobs that are available. Manufacturing is the largest source of occupation in Shakopee with 23% of residents utilizing manufacturing as their source of income in 2006. In 2009 72% of Shakopee households were classified as families, meaning two or more individuals who are related by birth or marriage. The average household size was 2.8. This means that many families must not only support themselves but also children. This increase of financial responsibilities places extra monetary strain on an already struggling economic environment. (City-Data.com)

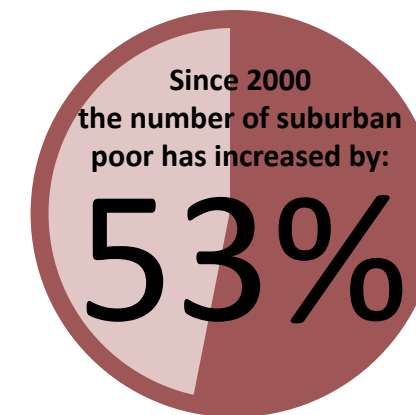
Shakopee's suburban environment is in need of restructuring if it is to become a fiscally feasible community. The statistics describe the current financial trends as unsustainable and unproductive. If the way that Shakopee functions does not change into a more frugal and productive community its future will only continue of the path of decay and desolation. Utilizing the existing material and invested energy and financial resources of fruitless single family homes, which are in excess, into an industrious center capable of creating income and affordable housing for the community will begin to reverse the current financial trends of Shakopee.

REVERSE MIGRATION

generation y and the victims of sprawl

There is a new group of broke Americans that once were considered safe from the realities of poverty. The impoverished suburbanite is no longer a contradiction as can be seen with the former middle class residents who lost their jobs due to high rate of layoffs in manufacturing and construction, which is the profession of many of the lower earning suburban dwellers (Luhby, 2011). With the loss of income the white picket fence and two car garage vanish. The American dream becomes a pipe dream. The face of poverty is evolving. The middle class is shrinking and with it the population that can afford the American dream is forced to leave the suburbs to live a more efficient life that the urban environment can offer.

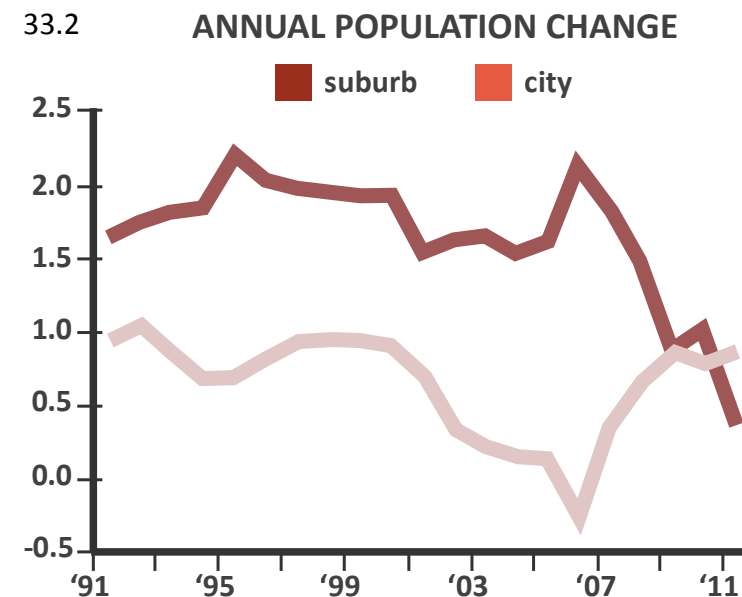
33.1



It is often thought that poverty was mainly an urban issue but recently it has become a major suburban issue. 55% of the America's poor live in the suburbs. Since 2000 the number of suburban residence considered by the US Census to be poor increased by 53%. In 2010 15.4 million suburbanites lived below the poverty line. This was a 11.5% increase from the previous year (Jett, 2012). According to a Brookings Institution analysis of United States Census Bureau data, between 2000 and 2010, the number of suburban households below the poverty line increased by 53 percent, compared to a 23 percent increase in poor households in urban areas.

People are leaving the fruitless environments and flocking to locations that offer a "better way of life". Fifty years ago one would assume this is referring to a migration from the grimy industrial urban environments to the pastoral serenity of suburbia. The reality is that young people do not want to live in the suburbs. Older individuals cannot live in the suburbs due to automotive dependence and separation from the unique needs of the aging body. Families cannot afford to provide for their children and pay their mortgages on their suburban houses with the limited availability of income.

33.2



Since 2007 there has been a dramatic shift in the annual percentage change in population of the suburb. During this year the steady population increase in the suburban environment drastically halted from its 2005 peak of 2.4% annual increase to 1.5% annually which is the lowest it has been since the end of World War II. There is an inverse relationship between the population trends between the urban and suburban environments. In 2006 urban populations in America experienced a decrease in population of .2%. Since then the annual increase in population has skyrocketed to surpass the suburban environment current growth rate. In 2011 the urban environment had a growth rate of 1.4%. (2011 census data)

Since the end of World War II The American Dream has been home ownership. This is no longer the case. The suburban environment has lost its elements of charm and romance. This change in attitude has as much to do with transformations in the current cultural trends as it does with the economic impracticalities that resulted from the recent recession. The urban environment is trendy while the suburban environment is increasingly viewed as being stale. This corresponds with a shift in attitudes towards automobiles. Automobiles were once greatly desired and viewed as machines that provide freedom. Recently the automobile is seen more as an oppressive device that is not only a hassle but a financial terror.

For the first time since World War II Americans are driving less. In 2004 the vehicle miles traveled per capita began to decrease and has continued to decrease ever since. From 2001 to 2009, the average annual number of vehicle miles traveled by people under the age of 34 dropped by 23%. In 2011 the average American was driving 6% fewer miles than in 2004 (Baxandall, Davis, & Dutzik, 2012). This change in driving habits certainly is a result of the economic situation and the drastic increase in fuel costs but it is also a representation of changing attitudes towards the automobile. The car is now often seen as a burden rather than a device that enable freedom.

Young people do not have the same negative views of public transportation that many older Americans. They are no longer seen as a symbol of poverty and filth. Many forms of public transportation are trendy and riding bicycles is hip. All the cool kids are doing it. 46% of drivers between ages 18-34 claim to make a conscious effort to drive less in an effort to protect the environment (Baxandall et al., 2012). Fewer cars on the road and a more condense population limits the need for costly infrastructure, thus allowing funds usually spent on feeding sprawl can be spent more productively. The current configuration of America's suburban environment does not permit successful existence without the use of the automobile. It is alienating itself from the youngest generation of consumers and therefore it is becoming vacant. If suburbia is to attract a younger clientele it must be mindful of the evolving needs and ambitions of its population. If suburbia is to avoid desolation it must become independent of the automobile.

The greatest call for walkable, mixed-use neighborhoods comes from the extremes of the age groups. The highest percentage of individuals who prefer to live in smart growth neighborhoods are those between the ages of 18-29 and 60+ (Jett, 2012). The reasons for the desire of holistic communities that provide a variety of dynamic interfaces are very different, however; the need for the suburban environment to adapt to changing demands is consistent.

As the young and old abandon the suburbs for denser environments, who remains in the suburbs? There are those who actually "like" the suburbs and then there are those who cannot afford to leave the suburbs. When a house's balance on its mortgage exceeds the value of the house itself one cannot simply sell their home and move to the city. Those in this situation become prisoners of suburbia; they literally cannot afford to move out of the suburbs. The other residents are those still seeking the American Dream and the "ideal" environment to raise a family.

Families often move to the suburbs to provide a more suitable environment for their children. The suburban environment is stereotyped as the ideal place to raise a family. Despite these beliefs the suburban environment produces many situations for the upbringing of the youth. These "cul-de-sac kids" mobility and experiences confines them to the borders of their specific subdivision (Duany et al., 2010). This "sheltered life" is a sterile environment the does not allow for the experience of dynamic social interactions that are required for the creation of experienced and capable young adults. Children become completely dependent on their parents as a means of transportation that is required to participate in any social activities. Pick-up sporting games are a thing of the past. In the suburb a child's activities must be planned due to the necessity of automotive transportation that alienates children from the outside world, and perhaps more substantially from other children.

Another victim of sprawl is the parent. The suburban environment has created a group of parents known as "soccer moms". Due to the subdivision these mothers are required to be full-time chauffeurs. Their children become completely dependent upon them for transportation. In order for their children to have a life outside the television, that consumes more and more of children's time, many parents must abandon all other endeavors. This often includes their employment. The suburb creates an environment where the stay-at-home mom becomes a necessity. This often conflicts with the economic realities that suburban environment creates.

Possibly the greatest victim of sprawl and the suburban environment may be the American teenager. The lack of public meeting places in the suburban environment is detrimental towards the development of young adults. They have nowhere to go and "hang out" so often they simply don't. Boredom may be the most dangerous drug for a teenager and boredom is inescapable in the suburban environment. This boredom has the ability to get teenagers into a lot of trouble. It is a gateway into reckless thrill seeking behavior and substance abuse. It is statistically more dangerous to grow up in an American suburban than in a denser urban environment. National teenage suicide rates are much higher in suburban environments (Gaines, 1998). The combination of the automobile and the teenager is dangerous. The young suburban driver is required to drive much more than their urban counterpart. This suburban recipe for disaster creates an unnecessary safety risks for teenagers and does not provide an environment that fosters healthy social growth.

The commuter is an obvious victim of sprawl and a victim of the commute is the Economy. The commute makes America less productive due to the amount of wasted time and effort, not to mention recourses and tax money that goes into the commute and the ability to commute. A one hour commute takes up the equivalent of twelve work weeks (Duany et al., 2010). This is time, effort, and recourses that could have been put to more productive and economically fruitful means.

The suburb isolates children from the normal activities and social interactions that create adaptable adults but there is also a reverse isolation in effect. Many of the lower paying jobs provide services to the suburban environment. This population does not have the means to live in the suburbs so they must commute from urban environments which means a portion of their precious profits must go towards transportation to and from the suburbs. The exclusivity of the suburban environment does not permit for a variety of ages or incomes. It alienates classes. The differences in class has become as much about separation of space as it does with separation of income.

The reality of suburbia is that it creates a scenario where parents are stuck in traffic, their children are stuck in front of the T.V., and the Economy stuck in decline all for some misunderstood idea of the American Dream. This mindset must be replaced with one that is aware of the need for a change in the suburban fabric and an open mind toward an augmentation of the suburban elements into a holistic community mindful of the essential components needed to create a socially, financially, and environmentally sustainable environment. Without the willpower of the suburban residents no amount of design can fix the suburban predicament.

SAVING SUBURBIA

Should suburbia be saved? This is both an architectural question and a cultural dilemma. Should the failed suburban environment be abandoned and left for the urban environment or new "successful" suburban communities? There are several arguments for the desertion of the subdivision and other unsuccessful suburban environments. These arguments usually cite poor sense of community and an overdependence on the automobile as the main factors that justify the abandonment of existing suburbs and embodied energy.

Dwell Magazine and Inhabit (a blog site dealing with sustainable design) sponsored a design competition titled "ReBurbia". This competition asked designers to come up with ideas for the future of nonviable suburban environments. The winner and several other entries chose to imagine a suburban future of controlled abandonment. The grand prize went to a project titled "Frog's Dream" which turned abandoned McMansions into water filtration wetlands to solve the water crisis of the cities that the suburbs encase. An honorable mention went to a project titled "Let Them Burn" where suburban houses are ceremoniously burned one by one with a celebration that corresponds to the destruction of each house. This competition is evidence of the view many in design professions have taken towards the suburban environment but it is also evidence of a new found interest in the future of the suburban environment within the design community.

36.1-2



inhabitat.com

Since its inception the architect has had an awkward and undefined relationship with the suburban environment. Today suburbia has its own vernacular design which does not require an architectural design to fit the site or the occupant. Architects often turn away from the suburban environment because it is not seen as dignified or the suburban environment simply does not require an architect due to the industrialization of the kit of parts that inhabits the suburb.

In a time before the suburban environment became standardized many architects envisioned an architecturally dominated suburb that responded to the community and possessed a uniqueness. In the late 1800's Sir Ebenezer Howard and Fredrick Law Olmsted created the designs for "garden cities" which offered an escape for wealthy English families from the filth of industrial cities (Randall, 2000). This utopian ideal of community living in a pastoral environment soon spread to America and took several different forms. Frank Lloyd Wright envisioned "Broadacre City" that imagined a future dominated by the desire of home ownership as an indicator of a society's advancement. Le Corbusier created the idea of the "Radiant City" which was not a suburban enterprise but it looked at changing the relationship between people and the designed environment. In his book *Towards An Architecture* (1923) Le Corbusier says, "Modern life demands, and is waiting for, a new kind of plan, both for the house and the city."

There is a precedent for design in the suburban environment; it could even be argued that the suburbs were set in motion by the concepts that were fostered within the design world. The issue is often that many of these plans did not realize the negative realities and consequences of automobile transportation and its effects on the economy, environment, and culture of the places that the automobile would dominate nor did they realize that economic shortsightedness would cause developers to create bland environments that do not promote dynamic social interaction or a sense of community.

A revival of architectural speculation into the suburban environment has begun. This may be due, in part, to the collapse of the housing market and the decline of the urban environment. Also, the current lack of architectural incomes has forced some designers to look to new means of incomes. Much of the new conjecture comes in the form of competition entries which allow for new ideas outside the conditions of clients or budget and allow the freedom of experimentation that has the potential to discover new ways of dealing with the suburban environment.

A fascinating exploration of what direction the suburban environment must take and what the role of the design world is in guiding the suburb towards a sustainable future is the Buell Hypothesis created and published by Columbia University's Temple Hoyne Buell Center for the Study of American Architecture. The "hypothesis" is set up as a screen play that speculates through dialog what led to the housing crisis and how what the possible means of augmentation are in dealing with the future of the American suburb. Basically the Buell Hypothesis argues that in order to change the path of the suburban environment the "American Dream" must be altered.

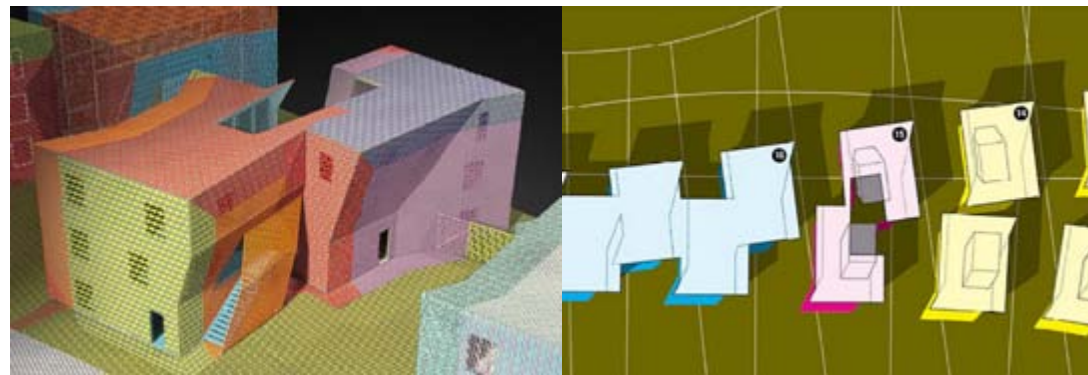
From the speculation of the Buell Hypothesis New York City's Museum of Modern Art commissioned five design teams to create proposals for redesigning the future of housing in the midst of the foreclosure crisis. Each team was assigned a specific site in an area with a high foreclosure rate and asked to imagine a future environment that would be socially, economically, and environmentally sustainable. This conjecture was part of a MOMA exhibit titled "Foreclosed: Rehousing the American Dream". This experimentation with the future possibilities of the suburban environment is an example of how designers can play a positive role in augmenting the elements of the suburban environment into holistic communities that are capable of sustaining dynamic social interactions.

The following is a brief description of the five exhibits for New York’s Museum of Modern Art exhibition “Foreclosed: Rehousing the American Dream” Each design team was given a specific site with a high foreclosure level and asked to imagine a way to create a more effective solution to housing for that specific site. These bold designs all consider the ownership model of the suburban environment and have proposed new ways of dispersing ownership in suburban communities. There is an interesting evaluation of the single family home and how the concept of home can evolve.

Zago Architecture
Property with Properties
Rialto, CA

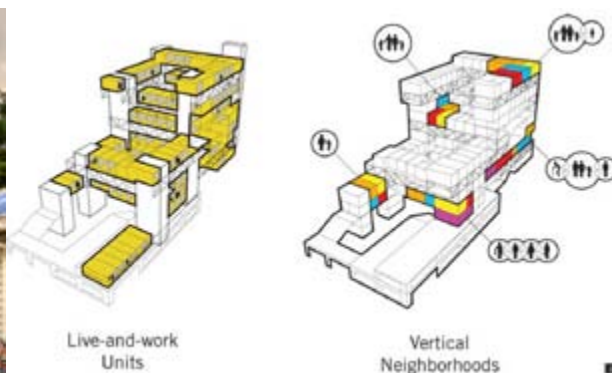
“ The project challenges standard features of the modern suburb such as individual ownership, property divisions, and detached houses with driveways through a commitment to “relax the boundaries” of the suburb as found.”

-Zago Architects



Studio Gang Architects
The Garden in the Machine
Cicero, IL

This proposal creates a new housing type made of modular house elements that allows for the mixing of ages and family types. It is based on a limited equity cooperative concept where the community owns the land and amenities while the individual owns their home. it has an integrated communal farming system.



38.1-4

MOS
Thoughts on a Walking City
The Oranges, NJ

This project infills streets with a three story mixed use ‘ribbons’ that prohibit automobile traffic in a half mile radius around a rail station. Portable mortgages have been implemented allowing for movement to different units based on the current needs or means of the occupant or family.



Visible Weather
Simultaneous City
Temple Terrace, FL

This project focuses on embracing growth by increasing density while incorporating suburban elements that residents have come to expect such as porches. It utilizes a real estate investment trust where the land remains public and income derived from development is shared with the citizens.



WORKac
Nature-City
Keizer, OR

The design team has created their version of a modern garden city that focuses on integrating nature into a sustainable mixed-use community that provides varied environments containing a diversity of scale and density.



39.1-6

The suburban environment has not been completely void of architectural influence. New urbanism is a movement that preaches that new suburban environments should be created in a way that is influenced by historic town planning and the neighborhood model of creating a unit smaller than the subdivision. Architects and planners like those at the firm Duany Plater-Zyberk & Company have created a new typology for themselves within the parameters of the new urbanism criteria, which in many ways they helped to create. They design new communities not simply single buildings within an existing environment. This allows them to focus more on the collective whole than an individual element. Their firm has created a hybrid between urban planning and architecture that focuses on community building. They have also created a niche for exploration and income in the by providing services dealing with commissioned research, drafting municipal codes, and writing books pertaining to new urbanism.

The elements that New Urbanism looks to create within communities are beneficial and create a holistic environment that provides a variety of setting within a walkable locale. This school of thought looks to old ways of town building but ignores existing suburban communities to build new "successful communities" it does not take into consideration the technological advances that can make new communities more successful or sustainable than the communities of the past. The biggest issue with new urbanism is its consent of waste in the name of creating the "ideal community" as it was understood from the past. Community should not be a replication of the past but it should be a direct response to the current needs of the occupants while allowing for adaptation to meet the needs of the future. We need to continue to explore what community is and how we can design for the creation of community within the context of the current needs of a society.

COMMUNITY: THE NEW DREAM

There are certain elements that are usually lacking in the subdivision that help in the construction of a community that fosters dynamic social interactions. These elements allow for and facilitate direct interface between members of a community. But why is social interaction important? The authors of *Suburban Nation* state: "not only is a society healthier when its diverse members are in daily contact with one another, it is also more convenient." (Duany et al., 2010. pg 47) Living in a city does not guarantee convenience but living in the suburb guarantees that it will not be convenient. This lack of convenience means that people are not able to walk from one function to another. When a suburban resident drives past their neighbor to go to a big-box store they have a dramatically different experience than when you walk past your neighbor on the way to a corner market. There is a sense of belonging that comes with tactile interaction. The most fundamental change that the subdivision needs is its emphasis of the automobile over the pedestrian. If the suburb is designed for the pedestrian many issues become resolved. With pedestrian dominance mixed-use becomes opportune, the sea of concrete disappears, and money can be made in the suburb.

Mixed-use development is crucial for the long term success of a community. It creates balance and provides dynamism and energy. In order for people to walk they must have somewhere to walk to. There must be incentive for action. If the suburbs are to be truly walkable uses must intermingle. People do not walk from sameness to sameness. Mixed-use encourages pedestrian activity during all hours of the day and discourages intervals of inactivity. Mixed-use makes money, which is a concept foreign to the subdivision after the construction crews leave and the "for sale" signs come down. It also allows for variety of housing and the promise of the live/work unit that allows for business ownership that would not be obtainable otherwise.

The neighborhood must be the building block of a community. The subdivision is not a community due to its lack of diverse possibilities. It is a sea of monotony that bores people into their vehicles when they require anything outside of their house. For a community to be successful it must contain a sense of place. It must have an element of distinction. Whether it is a single element that sets a community apart or a general characteristic of the place that is unique, there must be some aspect that is memorable. This distinguishing trait helps to create a sense of pride within the community. It gives an identity that the residents can unite over and become a collective whole.

The transportation paths must respond to the unique needs of the individual community. Generally the automobile is given too much room in the suburban environment in terms of road width and parking allotments. Inversely the pedestrian, cyclist, and mass transportation user is given a less than adequate portion of the transportation pie. Even the automobile paths must be augmented from their current state in suburban environments. Wandering cul-de-sacs alienate. Through streets on a simple grid allow for easy wayfinding and simple pedestrian travel. Smaller block sizes allow for easier pedestrian travel and allows for narrower streets. Most suburban streets are much wider than they need to be due to the requirement of fire department to allow their trucks to perform an unlikely U-turn. While safety is important, different ways of dealing with fire truck travel will allow for on street parking within the existing suburban streets thus reducing the need for endless seas of parking lots and enabling the return of the storefront.

Suburbia contains most of the basic functions of a successful community. It has housing, retail, and office space. The issue is not the separate elements but their separation. The problem with the placement of these elements within the suburban fabric is their location and what is between them. Office parks, big-box stores and subdivisions linked by multilane highways must be replaced by cohesive communities where all of the services that these suburban elements provide all within a walkable radius. We must understand the elements of older "successful" communities and merge them with the needs of a modern society and the technological advancements that enable a more sustainable way of living.

CONCLUSION(S)

The cities will be part of the country; I shall live 30 miles from my office in one direction, under a pine tree; my secretary will live 30 miles away from it too, in the other direction. We shall both have our own car. We shall use up tires, wear out road surfaces and gears, consume oil and gasoline. All of which will necessitate a great deal of work... enough for all."

Le Corbusier, *The Radiant City* (1967)

Le Corbusier saw it coming... sort of. The dream of the garden city never materialized in America but the reality of an automobile dominated suburban landscape is an unavoidable actuality. The suburbs are a machine with an unlimited capacity for consumption with no production created from all that it ingests. If the suburb is to become viable it must become productive. It must be able to sustain itself in terms of economy, culture, and environmental stewardship.

It is important to conclude that growth cannot simply be stopped, nor should it. This is not to say that growth should be thoughtful, efficient, and calculated. Growth can occur in reuse or reconfiguration but it must occur for the economy to thrive. We must replace the call for no growth with suburban communities to a cry for smart growth. If the suburb can grow from within in a way that creates a cohesive community it may become a viable environment capable of contributing to the transformation of the nation's economy in a positive direction.

Profit motives are not the issue with the subdivision. The issue with the suburban environment is a dynamic interrelated web. It is a creation of a complex combination of zoning-codes, tax incentives, and a misguided consumer attempting to follow the American dream. "The single most common explanation of sprawl is that it has been a direct by-product of an insufficiently regulated capitalist system. (Bruegmann, 2005, pg 98)" The reality of the suburban environment is less direct and far more intricate than this simplification. Capitalism is the engine that makes the economy run. Greed is a separate issue. Greed has infiltrated the suburbs in terms of shortsighted developers, over-consuming home buyers, and tax hungry municipalities. Economic factors are not the exclusive initiator of human interaction. The suburban environment must couple economic viability with a cultural incentive of community in order to become a feasible environment.

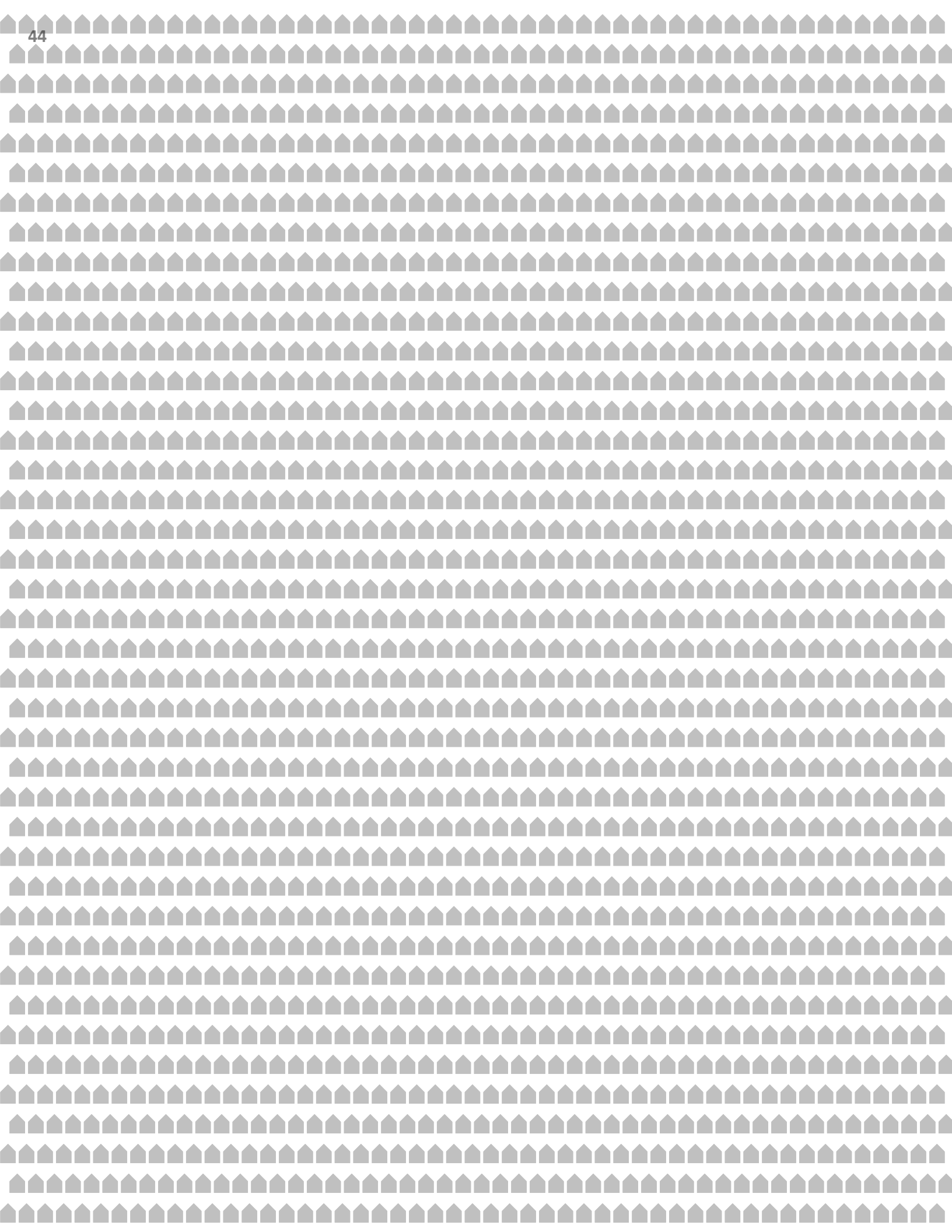
Young people do not romanticize that house and car. The elderly cannot function independently in a suburban environment. Families cannot afford the American Dream in its current state. The present suburban state does not reflect the needs or desires of the American population. The factors that lead to the urban exodus are no longer present. Anti-urban attitudes have been replaced by an urban revival. The automobile is no longer a means of freedom but a financial burden that is no longer reasonably affordable. Cities are becoming clean, they are no longer grimy industrial wastelands. Now that the urban environment is drawing people away from the suburbs and the foreclosure crisis has infected the suburbs there is a danger of the suburban environment becoming America's great ghost town. The suburbs must understand what the urban environment is offering in order to mimic its elements to create an environment that responds to the needs and desires of the present and future occupants.

