

Roger Williams University

DOCS@RWU

---

Architecture Theses

Architecture, Art, and Historic Preservation  
Theses and Projects

---

2013

## Humility and Homelessness: a Housing Continuum

Jessica MacDonald

*Roger Williams University*

Follow this and additional works at: <https://docs.rwu.edu/archthese>



Part of the [Architecture Commons](#)

---

### Recommended Citation

MacDonald, Jessica, "Humility and Homelessness: a Housing Continuum" (2013). *Architecture Theses*. 95.

<https://docs.rwu.edu/archthese/95>

This Thesis is brought to you for free and open access by the Architecture, Art, and Historic Preservation Theses and Projects at DOCS@RWU. It has been accepted for inclusion in Architecture Theses by an authorized administrator of DOCS@RWU. For more information, please contact [mwu@rwu.edu](mailto:mwu@rwu.edu).

homelessness

# humility and homelessness

a housing continuum

Jessica MacDonald  
Roger Williams University  
Graduate Thesis Design Studio  
Arch613.01 Fall 2013  
Thesis Advisor Julian Bonder





# SIGNATURES

ROGER WILLIAMS UNIVERSITY MASTER'S THESIS

---

Jessica MacDonald

Date

---

Professor Julian Bonder  
Thesis Advisor

Date

---

Dean Stephen White

Date



# TABLE OF CONTENTS

introduction	6
homelessness in the U.S.	8
problem statement	12
homelessness in Burlington, VT	14
project statement	16
a housing continuum	18
site	20
burlington, VT	22
available services	24
case studies_BHA apartments	26
site locations_main street	30
site locations_pearl street	34
site locations_elmwood avenue	38
codes and regulations	42
program	52
emergency shelter	56
case studies	58
transitional housing	62
case studies	64
public/assisted housing	66
case studies	68
program breakdown	76
design	78
shelter typology intentions	80
process	84
final scheme	86
the building in context	88
interior environments	90
connection to nature	94
organization & structure	98
transitional typology intentions	114
process	118
final scheme	119
permanent typology intentions	124
process	128
final scheme	129
conclusion	134
my thoughts in the context of others	138
bibliography	140
appendices	146
concept review boards	148
mid-review boards	152
gate review boards	156
final review boards	160




# INTRODUCTION

# HOMELESSNESS IN THE UNITED STATES

Architecture is more than just constructing buildings; it is creating a place of identity. It requires people to give it purpose, whether that be a shelter, a showcase, a place for learning, or a home. For architecture to become a place of identity within a community, it must respond directly to their needs. If a community needs a place to come together in celebration, grief, or shelter, architecture becomes that place. Architecture should have no bias; it should be accessible to everyone.

There is a growing population of homeless individuals and families in the U.S., which is a devastating crisis. There should be no one left without a roof over their head, or a place to call their own. Unfortunately, our society has come to define us by what we have: the things we possess or the jobs that we work. Many factors can lead to homelessness, it is not always a choice, but generally, once we are out of a home, our options for jobs, healthcare, and other services begin to diminish as well. We cannot let this trend continue, and we cannot ignore those who find themselves out of options.





The National Alliance to End Homelessness is a nonprofit, non-partisan, organization committed to preventing and ending homelessness in the United States. They believe that understanding homelessness requires a grasp of several social issues: poverty, affordable housing, disabilities, and others.

### **The Big Picture**

While circumstances can vary, the main reason people experience homelessness is because they cannot find housing they can afford. It is the scarcity of affordable housing in the United States, particularly in more urban areas where homelessness is more prevalent, that is behind their inability to acquire or maintain housing.

### **By the numbers**

There are 610,042 people experiencing homelessness on any given night in the United States.

Of that number, 222,197 are people in families, and 387,845 are individuals.

About 18 percent of the homeless population (109,132) are considered "chronically homeless,"





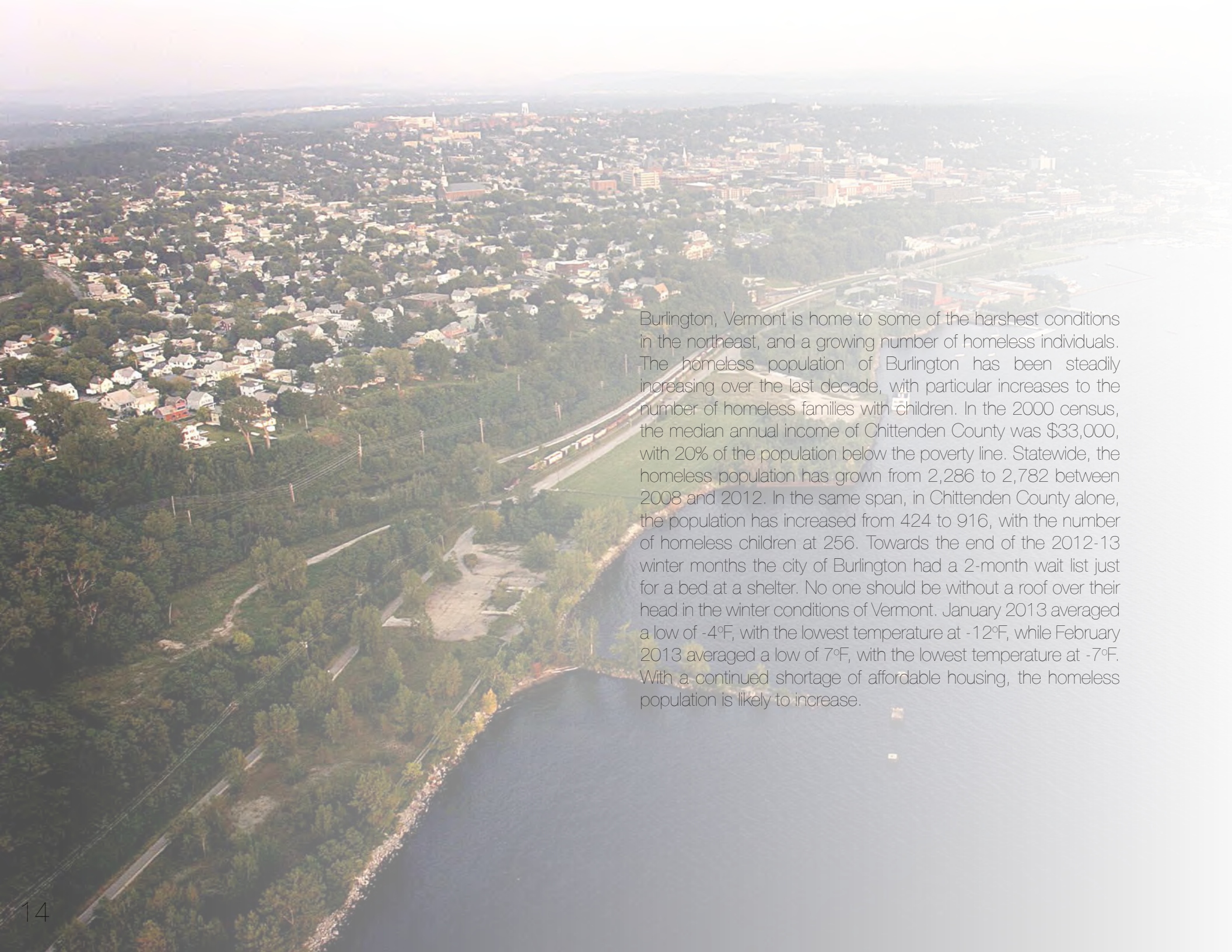
substance abuse  
disability  
mental  
physical  
unemployed  
re-entry from institutions  
fleeing  
abuse  
runaway  
displacement  
divorced/widowed  
natural disaster  
foreclosure  
eviction

There are endless factors that can lead to homelessness, as well as a wide range of definitions for homeless. Whatever the reason, there should be a method to seek aid, and get back to a stable situation. Many are chronically homeless and suffer from substance abuse, or mental or physical disabilities. Others are re-entry from institutions with no income, or suddenly unemployed, and unable to afford a rent. Some are runaways, fleeing from abusive or harmful situations. Others have been suddenly displaced, whether from eviction, natural disaster, foreclosure, or due to a change of income from divorce or widowhood. Whatever the factors are, the result is the same: they do not have a place to live.



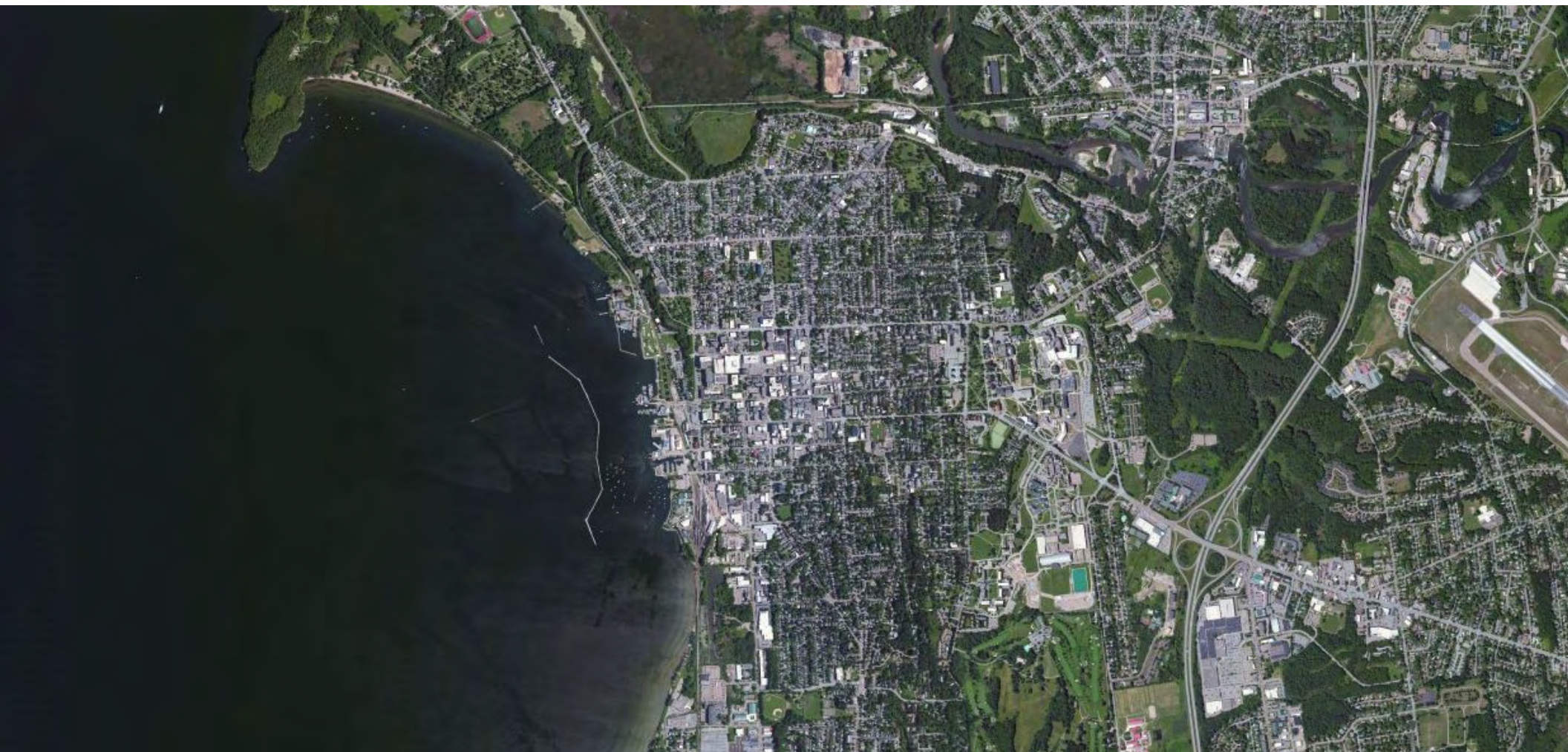


# PROBLEM STATEMENT



Burlington, Vermont is home to some of the harshest conditions in the northeast, and a growing number of homeless individuals. The homeless population of Burlington has been steadily increasing over the last decade, with particular increases to the number of homeless families with children. In the 2000 census, the median annual income of Chittenden County was \$33,000, with 20% of the population below the poverty line. Statewide, the homeless population has grown from 2,286 to 2,782 between 2008 and 2012. In the same span, in Chittenden County alone, the population has increased from 424 to 916, with the number of homeless children at 256. Towards the end of the 2012-13 winter months the city of Burlington had a 2-month wait list just for a bed at a shelter. No one should be without a roof over their head in the winter conditions of Vermont. January 2013 averaged a low of -4°F, with the lowest temperature at -12°F, while February 2013 averaged a low of 7°F, with the lowest temperature at -7°F. With a continued shortage of affordable housing, the homeless population is likely to increase.







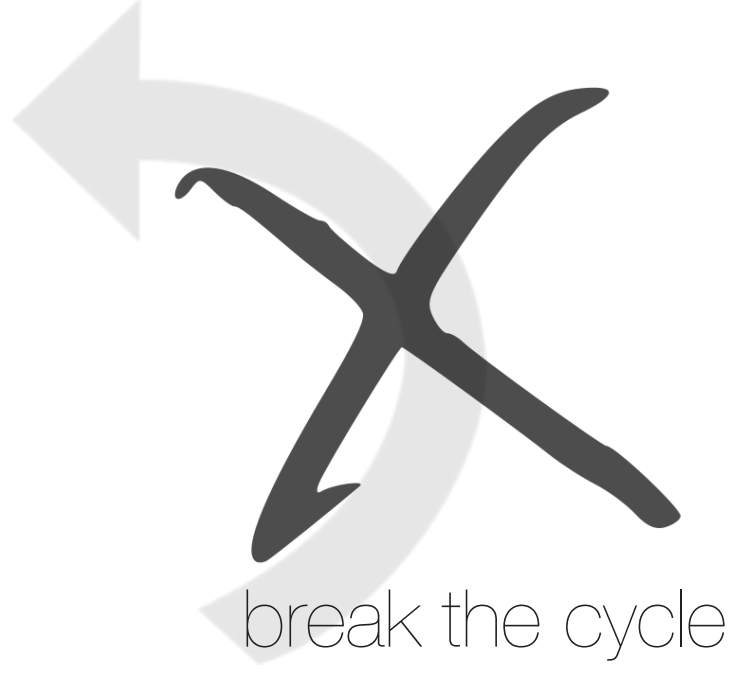
# PROJECT STATEMENT

This thesis is an investigation into an holistic approach to the issue of homelessness in Burlington, VT. It is an investigation of urban interventions in a small american city that can re-purpose under-utilized sites to establish a typology for change. The Burlington Housing Authority owns and operates many low-income rental units within the city limits, but what this thesis investigates is a broader look at the growing issue of homelessness in Burlington, to develop a specific process in response to those needs, which could support and reduce the homeless population. The thesis consists of three architectural interventions that progress from full common-living shelter with support services, to a partial privacy dwelling, ultimately to a full privacy permanent dwelling. These architectural environments not only provide shelter, but they incorporate the necessary diversity of living situations and support services.

The design of a housing continuum in Burlington provides a variety of support environments. These different housing environments are all designed within the downtown area, providing access to public transportation, open park space and employment opportunities. Support services play a huge role in an individual's process to self-sufficiency. Many social services are already located in the downtown area, however the relationship between living space and support space is important. This thesis introduces three housing typologies as architectural interventions on three under-utilized downtown sites, focusing on the relationship between the individual and the common.











SITE

## BURLINGTON, VERMONT

Despite being the cultural and economic center of Burlington, providing ample opportunities for business, shopping, dining, entertainment and waterfront recreation, downtown Burlington has an extreme shortage of housing. The downtown area is a highly desirable place to live because of its urban convenience and vitality, making it an ideal place for housing that is accessible to transportation, services, employment and community activities.