If the suburban environment is to transform into a cohesive community oriented environment it must become multidimensional. Residential, retail, and commercial cannot be suburban islands if a community is to be constructed from the suburban skeleton. There must be a mixed-use injection into the solitary suburban fabric if it is to present its occupants with dynamic social interactions that foster the creation of an efficient community. The current suburban framework segregates function thus isolating interaction and prohibits the possibility of interactions required for a cohesive community that is capable of producing a plethora of social and economic possibilities.

The suburbs must produce in order to survive. They must create an environment that encourages the production of goods and service within a setting that also provides housing. It is essential that the suburban environment gains a spirit of production if it is to balance its current unsustainable state as solely a consumer. As discussed in the proposal the suburbs need to shift from a consumer compound to a commune of capitalists. It needs to be a communal group of individuals with a desire for improvement and output as opposed to the current mindset commonly found in the subdivision of content consumerism and a lack of productivity. The suburbs must contribute goods and services to its residence and beyond instead of depending on the importation of daily needs and the requirement of the automobile to acquire necessities. The suburbs must become a self-sustaining economic microcosm if it is to redefine itself as it must to survive its current state of decline and degradation. The American Dream must transform from one of ownership to one of productivity and desire for returns on effort.

In dealing with productivity and yield, Architecture and the suburban environment have the ability to create a symbiotic relationship. The profession of architecture is struggling to create new means of income with the evolving construction industries and poor economic conditions. If the profession inserts itself into the suburban environment with novel ideas and an innovative spirit there is potential that the suburban environment may progress and the architecture profession may evolve a new typology that allows for added income and areas of explorations. The suburban environment and profession of architecture must utilize each other to create an evolved suburb that provides employment for a besieged profession.

In conclusion, the suburb must evolve. Due to economic constraints and the desires of changing demographics the suburban environment is not a viable response to the wants and needs of its occupants and the larger needs of the American economic situation. In order to create effective change the suburb must embrace mixed-use developments to create cores of urban activity that allow for a walkable and diverse community that fosters dynamic social interactions. The suburban environment must transition from a consumer dominated landscape to one that produces and provides for its occupants in order to become fiscally, socially, and environmentally sustainable. Through architectural explorations it is possible to discover solutions for the suburban dilemma.



PROPOSAL CASE STUDIES

KOLSTRAND BUILDING

Architects: Graham Baba Architects
Location: Seattle, Washington, USA
Original Building: 1910
Project Year: 2010
Project Area: 17,790 sqf

The Kolstrand Building is an adaptive reuse project that turned an unutilized marine supply building into a multi-purposed development containing restaurant spaces and design studio spaces. It is direct response to the current needs of a changing community. It preserves the historic character of the building and community while creating an efficient and effective environment that will service the community and create a source of activity.

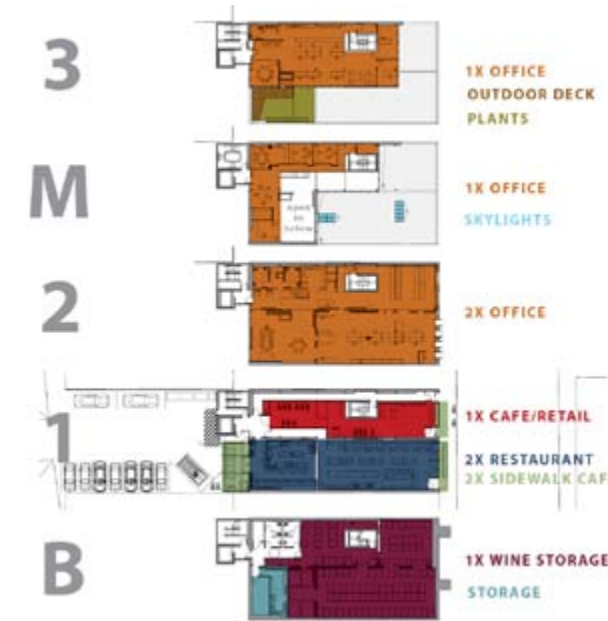
The project is located near mass transit lines making the added occupant load of the community sustainable without the need for added automobile traffic. The transparent storefront and broken down scale of the building creates a successful pedestrian experience. Sidewalk cafes allow for direct interaction between the functions of the building and the community. This project successfully inserts human activity as a design feature and enhances the possibility for complex social interactions that are necessary for successful community building.

This project combines two buildings and several hodgepodge additions into one cohesive unit. These various parts have an assortment of construction types ranging from CMU to stick frame. Merging separate entities that were constructed at various times using an assortment of methods presents a unique problem that the design team turned into an opportunity for the creation of intrigue by emphasizing the unique elements while still creating a unified whole. The details of this project celebrate the history of the building while serving a practical service for the current occupant. The project creatively reused salvaged and reclaimed materials throughout the project as to meet a tight budget and minimize waste.

46.1-3



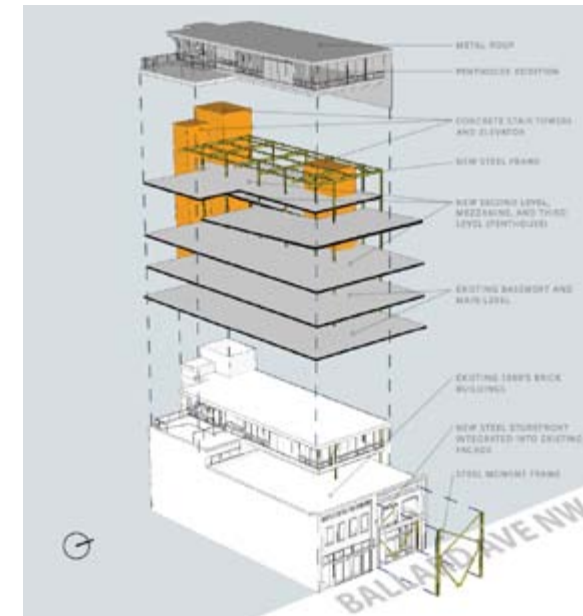
47.1-2



Not only did the design team effectively merge existing buildings, they also created an addition that responds to the needs of the client and is receptive of the advanced construction technology and design techniques that create sustainable architecture. It responds to the scale of the neighborhood while maximizing solar benefits and natural ventilation. The addition provides contemporary design that is apathetic of the context. It does not attempt to blend in with the historic buildings it is attached to, instead it adds to the lineage with a design that is a representation of the time in which it was created. The building creates a timeline much like the rings on a tree. This tracking of time creates a rich and honest architecture.

Progressive office techniques utilized in the project allow multiple companies to utilize shared spaces to maximize functionality while minimizing space and unnecessary duplicate expenses. Shared office spaces also allow for uncommon collaborations and social interactions that create an interesting and diverse work environment which boosts morale and productivity. This sort of office configuration allows for smaller businesses to function as a larger business by adding elements such as conference rooms, printing capabilities, and shared receptionists that would not be available in a standard office configuration.

The variety of business work together to create a well-rounded project that will be active around the clock. It provides office spaces for a specific type of design, a variety of restaurants, and a bicycle shop. This combination of specialized a typology and broad variety creates a unique environment. The design team recognized how seemingly different typologies can work together to create an integrated entity.



In conclusion, this project demonstrates that ability for multiple structures to be merged into a cohesive whole that serve different functions than the original entities. It also exhibits the ability of a new unified entity to be greater than the sum of its parts. This combination of multiple underutilized and ineffective buildings into a single multi-functioning entity provides rejuvenation and diversity to its environment which enhances the community as a whole. It emphasizes the benefits of integrating separate yet compatible typologies and functions effectively to create a dynamic machine that provides a variety of services necessary in successful communities.





Augmentations to the existing structure have created a project that facilitates a symbiotic relationship with the surrounding community.

48.1-5



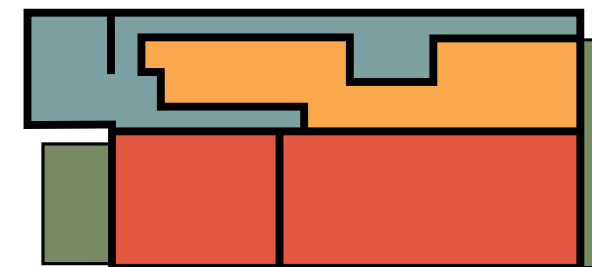
Shared office spaces allow for dynamic environments that provide functionality that is not available for small businesses in typical office environments. This configurations also facilitates unique design possibilities due to the lack of compartmentalization and the need for divisions in spaces.



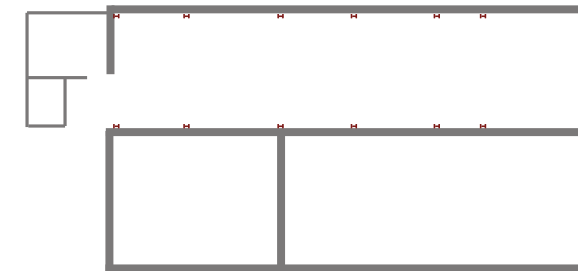
The reuse of existing elements and conditions adds interest to the spaces and creates a record of the architecture's past. It also allows added elements context to work with or against.

DESIGN ANALYSIS

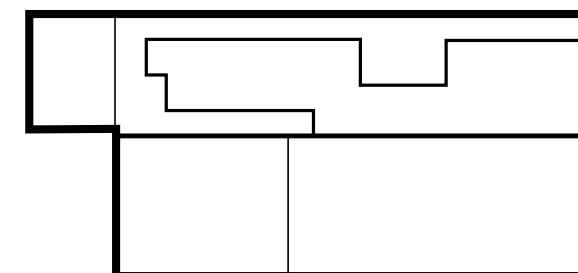
- circulation
- retail
- restaurant
- sidewalk cafe



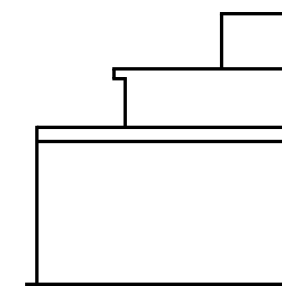
circulation to use



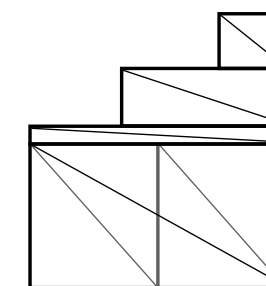
structure



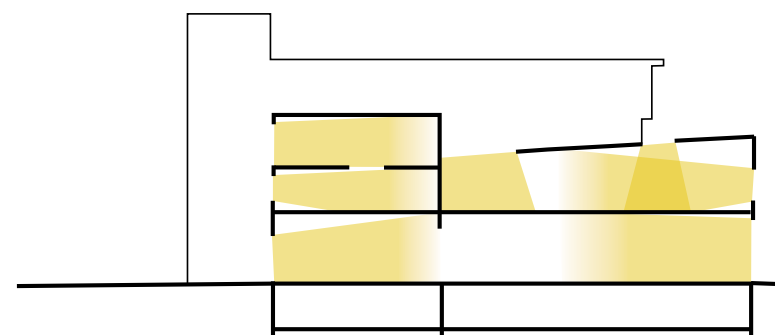
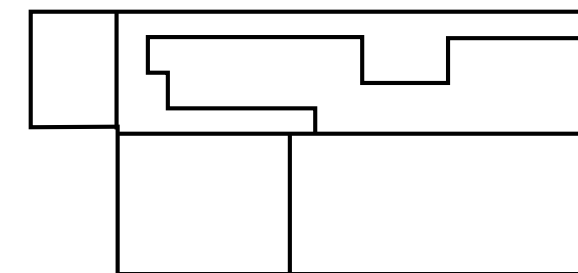
hierarchy



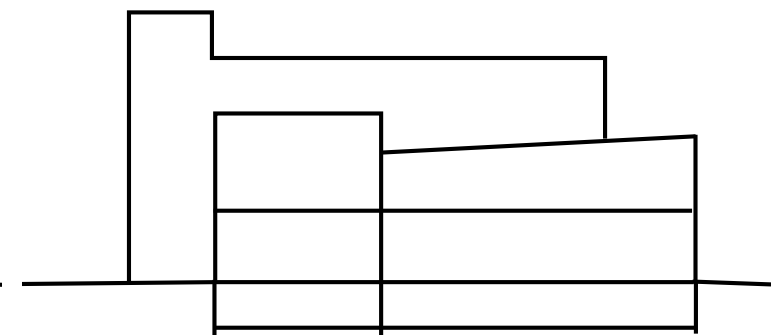
massing



geometry



natural light



plan to section

LOFT L

Architects: Kadawittfeldarchitektur

Location: Aachen, Germany

Project year: 2007

Project Area: 68 sqm

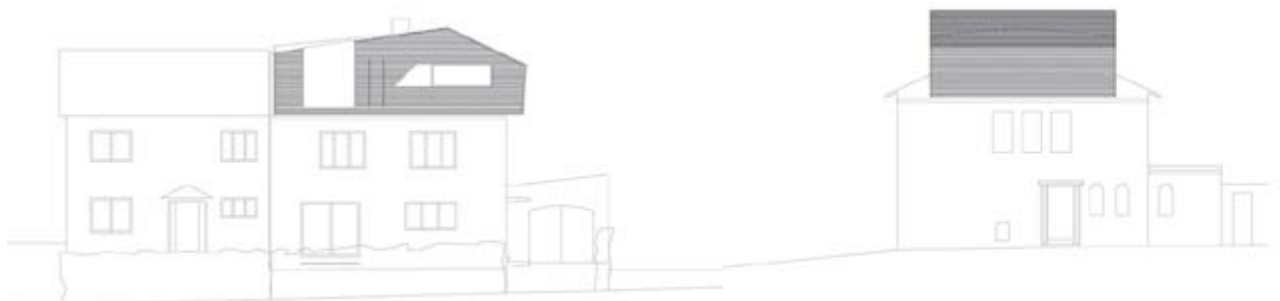


50.1-3

The Loft L project is an addition to a single family residence in Aachen Germany. The site is located within a mixed context environment containing primarily 1-3 story single family houses. The project is an addition to a typical 1950's German home. It responds to the historic elements of the environment while creating a modern architecture that meets the needs and desires of the current occupants. This project displays the ability of architecture to evolve and adapt to progress overtime as necessary for it to stay practical and useful. We do not have to abandon architecture once it does not meet our current needs. This project shows how this evolution can occur in a way that is both organic and deliberate.

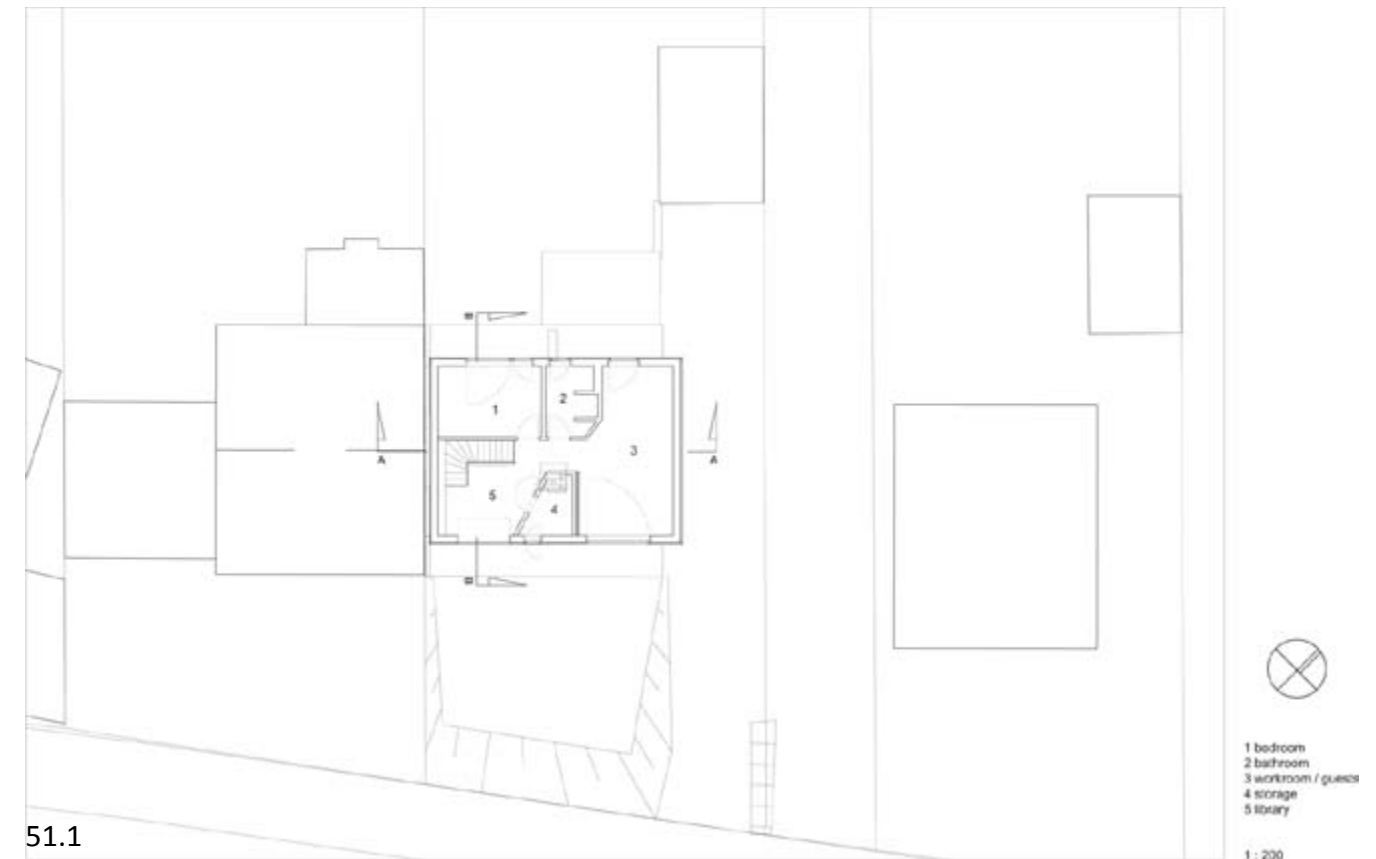
The addition responds to its environment while meeting the evolving needs of the occupants. The specific shape of the rooftop addition is informed both by zoning constraints and solar conditions. This multitude of shaping factors provides an interesting design dilemma that can yield interesting outcomes as is the case with this project. Zoning and codes are often seen as "design killers" but the architects of this project saw them as an opportunity to inform an interesting form shaping design. One normally thinks of view framing as an architectural technique only in "scenic" environments but in this project the architects strategically constructed views that abstract the suburban environments. They were able to find suburban moments of intrigue. This ability to find interest in the mundane is a great tool for overcoming the monotony of the American subdivision that this thesis is faced with conquering.

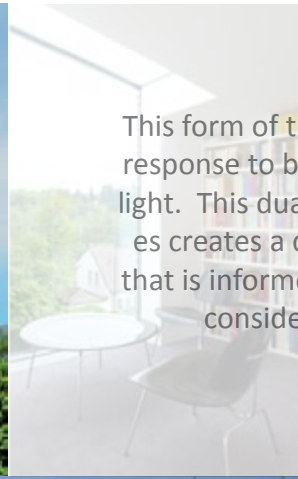
This project utilizes a creative use of prefabricated construction components to limit the construction time on site. Prefabrication allows for minimal disturbances to the daily lives of the occupants and surrounding community. This limited interruption is of major importance in the suburban environment where the community cannot be greatly inconvenienced. Prefabrication also allows for a limited number of skilled laborers which limits the construction cost but also maximizes the number of individuals who can aid in the assembly of the project. With simple assemblies it may be possible for the occupants to act as contractors in tight financial situations such as those found in many American suburbs. Prefabrication allows for modularity but also divergence and uniqueness with minimal cost. If a prefabricated element has the ability to be easily augmented or used in a variety of ways there is potential for both uniformity but also uniqueness which is a concept the suburban environment has greatly struggled with throughout its history.



This project emphasizes architecture's ability to adapt. Architecture is not constant or unchangeable nor should it attempt to be. Too often we think of architecture as final. This project shows that suburban elements can effectively evolve to sustain viability and function for the changing needs of the occupants and community. We live in a culture of discarding objects once we have deemed them used or outgrown their use. Architecture, especially suburban architecture, is too often viewed as disposable. This is an unsustainable practice. The client and design team of this project realized the potential of the architecture to progress. It is a far more efficient and meaningful way of fulfilling the evolving needs of suburban occupants. Additions create an architectural lineage that informs and sets a precedent for future architectural interventions. This evolution, at a community scale, creates a much more desirable environment than those created by abandoning older communities for new subdivisions or a single family home for a bigger single family home.

The suburbs can evolve. The suburbs can build up in order to increase density and functionality while maintaining the "space" that is so desirable to those who live in the suburban environments. Increased vertical density can maintain some of the "sought-after" aspects of the suburban environment while injecting some of the effective elements of the urban environment. This project highlights one way that suburbia can evolve based on the current occupant's needs while being mindful of the context that it resides within. It shows the malleability of the single family home which is often overlooked. Most single family homes are constructed using consistent standardized building techniques making augmentations to them simple and straightforward. The single family home must evolve in order for the suburban environment to become feasible in response to the financial and social needs of the occupants. This project is an excellent example of how augmentations to a generic single family home can increase the functionality and personalization of the architecture.





This form of this project is a response to both codes and light. This dual shaping forces creates a dynamic form that is informed by practical considerations.

52.1-6

The prefabricated elements allow for simple and unintrusive construction. It also allows for repetition with easy alterations that create uniqueness within a uniform dialog.



This modularity of elements allows for the possibility of occupant construction which minimizes the cost of construction.

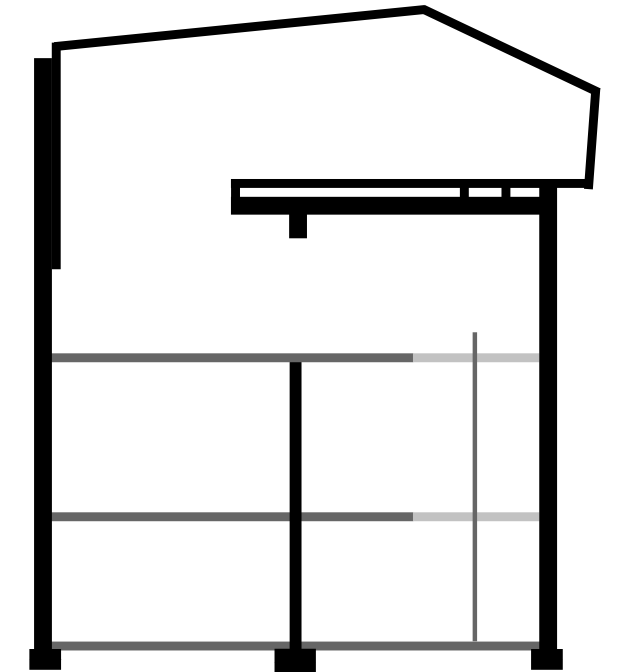


DESIGN ANALYSIS

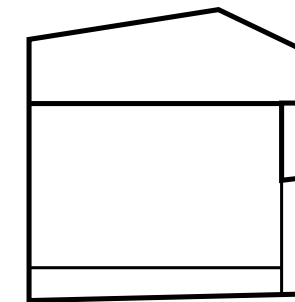
- bedroom
- bathroom
- workroom
- library
- storage



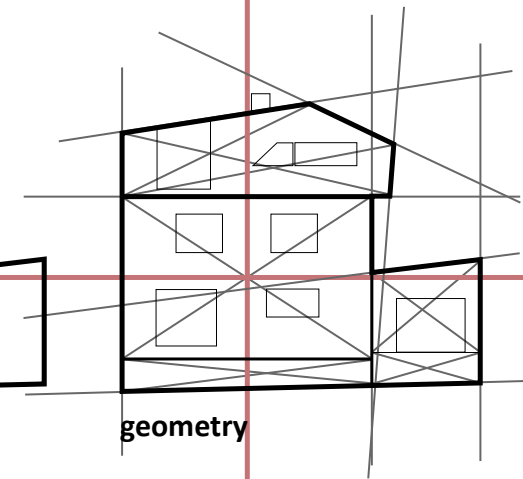
circulation to use



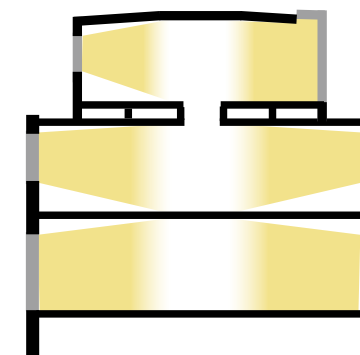
structure



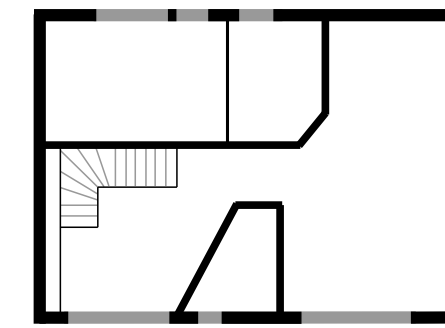
massing



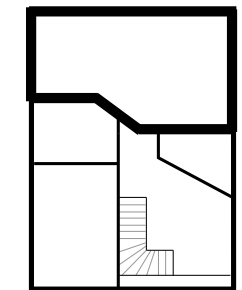
geometry



natural light



hierarchy



plan to section

LA FACE CACHÉE DE LA POMME

Architects: FGMD et Associés Architectes

Location: Hemmingford, Quebec, Canada

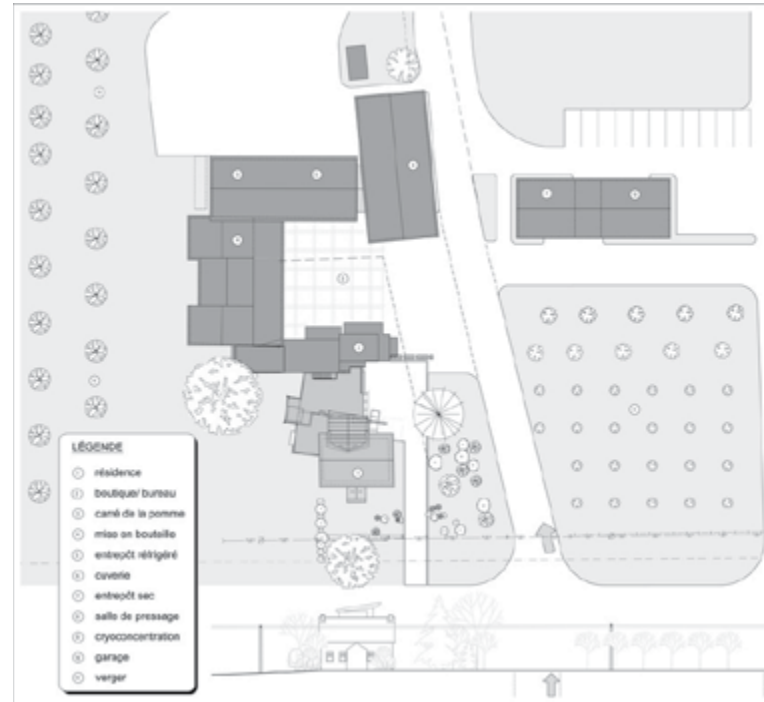
Structural Engineer: Roberto Filippi

Landscape Architect: Michael Hodges Paysagiste

Project Year: 2009

Project Area: 2,400 sqm

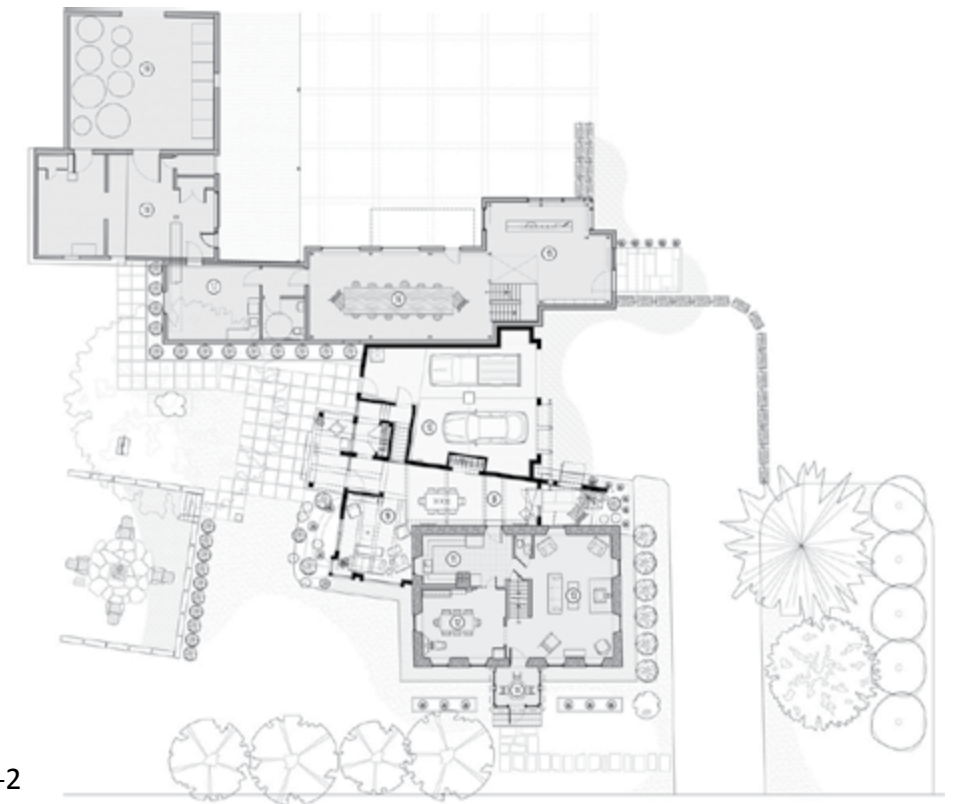
The La Face Cachée de La Pomme Project or in English, "The Secret Face of the Apple" is a project that utilizes historical existing structures while adding elements that make the project perform adequately to the evolved needs of the occupant. It takes an old farmhouse and cidery (place where cider is brewed) and adds modern elements that allow for the cidery to evolve to facilitate the contemporary needs of a mixed use live/work compound. Modern housing and hospitality expectations have evolved. This project takes an outdated, but historically substantial, compound and creates and progresses it in response to the current needs and expectations of the various and diverse occupant groups.