A significant number of downtown properties are under-utilized and under-developed when compared to what current zoning allows. I have targeted three under-utilized sites in the downtown area to develop housing environments that can combine with other uses, be it commercial, social, civic, etc... to integrate into the thriving downtown environment.



downtown area



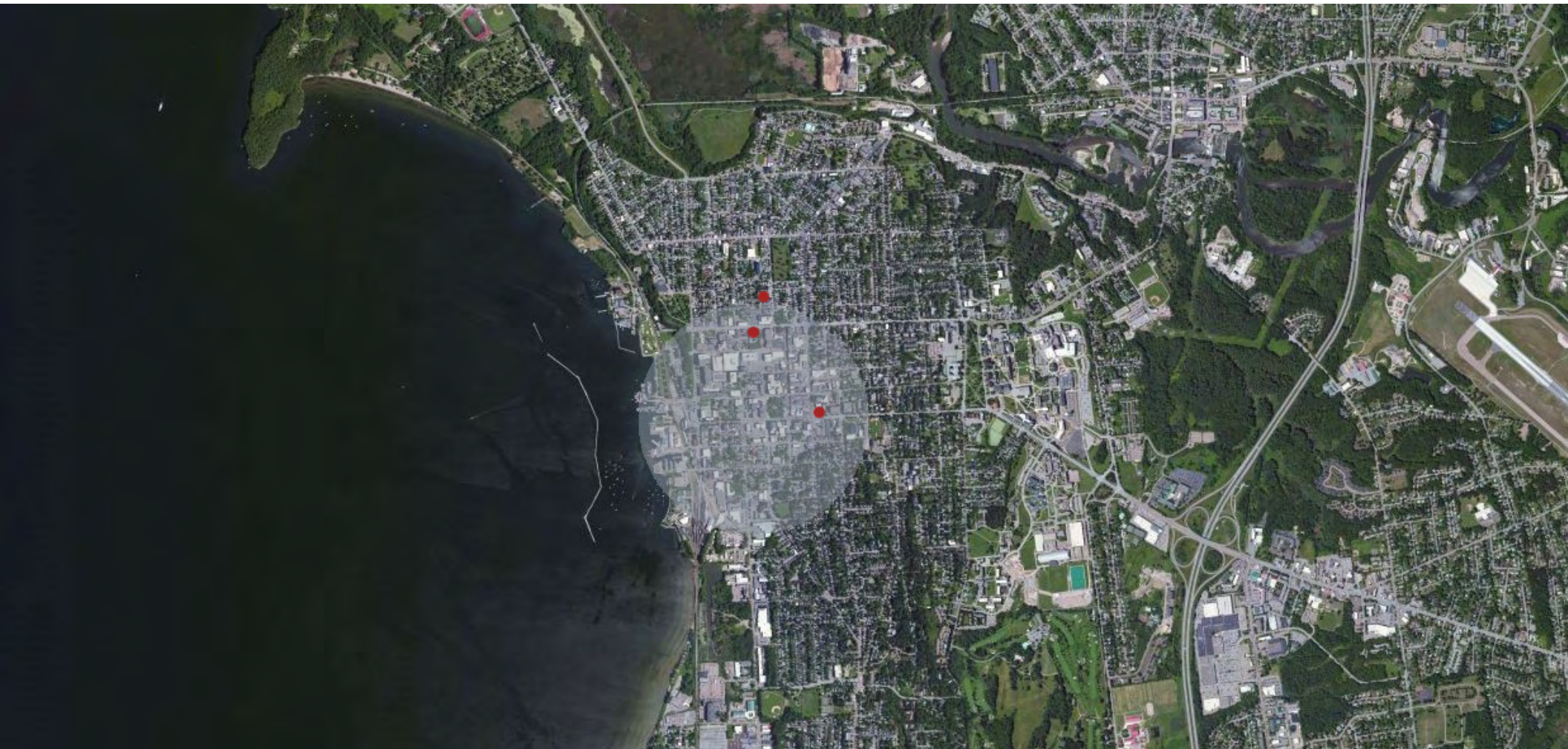
existing buildings



under-utilized sites

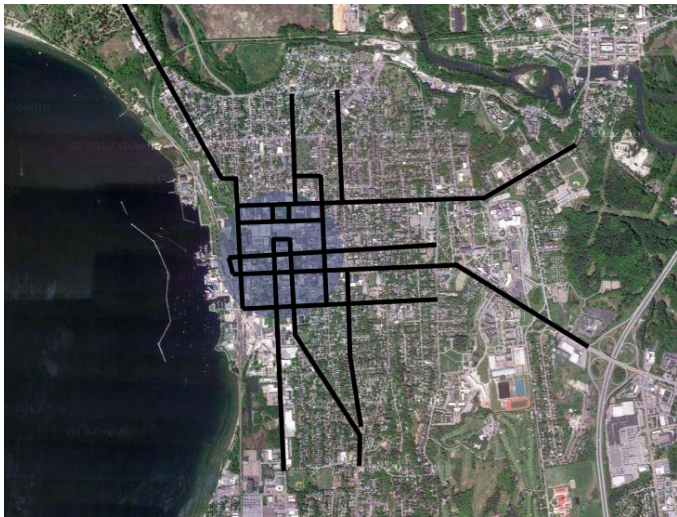
proximity to social services  
proximity to public transportation  
proximity to jobs and child care

sense of community  
sense of safety  
sense of individuality

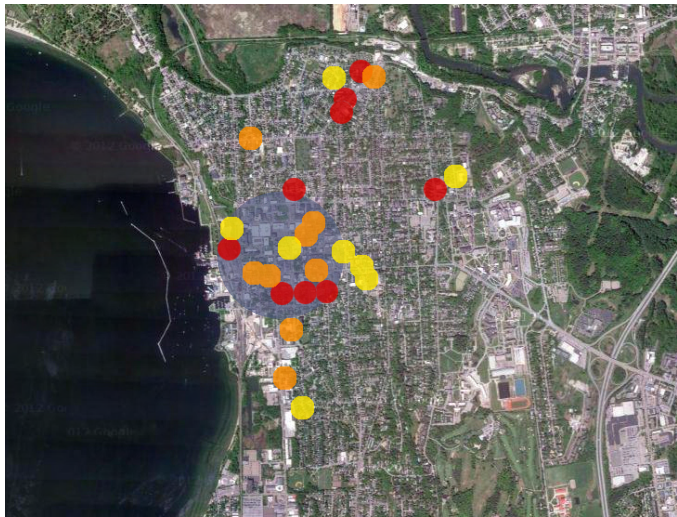




# AVAILABLE SERVICES



accessible public transportation



accessible support services

- social services**
  - Howard Center for Human Services
  - Peace & Justice Center
  - King St. Area Youth Program
  - Outright Vermont
  - Good News Garage
  - Chittenden Emergency Food Shelf
  - Spectrum Youth & Family Services
  - Cots Day Station Streetwork
  - American Red Cross
- recycled/second hand services**
  - Recycle North
  - Battery St. Jeans Exchange
  - Resource
  - Downtown Threads
  - Old Gold
  - The Salvation Army
  - Dirt Chic
  - Sisters of Mercy Thrift Shop
- childcare services**
  - YMCA
  - Stepping Stones Childcare Center
  - Trinity Children's Center
  - Mater Christi School
  - Early Learning Preschool Center
  - Kids Alive
  - Playcare Center
  - City Kids Afterschool Program

Downtown Burlington provides accessible employment, childcare, public transportation, and social services. The goal of this thesis investigation is to design a housing continuum that utilizes three different sites within the downtown area. These three site locations are currently under-utilized and located in different zoning districts. The aim of these interventions is to integrate into the existing districts and provide a range of living environments that all foster a sense of safety, individuality and community, while providing access to many services that can help reduce to cost of living and improve the quality of life. This housing continuum aims to address the growing homeless population of Burlington through cooperation with local services to ensure that no one falls short of finding true independence and self-sufficiency.

The Burlington Housing Authority has provided housing for many low-income families, individuals and seniors. The following case studies look into these projects to identify what is already being done to provide for individuals in need.



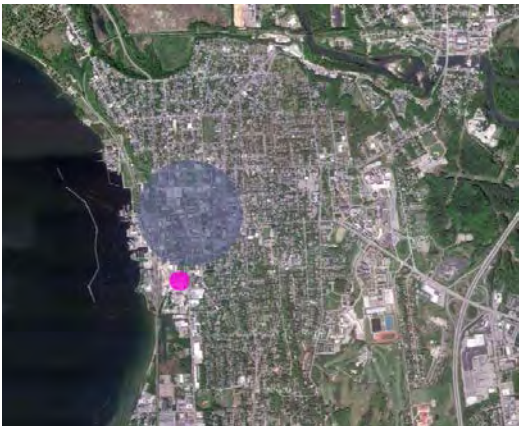
existing low-income housing

# CASE STUDIES

## existing low-income housing

Affordable Housing for Families  
Through the Burlington Housing Authority  
Bobbin Mill Apartments

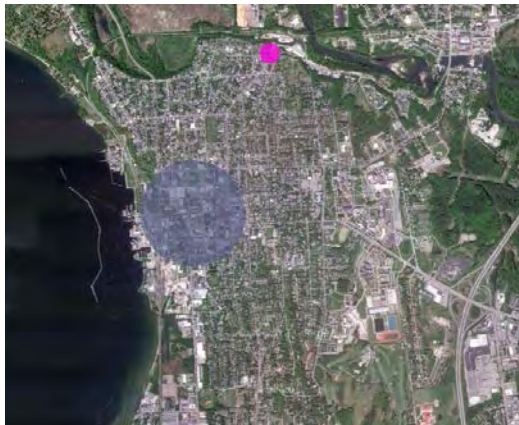
51 Apartments for Families  
1, 2, and 3 bedrooms  
Community Room  
Large Green space  
Close to Schools  
On the Bus Line  
Summer Lunch Program Participation  
Outdoor playground





Affordable Housing for Families  
Through the Burlington Housing Authority  
**Riverside Apartments**

48 Apartments for Families  
1, 2, 3, 4, & 5 Bedrooms  
5 Wheelchair Accessible Units  
Community Room  
Large Green space  
Playground and Basketball Courts  
Close to Schools & Boys and Girls Club  
Close to Healthcare Facilities  
On the Bus Line  
Technology Center  
Summer Lunch Program Participation  
DREAM Program Participation  
Community Garden





Affordable Housing for Seniors and Persons with Disabilities  
Through the Burlington Housing Authority

## Champlain Apartments

50 Apartments for Seniors & Persons with Disabilities

1 and 2 bedrooms

5 handicap accessible units

Limited Parking Available with Spaces for Visitors

On-site health and wellness program

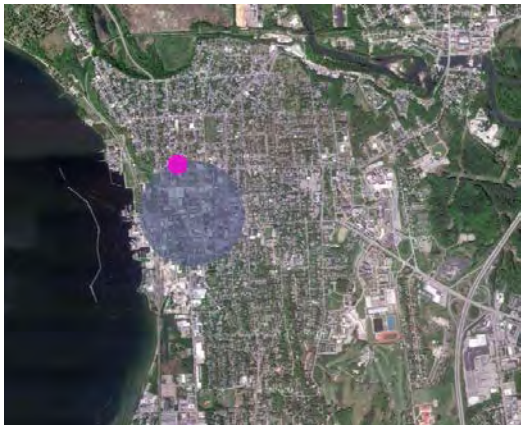
Active tenant organization hosts monthly dinners,  
holiday events and bingo

Newly updated common area

Outdoor sitting area with flower and vegetable gardens

Technology Center

Located on the Bus Line



Specialized Housing  
Through the Burlington Housing Authority

### Varney House

for female ex-prisoners  
transitional, supportive housing  
11 bed group home  
staff office on site

### Phoenix House

transitional, supportive housing for individuals  
in recovery from substance abuse,  
primarily returning offenders  
20 bed group home  
2 staff offices on site

### Dismas House

transitional, supportive housing  
for returning male offenders  
10 bed group home  
overnight staff suite

### Sophie's Place

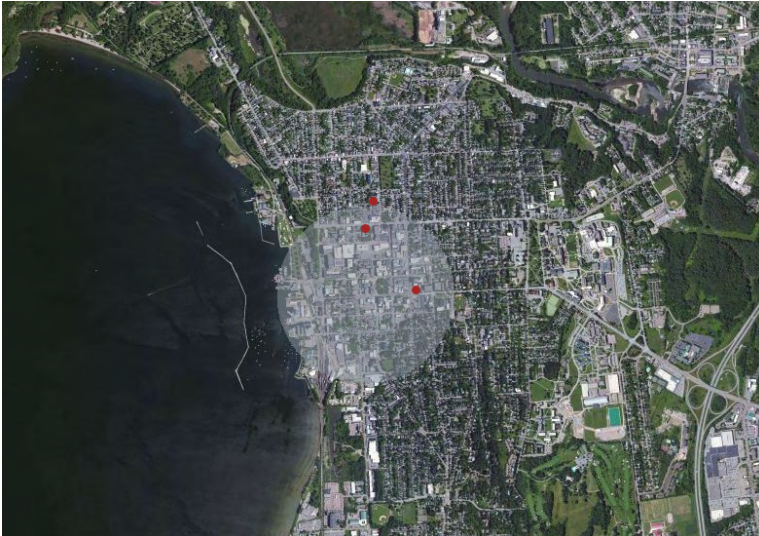
transitional, supportive rental housing  
for survivors of domestic violence  
11 rental units in two buildings  
staff office space on site



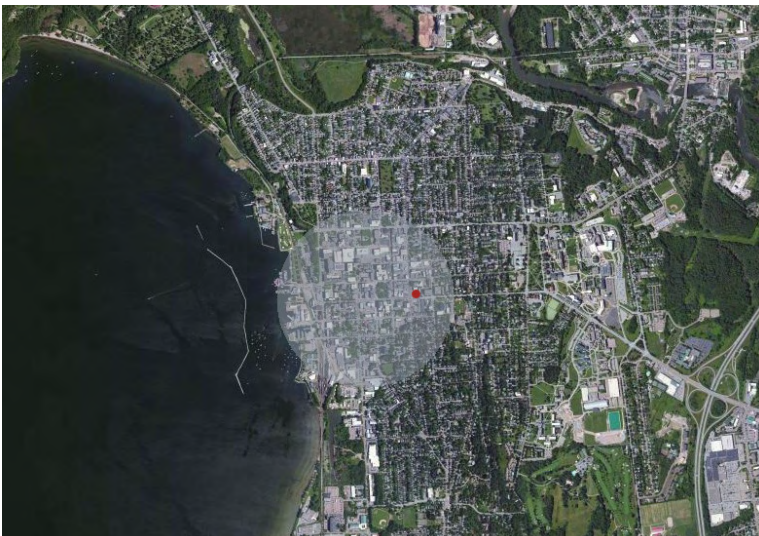


## SITE LOCATIONS

main street



The three sites that I have adopted for this investigation are currently open land in the middle of downtown, making them ideal locations for larger scale housing interventions that can also incorporate necessary services and community activities.



The first site is located immediately downtown at the corner of Main Street and South Winooski Avenue, offering less than a 5 minute walk to a variety of services and located on the bus line. Currently owned by the city and an open parking lot, this site offers a range of possibilities for use and development.

centrally located downtown  
access to public bus lines  
walkable to services and jobs  
under-utilized mixed-use site

# site 1





neighboring buildings along main street



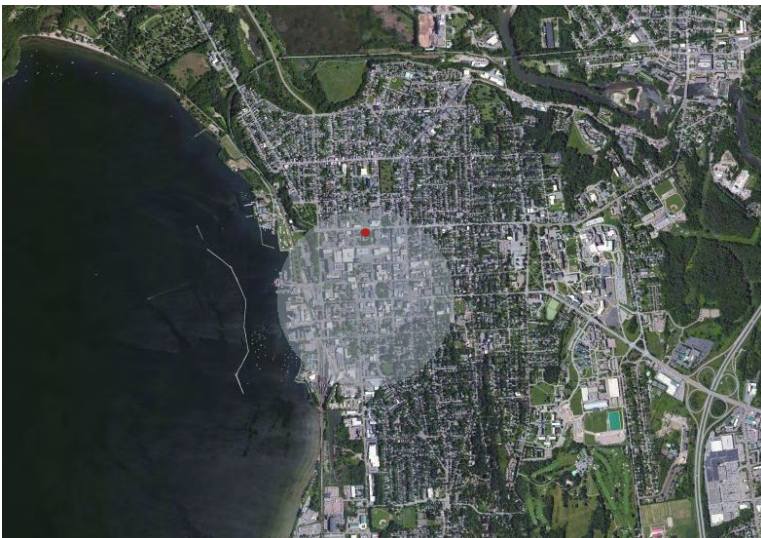
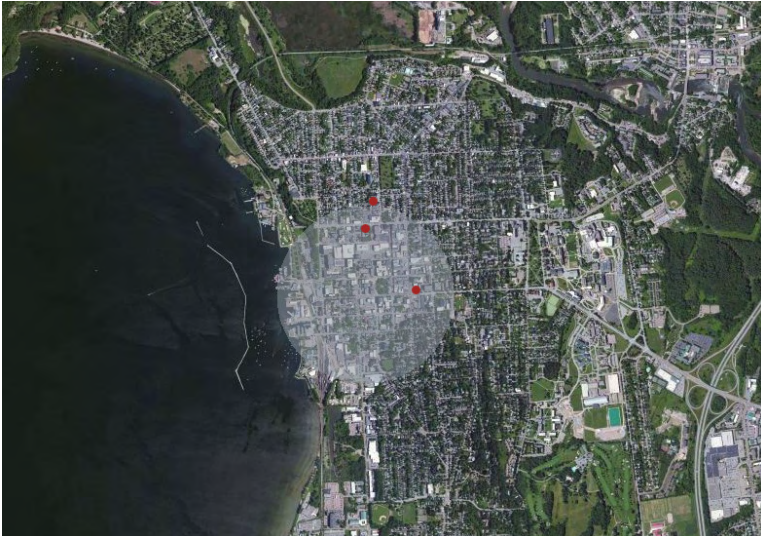