54.1

This project deals with the difficult task of separating public and private functions while inversely creating a connection between these spaces. The project contains a residence, brewery, and public event and hospitality spaces. These are drastically different functions that the architects have seamlessly merged into one coherent structure. It balances privacy and coalition in a way that reacts to the diversity of activities performed in the various spaces and the relationship of the activities to the spaces within which they are performed. With mixed use architecture the relationship between the dissimilar functions must be understood and resolved in a way that creates thoughtful connections. This project understands the careful equilibrium that must be found when organizing the functions of a mixed use project where business and residential life are intertwined.

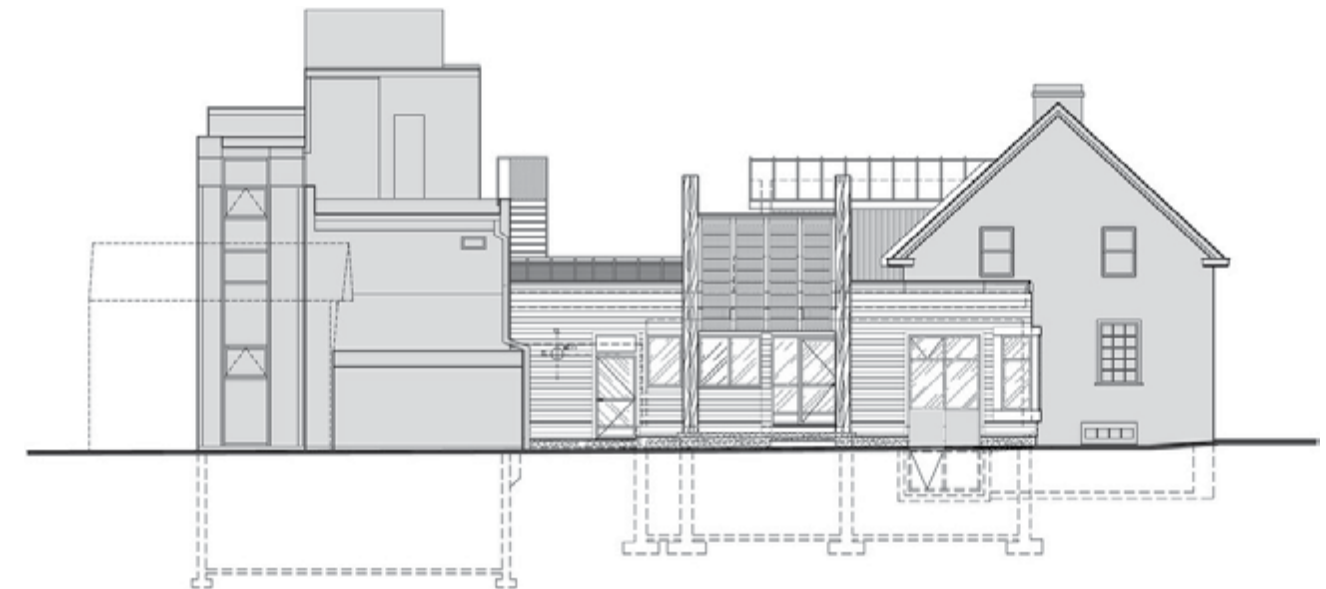
When creating an addition to a historically significant building the issue of blending versus contrasting becomes a major subject of investigation. This project carefully institutes elements of similarity and disparity. It is conscious of the material pallet of the existing architecture while implementing modern forms and strategies. It highlights the existing elements by contrasting them from the additions. It does not attempt to recreate the past or imitate age. Rather, it celebrates time by adding to the timeline of the architecture in an honest and representational fashion. The method of addition to an existing architecture is of the utmost importance in this project. The architect shows an understanding of the existing architecture and the future functions that the addition must facilitate.



55.1-2

Similar to the two previous projects, this project is a representation of architecture's ability to adapt and evolve in order to maintain efficiency and usefulness. It is an example of the possibility of augmentation and expansion to be the favorable methods of advancement as opposed to the more typical approach of disposal or abandonment followed by new construction when a building no longer meets the current needs of an occupant. This approach of a continuous architectural evolution is more financially and environmentally sustainable. It also creates history and architectural context that is required in community and place building.

This project is similar to the other projects in terms of reuse of existing architecture to create a more responsive environment for the occupant while maintaining the historical aspects of the projects that facilitate a cohesive evolution. The difference is that this project deals greatly with the relationship between the various functions of a live/work architecture. This disparity between public and private is a concept that requires careful architectural consideration in order to create a successful multi-functioning environment. This project is a prime example of how an architecture can facilitate seemingly separate functions in a cohesive manner. This ability to accommodate a multitude of dissimilar spaces in a manner that creates an interconnected whole makes this project successful.





This project is the synthesis of an existing historical compound with the addition of architectural elements necessary to fulfill the evolving occupant needs.

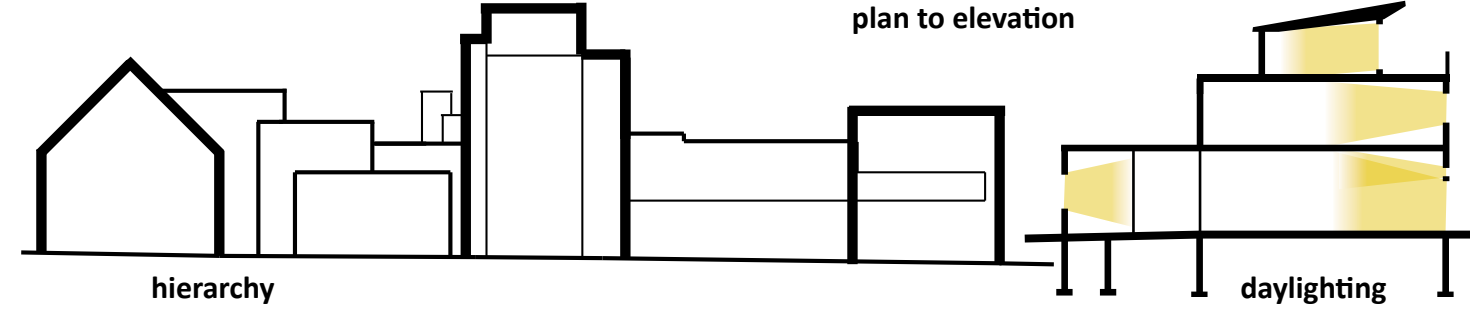
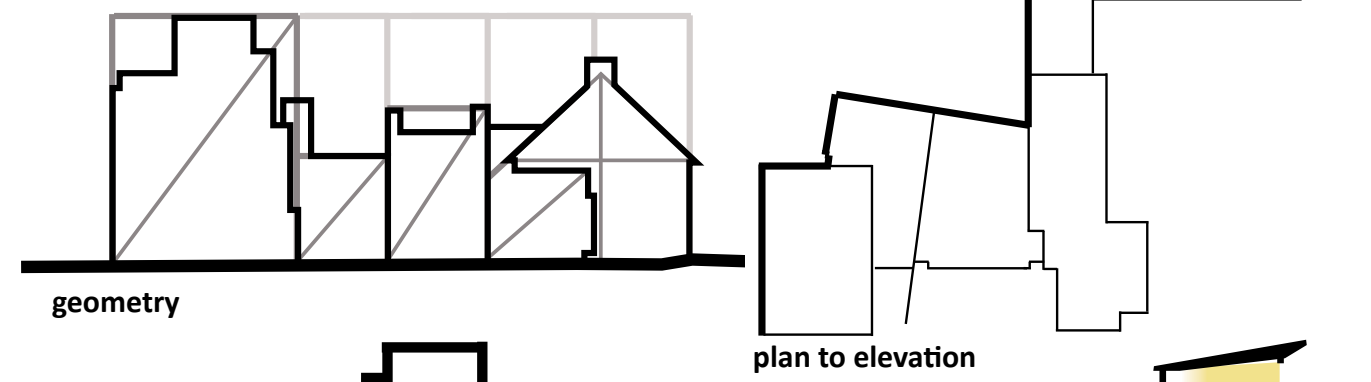
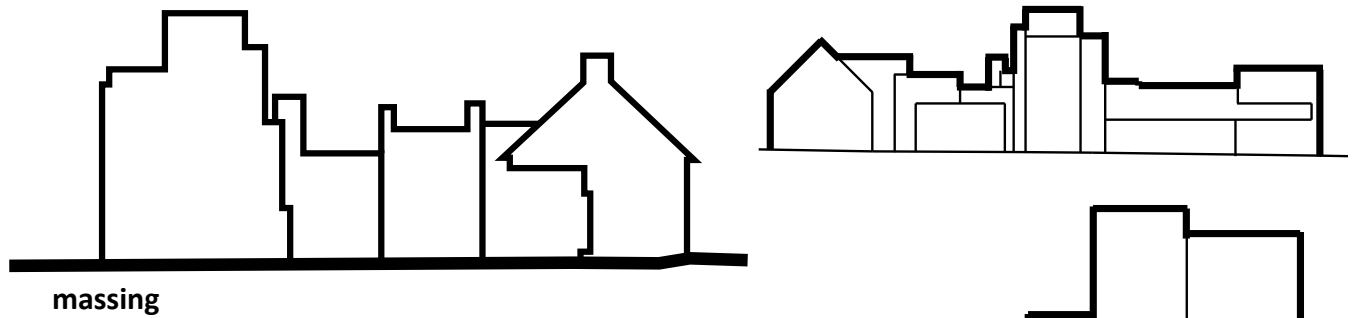
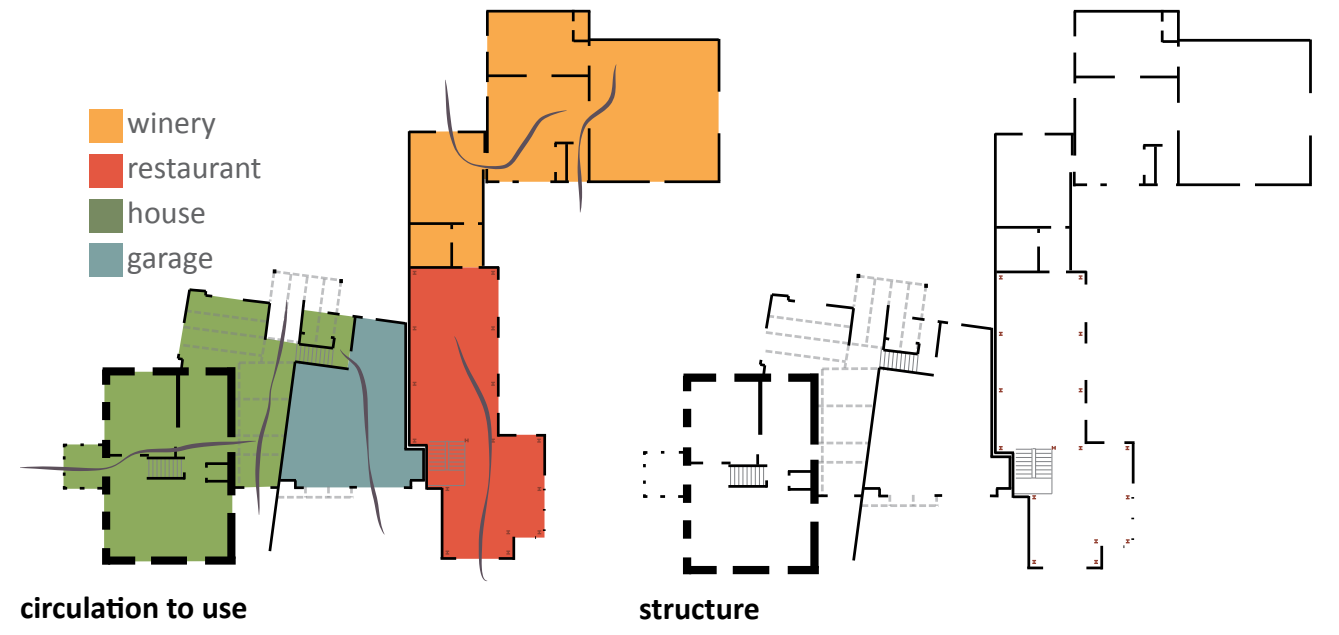
56.1-4

This project exemplifies the ability for architecture to evolve in response to occupant needs and changing technologies. This project creates an architectural timeline that adds to the lineage without attempting to fake age or blend seamlessly with the architecture of the past.



The material palette blends the old with the new and responds to the environment in which it is located. Integrating contemporary architecture within a historical context is able to be successful due to its cohesive material choices in response to the site and local materials.

DESIGN ANALYSIS

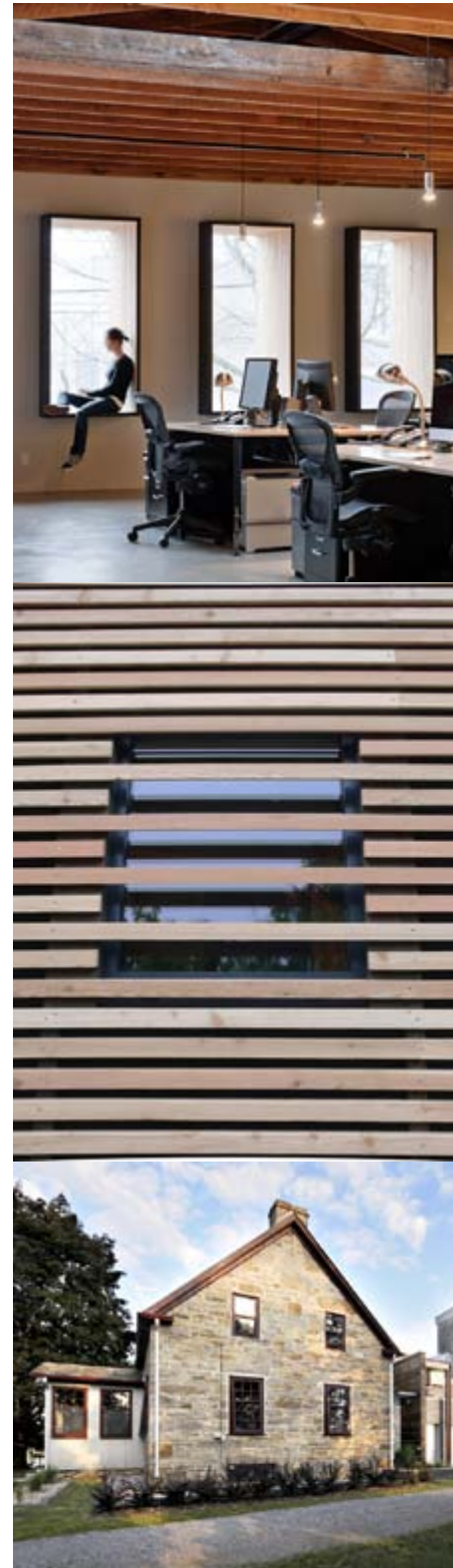


SUMMARY

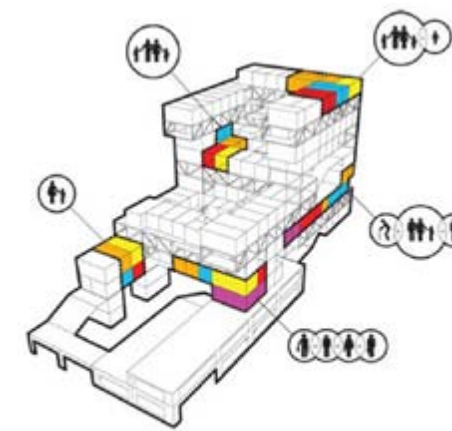
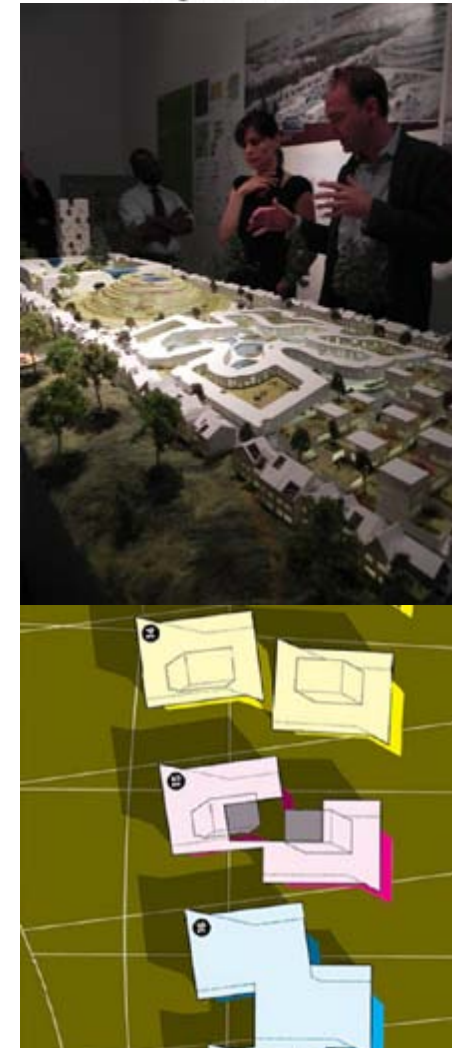
The case studies examined set a precedent for future architectural augmentations by confirming the ability of an architecture to evolve in order to become viable in an environment of changing demands. All three projects have drastically different user groups, typologies, environments, and existing conditions but they all respond to these elements in a manner that reflects the past while being conscious of the needs of the future. These case studies reinforce this thesis's unifying idea in that they all recognize architecture's ability to progress and recognize reuse as an effective means of creating environments that suit the client's needs. Architecture should not be viewed as fixed or final; these case studies reinforce this thesis's position on the plethora of physical and theoretical benefits of reuse in an architectural context.

The three case studies have a number of differences that, when combined, create a well-rounded understanding of how architectural augmentations to existing buildings can create environments that meet the current needs of the occupants while respecting its past. These analyzed expansions all utilize architectural advances and contemporary design that create environmentally responsive designs that react to the existing conditions in a way that is respectful to the past while providing new meaningful forms. These projects continue an architectural timeline that adds significance and meaning to the project that would not be possible in a "new" architecture. These projects tell a story and the continuation is just another chapter that describes the times and users of the spaces.

The differences in the projects are a direct reflection of the diverse existing conditions and the unique requirements of the occupants. The Kolstrand Building Project occupies an urban environment and responds to the needs of a mix of commercial users. The Loft L Project is located in a suburban environment and is a response to the evolving needs of a growing family. The Face Cachée de La Pomme Project is a response to the need of a live/work environment in a rural setting. The diversity of the projects and the correlation to site and occupant type is important to understanding the appropriate response to existing conditions and diverse occupants in future projects such as the environment in which this thesis project exists.



58.1-3

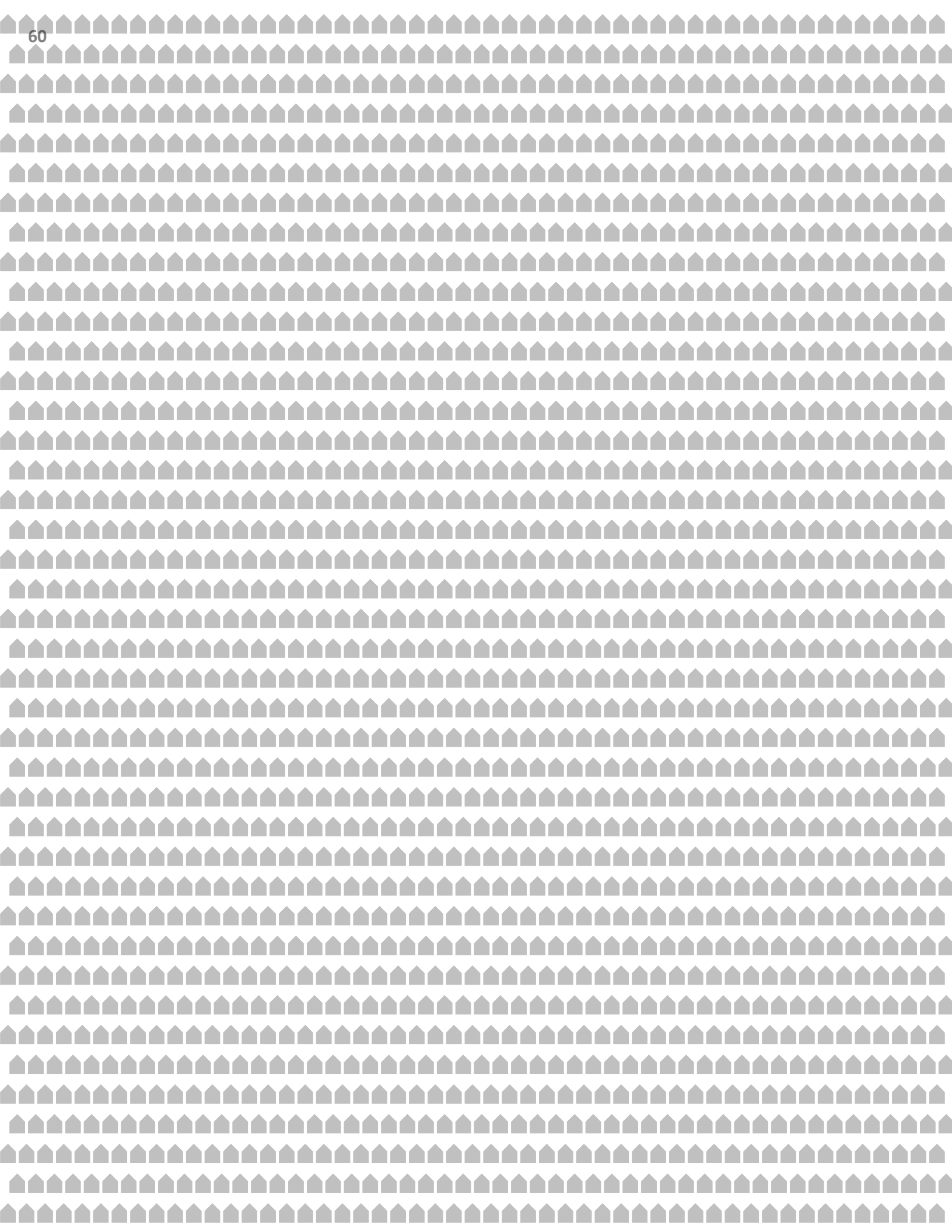
Vertical
Neighborhoods

59.1-3

This research has revealed a pattern for creating architectural adaptations. Each successful expansion responds to the existing building(s), occupant needs, and the community context. Through this combination of influencing factors appropriate additions to existing buildings are achievable. These factors can be met through an architectural approach that creates a unique and contemporary design while being mindful of the existing conditions, fiscal environment, and environmental factors that the specific project presents. By examining and evaluating these factors an appropriate design conclusion may be met for the augmentation of an existing building within its particular context that meets the established criteria.

The research from these three projects combined with the information acquired from the MOMA "Foreclosed: Rehousing the American Dream" exhibit creates a holistic foundation for this thesis design. There are both general theoretical questions and specific responses to actual conditions that must be identified and acted upon in order for this thesis design to respond to the typological research investigated in this examination of analogous projects. The MOMA exhibit's experimentation with a larger context and broad ideas dealing with social interactions coupled the three case studies dealing with unambiguous reactions to identified conditions creates a broad understanding of how environments may be augmented to create new spaces that react to the needs of the occupants and the environments affected.

This typological research has added to the volume of knowledge that comprises this thesis. The ever evolving information accumulation and analysis is continued with the case studies. From this portion of the research an understanding of the sequence of responses necessary for successful augmentation of build forms has become more appreciated and implicit. This gained knowledge will be combined with the previous and future conclusions in order to create a holistic understanding of what augmentations are necessary to the suburban environment in which this project exists.



PROPOSAL HISTORICAL CONTEXT

INTRODUCTION

"Town and country must be married, and out of this joyous union will spring new hope, new life, new civilization"

Sir Ebenezer Howard, "Garden Cities of Tomorrow (1898)"

Since humans have been constructing cities there have been low density developments around the perimeter of denser environments. Outside of medieval castles there would be small villages around farmland. It is a natural tendency of human developments to have low density growth outside of a city due to lower land costs and a connection to the environment which facilitates agricultural endeavors. Since the beginning of civilization there have been suburban developments that served the larger urban population. The American suburban has grown larger than the urban cities it has engulfed. What changed in this brief period of time that was not present in the prior extent of human civilization?

The American suburb has a history that was influenced by larger changes within the nation. The suburbs were an emulation of a changing culture. It was a product the social and technological advancements along with a changing mindset and attitude towards the urban environment. The suburb was the byproduct of the American Dream. It encapsulated ownership, privacy, and independence. It symbolized a new optimism that came with the means for consumption and desire for something greater than simply surviving.

Since the beginning of American cities there have been suburbs, or low density developments surrounding the denser urban core. The invention and implementation of the automobile united with a new level of affluence allowed those with means to flee the filth of the industrial urban environment for the iconic dream of the pastoral farmstead (Duany et al., 2010). The designers of the garden cities looked to create new communities where the town and country could merge into a cohesive unit to facilitate healthy and responsible rural growth. This is not the majority of today's suburban environment.

Before large scale developers and massive government initiatives spawned standardized sprawl, designers imagined utopian suburban settlements that merged with nature in a symbiotic fashion. Sir Ebenezer Howard and Fredrick Law Olmsted brought the concept of garden cities to the public in the late 1800's (Randall, 2000). These communities were an attempt for residents to escape from the urban filth of overly industrialized London to a greener landscape with room to breathe. From here famous designers such as Frank Lloyd Wright and Le Corbusier envisioned utopian developments that challenged the way people lived and provided modern amenities as technologies were rapidly advancing. All of these designs provided for a holistic self-sustaining community that fostered complex social interactions.

This did not come to be. The reason for the lack of implementation of bold architectural strategies is that people simply did not call for it. They wanted a single family home. Beyond that simple outcome they did not much care for "designer environments" or any sort of big picture developments. In America, demand is the leading factor of production. Those leaving the urban environments did not demand all of the elements necessary in successful community construction. The masses wanted a single family home at an affordable price. That is exactly what they received. Nothing less... nothing more.