# site 1



## SITE LOCATIONS

pearl street

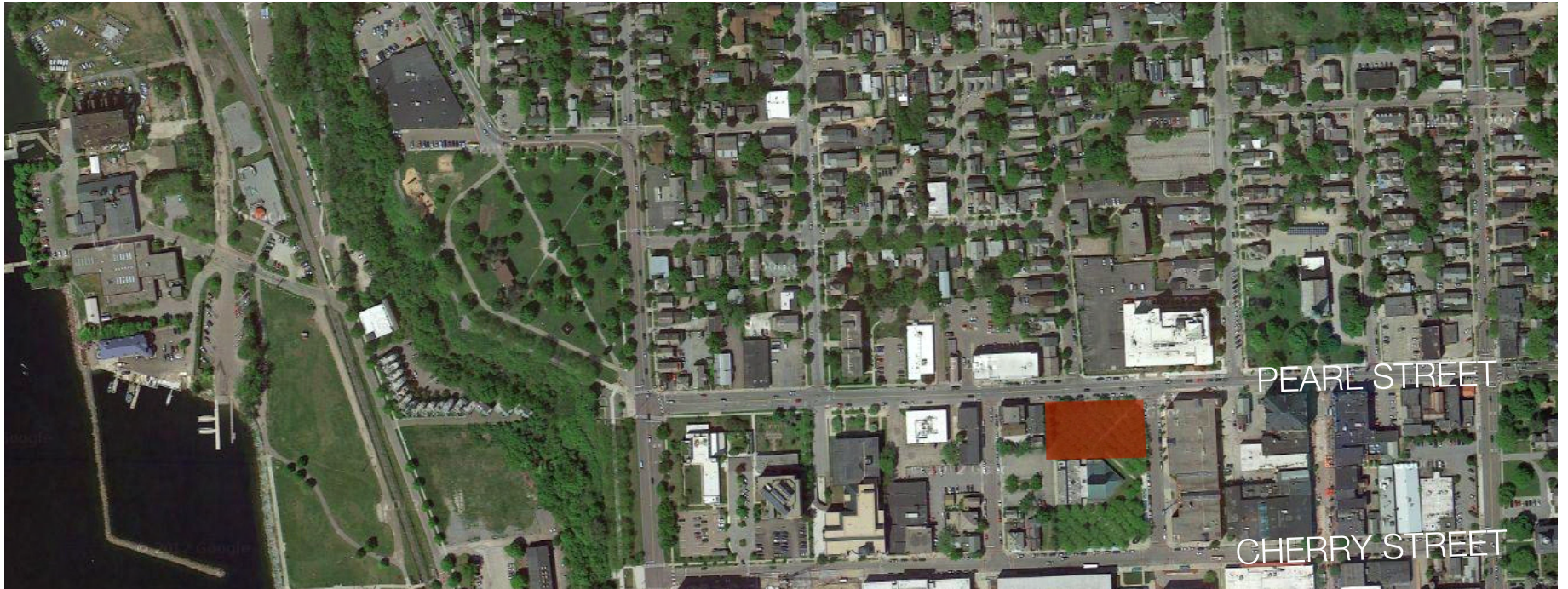


The second site is similarly located immediately downtown on the corner of Pearl Street and St. Paul Street. Currently a small, under-utilized park, this site could also contribute to the downtown streetscape and offer a range of possibilities for use and development.

proximity to downtown  
access to public bus lines  
walkable to services and jobs  
under-utilized mixed-use site



# site 2







neighboring buildings along pearl street

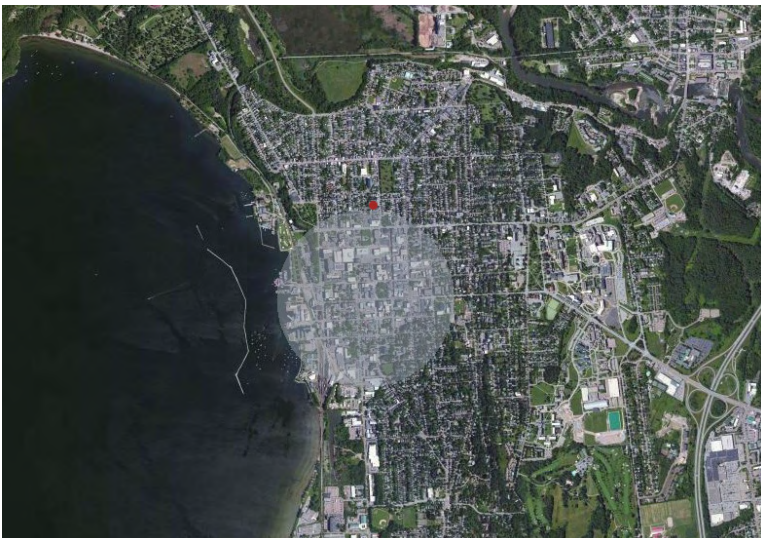
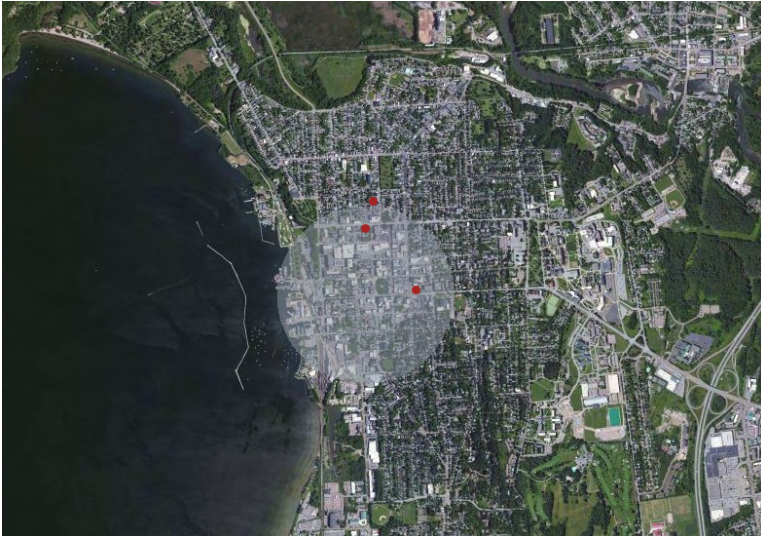


# site 2



## SITE LOCATIONS

pearl street

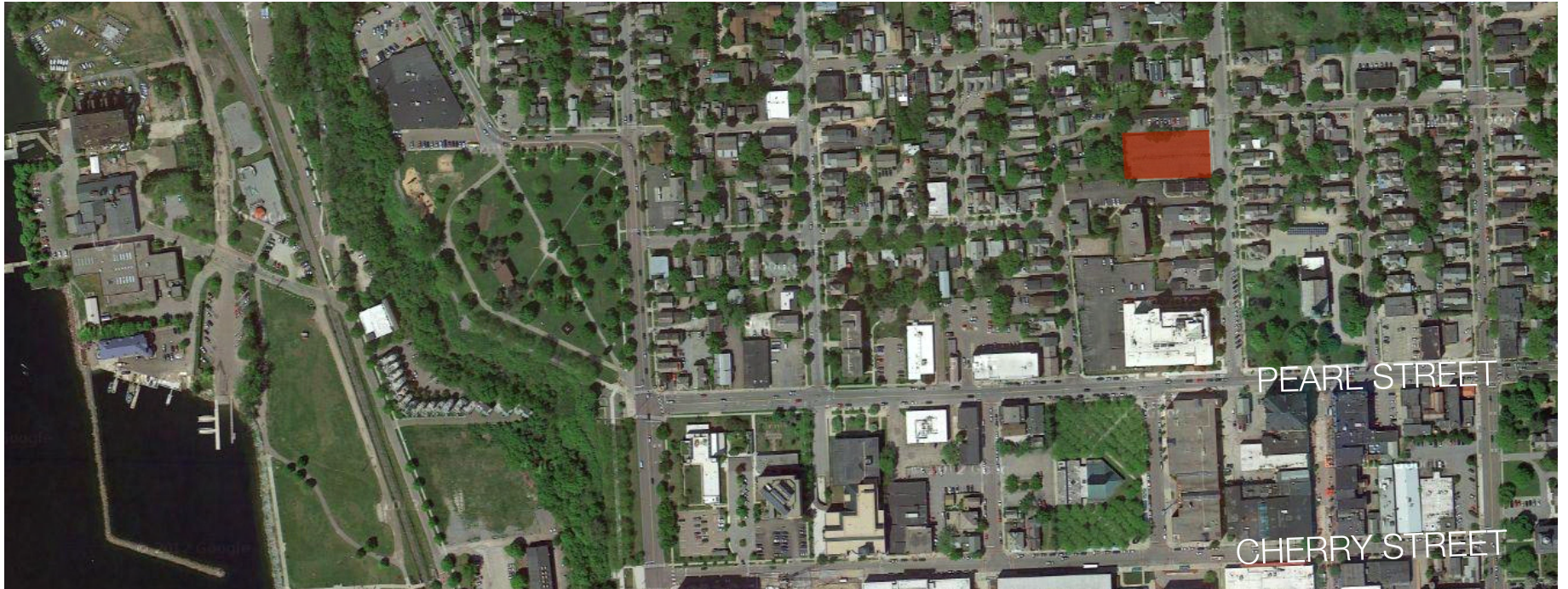


The third site is located just north of the previous site on Elmwood Avenue. Currently an open parking lot on a dense residential street, this site could be an ideal location for multi-family residences or attached single family homes, integrating into the existing neighborhood fabric.

proximity to downtown  
access to public bus lines  
access to services and jobs  
under-utilized residential site



# site 3







neighboring buildings along elmwood avenue



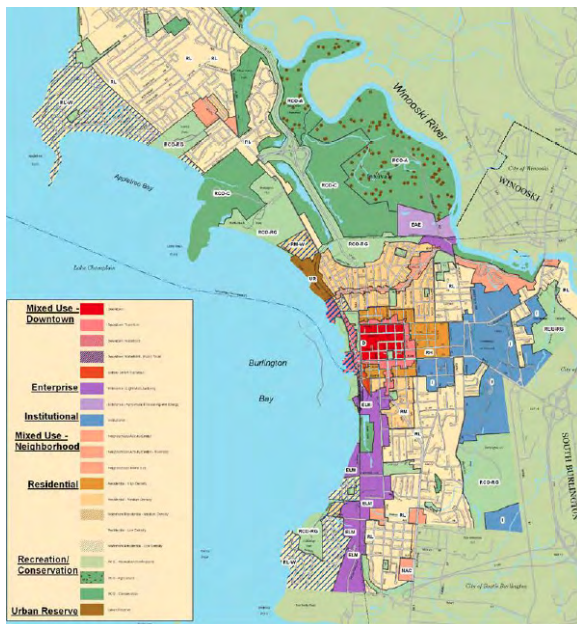
# site 3





CODES AND REGULATIONS

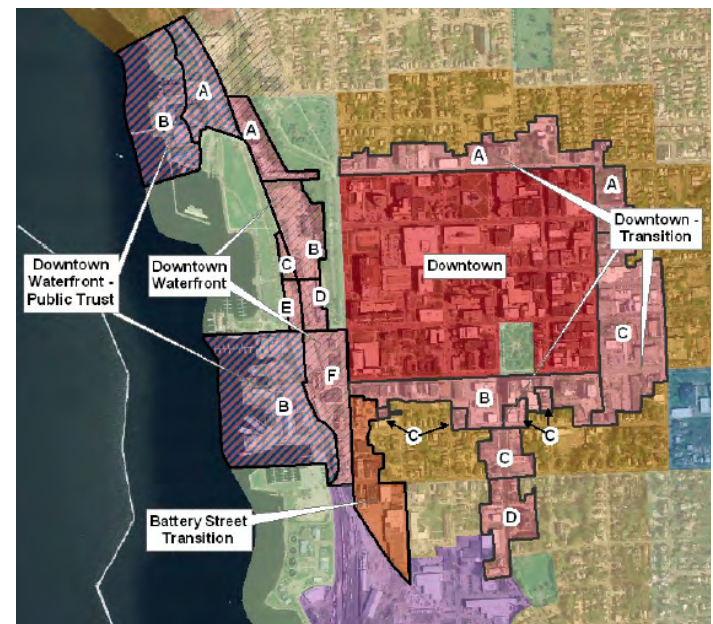




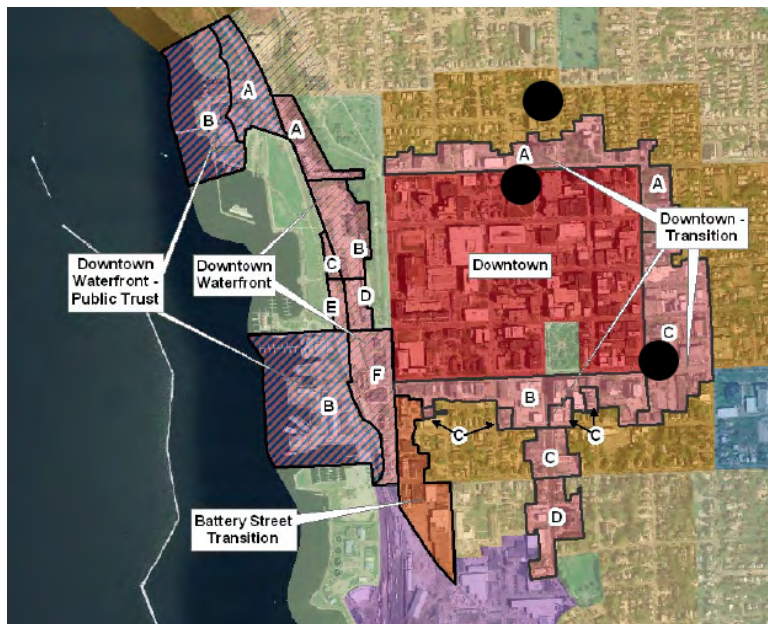
city zoning



city residential zoning



downtown zoning districts



site locations within zoning districts

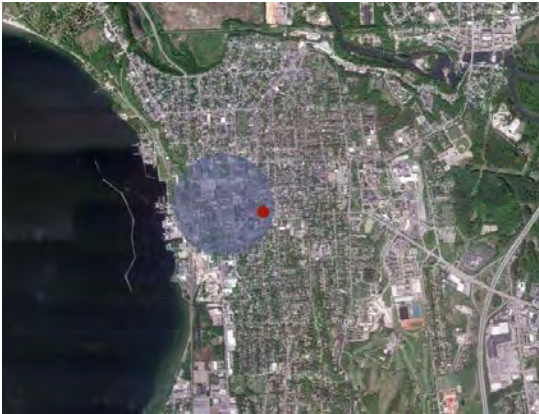
These three sites occupy different zoning districts, which regulate building heights, setbacks and use groups. Each of the following districts ensures a mix of people and activities. Developing housing in each of these districts will enhance the design goals of downtown connectivity and community integration. The zoning regulations for each district also aid the design intention of integrating into the existing city fabric to create a housing continuum that can evolve and grow with the city.

D\_Downtown District  
 DT\_Downtown Transitional District  
 RH\_High Density Residential District

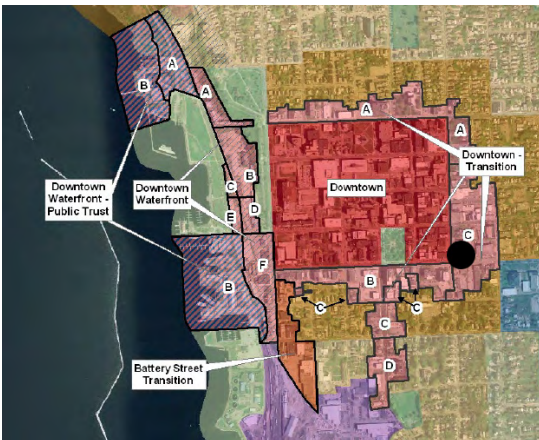


# site 1

## zoning regulations



The Downtown Transition District (DT) is intended to provide a balance and continuity in the character and scale of development on both sides of Main St., Pearl St. and So. Winooski Ave., creating gateways into the urban core of Burlington, and a transition between the Downtown and the nearby residential district, for the purposes of regulating building height in such a way as to ensure a transition of building scale between the Downtown and nearby residential areas.



district DT sub-district C  
maximum FAR\_4  
maximum height\_45 feet  
minimum height\_30 feet

### building setbacks

front\_minimum 12 feet from curb  
sides and rear\_no minimum setback from property line  
\_no doors or windows right up to the property line  
\_set back 10 feet if existing building has windows or doors within 5 feet of property line, only up to height of existing building



### ground floor residential use not permitted

new buildings along Main Street to step back above 55 feet (5th story),  
maximum setback 40 feet, minimum setback 1/4 of right of way width



# site 2



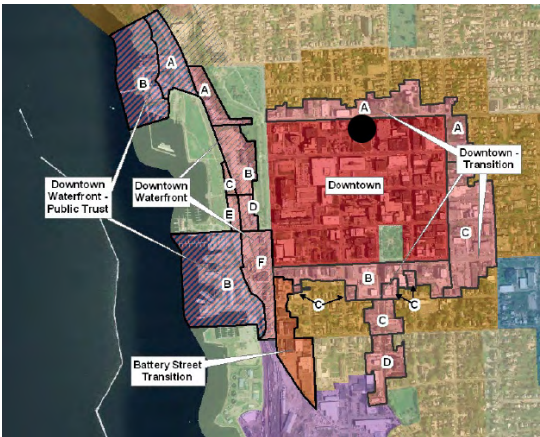
The Downtown District (D) is the primary urban center of Burlington.

district D  
maximum FAR\_5.5  
maximum height\_65 feet  
minimum height\_30 feet

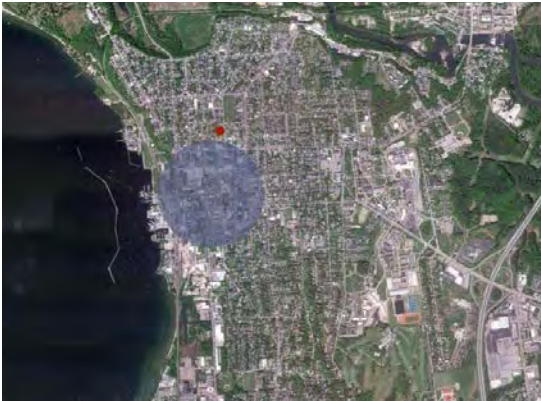
building setbacks  
front\_minimum 12 feet from curb  
sides and rear\_no minimum setback from property line  
\_no doors or windows right up to the property line  
\_set back 10 feet if existing building has windows or doors within 5 feet of property line, only up to height of existing building

ground floor residential use not permitted  
50% gross floor area of site must be non-residential

new buildings along Pearl Street to step back above 45 feet (4th story), maximum setback 40 feet, minimum setback 1/4 of right of way width

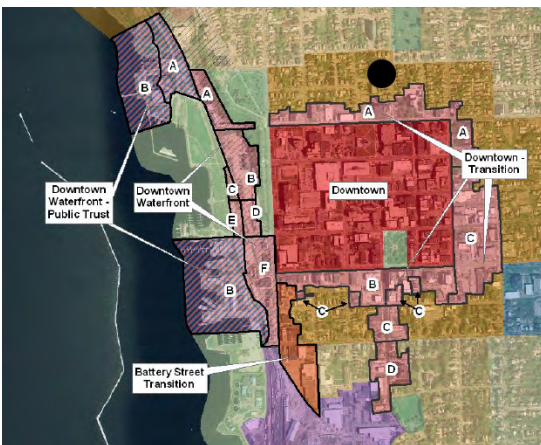


# site 3



The Residential High Density (RH) district is intended primarily for high density attached multi-family residential development. Development is intended to be intense with high lot coverage, large buildings, and buildings placed close together. Parking is intended to be hidden either behind or underneath structures.

district RH  
maximum dwelling units\_40 units/acre  
maximum height\_35 feet



building setbacks  
front\_average front yard set back of two adjacent properties with the same street frontage  
sides\_minimum 10% of lot width (no less than 5 feet)  
maximum 20 feet  
rear\_minimum 25% of lot depth (no less than 20 feet)  
maximum 75 feet  
minimum 15 feet from property line  
maximum lot coverage\_80%



## OCCUPANCY GROUP

### residential R-2\_apartments

business B\_civic, clinical, outpatient  
educational E\_day care facilities  
mercantile M\_commercial

## FIRE PROTECTION REQUIREMENTS

fire partition walls separating  
\_dweeling units in the same building  
\_sleeping units in the same building  
\_dwelling or sleeping units from other occupancy types

horizontal assemblies separating  
\_dweeling units in the same building  
\_sleeping units in the same building  
\_dwelling or sleeping units from other occupancy types

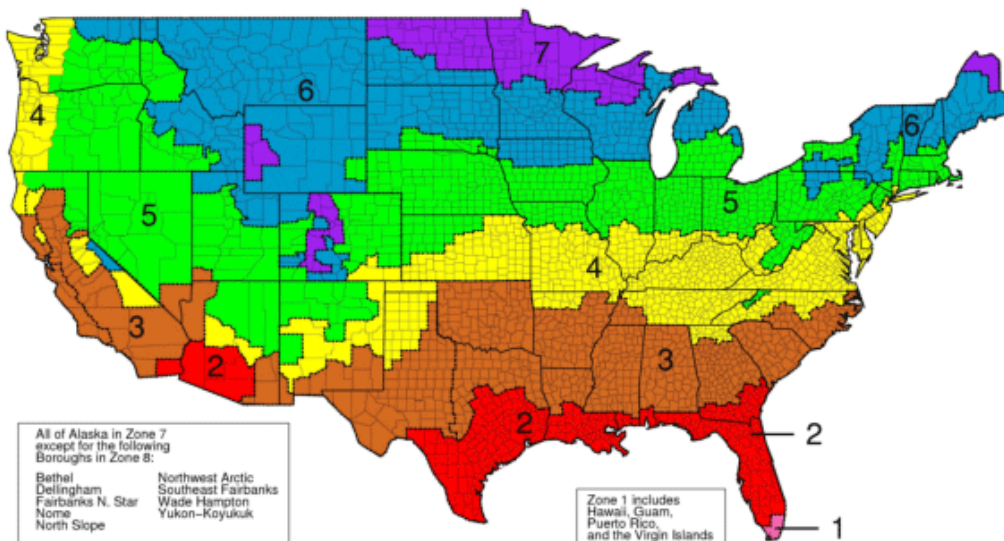
automatic sprinklers  
fire detection system  
smoke alarm system  
self-closing fire doors  
operable windows prohibited on interior walls

## required separation of occupancy (hours)

R to M\_1 hour  
R to E\_1 hour  
R to B\_1 hour

## CLIMATE ZONE 6

ceiling R value            \_49  
wood frame wall R value   \_20 or 13+5h  
mass wall R value        \_15/19  
floor R value              \_30g



## OCCUPANCY GROUP

### residential R-2\_apartments

business B\_civic, clinical, outpatient

educational E\_day care facilities

mercantile M\_commercial

## BUILDING HEIGHTS AND AREAS

based on occupancy group and construction type

## CONSTRUCTION TYPE

### 1A

\_stories unlimited  
\_area unlimited  
\_height unlimited

### 1B

\_stories limit 11  
\_area unlimited  
\_height limit 65 ft

### 2A

\_stories limit 4  
\_area limit 24,000 sf  
\_height limit 65 ft

### 2B

\_stories limit 4  
\_area limit 16,000 sf  
\_height limit 55 ft

### 3A

\_stories limit 4  
\_area limit 24,000 sf  
\_height limit 65 ft

### 3B

\_stories limit 4  
\_area limit 16,000 sf  
\_height limit 55 ft

### 4

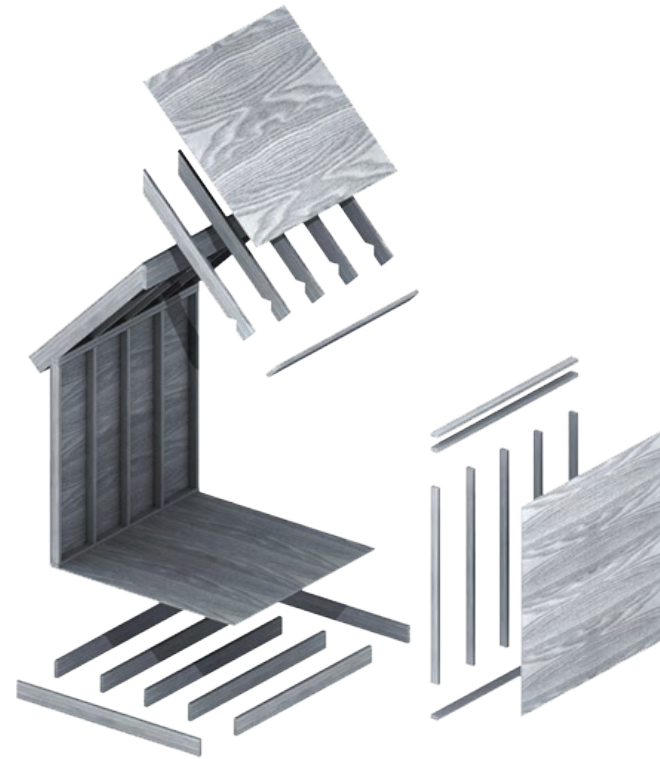
\_stories limit 4  
\_areas limit 20,500 sf  
\_height limit 65 ft

### 5A

\_stories limit 3  
\_areas limit 12,000 sf  
\_height limit 50 ft

### 5B

\_stories limit 2  
\_areas limit 7,000 sf  
\_height limit 40 ft



## EGRESS AND ACCESS REQUIREMENTS

maximum 50 ft dead end corridors

common path of egress travel

\_maximum 125 ft sprinkled

\_maximum 75 ft unsprinkled

elevator required for four stories or more

minimum handrail height 34 inches





PROGRAM



The traditional system for addressing homelessness is a series of three stages, or three housing typologies: emergency/transitional shelters, transitional/supportive housing, and public/assisted housing. Different individuals and families utilize different combinations of these typologies, but the goal is the same: a roof over their heads and services to help provide basic needs.

The problem arises when there is a disconnect between the housing elements and the services. This next section looks at the traditional programmatic elements for shelters, transitional housing, and social housing, and the relationships between the elements. I am particularly interested in the relationship between private and common spaces, and the services offered within each typology.

# homeless **H O U S I N G** typologies

## emergency/transitional shelter

without ability to pay for housing  
homeless  
unemployed  
substance abuse  
disabled  
short term solution  
*a few weeks to 1 year*  
combined living facilities  
social services  
life skills & job training

## transitional/supportive housing

some ability to pay rent  
subsidy or disability payment  
2-3 year time period  
many living styles  
*SRO (single room occupancy)*  
*apartment*  
*single family home*  
social services/programming  
*incorporated off-site*

## public/assisted housing

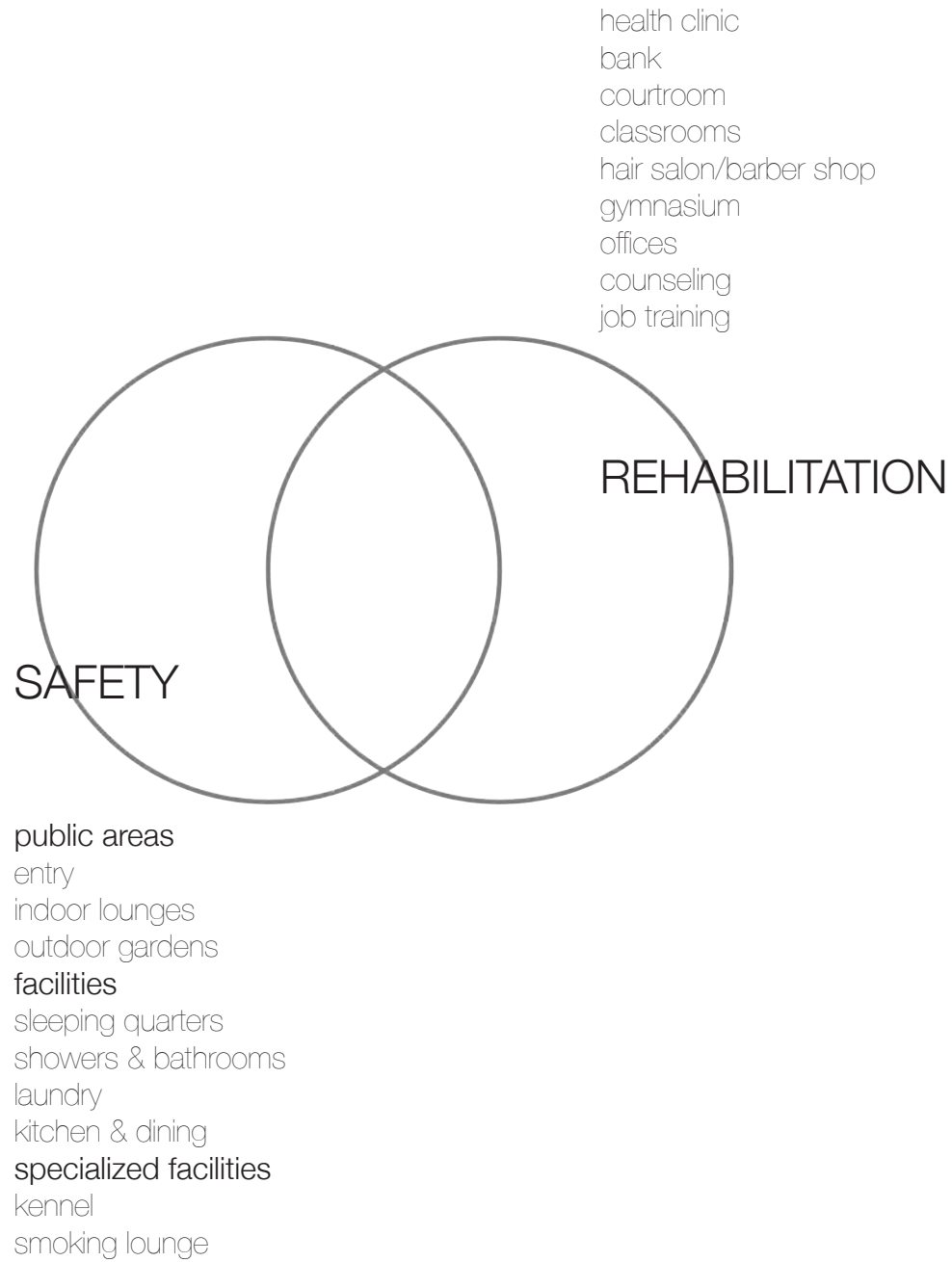
some ability to pay rent  
30% of income goes to rent  
mixed income developments  
*multi-family*  
*high rise*  
*cluster*  
section 8 housing vouchers  
permanent housing



# shelter

## emergency/transitional shelter

This typology is largely used by those with an inability to pay for housing. This might include the recently unemployed, the recently divorced/widowed, or those families displaced by natural disaster. Shelters are short term solutions, with stays ranging from a few weeks to up to one year. The idea is that one year is enough time to find employment to be able to afford rent elsewhere. Shelters offer combined living facilities, including shared sleeping dormitories, communal dining areas, communal indoor or outdoor recreation spaces, showers, and occasionally laundry facilities; and a range of social services, including behavioral or substance abuse rehabilitation, health clinic, counseling services, and training for jobs and life skills.