FABRICATING THE DREAM

"A chicken in every pot and a car in every garage"

Herbert Hoover campaign slogan, 1928

Following World War II America experience a severe housing shortage. Veterans returning home and the population boom that followed required the construction of new dwellings. The question was how and where. The conclusion was profitable single family homes on cheap land on the outskirts or urban environments. The suburbs seemed like a logical and practical outcome of a capitalist system in a fiscally strong economy. The American psyche was in transition and that transition led to the suburb. There is no simple motive or factor that led to the urban exodus to the suburban promise land. It was a complex web of influence that transformed the American mentality and forever changed the American landscape.

The United States Government played a key role in the creation of the modern suburban environment. Major government infrastructure projects in the form of the highway system enable and encouraged automobile traffic out of the city and facilitated urban flight. The interstate highway system altered American transportation away from the railway and on to the highway. The G.I. Bill of 1944 and the Federal Housing Administration's National Housing Act of 1934 provided funds specifically for new home purchases. These programs ignored urban renewal and focused its attention on the shiny new suburban environment.

The greatest factor in the shaping of the new suburban landscape was a changing mindset. This evolved attitude was spawned from a variety of influences. Post-war mentalities, the birth of corporate "media" as an influence, changing family dynamics, and a longing for a new beginning all contributed to the desire for suburban exodus and home ownership. This collective shift in priorities and desires culminated in the creation of a consumer dominated suburban environment and at its core, the single family home. The single family home came to signify independence to the family and a means of revenue for the American business machine.

After World War II there was an almost universal change in the American mentality. This new attitude focused on ownership or consumerism. People started wanting things. Things not based on needs but deep desires. The foremost of these desires was ownership of a residence, a home. The cry was no longer to move west, it was now to move up and out of the city to the suburb where something could be owned. Ownership became the goal, at any cost. This mentality sparked unprecedented suburban growth as developers tried to keep up with the insatiable hunger for homes. It seemed as though everyone benefitted from the suburb. The family got a place to call their own, the government got tax money, and the economy gained a new buyer segment and a need for new goods and services not necessary for urban dwelling. America was on its honeymoon with the suburb.

From all angles the American was directed to seek out a home in order to fully experience the American Dream. It was seen as patriotic to purchase a home, regardless of the cost. With the Great Depression fresh in mind, people saw this time of economic prosperity as an opportunity to capitalize on their current fiscal situation. This new mindset of want created a buyer segment that saw living beyond one's means as an acceptable sacrifice for the opportunity to live "the dream".

A NEW FRONTIER

"In suburbia , organization man is trying, quite consciously, to develop a new kind of roots to replace what he has left behind."

William H. Whyte, "The Organization Man (1956)"

The first occupants of the new suburban environment weren't soccer moms or weary commuters. The original suburbanites were starry-eyed explorers of a wild new land. They were adventurers in a foreign place. They were rejecting the old way of living and seeking out a new beginning. The traditional family was evolving and with this new family typology a new environment was required.

Since the beginning of the American city families tended to stay in the same area. There was a sort of ancestral territory or boundary that families resided within throughout generations. Following World War II returning veterans lead the charge of creating a new approach to the way families lived and more importantly where families lived. America became less regionalized with the implementation of the automobile and the interstate highway system. People could more freely move around unrestricted from the historical boundaries of the past. This created a new transient population. Families were no longer tied to their ancestral stomping grounds and they began seeking greener pastures to raise their families. The war uprooted families who decided to create a new family foundation outside of the city limits.

The suburbs are systematic, calculated, and finite. There was an understanding of the suburban elements. Residents found comfort in the systematic approach developers took to the creation of the new suburban environment. The basic suburban element, the single family house, became a product. It could be picked out of catalogue similar to all of the furnishings that would fill the new house. The house was not a representation of the needs of the occupant but rather the means. The single family home became a symbol of success instead of a machine for living. The first residents of suburbia found security in the predetermined quantitative suburban environment.

The American economy also found solace in the calculated suburban environment. The suburbanite became a statistic that could be controlled in the new consumption driven world. This was the era of the advertising boom. The "mad men" became icons and lead the new age of want. The creation of desire was paramount in the creation of the new suburban environment. It was less about need than it was about fulfilling expectations. Out of this new way of living, a new way of reaching audiences was emerging. The American family became bombarded with suburban propaganda. This time it was not aimed at thwarting Hitler but at romanticizing consumption.

Mass media thrived on the suburban movement. The American Dream was reverberated by Hollywood. In *It's a Wonderful Life* (1946) buying a house on credit was acceptable and helped America grow. In *Mr. Blandings Builds His Dream House* (1948) Cary Grant's character states, "You buy it with your heart, not your head." He also refers to the idea of a "dream home" throughout the film. The film industry presented suburban home ownership as a romantic endeavor that was glamorous and righteous.

The business world was shaping the new suburbanite. Informing them on how suburban life is supposed to be and what it should look like. This freedom to create a new lifestyle lead to the implementation of a whole new type of products do to a new buyer segment with a disposable income, or at least the will to live beyond one's means and a new set of needs based on the secluded suburban lifestyle. No urban dweller would require a lawnmower, but a suburbanite with a precious new lawn certainly would.

The advertising world thrived on stereotyping the suburban occupant and due to standardized suburban development this was possible and fairly accurate. Many suburban developments were simply expanses of winding roads lined with nothing but single family homes uninterested in the greater whole or community. This however is not the exclusive way communities were built. It may have been the rule that housing was king and the only necessity of a new suburban environment, however, some developers looked at the bigger picture. They saw the suburban environment at as a complex system where needs and desires could be met with the ability to satisfy of these cravings. Holistic communities were built that understood the capitalist engine and the suburban situation. These communities provided choices and variations. One such community is that of Park Forest, Illinois.

PARK FOREST

"The goal is to provide a fully integrated and livable community. The aim is to capture all the advantages of country living in an urban atmosphere within the economic reach of those who will live in the town."

Park Forest Preliminary Prospectus

The difference between Park Forrest and other large developments such as the Levittown's was that Park forest did not only provide housing it provided a whole system including jobs and retail (Randall, 2000). It was centered around shopping, consumerism was a novel suburban concept that the creators of Park Forest understood and capitalized on to the benefit of themselves and the community. It was the consumers dream. Residents did not have to drive into the city to purchase the goods they craved. They could live, work, and purchase all within the same suburban system that provided the freedom they were seeking when they fled the city.

Park Forest as example of developer lead suburban town. It is a town. Not a development. It is led by capitalist intentions while realizing the complex economic cycle of the suburban environment and the need for complex social interactions in a successful community. This is a drastically different approach from the shortsighted goals of the developers of the subdivisions. Park Forest provided apartments in addition to the single family homes so those without the means of home ownership could still live the suburban dream and escape the perceived urban plight. It also provided business opportunities so residence were not required to commute in order to provide the funds required to live out the dream.

The far more typical reality was that the sprawling monotony of the Levittowns. These developments created the iconic tedium of the suburban development. Thousands of identical homes were constructed to create the supreme economical product. The suburbanite was given no options. There was no diversity. If you had a certain amount of money you would receive a certain home. Homes were a direct reflection of affluence. The suburban movement brought with it an architectural standardization. Design had nothing to do with the specific needs of a specific occupant but rather an ideal product for the amount of capital invested. These developments lacked a sense of place and a community spirit. Park Forest and similar holistic community developments understood the need for environments that sustained a cycle of interactions as opposed to the far too common practice of dead end developments.

Today's subdivisions typically take on the Levittown approach. A developer purchases a plot of land and crams as many houses onto the property as physically possible in an attempt to maximize short term profits. Long term come from the creation of a system within a communal entity. This is what the developers of Park Forest understood. They encourage community interaction and involvement. As part of the community design the civic possibilities were considered and acted upon. Park Forest designed for a communal system rather than simply building homes and moving on.

COMMUNAL CAPITALISM

"... No matter how much work and time we have spent, the people who live there can form the spirit and character we have sought for it. We all feel that unless the town-hall spirit in which Park Forest was created is captured and held by the people we will have failed. This is our gamble. We're betting on the people."

Philip Klutznick, Park Forest founder

While post WWII America was fearful of socialism, it was bold in its endorsement of a communal spirit of collective productivity. In a 1945 article of Harper's Magazine John Dean examined the dangers of home ownership and proposed a new concept called "mutual home ownership" (Randall 2000). This idea was based upon the idea that families would make an investment in a community as a whole and would live in a dwelling proportionate to the level of investment. They would then get returns on their investments through new rental incomes from commercial occupants. This limited the individual risk of the conventional home buyer and provided opportunity for increased income. The downfall of this concept is that it relied on initial government funds from the 1930s New Deal. Without government involvement there is no possibility for this type of project due to the lack of profit a developer would receive (Hayden, 2003).

The suburbs were really a social experiment. It was also a political experiment. How would these new towns be governed and who would do the governing? This mostly depended upon how they were developed. Park Forest was originally governed by the development group but later the citizens voted to create a city government which would collect city taxes and govern itself with its own citizens (Randall, 2000).

It was initially a village that survived on volunteerism and community support. The national government was not present, yet the village thrived and provided its own amenities out of need and desire not out of force or obligation. This was a time when social groups became community cornerstones. There was camaraderie in successful developments that fueled the communal fires.

A successful and sustainable economic entity must make money. It is that simple. In order for something to be financially viable it must produce equally to what it consumes. A financially successful environment cannot simply provide housing and expect other environments to provide the rest of the elements necessary to sustain an economically viable environment. Successful communities are self-sustaining and diverse. They are a direct response to the needs and desires of a specific populous. Park Forest understood this and provided the pieces for the community to maintain financial viability even after the developers had left. The residence must be a machine of production and consumption within an enclosed environment, there must be balance. With balance come practicality and the possibility of sustainability in economic terms.

This holistic economic system allows for a communal whole. There must be a community investment in a place in order for it to truly be a place and not just another space. That ability for an environment to be socially and fiscally sustainable is what sets projects like Park Forest apart from generic housing developments. Human investment and interaction is essential to the building of community. Without the human spirit an environment cannot thrive. Park Forest designed for the human spirit. It recognized the need for complexities and interactions within communities. The human investment is an important element that is lacking in typical suburban developments.

LIMITED RESOURCES / UNLIMITED DESIRE

*"Son, there is only one thing they're not making any more of... and it's land."
I am sure someone has said this.*

The downfall of a consumer driven environment is that there is only so much to consume. There is also a finite means of consumption. The suburban environment thrives on consumption and deteriorates when it cannot continue to consume. When either the means or the consumption is removed the typical suburban system fails. The suburban environment grew out of economic prosperity. The subdivision movement is a product of surplus capital. When surplus financial assets are not available the suburban environment ceases to grow. This is the current state of the suburban environment.

The American suburb as it is known today grew out of an unprecedented demand for new single family homes. This demand, coupled with government support and a strong economy full of ambitious developers created a suburban machine that grew at extraordinary rate, devouring land and recourses with no hesitation. Much of this land was previously farmland or natural habitat. Developments named after the things they destroyed created a sea of concrete and plastic that replaced the forests and farmland that were casualties of a war on the city.

A large portion of the suburban environment and those who shaped it had no reservations concerning waste and excess. Today's suburban environment is struggling due to its inability to adapt to changing economic conditions. America has become habituated to excess. We must learn as individuals, as an economy, and as creators of the built environment how to live within the limitations we are presented with and those that the future may bring. We must return to practices of thrift and prudence. We need to understand need.

The original creators of the modern suburban environment lacked a comprehensive understanding of the environmental consequences of their actions. We can no longer afford short sighted expansion into the essential remaining undisturbed environments. We must stop being lumberjacks and begin to be gardeners of our environment. We must be stewards of the unbuilt world but also of those places we have constructed. We must reconfigure environments that are not efficient. Use, disposal, and new creation is not an acceptable cycle. We live in a disposable culture and our architecture, specifically suburban architecture, has begun to be viewed and created as a disposable product. This is a dangerous way to think about architecture without a responsible architectural recycling program. We need to reuse and recycle our failed suburban environments to create a sustainable future.

Uncontrolled consumption is an irresponsible approach the American society has grown adopted enthusiastically. This historic practice of suburban growth is clashing with the current economic reality. There is no longer the means to fuel the suburban machine, nor are there disposable resources or land that can be sacrificed in the name of progress. There is a limited and shrinking amount of farmable land and natural environments. Not only does the construction of suburban developments harm the environment but the daily operation of the suburbs due to factors such as automobile use creates continual damage to environment. Creating new "sustainable suburbs" is not a responsible compromise. We must make existing suburban environments more sustainable if we are to begin to reduce the negative effects of suburbia.

Growth is inevitable and necessary for a progressive culture. The ambitious spirit of the original suburban creators must be captured and redistributed to the retrofitting of the existing suburban fabric in order to create a responsive and sustainable environment. We must develop inward. We must revisit our failing suburban environments and capitalize on their hidden potential and latent energy to create successful, sustainable environment that allow occupants to thrive. A desire for creation and production are righteous aspirations. The American Dream is based on motivation and the prospect of success for hard work and dedication. This dream must be repositioned towards the restructuring of the unsuccessful suburban environments if suburbia is to be saved.

CULMINATION

Each year we construct the equivalent of many cities, but the pieces don't add up to anything memorable or of lasting value. The result doesn't look like a place, it doesn't act like a place, and, perhaps most significant it doesn't feel like a place.

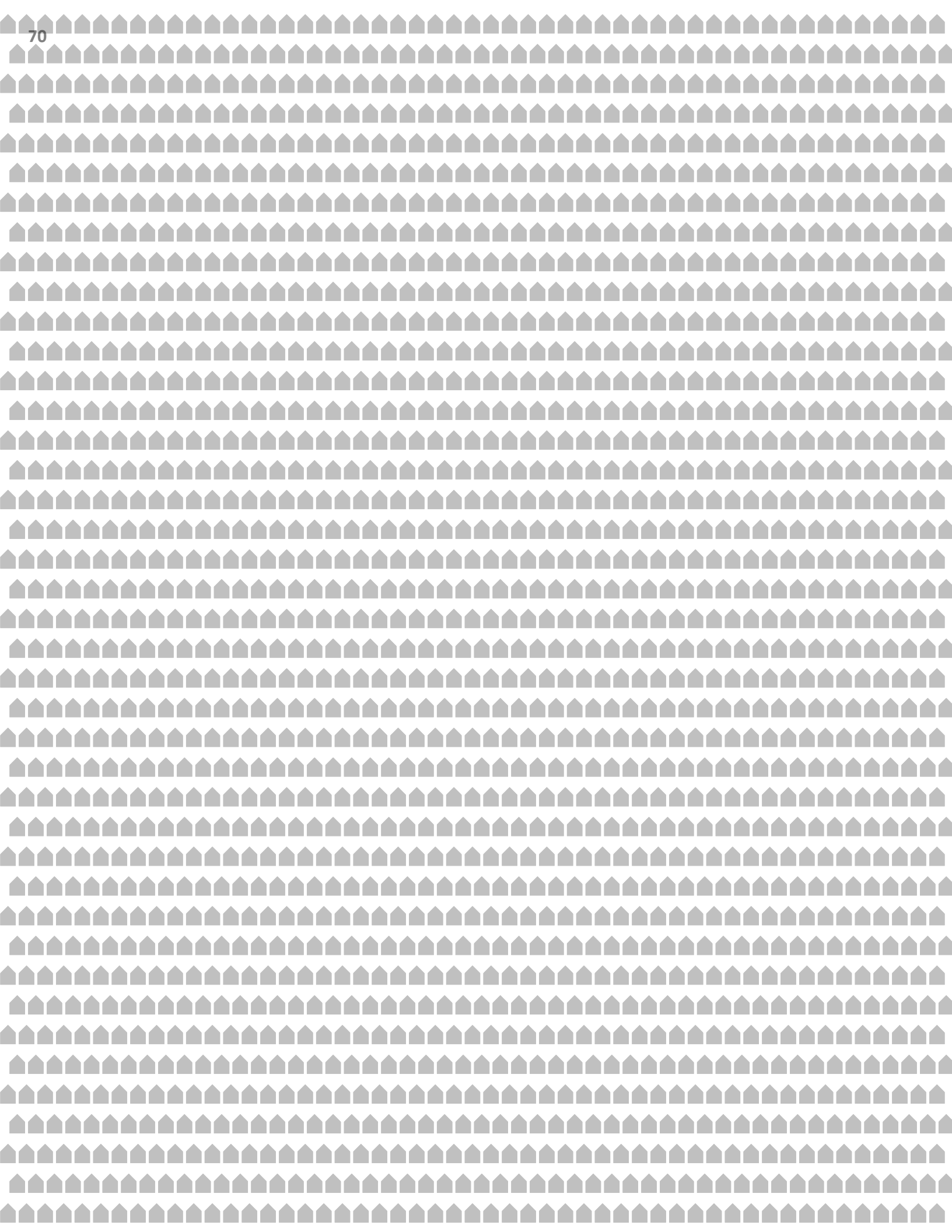
Andres Duany, Elizabeth Plater-Zyberk, and Jeff Speck "Suburban Nation"

Much of today's suburban environment lacks any sort of essence or distinctiveness this is due, in part, to the history of the modern suburban heritage. Suburbia is about production, maximizing returns on investment, and simplicity. Far too often it is not about place making or thoughtful community minded design. The history of America's suburban environment is one of imagination and new ideas. We need to rekindle that ingenuity and courageous spirit that set in motion this enormous suburban machine and focus it on how we can make the existing suburban a product practical, efficient, and desirable.

America is a supply and demand economy. Demand dictates production. In order for the suburban environment to change the demand must first change. The American consumer must insist upon change. The current economic conditions are forcing change but without a desire to change the suburban environment will continue its path of decline and decay. We must learn from both the success and failures of the past to create a responsive suburban product that creates a holistically sustainable future.

In order for any entity to be financially sustainable it must gain more assets than it spends. If an environment is to be socially sustainable it must allow for and promote complex social interactions and allow for change as the needs and desires of the population changes. Environmental sustainability comes from the ability of an architecture to limit or eliminate harm upon the land and environment in an irreversible manner. If a suburban environment is to be environmentally sustainable it must not facilitate growth in a way that is uncontrollable. Developments like Park Forest understood the need for financial and social sustainability but ignored the environmental impact that the community would have both immediately and over time. A truly sustainable project must be conscious of its effects on the environment. Holistic sustainability is a complex system that requires all parts to work harmoniously with each other for a common goal.

The American suburban environment rose out of an unprecedented demand for a new way of life. The American Dream was centered around a motive of ownership and freedom. New suburban environments were fashioned to meet these demands. The ability for this new consumer driven environment to exist was based on a surplus of financial means. These means are no longer available in the capacity as they once were, but the desire maintains. This has caused a large portion of the suburban population to live beyond their financial abilities. The fiscal realities are catching up to the suburbs, which are in decline. If the suburbs are to change to become a feasible community driven environment the suburban mindset must change. There must be a demand for community and for the reclamation of a torn suburban fabric if the suburbs are to be saved.



PROPOSAL GOALS

INTRODUCTION

This project is an attempt to raise awareness of new architectural possibilities within the suburban environment. The modern subdivision is lacking architectural intervention that had the potential to shape environments to meet the needs of specific user groups. This thesis intends to start a conversation pertaining to the realities of the American suburb. It looks to generate an awareness about the unfeasible suburban environments and the reality of the need to create change through design aimed at community building from the existing suburban frameworks in a way that responds to the social, economic, and environmental issues that are present in suburbia.

ACADEMIC

Suburban architecture is an area commonly neglected in the academic education of future architects and designers. This thesis is an examination of potential academic futures dealing the American suburb. The suburban environment will continue to be a major evolving social, economic, and environmental factor in America. With this change comes the ability for new ideas to be created to deal with this changing landscape. Academia is the perfect setting to freely explore new suburban futures and possibilities.

The academic environment allows for exploration free of profit motives or client desires. This freedom for unbiased explorations of suburban opportunities facilitates the possibility of new suburban strategies for dealing with the unresolved issues that threaten suburbia. This suburban typology provides students with a dilemma that involves a wide variety of factors that facilitates dynamic projects. The suburbs deal with social, cultural, economic, transportation, environmental, and contextual factors that allow for studio based projects that provide students with a wide variety of avenues for exploration and an infinite number of unique possibilities that allow student's individuality to create novel interpretations of how the suburban environment should look and function.

This thesis is an academic exploration of the suburban situation. The goal is to utilize the freedom that an academic environment allows in an attempt to provide a solution to a specific suburban scenario that could then be applied as a general idea to the suburban fabric as a whole. This freedom of experimentation allows for the prospect of the creation abstract ideas that can be applied to a specific suburban problem. Through an academic environment this project looks to discover unbiased approaches to bringing community to suburbia.

PROFESSIONAL

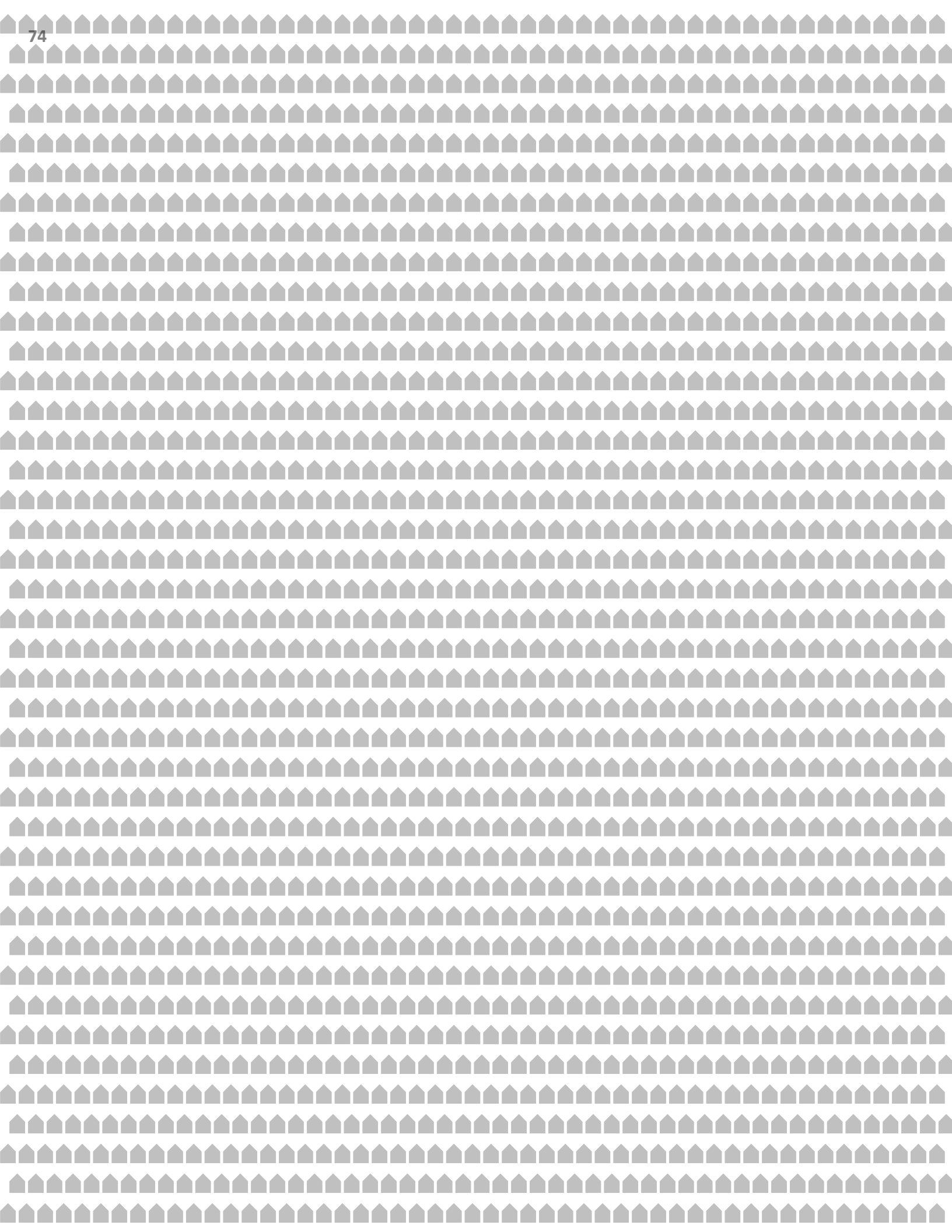
Suburbia is changing. There is potential for architects to be the facilitators and shapers of this change. With a struggling economy the profession of architecture is under pressure to find new means of income. If the profession were to commit to becoming involved in the retrofitting of the suburban environment there would be the possibility of a new form of much needed revenue and the creation of jobs in an occupation with a high unemployment rate. This thesis looks to discover a potential project example that may be available to the professional world.

The suburban dilemma is a practical problem that requires abstract solutions that is obtainable through the skill sets of the design community. Generic housing developments have proved to be unsustainable in terms of community and economy. In order to turn nonviable suburban environments into holistic neighborhood based communities the understanding of the elements and composition of successful environments is necessary. This is the area of expertise found within the profession of architecture. This thesis looks to communicate the architectural possibilities found within existing suburban environments.

PERSONAL

The personal goals within this thesis deal with an attempt to create a holistic understanding of the affects architecture can have on complex issues such as those presented in the retrofitting of failed suburban environments. This project is an effort to create a diverse skill and knowledge base that will benefit future architectural endeavors. The ability to demonstrate skill and proficiency dealing with the solving of complex problems will be illustrated through the completion of this thesis design.

The hope is that the suburban environment and its intricate web of concerns and attributes creates a challenging dynamic design scenario that facilitates a design that establishes and communicates the ability to solve complex architectural problems in a way that is both esthetically progressive and programmatically effective in its response to the given circumstances. The suburban environment presents a challenging architectural setting that has the ability to assist in the creation of new architectural ideas and solutions to real world issues. Personally, this thesis is an attempt to relate academic knowledge with reality based concerns in a way that demonstrates the future ability to create successful designs in a professional setting.



PROPOSAL SITE ANALYSIS

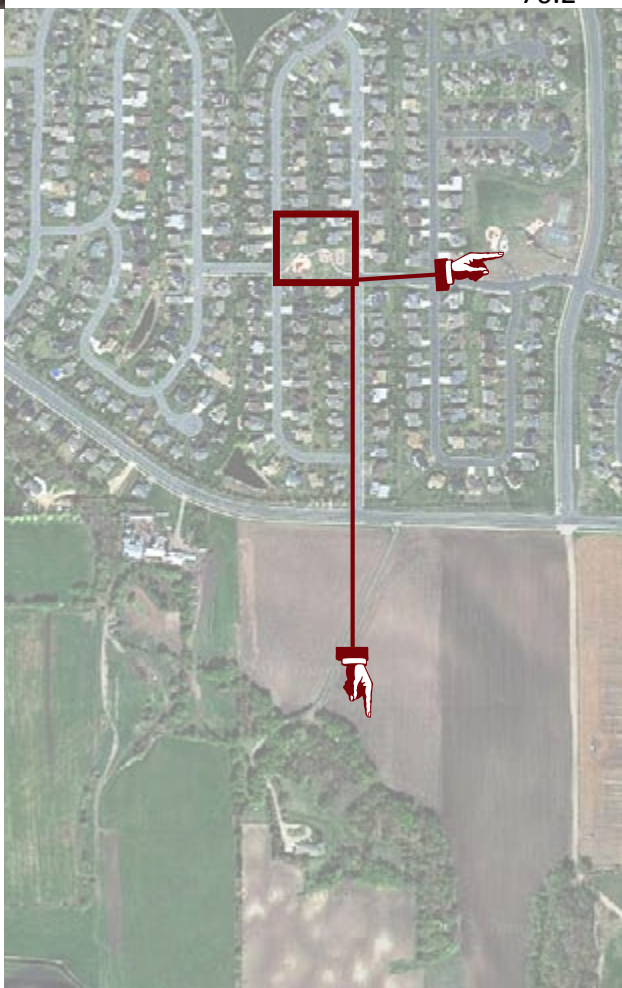


76.1

INTRODUCTION

The site is located in the Shakopee, MN subdivision name Pheasant Run (which is ironic due to the fact that the creation of the subdivision displaced any pheasants or other wildlife that may have lived there). The site contains four suburban homes and a pocket park. Shakopee is a middleclass suburb located south west of downtown Minneapolis. It has experience high foreclosure levels during the economic recession. At the time of selection this site contained one foreclosed unit and one unit that was for sale. This level of availability and indicators of impracticality made the sight ideal for this thesis project.

76.2



VIEWS

The views from the site mostly consist of a cars, concrete, single family homes, and the occasional tree. For all intensive purposes it is a typical middleclass subdivision with the usual generic views dominated by garages. The two most noticeable views are best seen from the south east corner of the site. Straight south the farmland and forest are visible when looking straight down the street. The other significant view is to the east. From there one can see glimpses of a park that contains tennis and basketball courts as well as play equipment. If a viewer were able to get above the rooflines of the houses they would be able to see tree covered hills to the south and southwest. In general the visual aspect of the site's surroundings creates a disorienting collage of monotony. The color palette of grays, beige, and subdued tones produce a dreary landscape. The only bright colors comes from the trees and lawns. With winter these glimpses of color will disappear leaving little visual stimulation.



77.1

BUILT FEATURES

The site contains four single family houses and a small park containing play equipment. The houses are all multi level with between 1,500 and 3,000 sq. ft. All four houses were built in 2001. They all contain 2-3 car garages. The houses are set back approximately 40 feet from the street requiring a relatively long driveway. The area between the sides of the houses is narrow compared to the larger backyard space that links the properties together. The 2062 Williams Street property is currently foreclosed and on the market. The 2061 Cardinal drive property is currently on the market and available for purchase.

The playground consists two swing sets, a small climbing wall, some random play "things", and a typical elevated play structure containing ramps and slides. A walking path slithers between play equipment linking it to the larger park to the east. These two parks are the only ones in the subdivision not connected to a school, which are located at the peripheries of the development.

The value of the structures have dramatically decreased in the wake of the economic crisis. The condition of the 2062 Williams Street residence is in noticeable decline. The landscaping looks neglected and the shingles appear to be worn. The house in general looks dreary and noticeably deserted. It is a plight on the community causing the environment to appear impoverished and in decline.

77.2



78.1-8



2062 Williams Street (foreclosed)

bedrooms: 4
 bathrooms: 3
 size: 2822 sq ft
 current value: \$215,000
 last sale: \$306,000 (2006)



2061 Cardinal Drive (for sale)

bedrooms: 5
 bathrooms: 3
 size: 1,599 sq ft
 current value: \$280,000
 last sale: \$320,000 (2007)



79.1-6



2054 Williams Street

bedrooms: 4
 bathrooms: 2.5
 size: 1,985 sq ft
 current value: \$270,000
 last sale: \$281,000 (2002)



2053 Cardinal Drive

bedrooms: 4
 bathrooms: 1.75
 size: 1,573 sq ft
 current value: \$214,000
 last sale: \$289,000 (2004)



HUMAN CHARACTERISTICS

It is almost impossible to find any element of the suburban fabric that has not be augmented or manipulated by human interactions with the landscape. Every inch of the site has at one time been affected by human actions. It is a completely artificial landscape. Even the "nature" is not truly natural. Trees are strategically placed, grass is kept at a specific height, nothing unplanted or unplanned is allowed to flourish. The generic suburban subdivision is one of the most humanized environments. It does not contain the density or mass of an urban environment yet every inch of it has been altered. Site grading has removed any natural topography. All of the trees that may have once been on the site were destroyed and new ones were strategically planted following the seeding of the new lawns. The modern suburb is a halfhearted attempt to remake some postcard pastoral dream. It is as unnatural as almost any other human environment because it attempts to pretend to be natural, and it does a poor job.

The human characteristics of the sight are rather obvious. The houses, play equipment, roads, and utilities all indicate intense human use of the site and surrounding suburban landscape. The walking path that weaves through the play equipment suggests that humans use this site for pedestrian transportation and recreation. The fact that it is part of a dead end system of paths and is not really connected to anything substantial enough to promote travel it is not utilized often or in the capacity it was intended. The site attempt to encourage interaction but due to its lack on connectivity it fails to do so effectively.

The suburban environment is designed for human use yet it ignores the way humans interact. It isolates individuals. This site completely lacks sidewalks along the street. If someone on this site would like to walk to another house they would be required to walk on the street or through other people's yards. But people don't walk in the suburb because there is no incentive to walk from sameness to sameness. There is an attempt to make a system of paths in the area but the fact that there is not a system of smaller sidewalks feeding into this arrangement makes it ineffective. The lack of connectivity and motive creates a stagnant environment. There is a human influence on the site but it is not a practical or useful relationship between occupants and the environment. It is isolated and in need of proximity and connectivity.



81.1

- - - - - trail
- - - - - sidewalk connections

81.2-3



DISTRESS

The site is experiencing distress. The foreclosed home on the site and others in the area have created a feeling of decrepitude. Properties that have been vacant for extended periods of time tend to have lawns that look abandoned or uncared for, the houses begin to look derelict. These deserted properties begin to decay the dignity and self-esteem of the community. The suburban environment requires a large amount of upkeep to maintain its facade of perfection. Grass must be kept at a certain length, fences must be freshly painted, bushes are precisely pruned. When these elements are ignored the property quickly looks abandoned. This is not the case with urban environment which are designed to gain a patina over time. The suburban environment is an attempt to freeze time and when this attempt fails the environment appears sullied. This is the case with the site. The one abandoned home degrades the appeal of those around it.

Too many houses for sale gives the appearance that people do not find an environment desirable. This is the case with the site. One house was abandoned due to the financial impracticalities of the suburban environment. Another house is for sale due to the decrease in suburban appeal. There are a large number of homes in the area that are for sale at prices far lower than they were appraised at only a few years earlier. Suburban value is in decline. As a result the suburban attitude is in decline. Its appearance of a pristine, fairytale environment is vanishing and the reality of an environment in need of change and assistance is beginning to appear. This site is experiencing distress in terms of a declining of its physical characteristics but also distress of the attitude and outlook of the site.



82.1

overgrown plantings

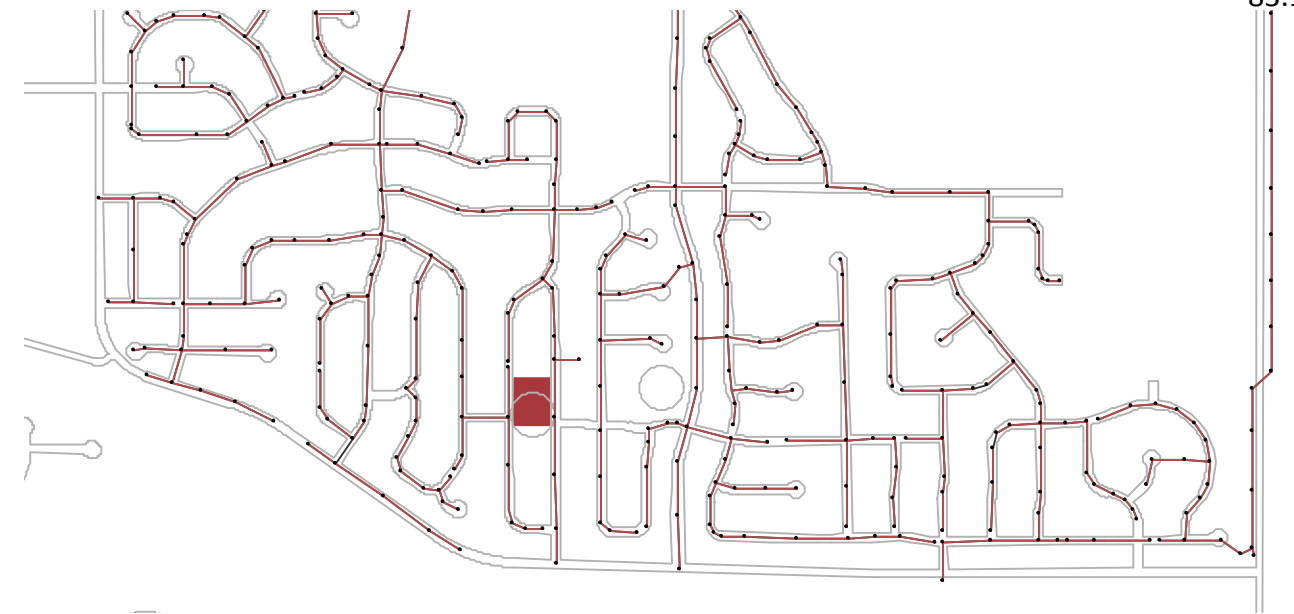
neglected roofing

uncared for and weed ridden lawn in both park and yard

UTILITIES

The houses on the site are heated by natural gas and contain gas burning fireplaces. They are connected to the city's water and sewer. Since there are existing buildings on the site there is already the electrical and phone wiring to the site. The fact that there are existing utilities on the site the construction costs of any new project on the site would be significantly reduced allowing for more of the budget to go towards fulfilling the communal needs of the development.

SANITARY SEWER MAP



83.1

STORM SEWER MAP

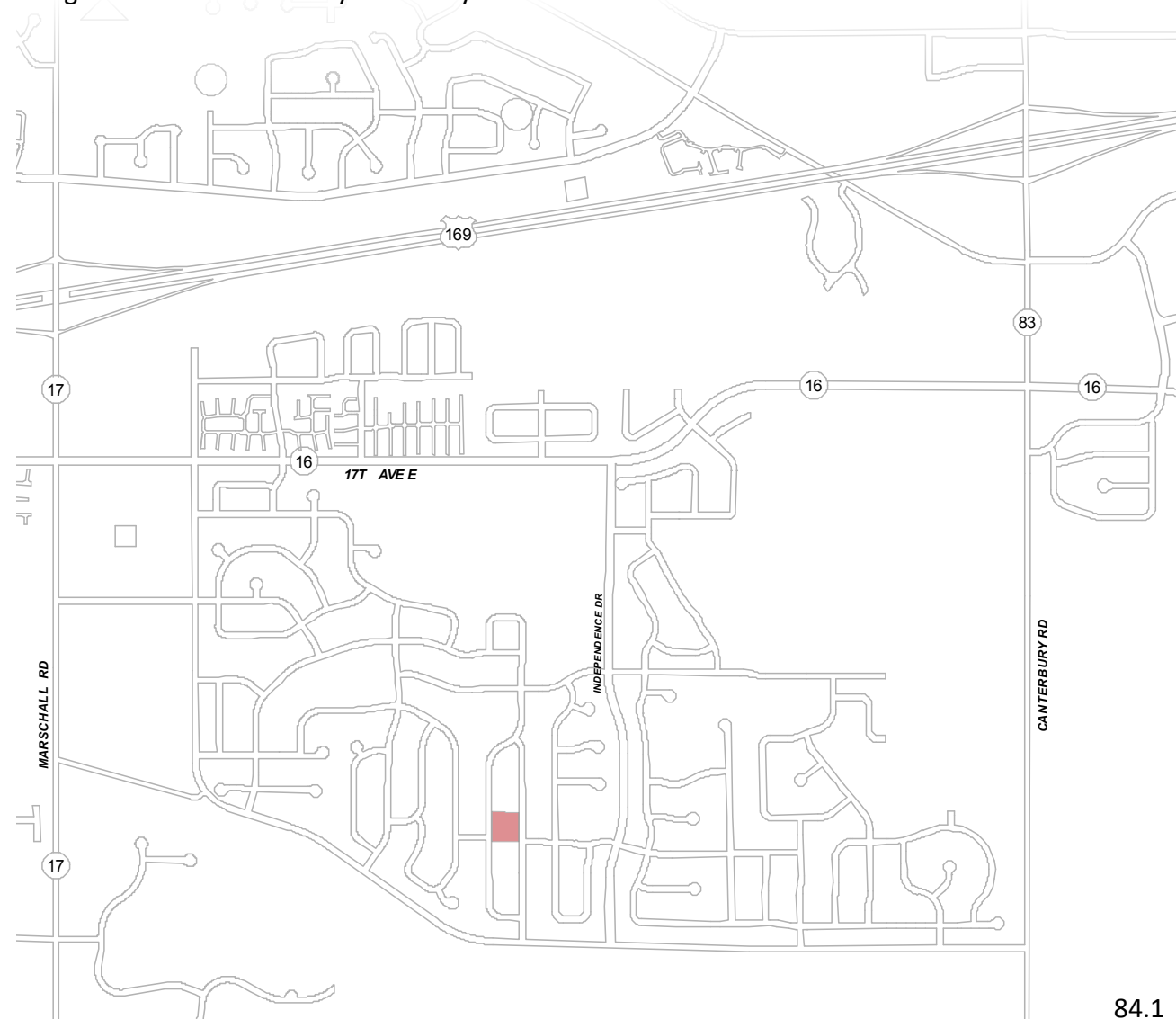


83.2

VEHICULAR TRAFFIC

Winding roads and cul-de-sacs that don't relate to landforms created a dizzying maze for the automotive traveler. The suburban environment struggles with how to deal with vehicular traffic. It compensates for this uncertainty with road widths that are drastically out of scale for the vehicle loads. It uses curves and cul-de-sacs in an attempt to create interest in a dull environment but only succeeds in making a boring landscape unnecessarily confusing. The suburban environment must gain a practical understanding of how to create an efficient relationship with the automobile.

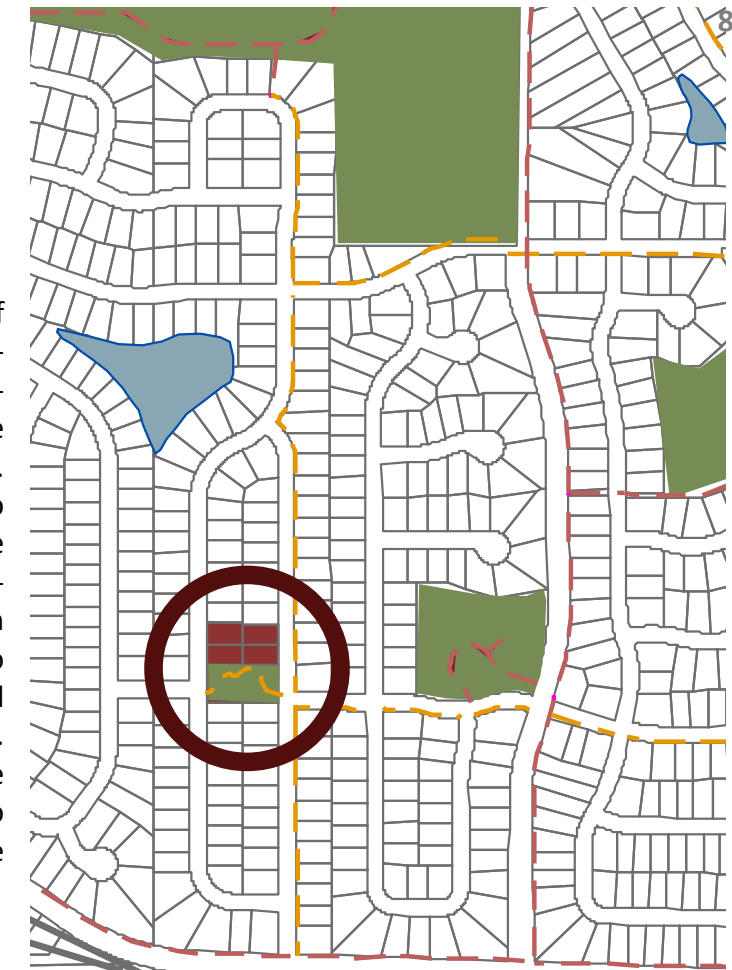
The site is located in between two straight stretches of road giving it the ability to build up to the road in a straight forward manner. The site creates a break in Crane Street at the portion that is currently the park. This interruption to the flow of traffic makes the site a logical destination for an activity center. The site is not located on a primary street. This means that navigation to the site may be difficult for those unfamiliar with the environment. This could be overcome with the creation of a visual waypoint. The consistent height of the houses means that any object taller than the average house is able to be viewed easily. If the structure had elements substantially taller than the average house navigation could be aided by the ability to see the destination from a distance.



84.1

PEDESTRIAN TRAFFIC

The site is connected to a limited system of walking paths and pedestrian trails. However, the development lacks sidewalks that follow the street system. This creates a divide between some areas of the development. Not every street has a direct connection to a path. This means some people would be forced to walk on the street or other people's lawns if they wished to participate in pedestrian transportation. This inability to freely walk is a key issue with the general composition of the suburban environment. The paths link major elements such as the schools and greenspaces making walking to school and social events to and from the site possible.



- - - trail
- - - sidewalk connections

85.1-2

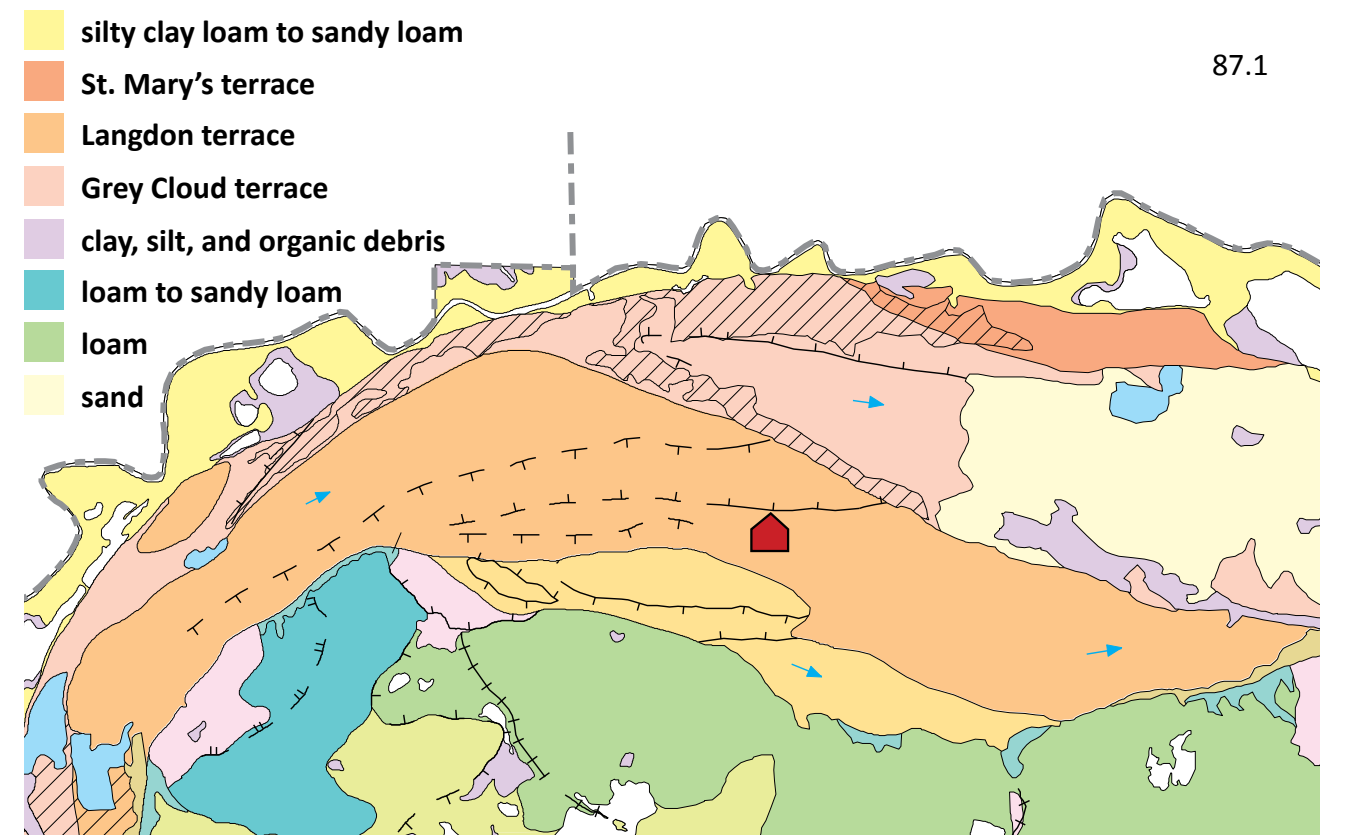


TOPOGRAPHY

The site is relatively flat, sloping slightly to the north. There are some significant hill formations to the south of the subdivision. The site is located near the bottom of a shallow valley where there are a number of small ponds that are fed by the storm sewers and contain varying levels of water depending on the current precipitation levels. The flat topography found in most suburban environments allows for the generic non-site specific structures that dominate the suburban landscape. There is a slight valley in the backyards of the houses allowing for walkout basements and enabling effective site drainage. There is also some artificial topography in the form of small hill-like mounds in the park that add a limited amount of interest to the terrain.

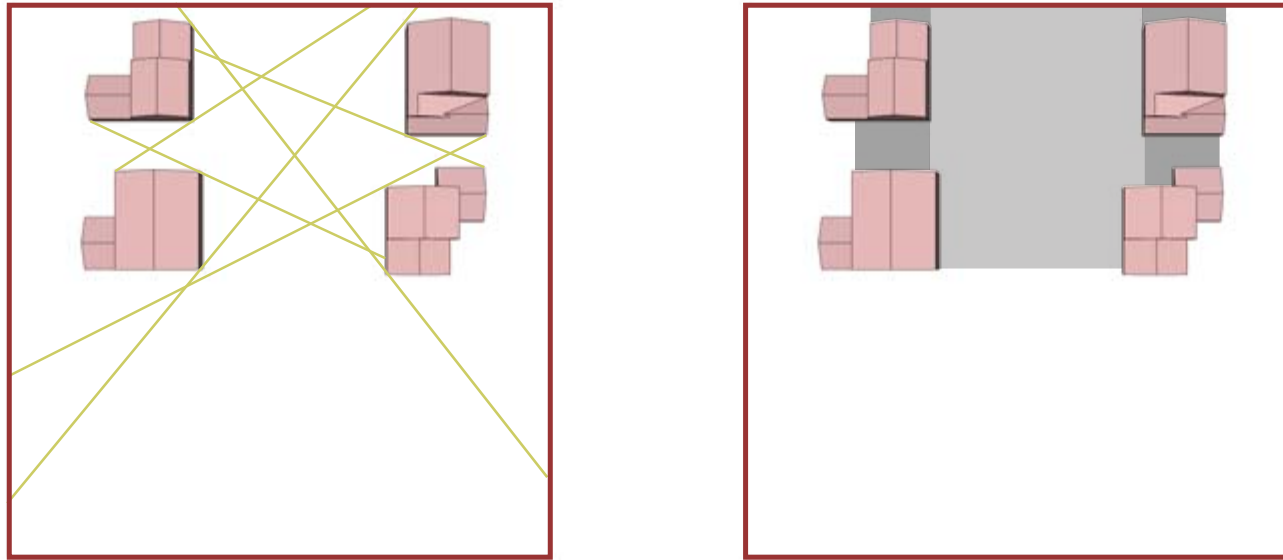
SOIL

The site is situated on the Langdon terrace which is constituted of a soil containing loam to sandy loam. Sediments in the Minnesota River valley tend to be fine-grained sand with levels of organic matter. The main terrace level is about 125 feet above the present floodplain. Deeper elevations may contain larger portions of gravel and traces of shale. There are proposed aggregate mining areas directly south and northeast of the development which means that there are pockets containing large amounts of gravel. Most of the sediments in this area were deposited by glacial movements about 20,000 years ago.



LIGHT QUALITY

The uniform height of the houses and wide streets allow for large amounts of uninterrupted sunlight to reach the sight. The fronts, backs, and sides of the houses on the site facing the park receive the most light while the sides in between the houses receive less. The shade from tree cover is limited. Many of the trees were planted after the construction of the houses in 2001 so they are still relatively small. There are a few large trees on the west side of site which would provide substantial shade. Overall the sight receives a large amount of light besides areas on directly north of the houses and some of the narrower spaces between the houses.



88.1-2

VEGETATION

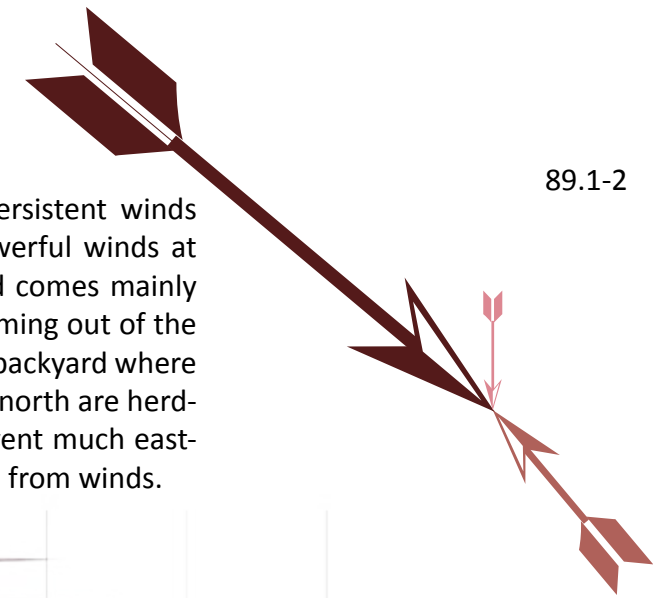
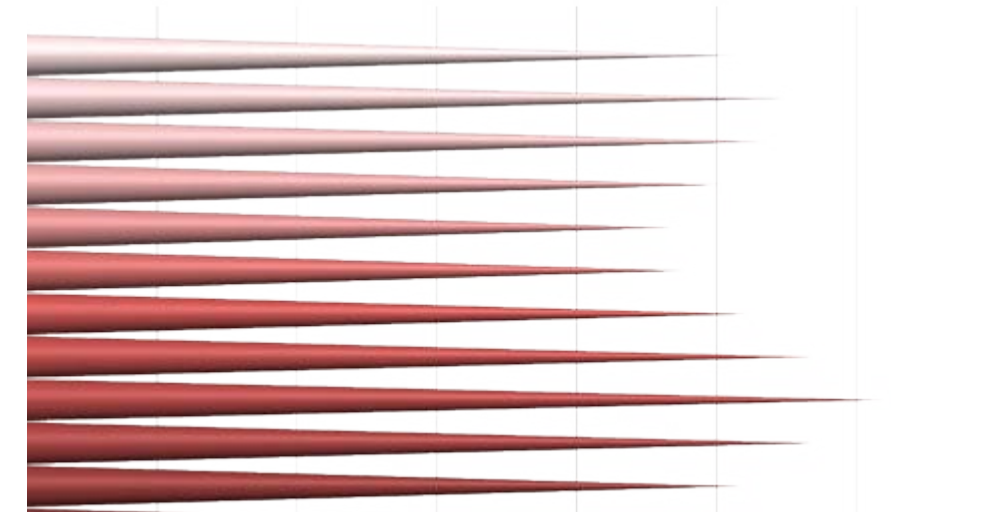
The site contains a limited variety of deciduous and coniferous trees and shrubs. A mixture comprised primarily of spruce, maple, oak, and aspen. There is a wide assortment of shrubs on and around the site due to individual suburban “landscaping” efforts. Most of the trees, with the exception of a few on the western edge of the site and groupings of spruces down the middle of the site, are rather small as mentioned previously due to their relatively young age. With time and proper care these trees will eventually grow to provide a much more lush and shaded environment. The site is located in hardiness zone 4a which facilitates most relatively resilient plants and produce.

88.3-4



WIND

The site experiences the strongest and most persistent winds during the fall. September brings the most powerful winds at an average of over 12 miles per hour. This wind comes mainly from the northwest with some summer winds coming out of the southeast. On the site the windiest area is in the backyard where a wind tunnel effect occurs when winds from the north are herded between the row of houses. The houses prevent much east-west winds but the park area is fairly unprotected from winds.



89.1-2

SITE CHARACTER

The suburban environment is in transition. Economic situations and evolving attitudes towards living situations has put a strain on the suburbs. This site is a microcosm of the suburban dilemma. Financial impracticalities and a lack of desire is creating an environment in decline. The site has a house abandoned due to a lack of financial assets. Another house on the site is for sale for either financial or more likely for reasons dealing with interest. The two other houses, and the surrounding community suffer do to this atmosphere of disregard and degradation. There is a sense of fear present on the site. It currently has an unsure future.

The disrepair of the foreclosed property gives the site an appearance of defeat or abandonment. The grass in the park is unkempt and full of weeds. This is not the atmosphere parents want their young children to grow up in. More and more the suburban environment is becoming that which it is attempting to avoid; filth, destitution, and decay. This site displays all of these elements that are creeping into the typical suburban environment. The site's character is dull and a bit gloomy. But there a glimpses of life. Kids playing in driveways are a reminder that there is life in the subdivision and there is a need to provide appropriate environments for those who call it home.