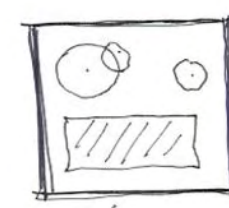


# CASE STUDIES

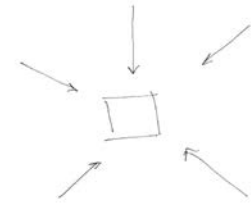


outdoor recreation  
 indoor recreation  
 bathrooms & showers  
 kitchen & dining  
 chapel  
 parking  
 dormitory bedrooms  
 health clinic  
 offices & counseling  
 gymnasium  
 detox & recovery  
 youth activity  
 learning center  
 staff housing

LOS ANGELES MISSION  
 los angeles\_california



secure outdoor spaces



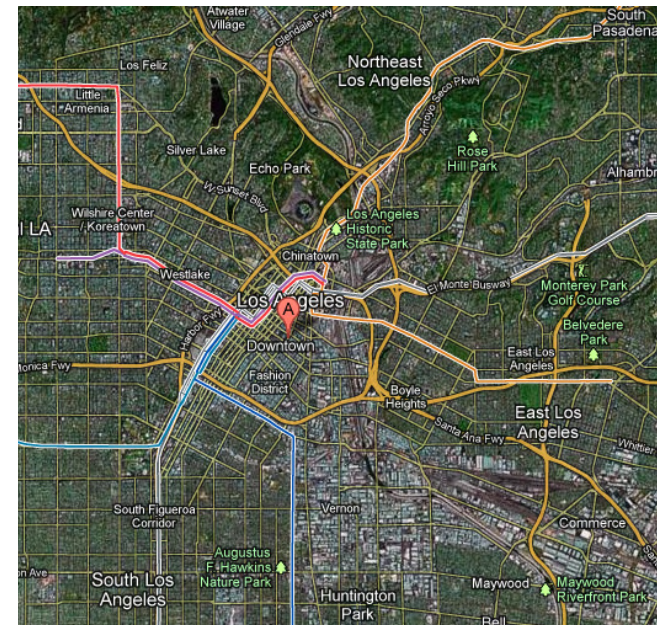
easily accessible

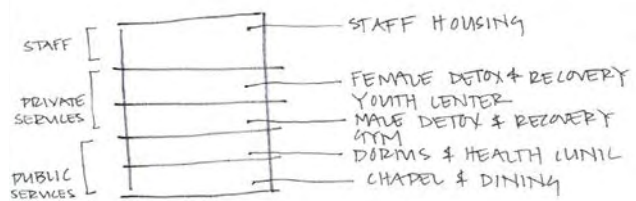


THIRD FLOOR



FIRST FLOOR





program elements







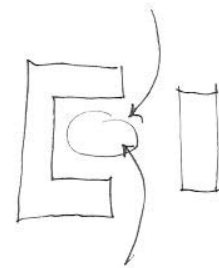
## Development Programs

outreach/intake services  
 jail diversion/reentry services  
 emergency shelter/transitional shelter services  
 primary health care/behavior health care services  
 recreational/educational services  
 employment income/supported employment income/  
 disability income services  
 affordable housing/supportive housing services

## Community Benefits

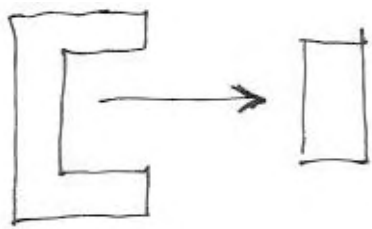
increasing public safety  
 increasing public health  
 increasing public quality of life  
 decreasing crime rates  
 decreasing spending on jail and hospitals stays  
 decreasing homelessness

THE BRIDGE  
 dallas\_texas

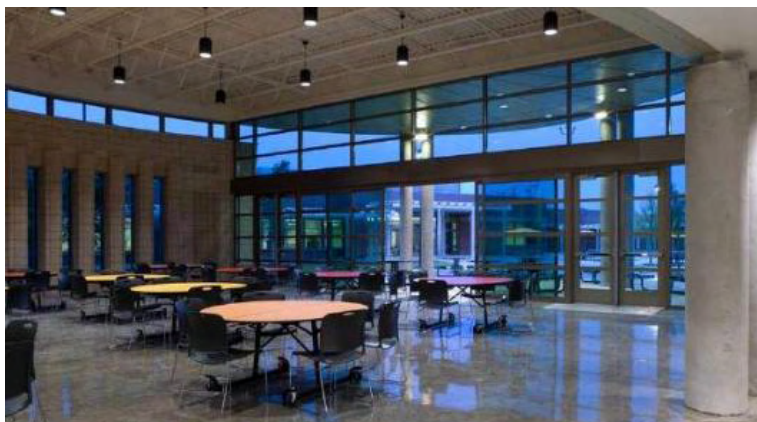


secure outdoor spaces





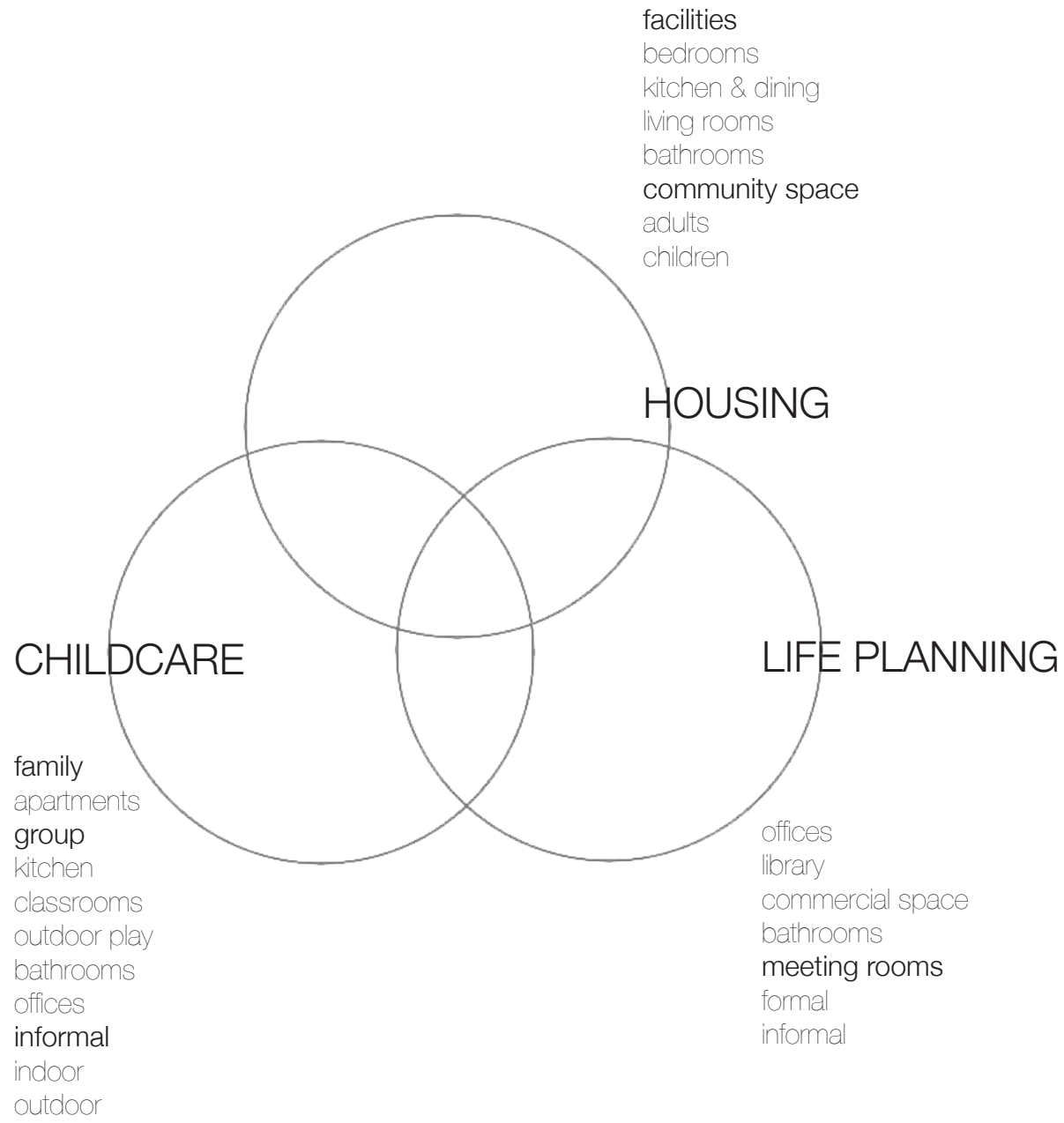
program separation



# t r a n s i t i o n a l

## transitional/supportive housing

This typology is utilized by those with some ability to pay rent, and typically receive government subsidies or disability payments to supplement their income. The time frame is longer than that of shelters, but still limited to 2-3 years. In this typology there are a variety of living styles, depending on the location. SRO (single room occupancy) offers communal living and dining facilities similar to shelters, with individual sleeping quarters. Individual apartments offer sleeping, living, and eating spaces. Single family homes are also utilized, sometimes combining multiple families with shared living and dining spaces, and other times housing single families. There are still some social services offered in transitional housing, but range in program and proximity depending on the type of housing.





## CASE STUDIES

### HORIZON HOUSE boston\_massachusetts

#### shared facilities

bathroom  
living room  
kitchen & dining

#### private bedroom

#### on site staff

office & counseling  
apartment

#### currently serves

6 women  
12 children

#### private apartment

1-3 bedrooms

1-2 bathrooms

kitchen

living space

#### services

offices & counseling

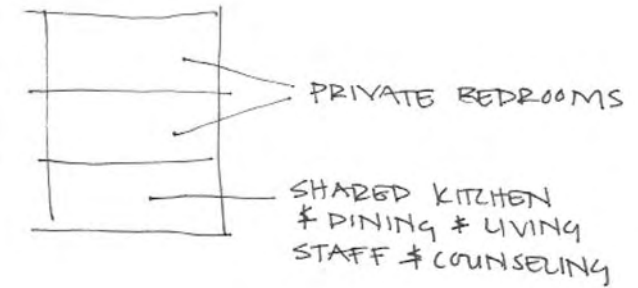
childcare

job training

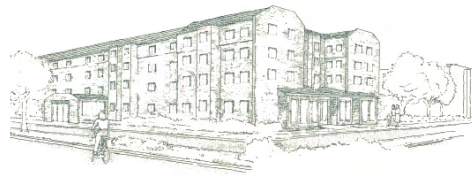
#### currently serves

200 families

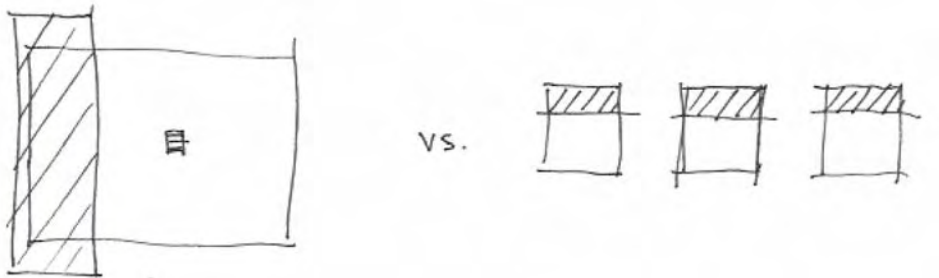
w/ 1-4 children each



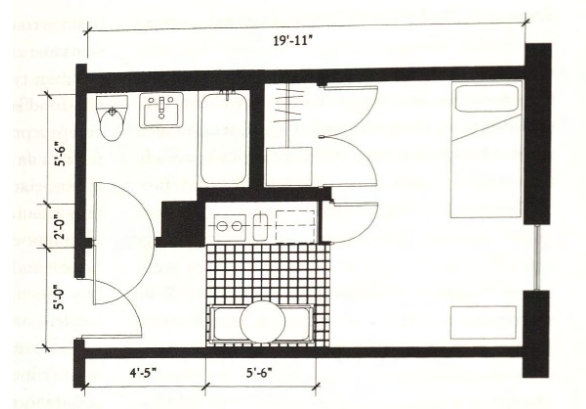
program elements



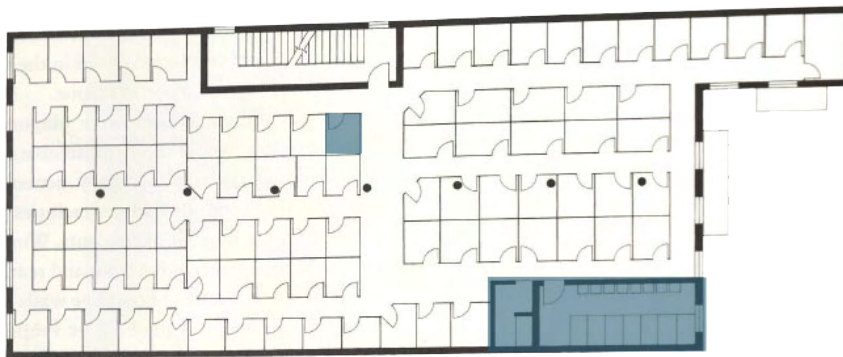
### WARREN VILLAGE denver\_colorado



program separation



private unit  
bedroom  
bathroom  
kitchen



shared facilities  
bathrooms  
kitchen  
private bedroom  
partitioned/walled

SRO

(single room occupancy) typology

# a s s i s t e d

## public/assisted housing

This typology is utilized by those with some ability to pay rent. In this situation, a minimum of 30% of their income goes to rent. Assisted housing can also take many forms, ranging from multi-family detached dwellings, single family attached homes, high rise apartment complexes, or cluster housing. These are all considered permanent housing units, and generally incorporated into mixed-income developments with the aid of section 8 government housing vouchers. This typology is solely for the purpose of providing a shelter for those in need; they do not have social services associated with them. These needs are sought by the individuals in other locations, and are based on location and availability.



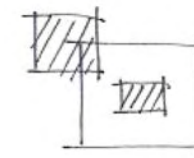


# CASE STUDIES

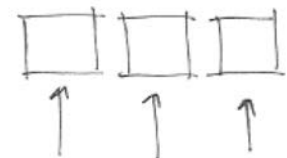


**public**  
 day care center  
 public garden  
 parking  
 playground  
 community lounge  
 laundry  
**private**  
 bedrooms  
 bathrooms  
 living room  
 dining & kitchen  
 exterior space

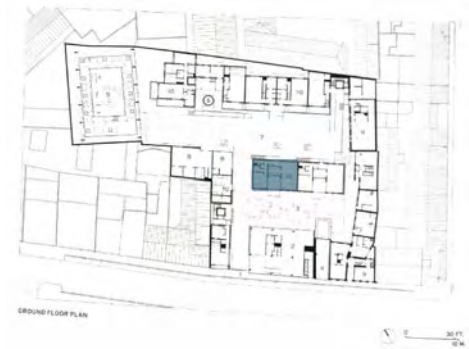
STREET WISE  
 amsterdam\_netherlands

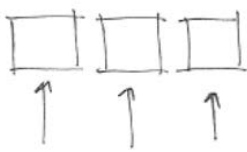


shared outdoor space

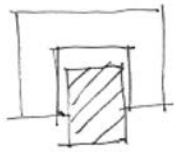


individual entry





individual entry



shared outdoor space



- public
  - courtyard
  - community room
  - children's playground
  - laundry room
  - community garden
- private
  - bedrooms
  - bathrooms
  - living room
  - dining & kitchen
  - exterior space

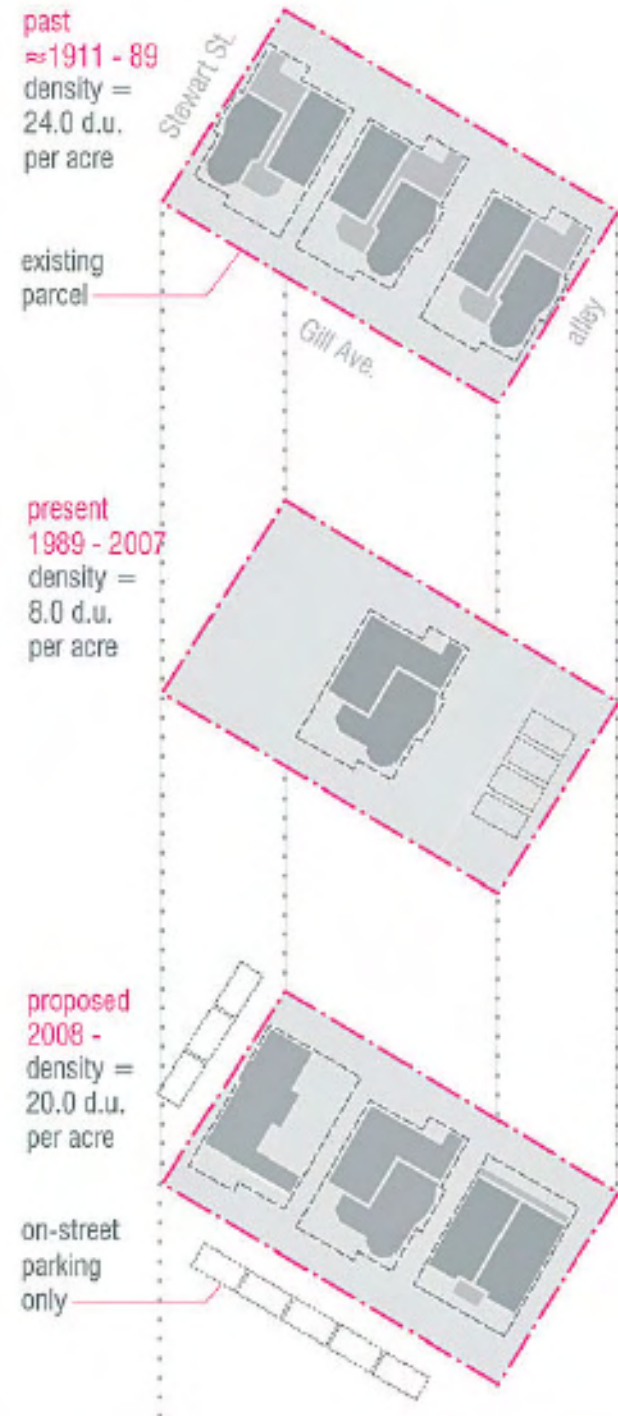
SHADY REFUGE  
santa monica\_california

public/assisted housing

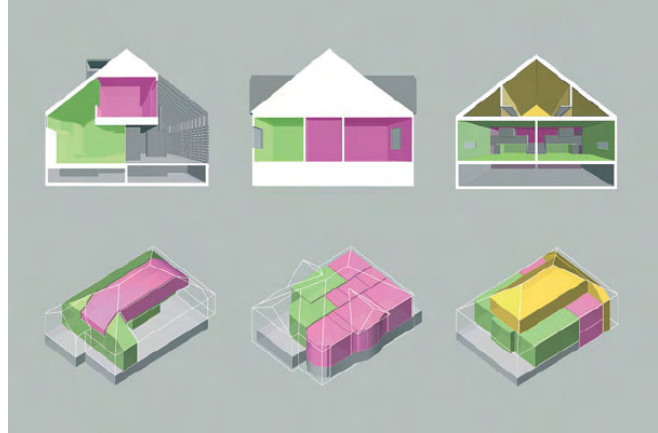


This project takes an under-utilized site within a residential neighborhood that has an existing structure, and increases its density. The project develops five units of housing and a private studio, contained in three structures, on a one-quarter acre infill lot with an historic zoning overlay. This case study is an example of how to create housing for multiple families within a single under-utilized site. This condition is one that could be utilized along Elmwood Ave. in order to integrate homeless individuals into the existing neighborhood.

## GHOST HOUSE PROJECT knoxville\_tennessee



# multi-family residence





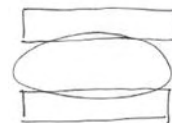
Elemental Housing is a series of social housing developments throughout parts of Chile and Mexico. Made from prefabricated pieces, these units are all built as a basic model. The remaining portion of the unit is completely customizable to fit the demands of the occupant. Each unit has a private entry, and the complexes are designed with shared exterior spaces. This construction method not only allows for quick, relatively inexpensive construction, but it offers flexibility for the occupants to customize their unit to fit their needs. This opens the opportunity for a variety of occupant types, from individuals to large families. This mixing of people helps to generate a healthy community environment.

## ELEMENTAL HOUSING

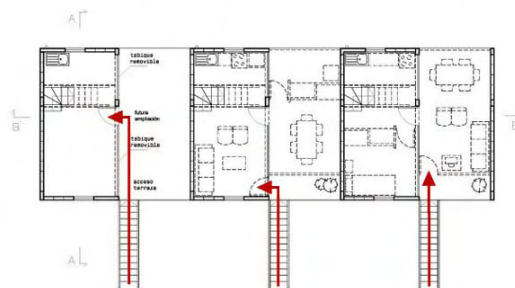
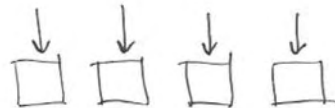
### chile & mexico



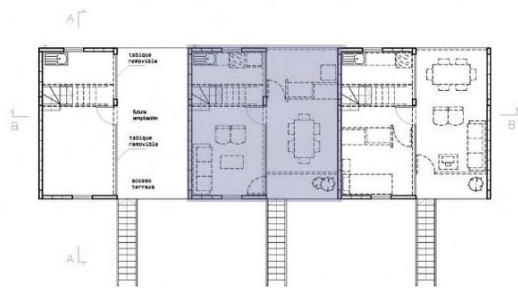
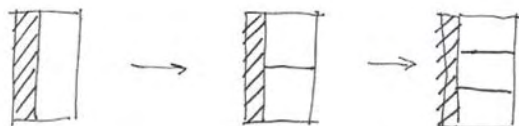
# attached single-family housing



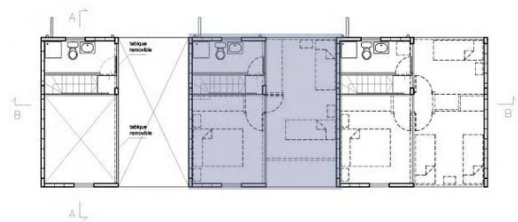
common open space



individual entrances



customizable units



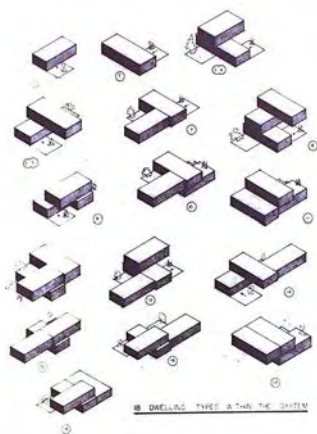
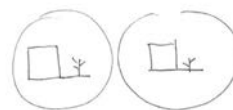
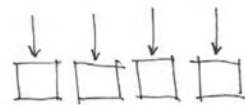
Designed as affordable housing, Habitat was built using a modular system to allow for a variety of unit types. Each unit has a private entrance and exterior terrace, and maintains privacy through the configuration of the clusters. Where this precedent falls short is the lack of shared space and the complete isolation of the development. There is no easy access to public transportation, relying solely on vehicular traffic; and a lack of access to other services. There is very little designed community space to bring people together and provide a shared community environment.

## HABITAT 67 montreal\_canada





# cluster housing



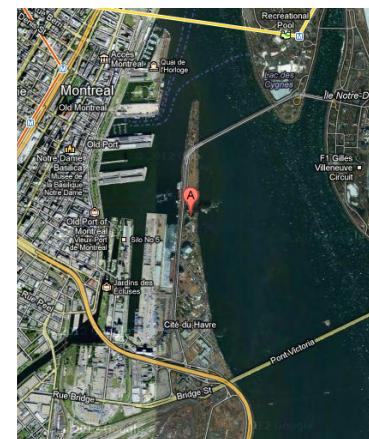
modular system



individual entrances



no shared exterior spaces, only private



isolated site, vehicular access only



## PROGRAM BREAKDOWN

The design of a housing continuum in Burlington provides a variety of support environments. These different housing environments are all designed within the downtown area, providing access to public transportation, open park space and employment opportunities. This thesis introduces three housing typologies as architectural interventions on three under-utilized downtown sites, focusing on the relationship between the individual and the common. I did a preliminary investigation into both the transitional and permanent dwelling typologies, but focused in on the shelter to design the first step of this housing process.

The first typology in this sequence is a shelter. Utilized for only a brief time, this typology provides for an individual's immediate needs and offers a place of safety and recovery. The design of the shelter emphasizes communal living, providing opportunities for community support and engagement, while also providing for the individual's basic needs. Each resident has their own sleeping space, which is flexible and can accommodate couples, families, or single parents with children. Childcare is also offered within the shelter, as well as counseling, job training, life skills training and drug rehabilitation. The building also offers the residents' pets a safe place to eat, sleep, wash, and play, as the bond between homeless individuals and their pets is very strong and many of Burlington's homeless are turned away from existing shelters because they are not willing to part with their companions.

The second typology in the process is a transitional unit, with generally longer stays than the shelter. This building begins to individualize living, while still offering common spaces and activities as an option. The units are flexible and can accommodate a single resident, a couple with a pet, or a family with anywhere from one to six children. Common kitchen, dining and living spaces are incorporated into the design, however each unit is also equipped with a kitchenette and small dining area. The building offers childcare and counseling support on the ground floor, with a family owned and operated restaurant, and small grocery. Additional services offered at the shelter can accommodate the residents of these transitional units as well, ensuring that the underlying support and training is always accessible, leaving no resident without resources.

The third typology is a permanent dwelling unit. This typology focuses in on the living space of a family unit. The living style in this case is completely private, however each dwelling unit offers a semi-private space that can be utilized for business operations, rentable space, or additional living space, based on the occupants needs.

What all of these typologies do is offer a flexible space that can be adapted to the changing needs of the individual or the community. These three sites tie together necessary support services and provide environments where the relationships between the common and the individual can thrive and ensure a solid foundation for growth and self-sufficiency.

shelter  
50,000 sf

resident intake & counseling  
hair salon/barber shop  
thrift store  
pet care center  
kitchen & dining  
common lounges (interior)  
common lounges (exterior)  
reading room  
fitness center  
common bathing facilities  
common bathroom facilities  
laundry facilities  
health clinic  
detox & recovery beds  
counseling & offices  
classrooms & job training  
child play center  
child play area (exterior)  
art & media room  
outdoor terrace & roof garden  
individual sleeping units  
family sleeping pods

transitional housing  
36,000 sf

restaurant  
child care center  
child play area (exterior)  
small grocery store  
offices & counseling  
common kitchen & dining  
common lounges (interior)  
common lounges (exterior)  
roof garden  
private kitchenette & dining  
private bedrooms  
private bathrooms

permanent dwelling units  
2,800 sf

kitchen  
dining  
living (interior)  
living (exterior)  
3 bedrooms  
2 bathrooms  
bonus room with private entry & <sup>1</sup>/<sub>2</sub> bath  
1 car garage  
roof garden



DESIGN

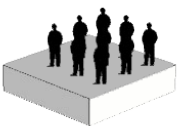




Utilized for only a brief time, the shelter typology provides for an individual's immediate needs and offers a place of safety and recovery. The design of the shelter emphasizes communal living, providing opportunities for community support and engagement, while also providing for the individual's basic needs.

Most commonly the first step in the process, this typology needs to be able to create a strong foundation of safety and support to aid homeless individuals and families in securing good jobs, permanent housing, and affordable living habits. The common spaces, therefore, become very important as places for healing, learning and cooperation. Just as important, though, are the places of privacy and solace. This building needs to be flexible enough to offer each individual the type of environment needed for their own personal transformation.

The building has gone through many transformations in the search for an environment that would allow for all of these processes to coexist. Most important became the relationships between interior and exterior, ensuring that the residents could always be connected to vegetation, natural light and fresh air, as well as the relationships between private and common space.



# shelter





neighboring buildings along main street



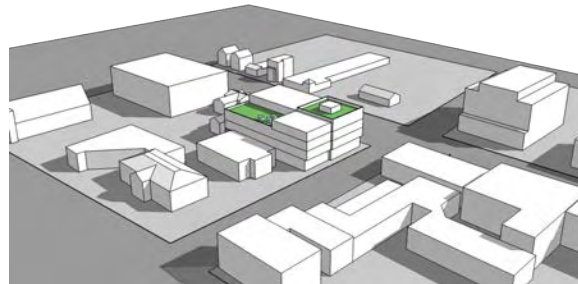
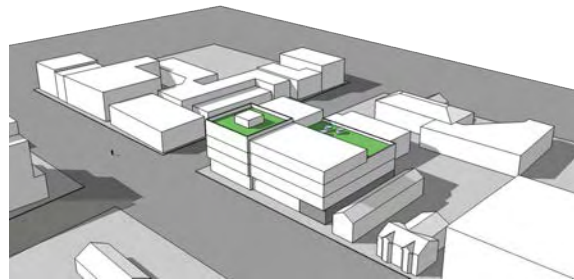




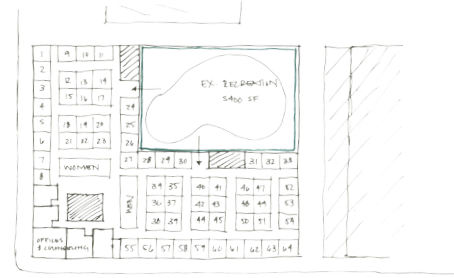
scheme 1



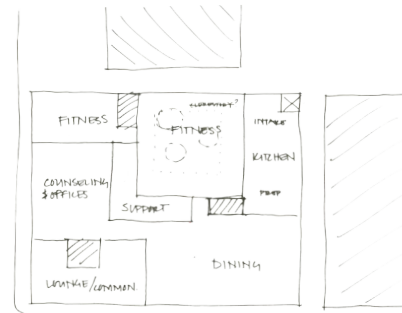
process



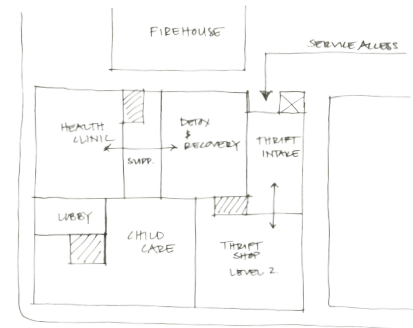
preliminary massing study



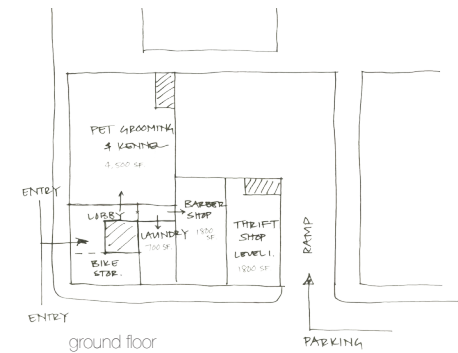
fourth floor



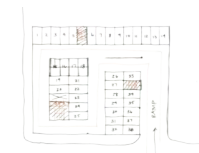
third floor



second floor

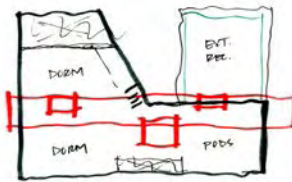


ground floor

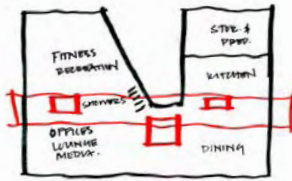


basement parking

## scheme 2



fourth floor



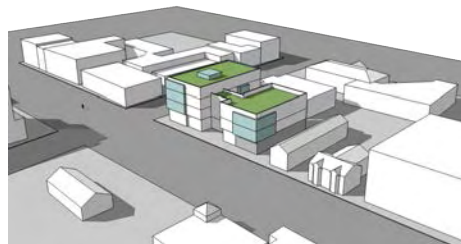
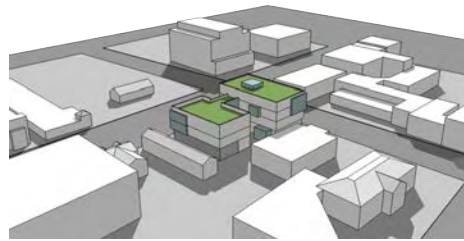
third floor



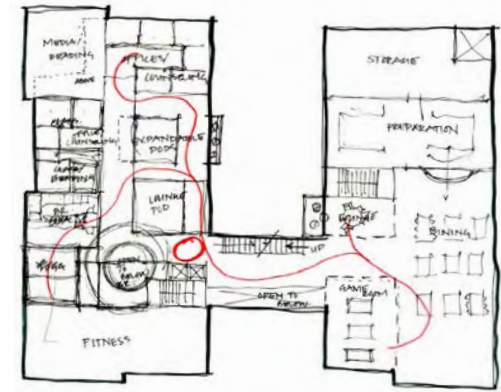
second floor



ground floor



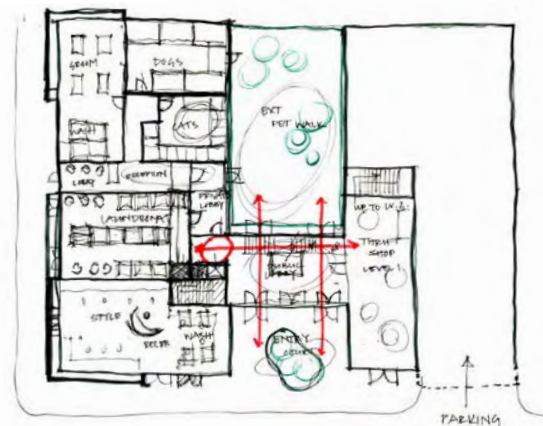
preliminary massing study



third floor



second floor



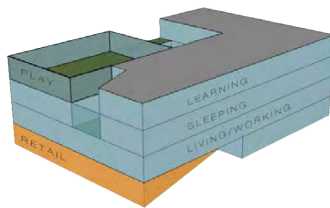
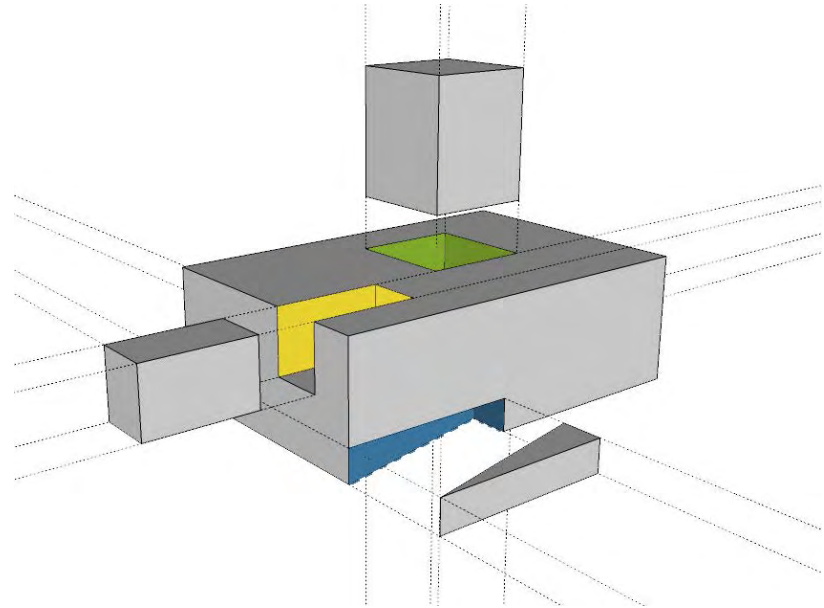
ground floor

process

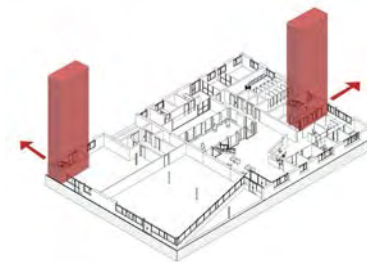
scheme 3



The deep nature of the site lent itself to the use of an interior courtyard to allow ample natural light to all interior spaces. This established the concept of carving away to create exterior spaces, which was repeated at varying scales throughout the building, creating a variety of exterior spaces.