The site is contains a dichotomy of reality and potential. It contains a park that is linked to a walking path yet the park is relatively unused and the path does not unite the community. The suburban house is supposed to communicate wealth and prosperity, it is supposed to be the desire of every family but this site contains a home that was not financially feasible and a home that is no longer desirable to its occupants. With all of these disappointments there is a hidden potential. There is a desire for change, a longing for community, and the aspiration for change which are all ingredients of the creation of a new productive environment. This site has the makings of future possibilities.

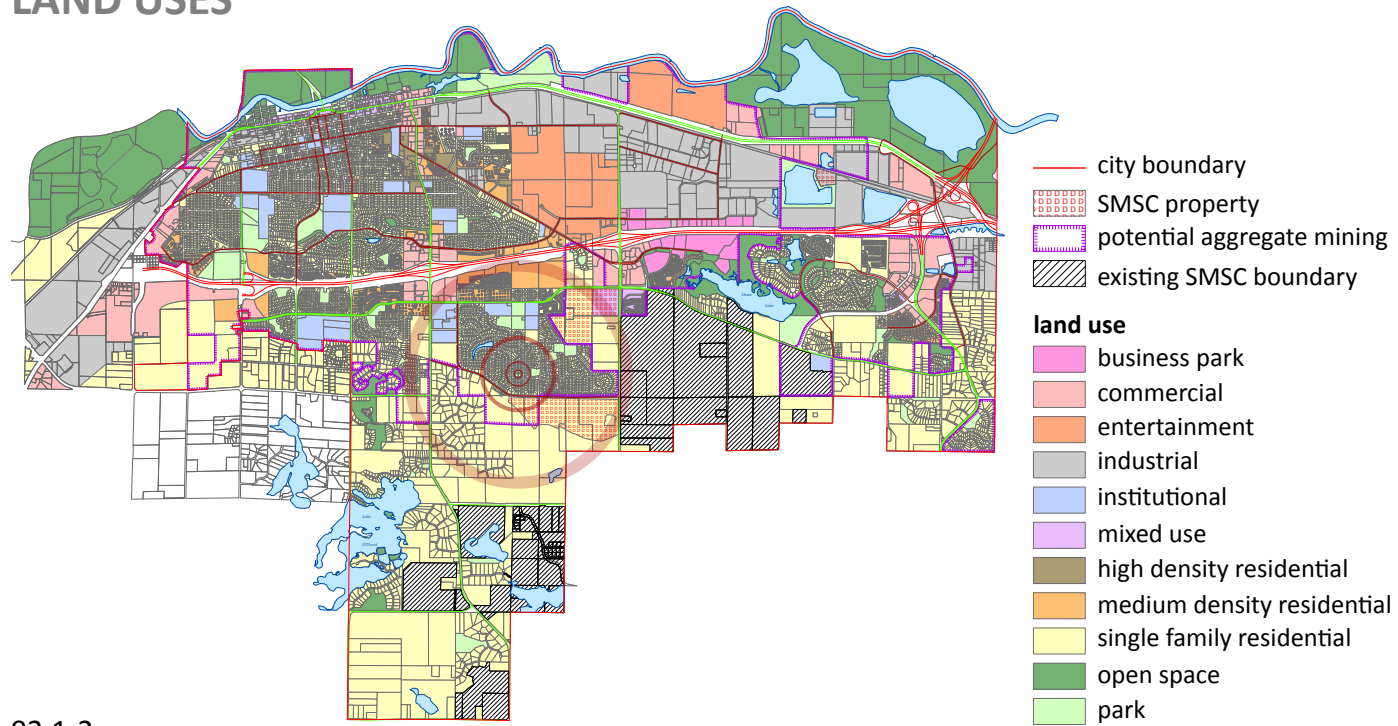
90.1



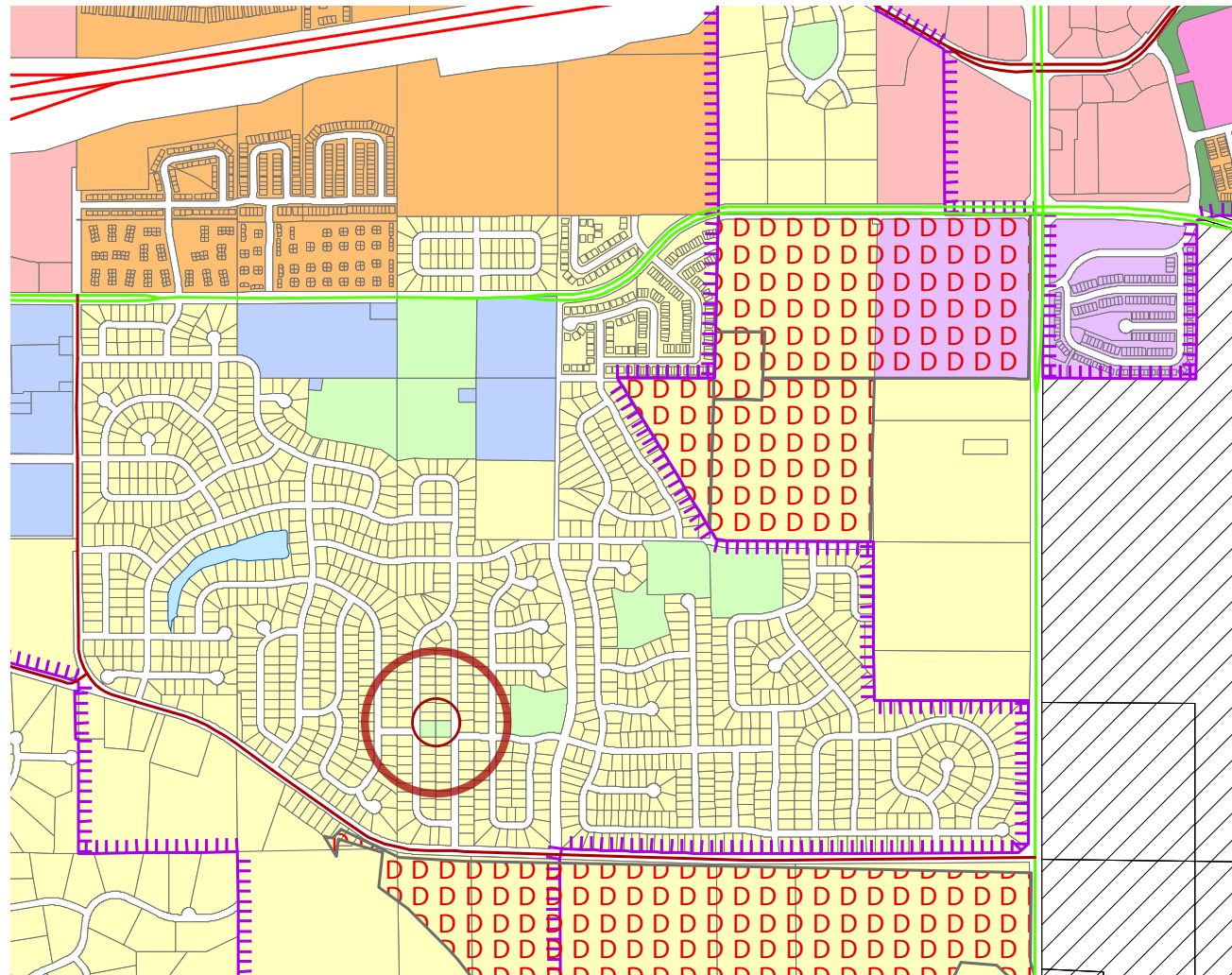
91.1-3



LAND USES



92.1-2



BASE MAP



93.1

Williams Street



93.2-4

Park

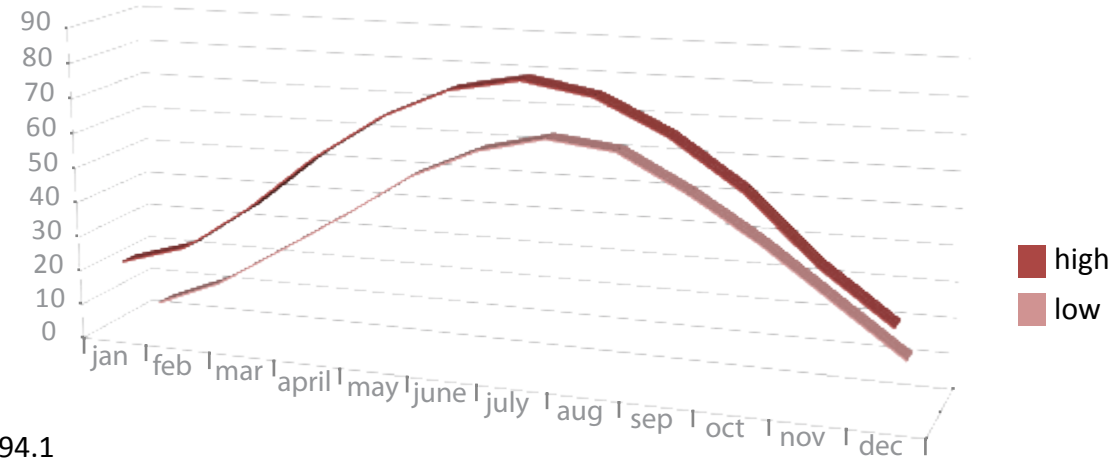


Cardinal Drive



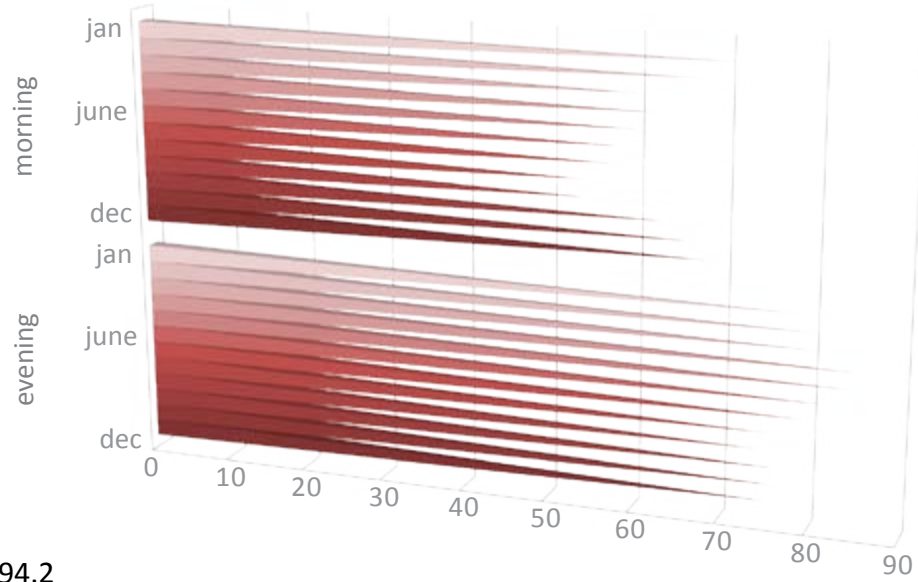
CLIMATE DATA

TEMPERATURE



94.1

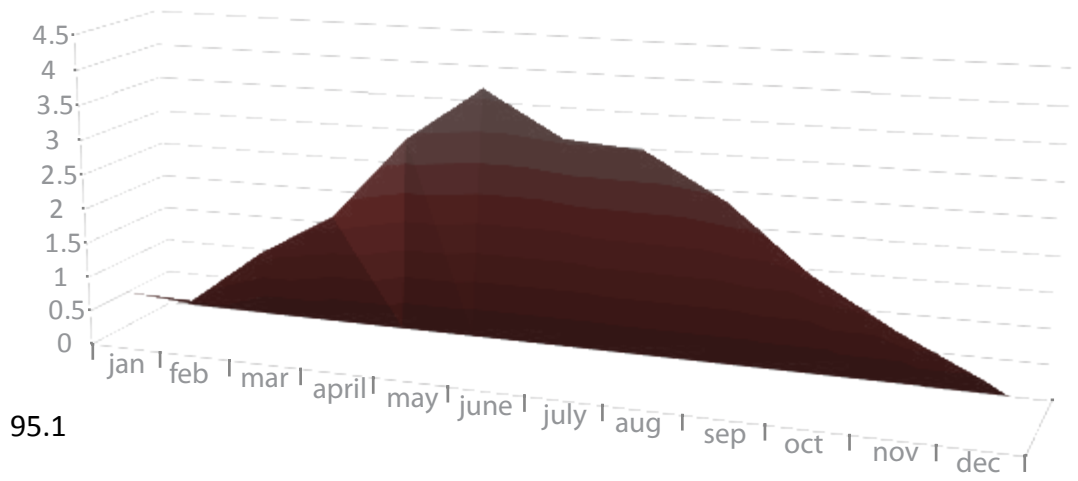
HUMIDITY



94.2

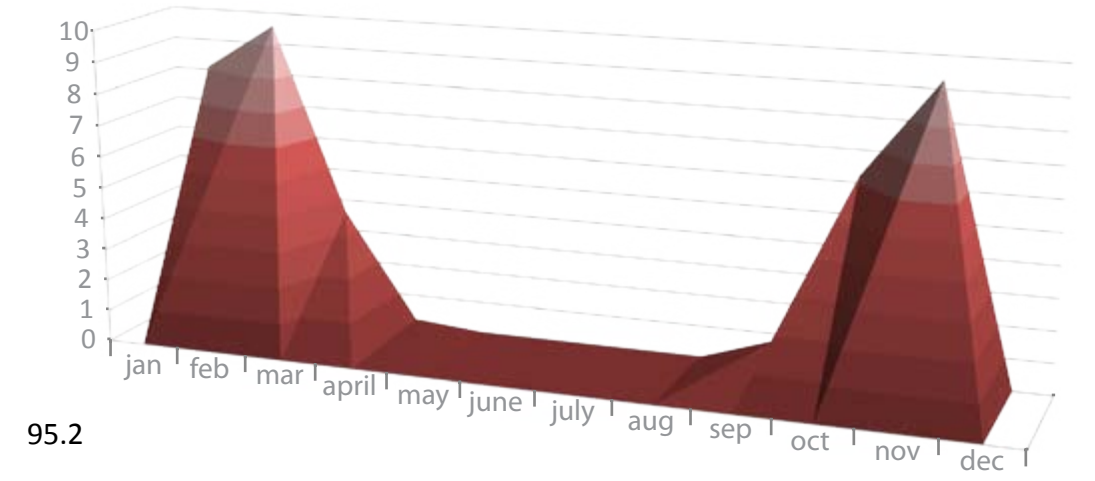
PRECIPITATION

RAIN



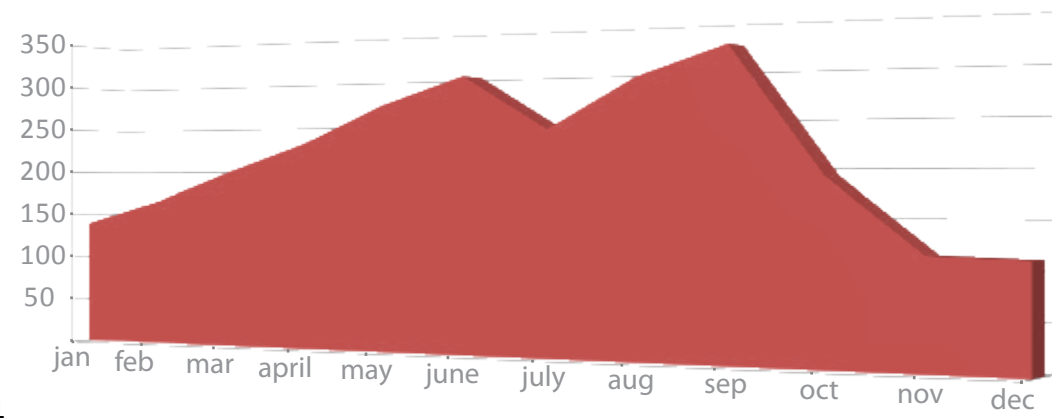
95.1

SNOW



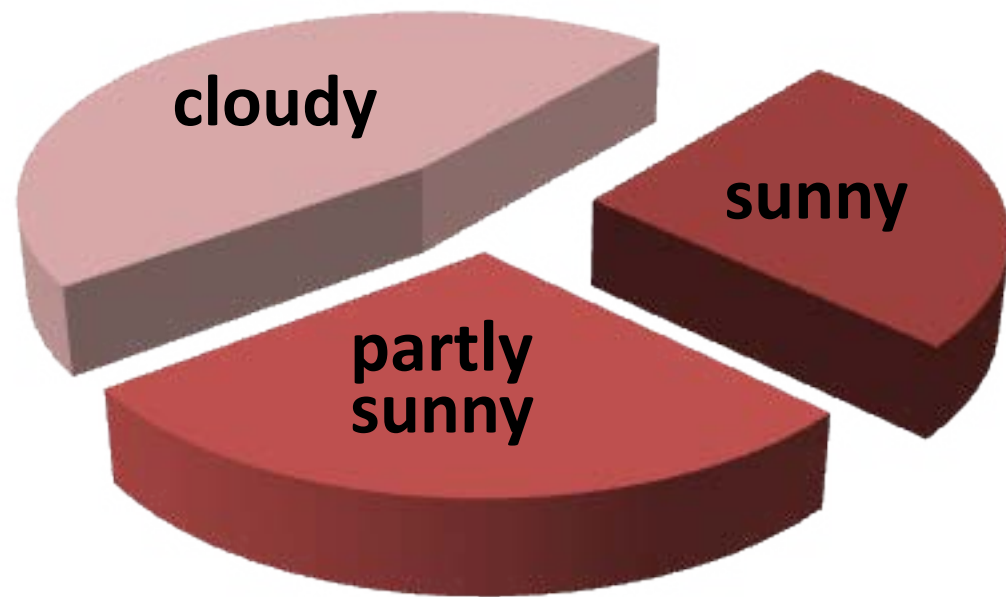
95.2

HOURS OF SUN



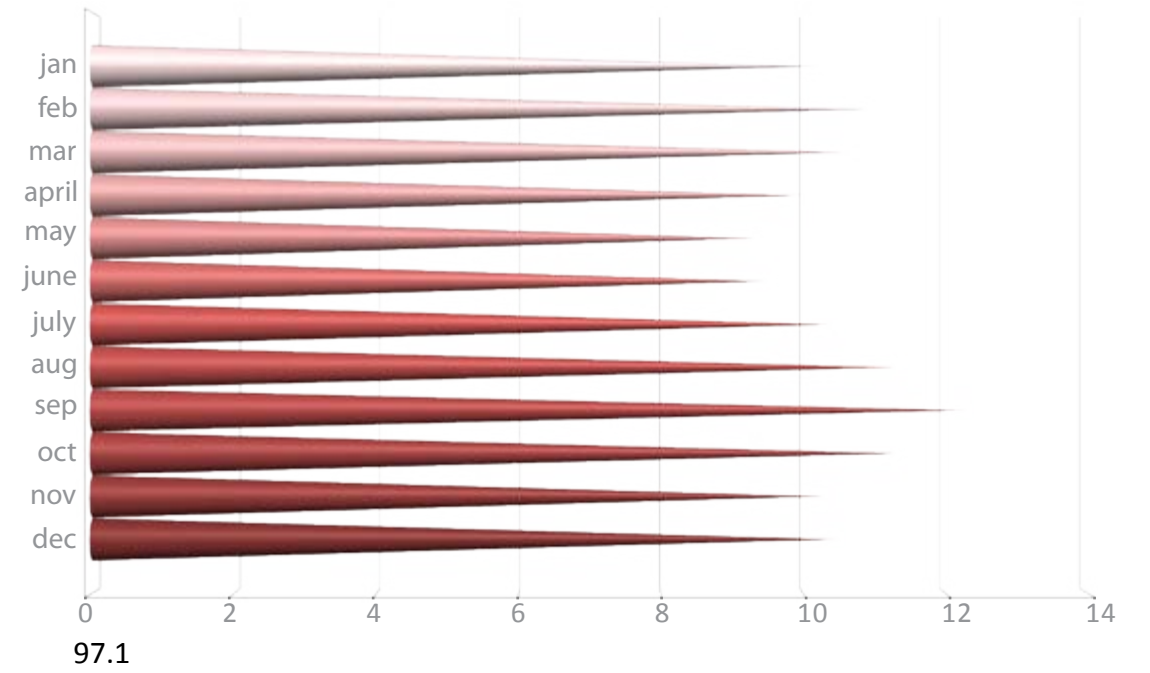
96.1

CLOUDINESS



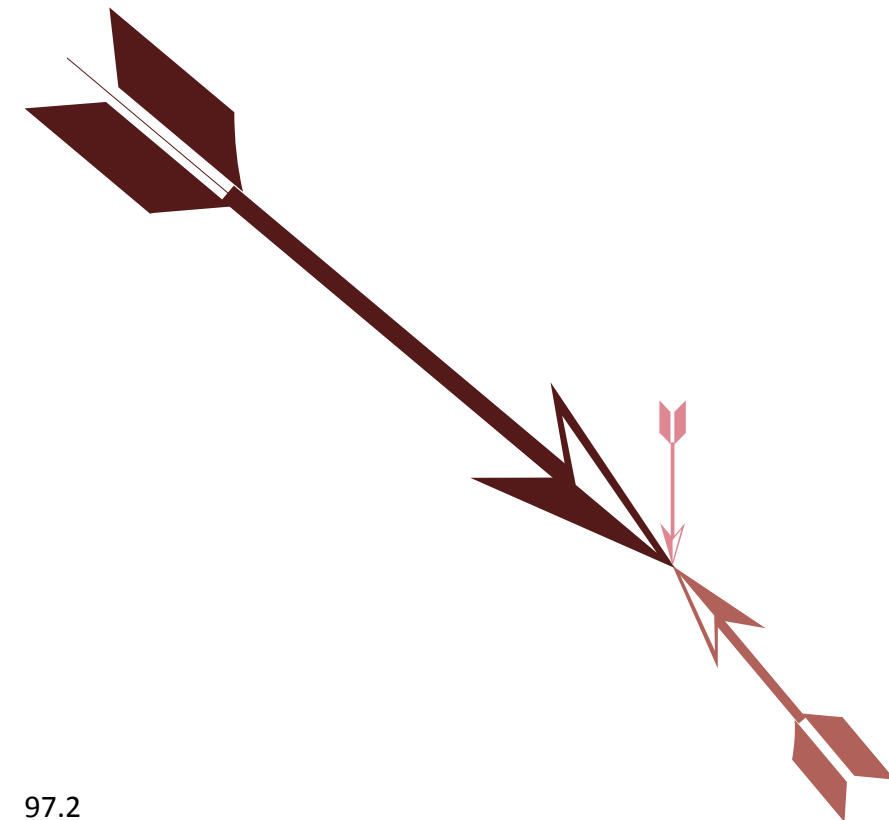
96.2

WIND SPEED



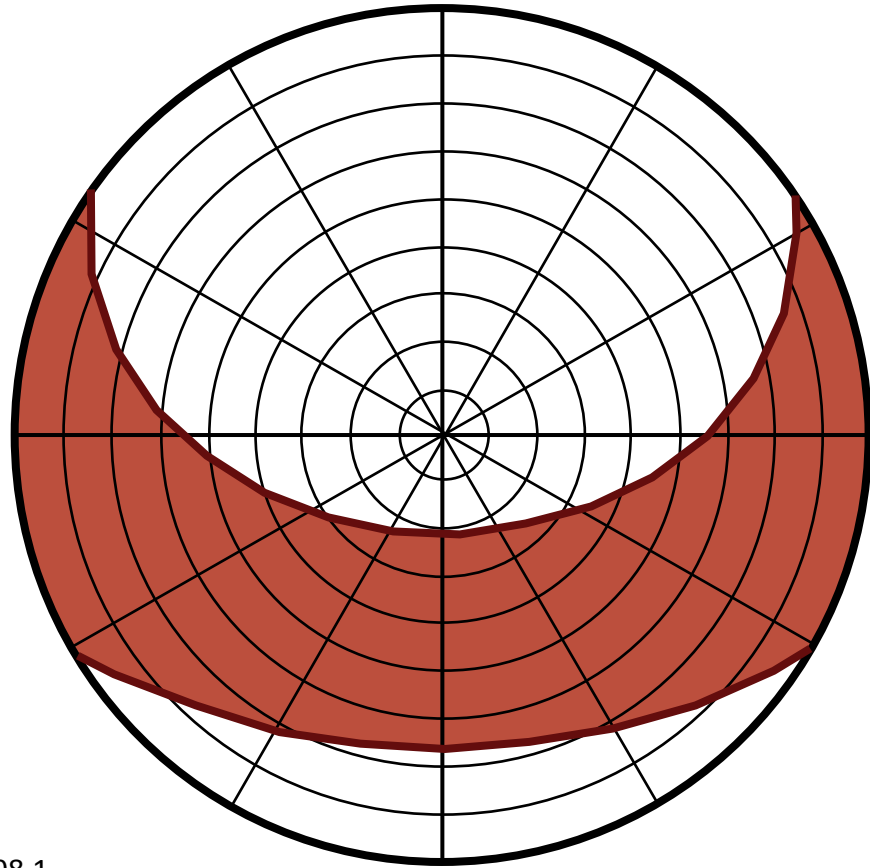
97.1

WIND DIRECTION



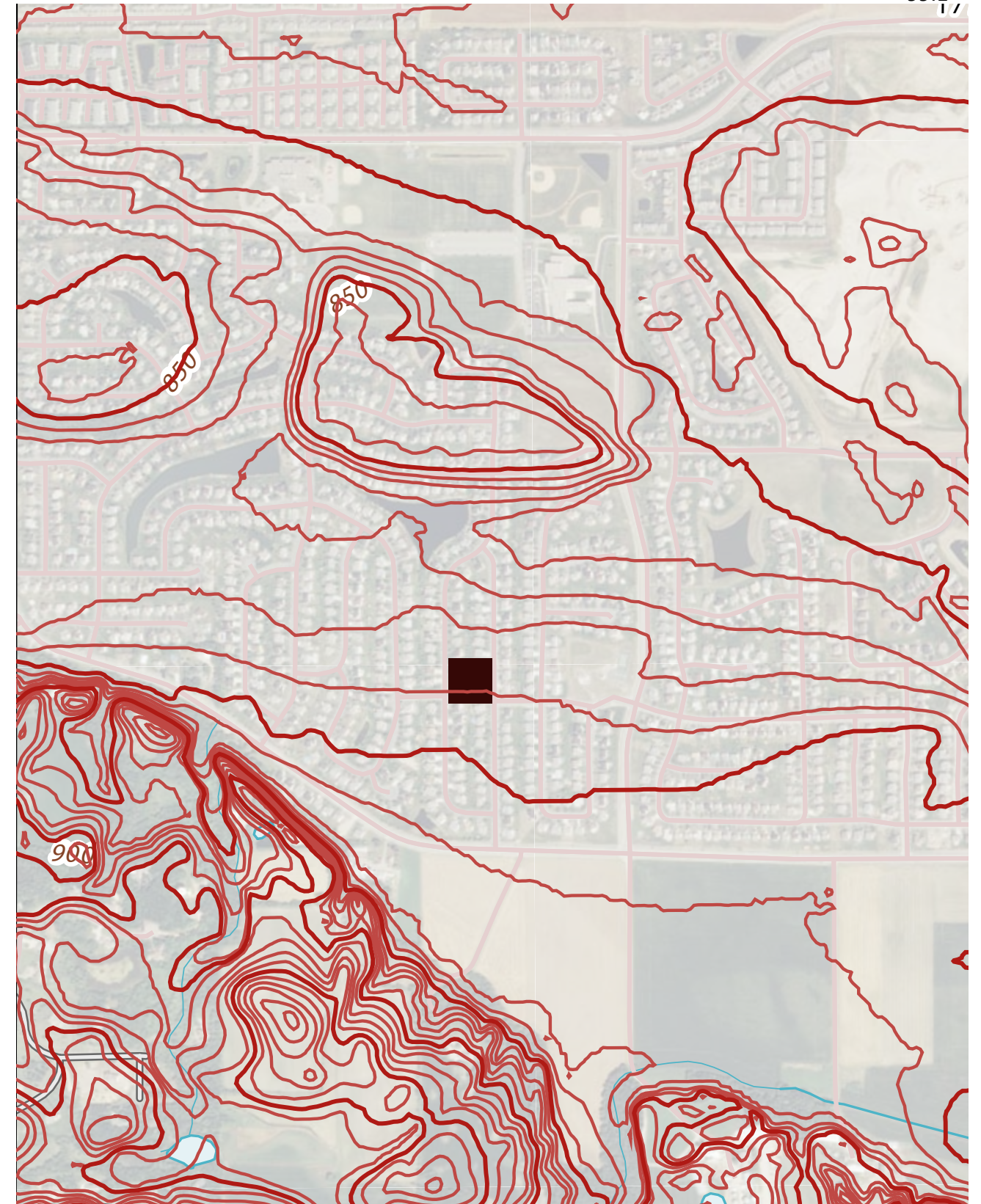
97.2

SUN PATH



98.1

TOPOGRAPHY



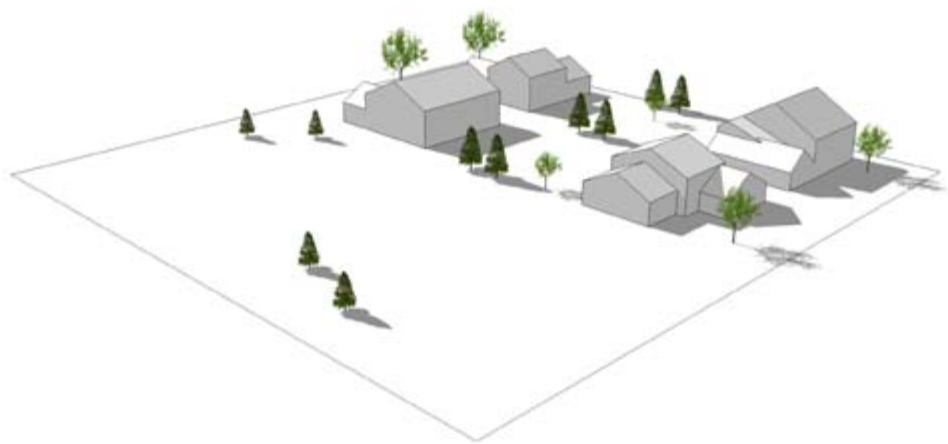
99.1
1/

SHADOW STUDY
MORNING

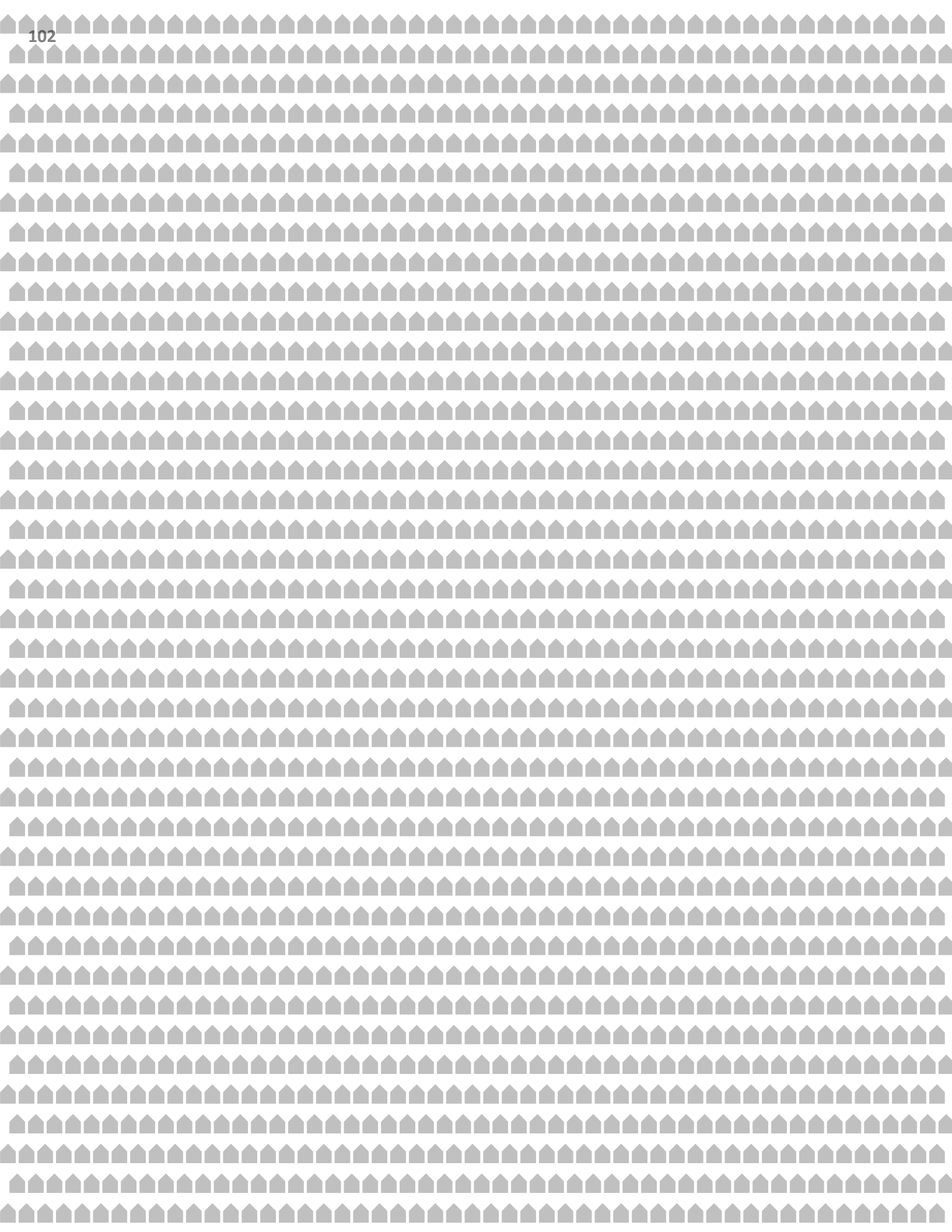


100.1

EVENING

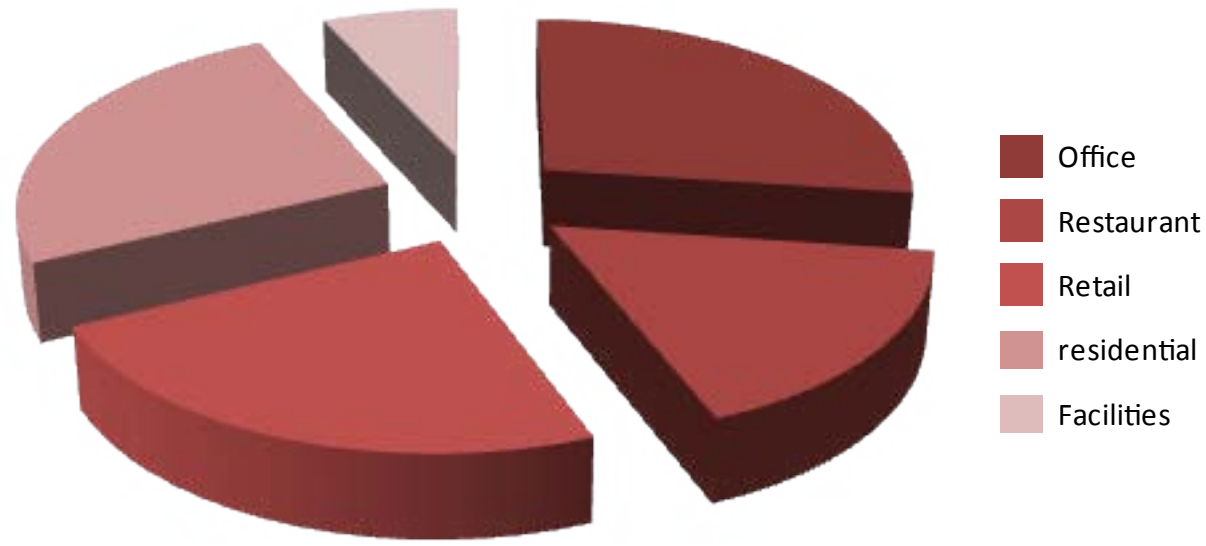


100.2



PROPOSAL PROGRAMMING

SPACE COMPARISON



106.1

SPACE ALLOCATION ESTIMATE

Space	Area (s.f.)
Office	8,000
conference	2 x 250 = 500
administrative	200
printing	100
reception/lounge	300
work space	5,400
restrooms	2 x 100 = 200
break room	300
circulation	1,000
Restaurant	5,000
café	1,000
kitchen	1,000
dining	2,800
restrooms	2 x 100 = 200
Retail	7,000
community market	3,000
rentable space	3,500
storage	500
residential	7,500
efficiency unit	10 x 300 = 3,000
1 bedroom unit	3 x 450 = 1,350
2 bedroom unit	5 x 600 = 3,000
storage	150
Facilities	2,000
mechanical	1,600
janitorial	200
storage	200
circulation	4,500
total	40,000

FINAL PROGRAM

Office: 14,000 sq ft
75+ spaces

Residential: 12,500 sq ft
14 Units

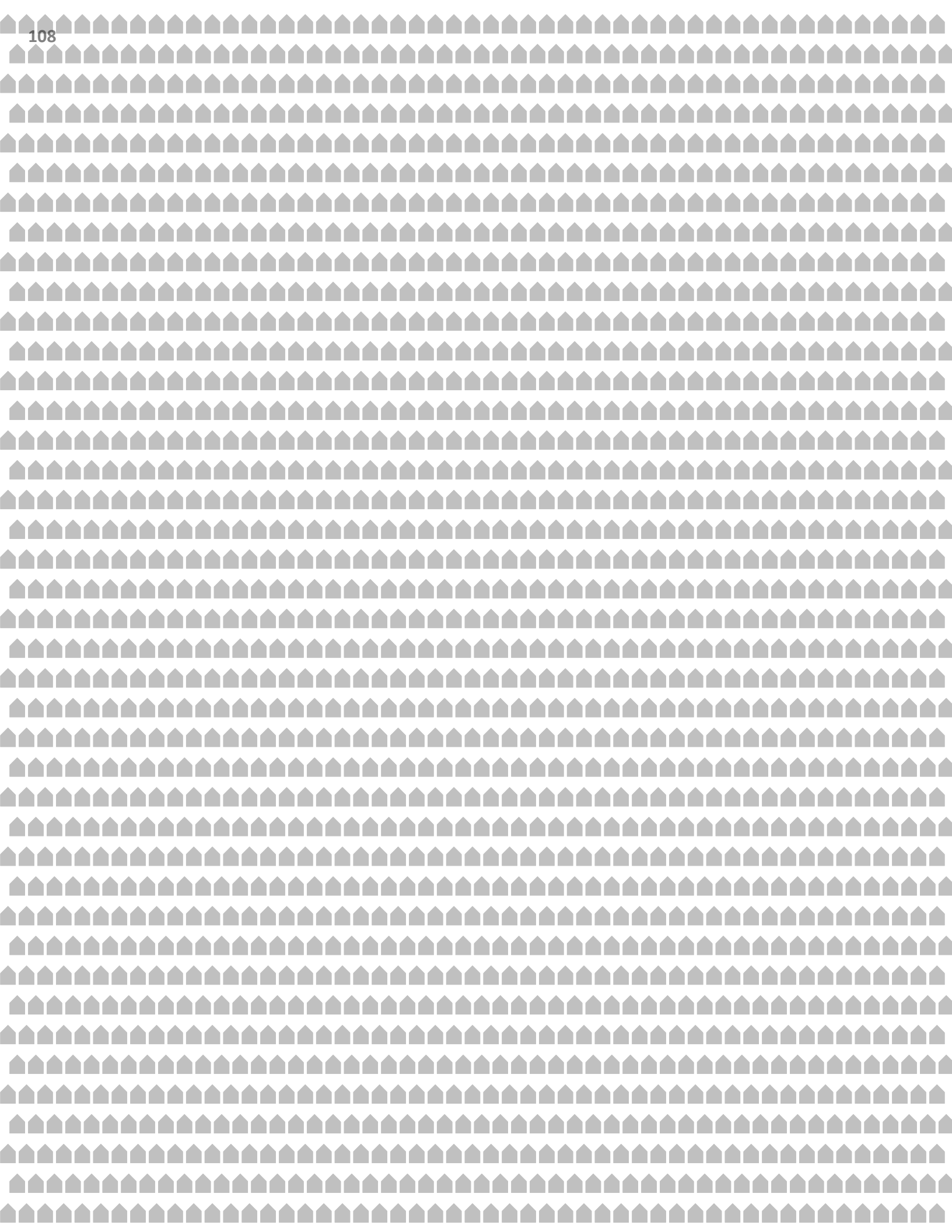
- live/work: 4
- studio: 7
- 2 bed: 3

Retail: 19,000 sq ft
11 retail spaces
50+ jobs
Services:

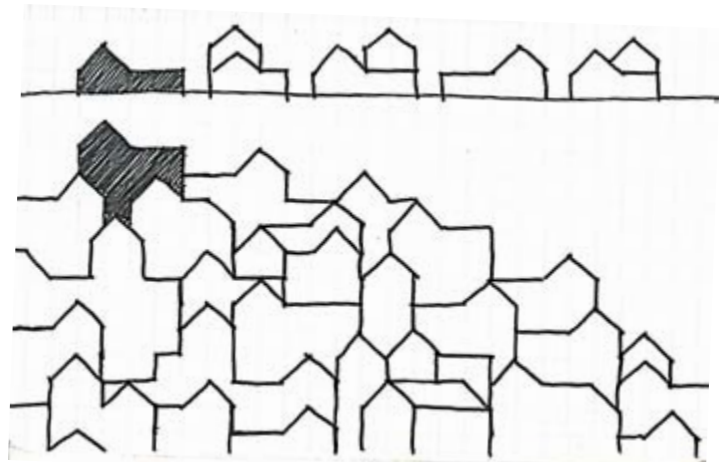
- market
- restaurant
- cafe
- daycare
- gym
- retail spaces

Mechanical: 2,500 sq ft

Total: 48,000 sq ft



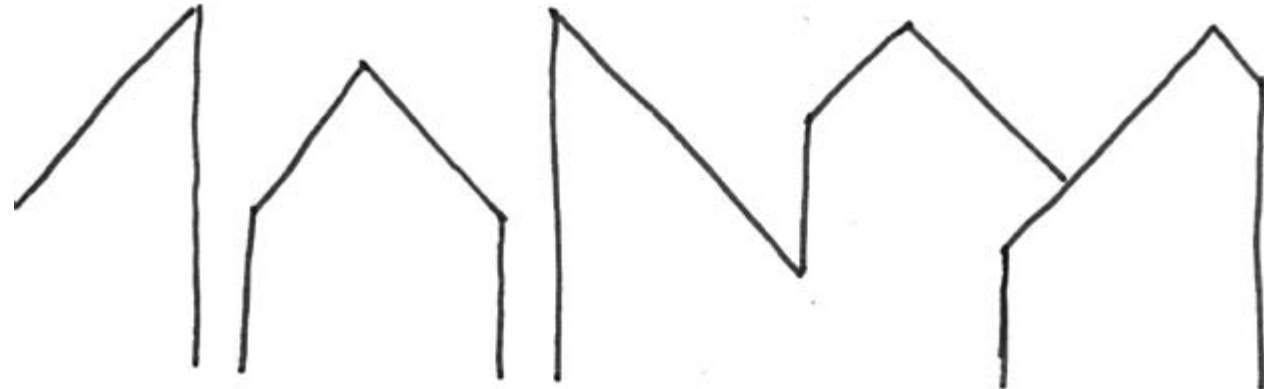
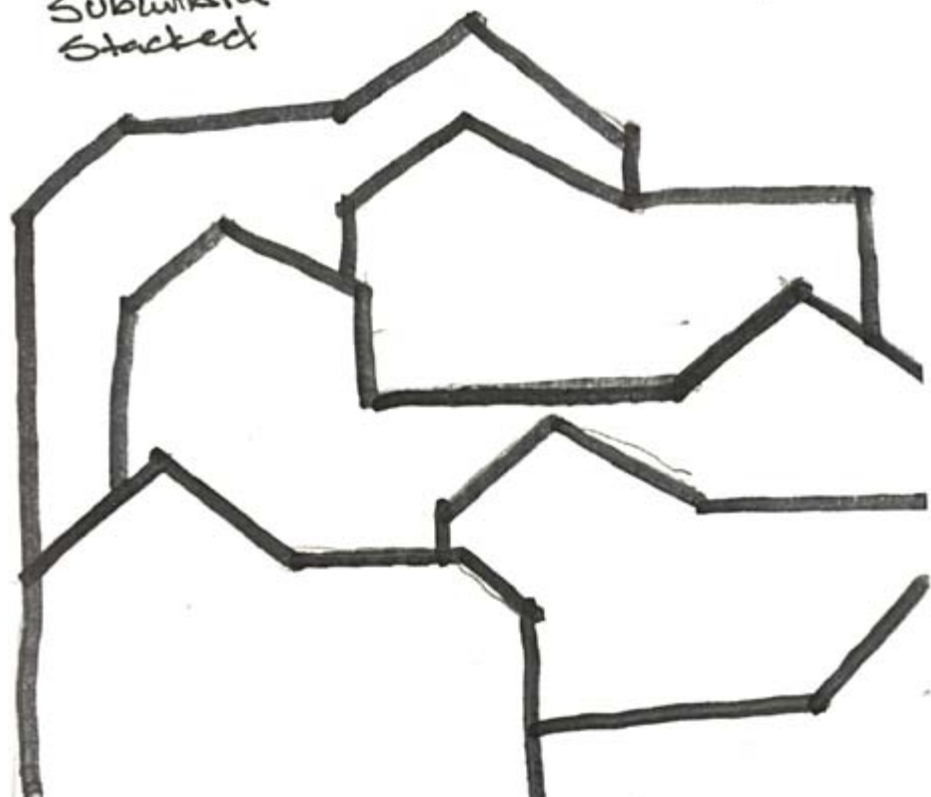
PROCESS MATERIAL



HOUSE ON A HILL (of houses.)

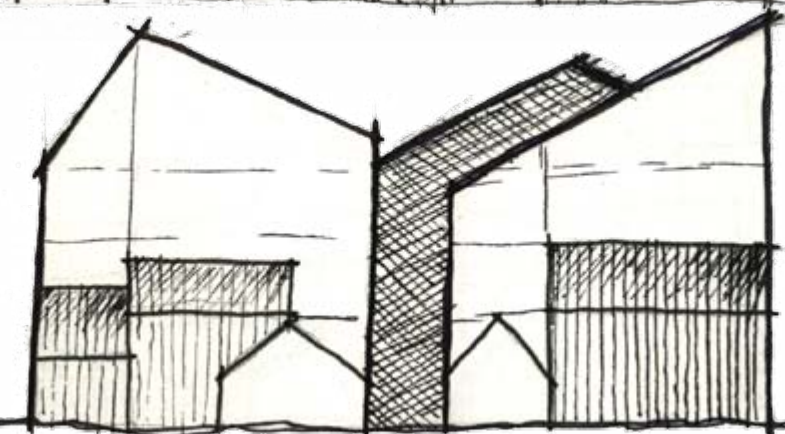


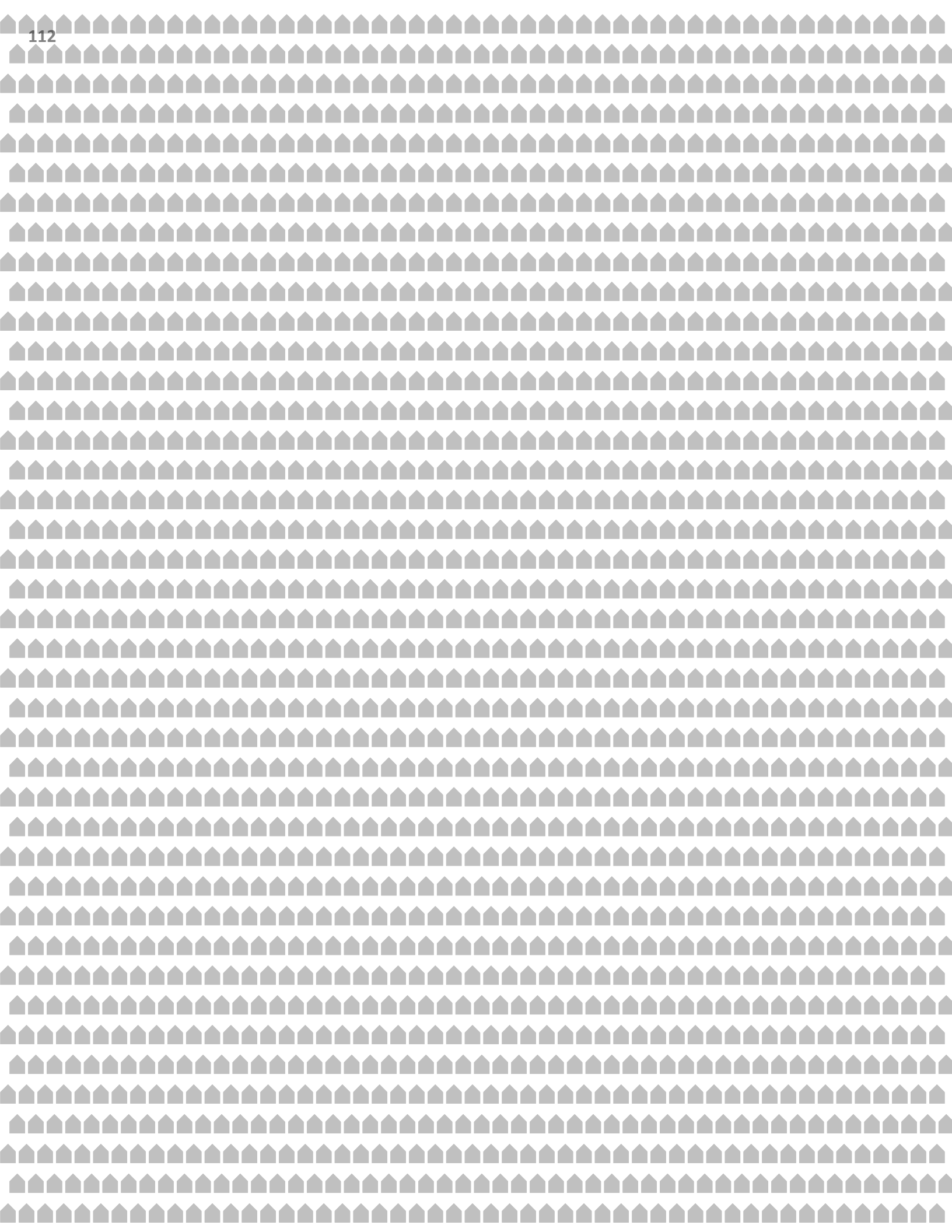
Suburbia Stacked



WILLIAMS STREET

MARRINGA
2.4.13





FINMI MATERIAL



reinventing the AMERICAN DREAM

the city in the suburb

location of project

how can a nonviable suburban environment transform to become a feasible holistic community?

social: provides a sense of community and social interaction. provides a sense of belonging and identity. provides a sense of safety and security.

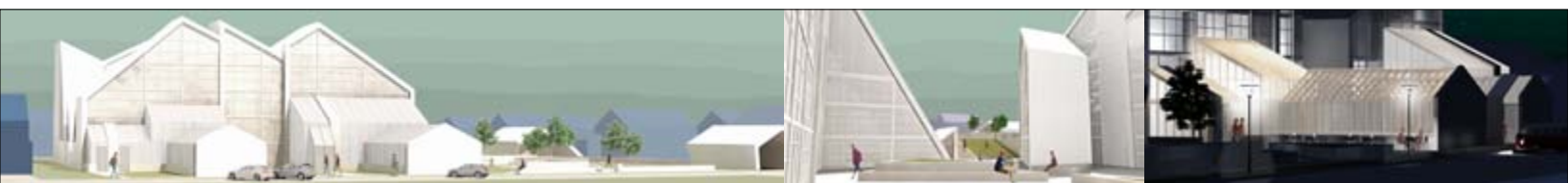
fiscal: provides a source of revenue for the community. provides a source of jobs and income for the community. provides a source of tax revenue for the community.

environmental: provides a source of green space and recreation. provides a source of clean air and water. provides a source of energy and resources.

existing site

before

after



Urban office VS Suburban

goals

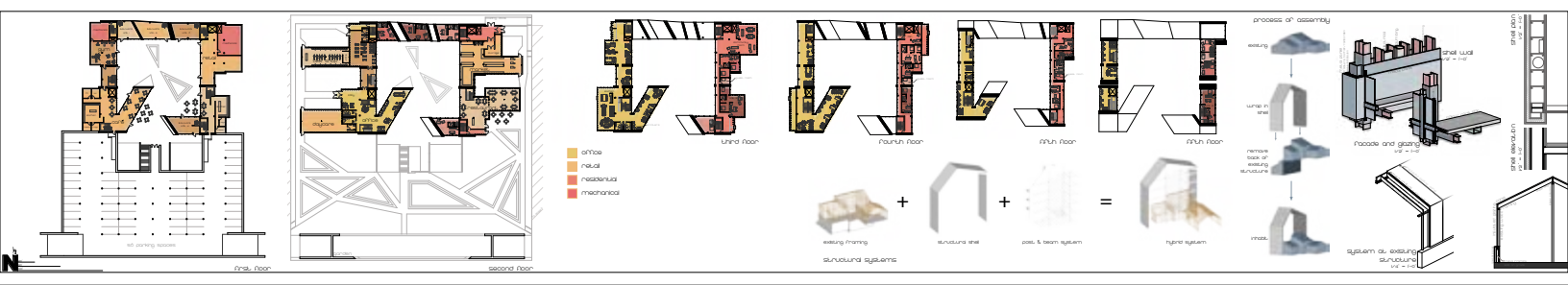
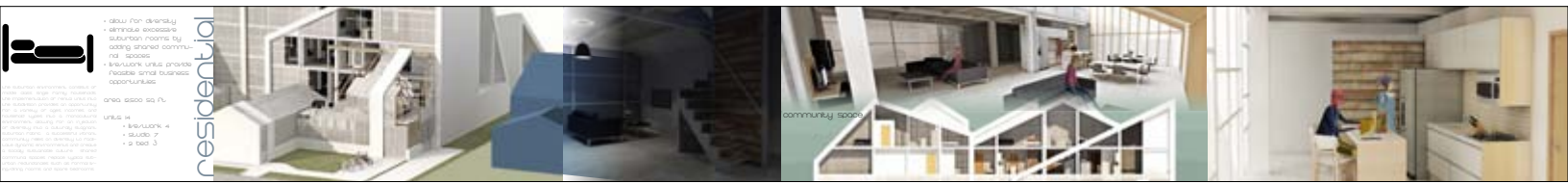
- Preserve existing resources and infrastructure to create a walkable neighborhood
- Create environments that allow for a socially diverse community
- Provide a hub for dynamic social interactions
- Provide a hub for dynamic social interactions
- Provide a hub for dynamic social interactions

existing 0 jobs, 4 households, none services & opportunities

proposed 14 jobs, 14 households, 14 services & opportunities

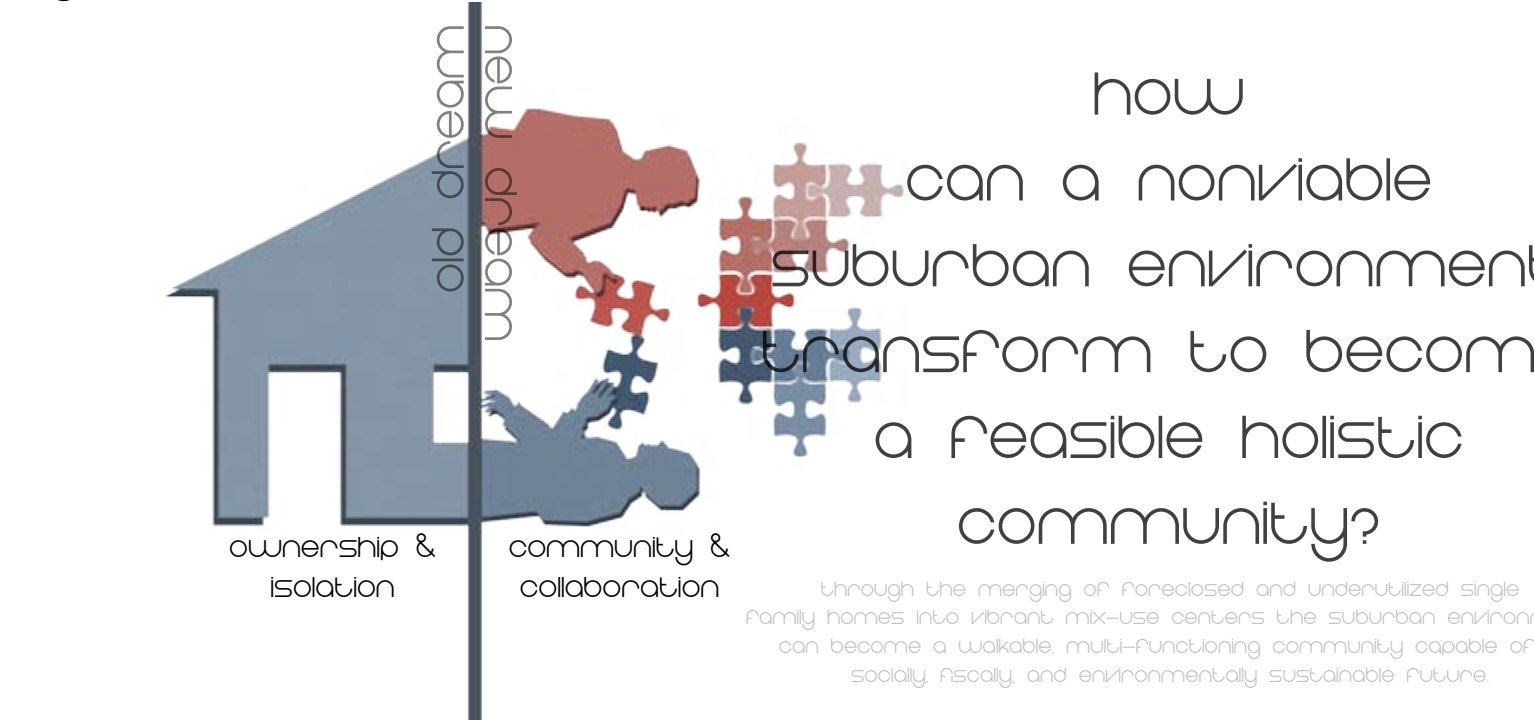
retail

office

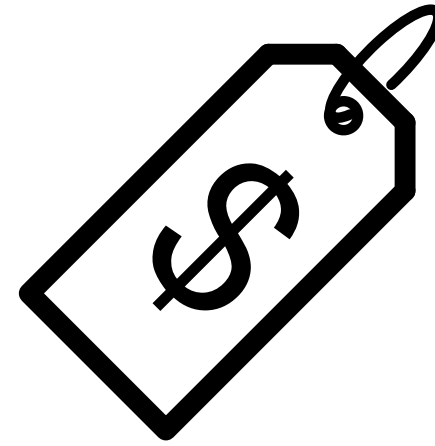




re-inventing the
AMERICAN
DREAM
 the city in the suburb



	social	fiscal	environmental
before	<p>the lack of social interaction due to an absence of communal entities and walkable environments creates a monocultural environment isolating middle class families into a subdivision.</p>	<p>the absence of income sources creates an environment that relies on the insertion of revenue from outside sources creating a financially unsustainable environment of consumption without production.</p>	<p>single family homes require a large amount of resources and land for construction and infrastructure. the separation of suburban typologies requires a large amount of automobile transportation which contributes to pollution.</p>
after	<p>diverse functions within a single entity coupled with public spaces allow for dynamic social interactions. introducing a variety of housing options allows for a diversity of age, income, and household type within the suburban framework.</p>	<p>an insertion of income from retail, office, and rental spaces allow for a self-sustaining economy and benefits the entire community with increased tax revenues.</p>	<p>the reuse of land, building materials, and infrastructure reduces the environmental impact of the project. infusing multiple functions into a single element eliminates the requirement of the commute for work and daily needs.</p>