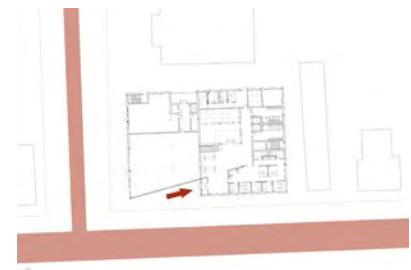
program organization



egress



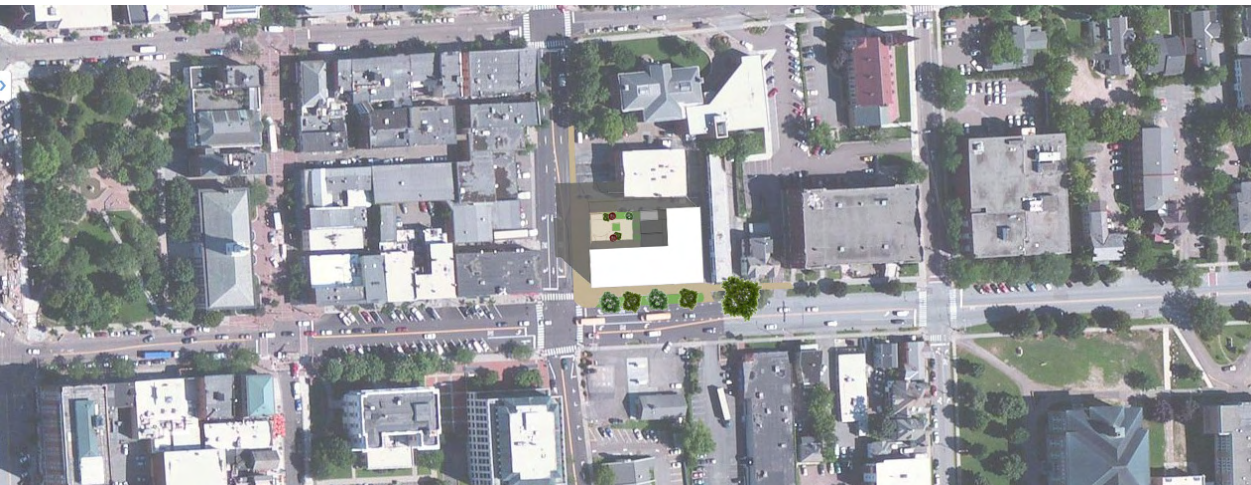
service access



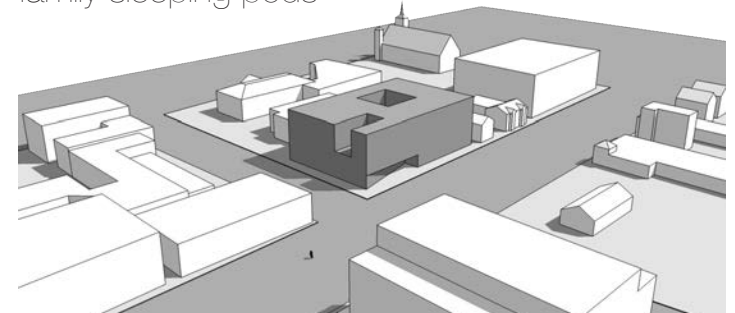
site circulation

shelter  
50,000 sf

resident intake & counseling  
hair salon/barber shop  
thrift store  
pet care center  
kitchen & dining  
common lounges (interior)  
common lounges (exterior)  
reading room  
fitness center  
common bathing facilities  
common bathroom facilities  
laundry facilities  
health clinic  
detox & recovery beds  
counseling & offices  
classrooms & job training  
child play center  
child play area (exterior)  
art & media room  
outdoor terrace & roof garden  
individual sleeping units  
family sleeping pods



roof plan in context



concept massing in context



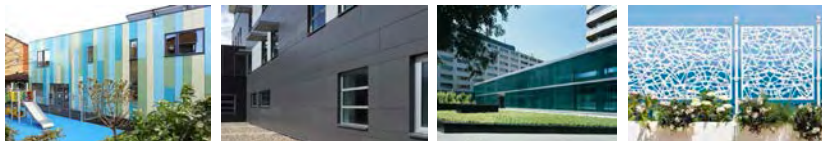
BUILDING IN CONTEXT



street view at the intersection of main street and south winooski avenue

The building incorporates a variety of program elements serving a sizable population, and in doing so becomes a large presence on the site. The mass of the building resembles the neighboring buildings, responding to two different datums with the dark three-story base and a seemingly floating fourth-story roof. The carving concept is visible from the street, establishing a visual connection with exterior spaces before entering the building. These spaces are further emphasized by the change in material. The building is clad in a neutral dark grey, while the excavated portions become colorful highlights, visually establishing a sequence of common spaces as you move through the building.

The building also engages the street, providing retail at the ground floor that can draw in the public, while receding the entrance to the shelter and providing a more private threshold to the environment within. The retail functions provide services to the public, but also double as an internal service of the building. The thrift/second hand store offers clothes, school supplies, furniture, etc... and the hair salon/barber shop is an opportunity for residents to feel rejuvenated upon arrival, ready for a new start, or to freshen up to prepare for a job interview.



exterior material study

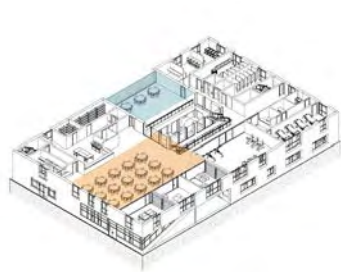
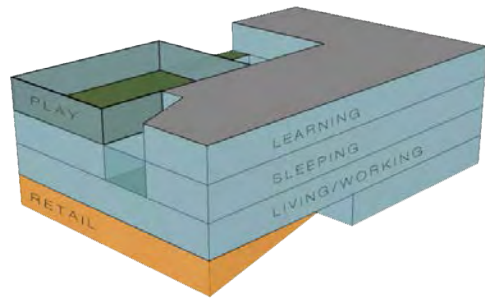


street view looking east along main street

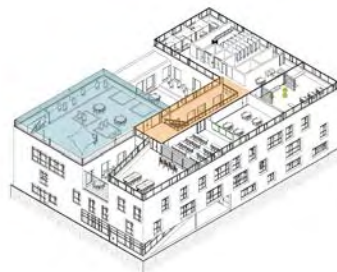


street view looking west along main street





location of second floor perspective (orange)



location of fourth floor perspective (orange)

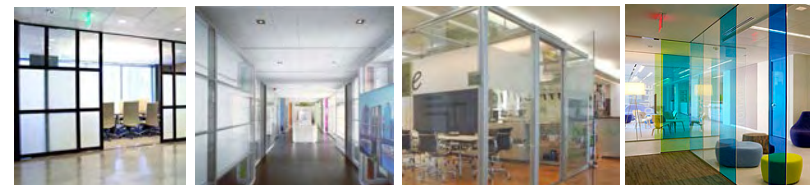


perspective of second floor common dining and lounge spaces

c o m m o n

The focus on the interior of the building is the relationship between common and private, and between interior and exterior.

Visibility and connectivity are important between the common spaces. It allows for separation of program while maintaining a sense of communal activity. The dispersion of natural light to all interior spaces became an important factor for the interior finishes as well. Most of the interior partitions are glass, some frosted for privacy, others transparent for community activity and visibility. The use of screens also comes into play along the edges of the terraces to provide some privacy as well as sun shading, while not hindering views to the city or the lake.

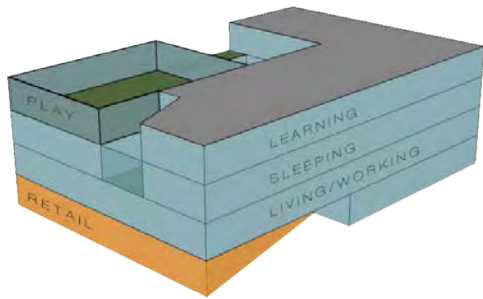


interior material study



perspective of fourth floor common learning spaces



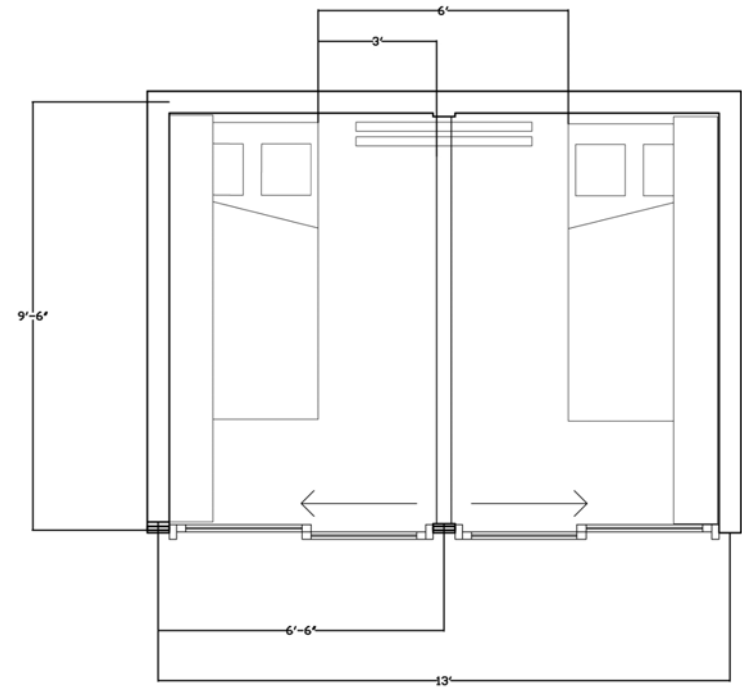


location of third floor perspective (orange)



The individual sleeping units are secluded from the main common spaces of the building, offering quiet places for contemplation and solace. To maintain the dispersion of natural light throughout, the walls of the sleeping units are not full height. The units are also pulled away from the exterior walls and have frosted glass doors.

The units can be used to sleep a single person, or a couple with children. The beds are built into the walls and can fold down when needed, accommodating two people per unit, and the interior walls can fold away, creating a double unit that can accommodate up to four people.



adjustable sleeping unit



interior material study

private



perspective of third floor sleeping units adjusted to accommodate families

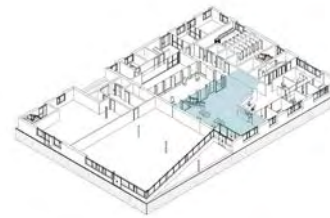
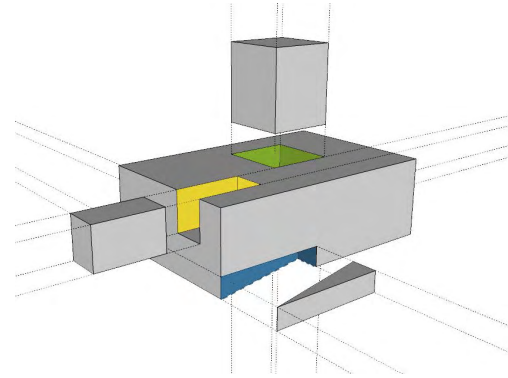
## CONNECTION TO NATURE



perspective of third floor sleeping units with visual access to the "green shelf"



The connection to nature is an important aspect within the building. Not only is it visually appealing and promotes healthy living, but it establishes a certain mind set. Many of the residents here have just lost everything, or have very little to begin with. This is a place of recovery and self-rejuvenation. From the counseling services, to the community art classes this building offers many outlets for healing. The relationship between interior and exterior comes into play in every space of the building. Immediately upon entering the lobby you are presented with the rain garden which can be used for a quiet meditation space or a group lunch. The main circulation of the building runs right along the green-clad central courtyard space, creating a public zone with immediate connection to the outdoors. The second floor has an exterior patio off the main dining space that overlooks the rain garden and can be utilized for group meals on nicer days.



location of ground floor perspective (blue)



location of third floor perspective (blue)



visual connection to nature and the city



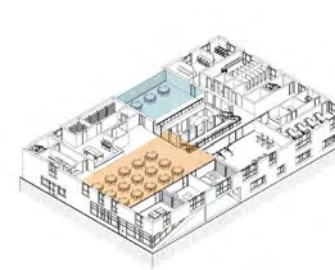
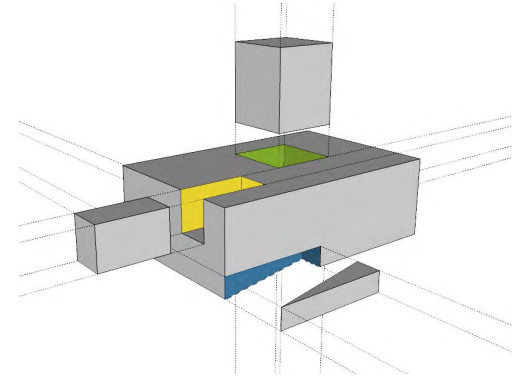
perspective of ground floor lobby with access to the rain garden



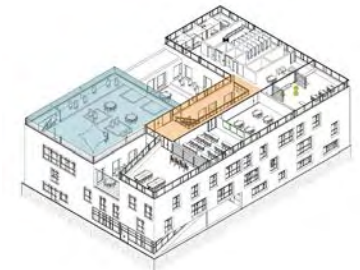


perspective of fourth floor roof terrace

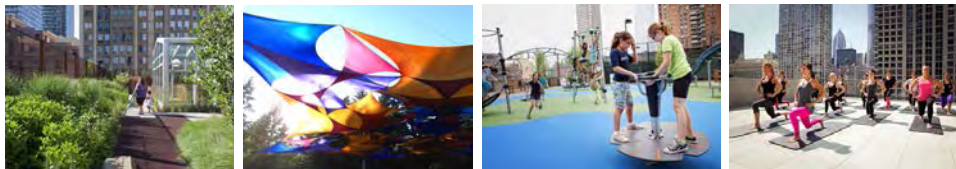
The third floor offers a smaller, more private terrace overlooking Main Street with space for conversation or self reflection. Continuing up to the fourth floor you find the largest exterior space. The roof terrace offers active outside spaces: a paved area for four square, basketball or chalk, a rubber floored playscape area, tables and chairs for reading, conversation or group activity, and community vegetable gardens, all while offering unending views of downtown and the Adirondack mountains over the lake. All of these spaces combine to create a circuit of green throughout the building. Each exterior space can be seen from another, and no space within the building is without at least a visual connection to one of these spaces.



location of second floor perspective (blue)



location of fourth floor perspective (blue)