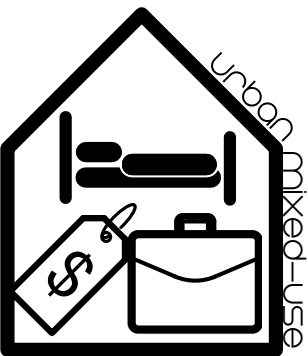
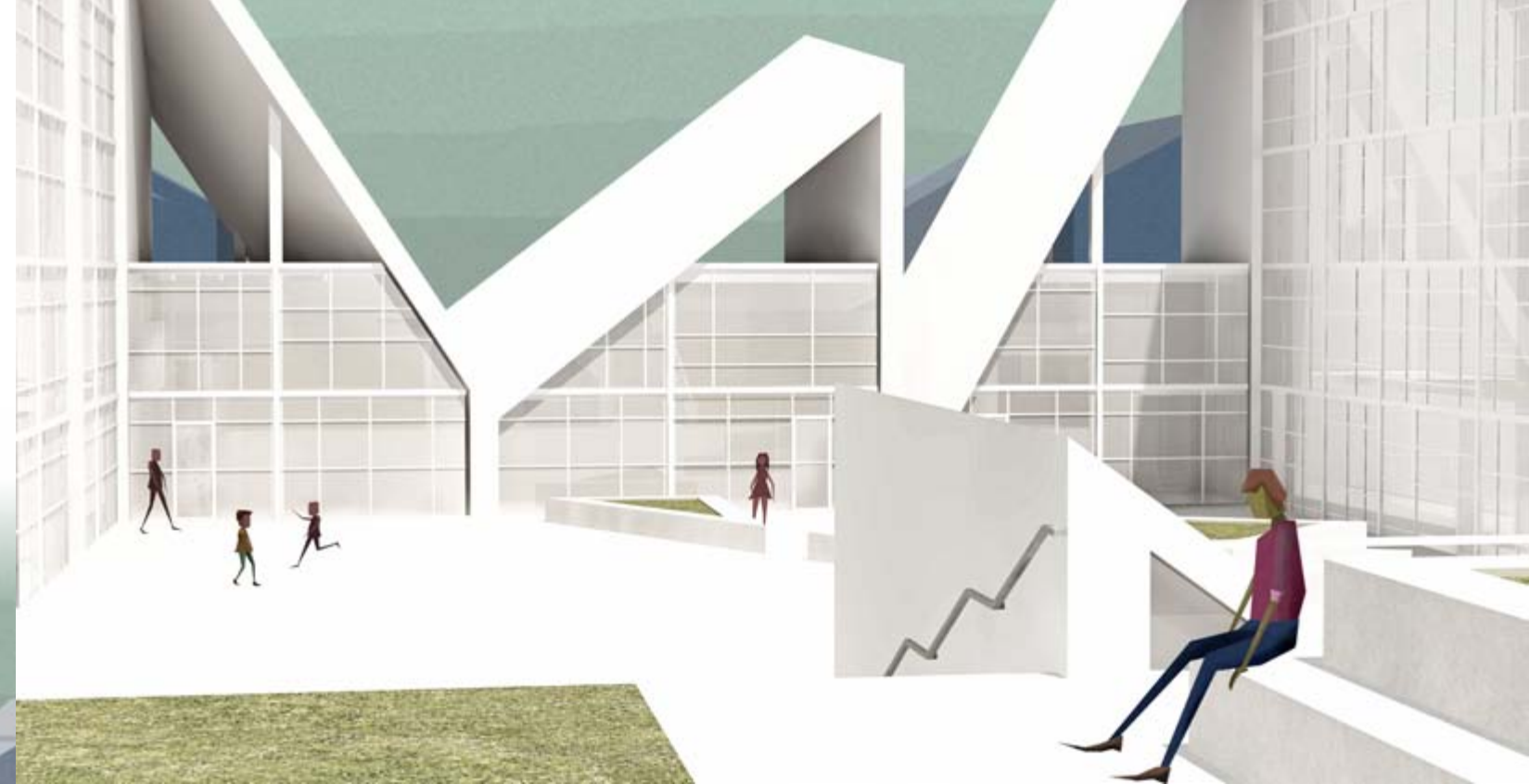
- creates hub of urban activity that fosters social interactions
- provides jobs and income
- supplies daily needs
- represents community
- capable of evolving with community

area: 19,000 sq ft
 retail spaces: 11
 jobs: 50+

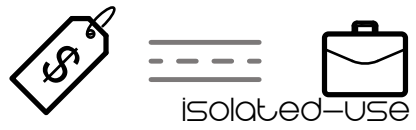
big box stores dilute the individuality of a community and outsource profits. businesses owned by members of the community provide services that reflect the direct needs and desires of a specific community. a community market eliminates the need for a lengthy car ride to acquire daily essentials. a mix of retail types such as shops, restaurants, and cafés in a confined area allows for active pedestrian traffic and dynamic social interactions.

services:

- market
- restaurant
- cafe
- daycare
- gym
- retail



urban mixed-use VS suburban

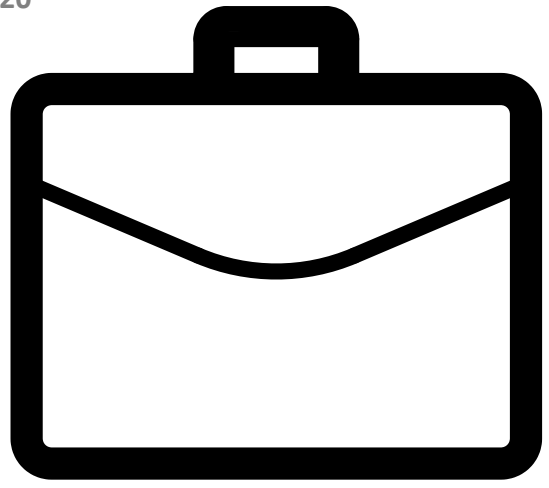


existing	proposed
0 jobs	125+
4 households	14
none services & opportunities	entrepreneurial market restaurant cafe gym daycare office space live/work communal event space

goals

- reconfigure existing materials and infrastructure to create a walkable neighborhood
- create environments that allow for a socially diverse community
- inject productivity into a nonexistent economy
- provide a hub for dynamic social interactions
- facilitate the evolving nature of communities





- eliminates commute
- cooperative office spaces provide complex business interactions
- low overhead for startups
- diversity of office settings create a active environment

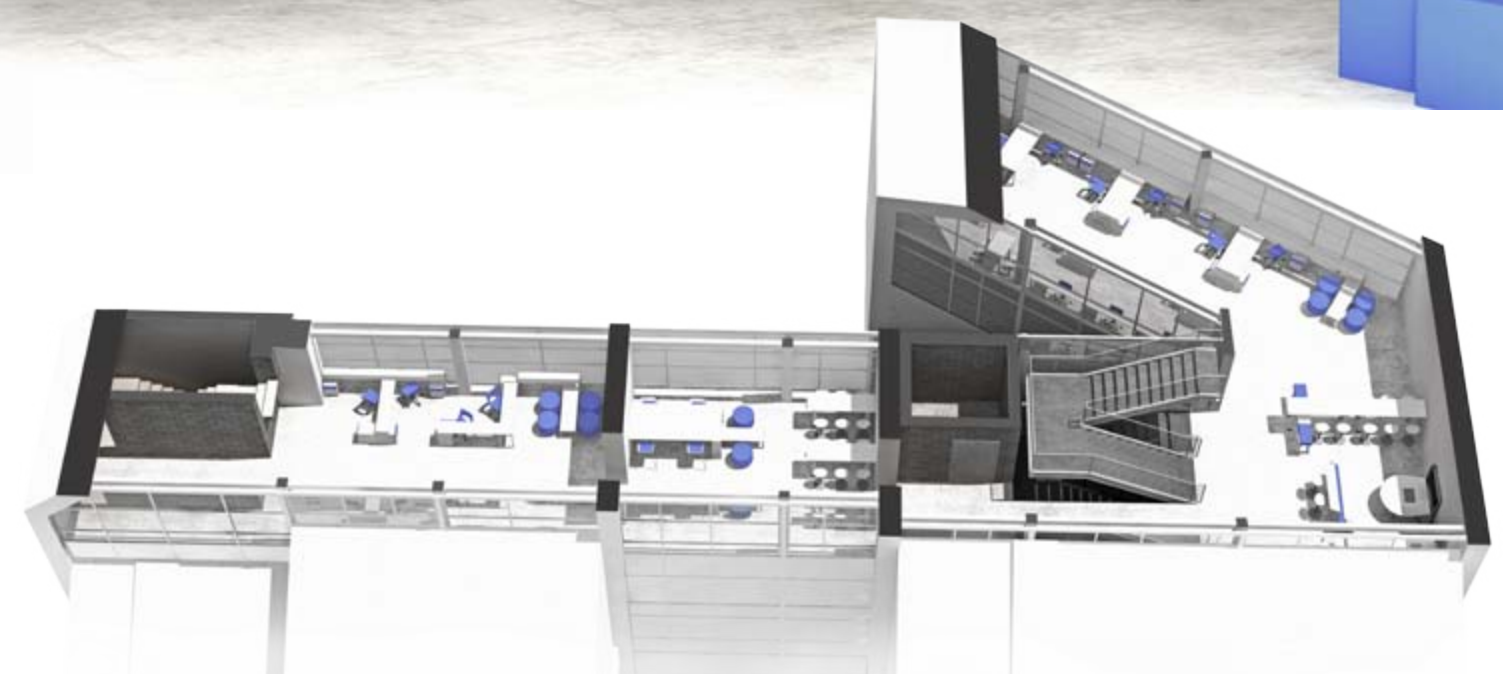
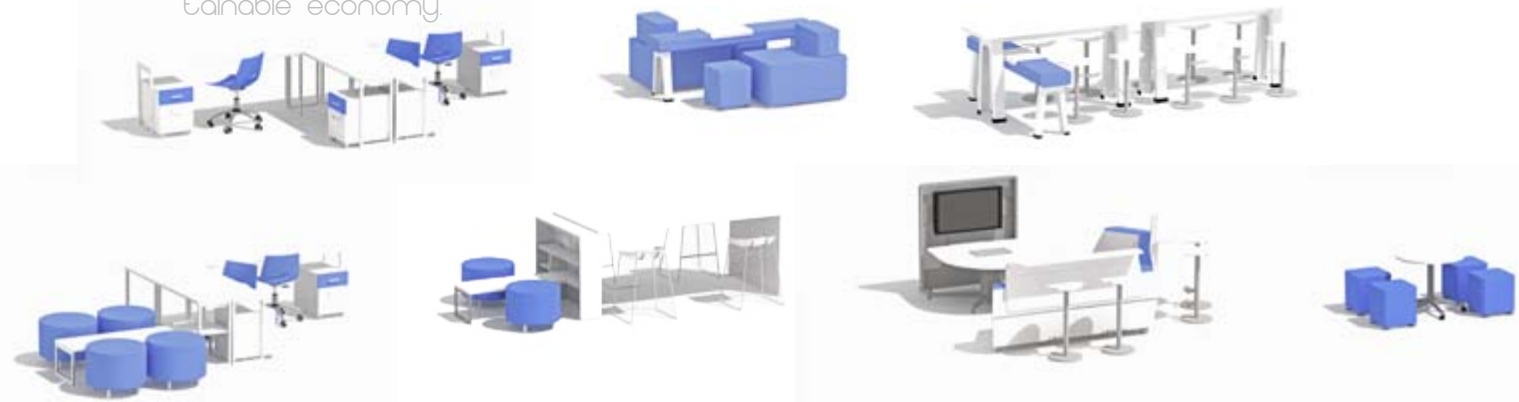
OFFICE

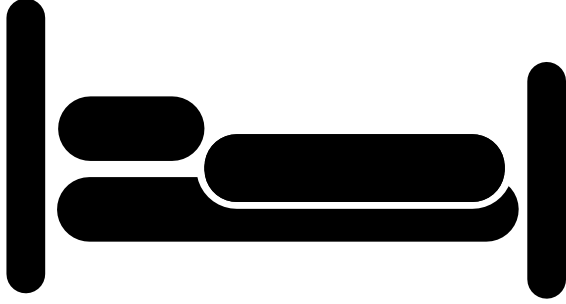


the introduction of office space into the residentially dominated suburban fabric eliminates the need to commute. it has the ability to act as a satellite office or a permanent business. collaborative office environments reduces overhead and allow for corporate interactions that benefit all parties and provides spaces for a variety of occupant sizes and functions. paychecks are earned and spent in the same environment allowing for a fiscally sustainable economy.

area: 14,000 sq ft

office spaces: 75+





the suburban environment consists of middle class single family households. the implementation of rental units into the subdivision provides an opportunity for a variety of ages, incomes, and household types into a monocultural environment allowing for an injection of diversity into a culturally stagnant suburban fabric. a successful, vibrant community relies on diversity to facilitate dynamic environments and create a socially sustainable culture. shared communal spaces replace typical suburban redundancies such as formal living/dining rooms and spare bedrooms.

- allow for diversity
- eliminate excessive suburban rooms by adding shared communal spaces
- live/work units provide feasible small business opportunities

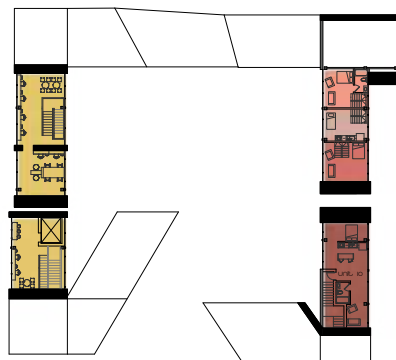
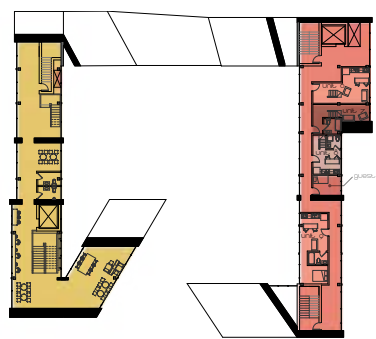
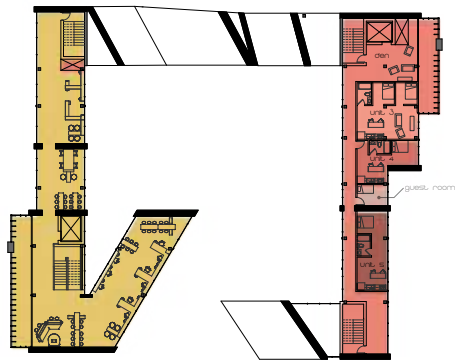
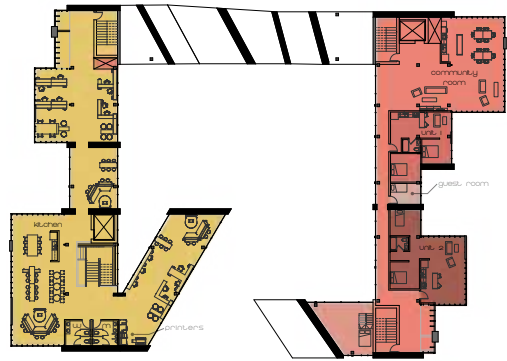
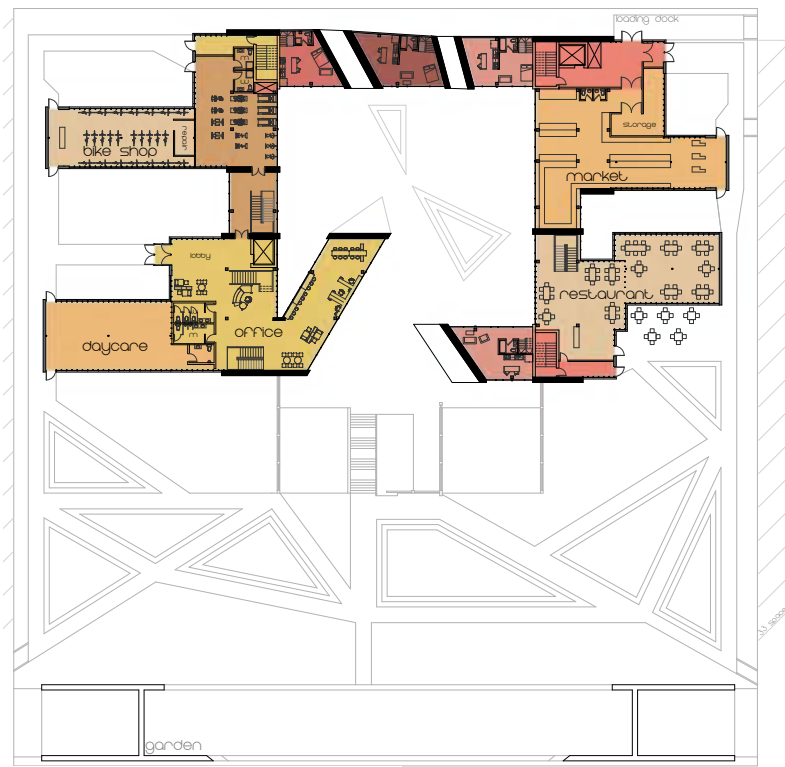
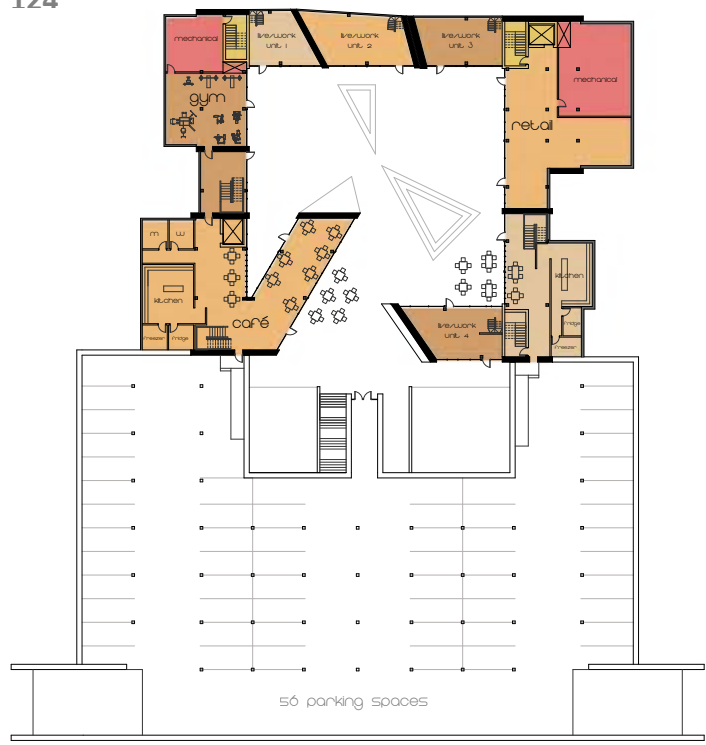
area: 12,500 sq ft

units: 14

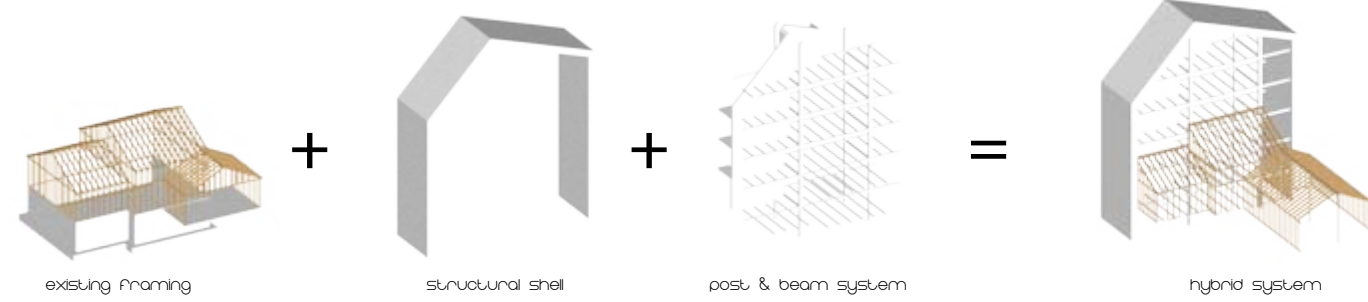
- live/work: 4
- studio: 7
- 2 bed: 3

residential



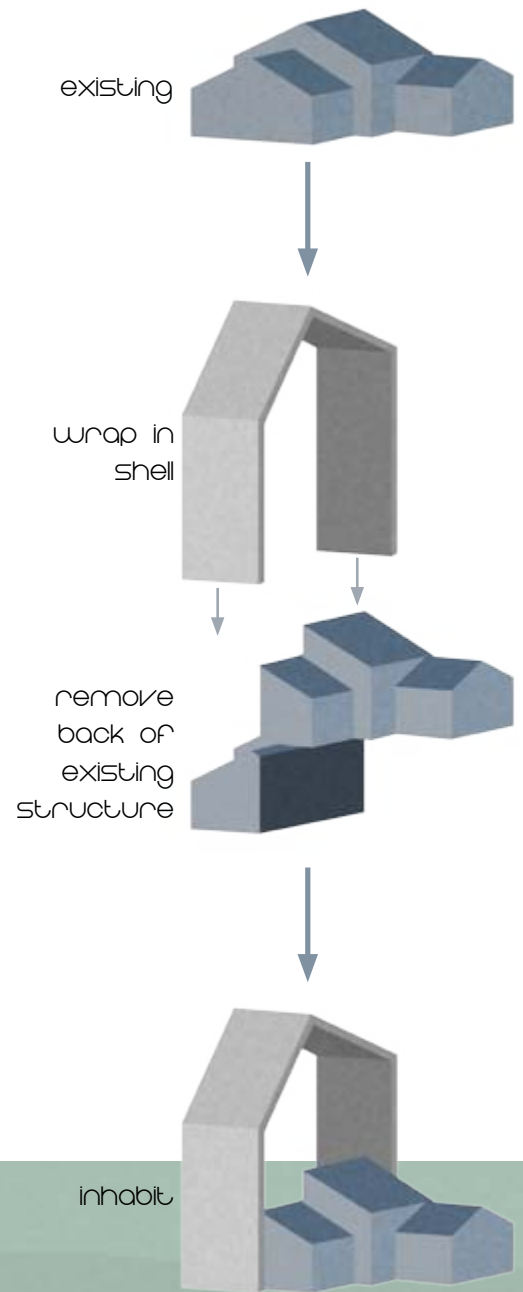
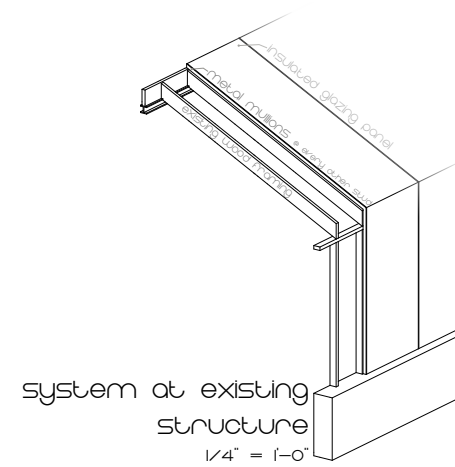
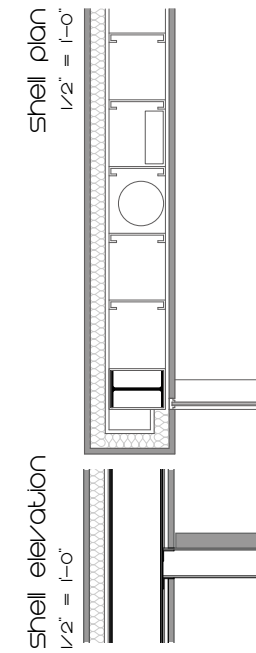
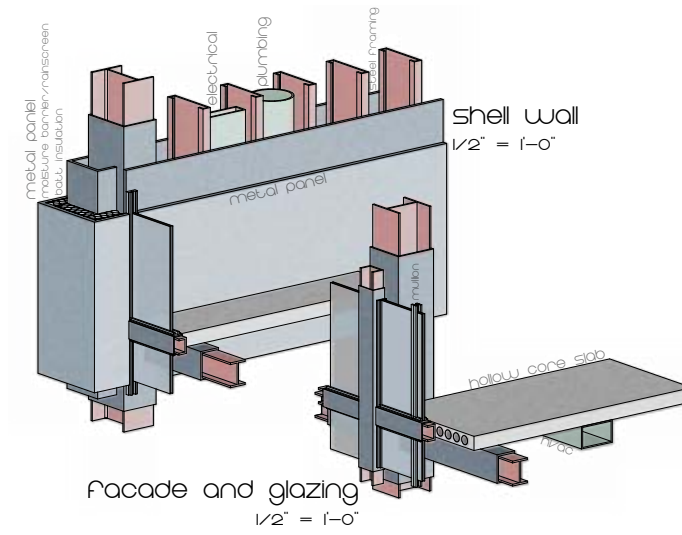


- office
- retail
- residential
- mechanical



structural systems

process of assembly





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