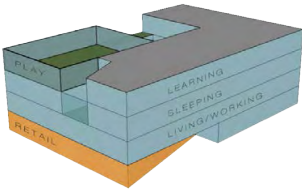
exterior space study



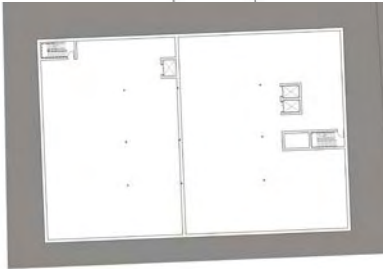
perspective of second floor courtyard



ORGANIZATION  
& STRUCTURE



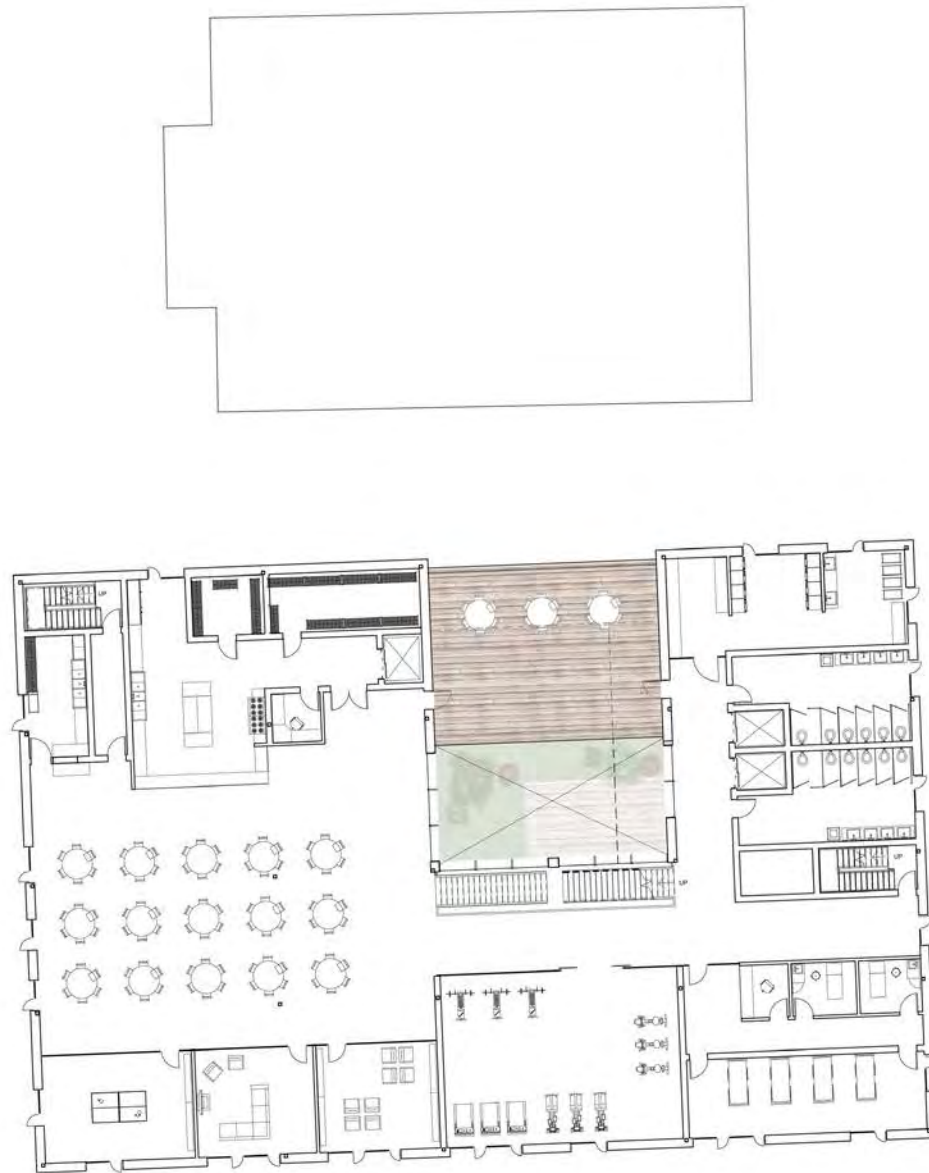
pet care center design intentions



Ⓜ Basement



Ⓜ Ground Floor

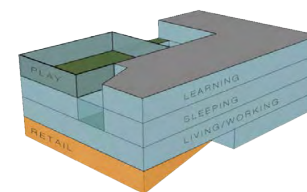


Second Floor

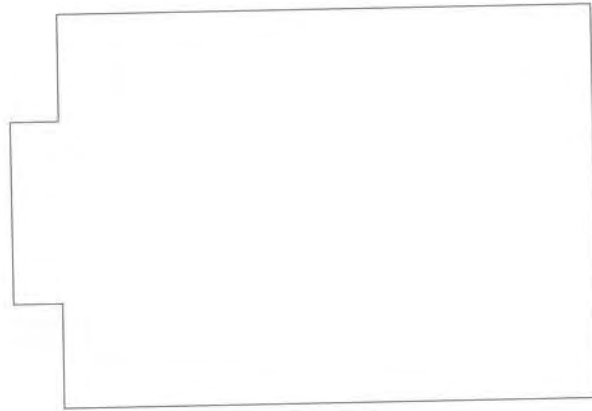
The organization of the building places retail on the ground floor to engage the busy Main Street and S. Winooski Avenue, while receding the shelter entrance to provide a more reserved approach. The intake process can be stressful and daunting, so the lobby provides seating space and an exterior rain garden while pulling the intake counseling and bathing procedures into a more secluded area. This is also the point at which the resident would first have to part with a pet which can be very emotional. The pets are brought along the garden to the rear of the building where they have their own intake process. They are housed there and can be visited at any time by their owner, taken out for walks or played with in the indoor pet recreation area.

The second floor is the living/working level, offering all of the common dining and lounge spaces, fitness center and health clinic with private detox and recovery beds. The residents have the opportunity to help work in the kitchen, dishwashing room and laundry room which are also located on this floor. Functioning as the main living floor, this level provides ample opportunities for community engagement and cooperative activities.





Third Floor



The third floor is the sleeping level. With offices and restrooms anchored in the service corner, the sleeping units can be arranged in many ways, taking advantage of the natural light and views of both the central courtyard and the terrace. In it's current arrangement, this level can sleep anywhere from 70-140 individuals. The flexible sleeping units, as well as their flexible arrangement allows for the building to adapt to the needs of the community. This is an important level of the building because it is the one place where each resident has his or her own space. At any time they can close their doors and be alone within their own four walls.



The fourth floor is the learning level. This level housing counseling offices, childcare, art room, and dividable classroom spaces for life skill training, job training, community engagement activities. etc... The large roof terrace is equipped for multiple use groups. From jungle gym to vegetable gardens, any resident of the building can utilize this exterior space.



Fourth Floor



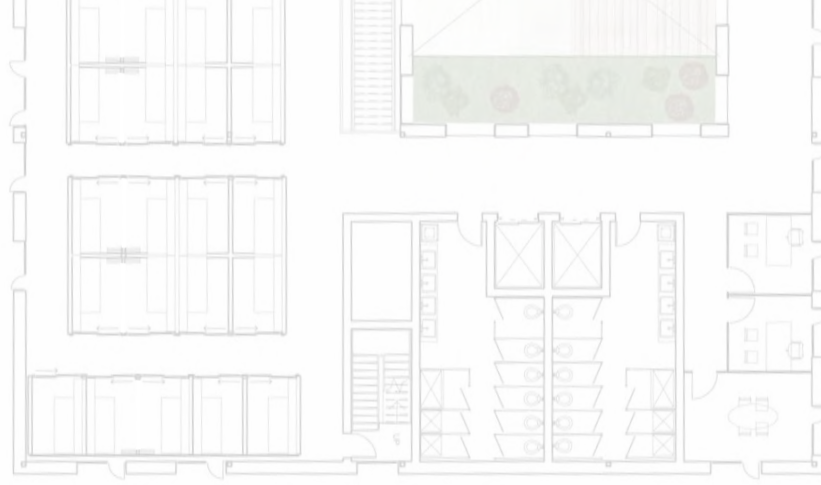
west elevation



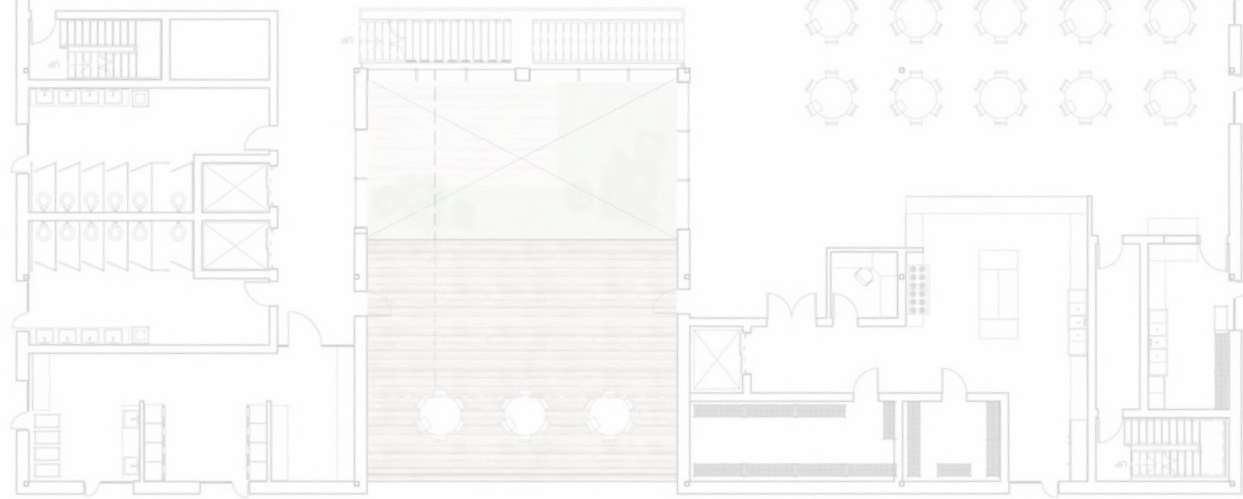
S. WINOOSKI AVE.

south elevation





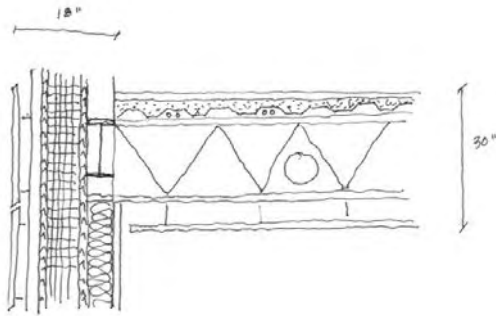
east elevation



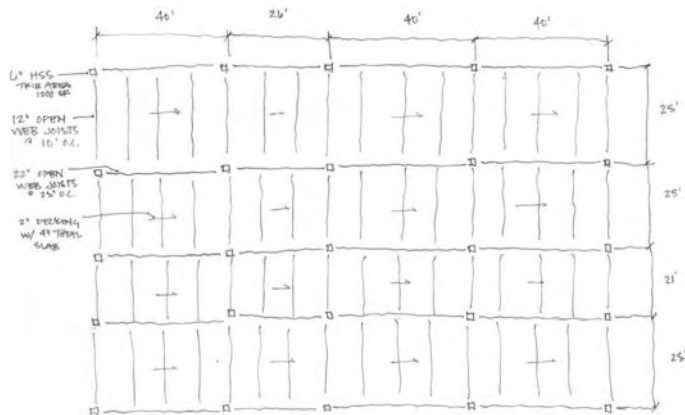
S. WINOOSKI AVE.

north elevation

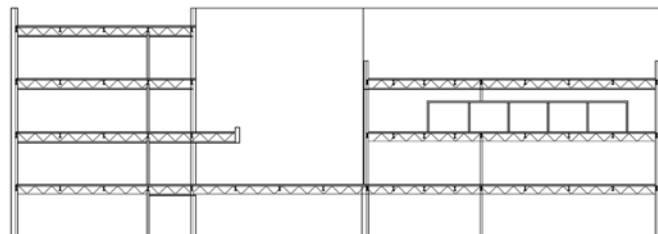
section detail of typical wall and roof



COPPER CLADDING PANELS  
AIRSPACE W/ ALUMINUM FLEETING STRIPS  
SIPS PANEL  
LIGHT GAUGE STEEL FRAME, DIAGONALLY BRACED  
W/ EARTH INSUL.  
GWB FINISH WALL



structural framing plan



structural section study through main courtyard



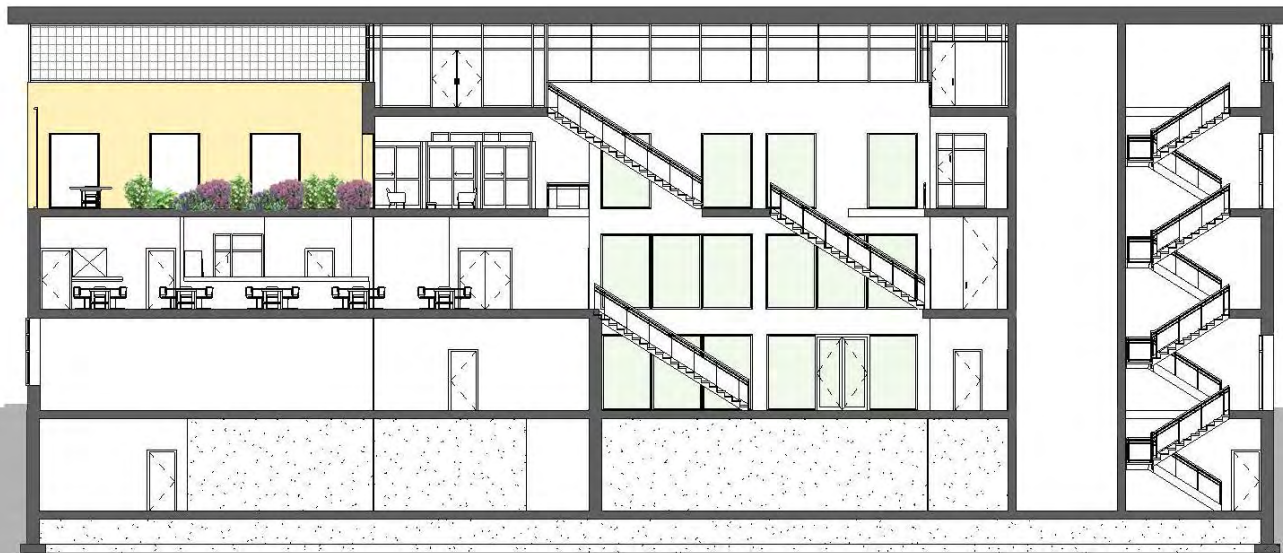
modeled street view at intersection of Main St. and S. Winooski Ave.

The idea of flexibility and accommodation became an important factor in determining the structural system. The building utilizes a steel frame with open web joists, which allows for large spans and can accommodate mechanical and electrical systems within its depth, maximizing usable space. The exterior walls are thick and super insulated, responding directly to the climate and reducing energy demands for heating and cooling.

The steel frame allows for flexible interior spaces. The interior partitions can be moved or rearranged without any harm to the structural integrity of the building. This furthers the building's ability to change and grow with the needs of the community. If the shelter function were to move elsewhere, or become superfluous (we can only hope!), the building could be utilized for a number of other functions and programs, from community center, to office building, to school.



S. WINOOSKI AVE.



cross section through level 3 terrace



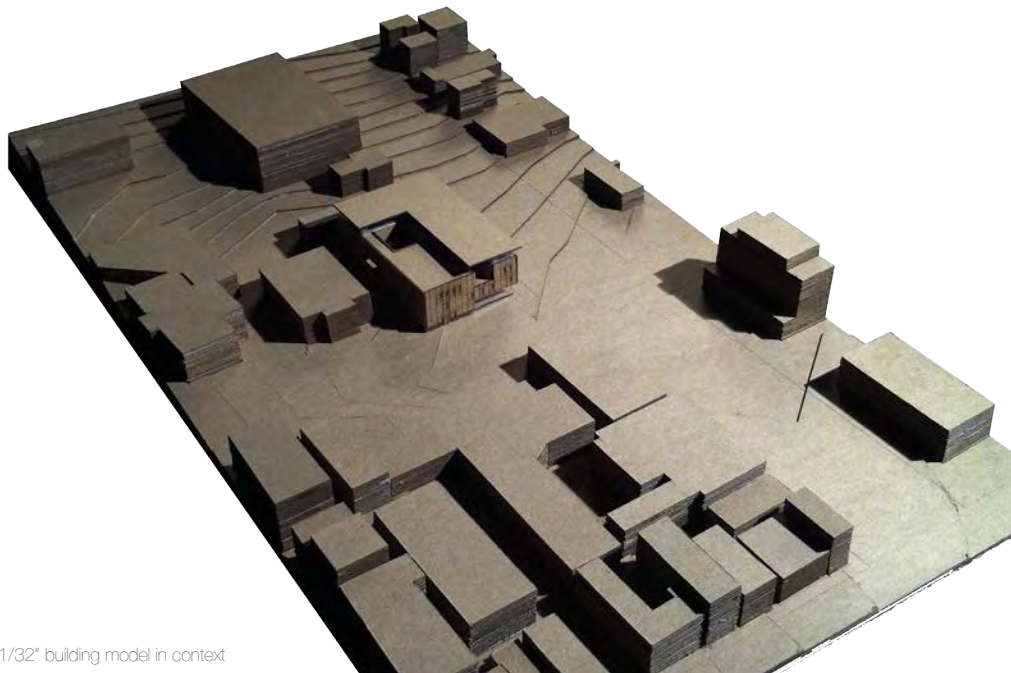
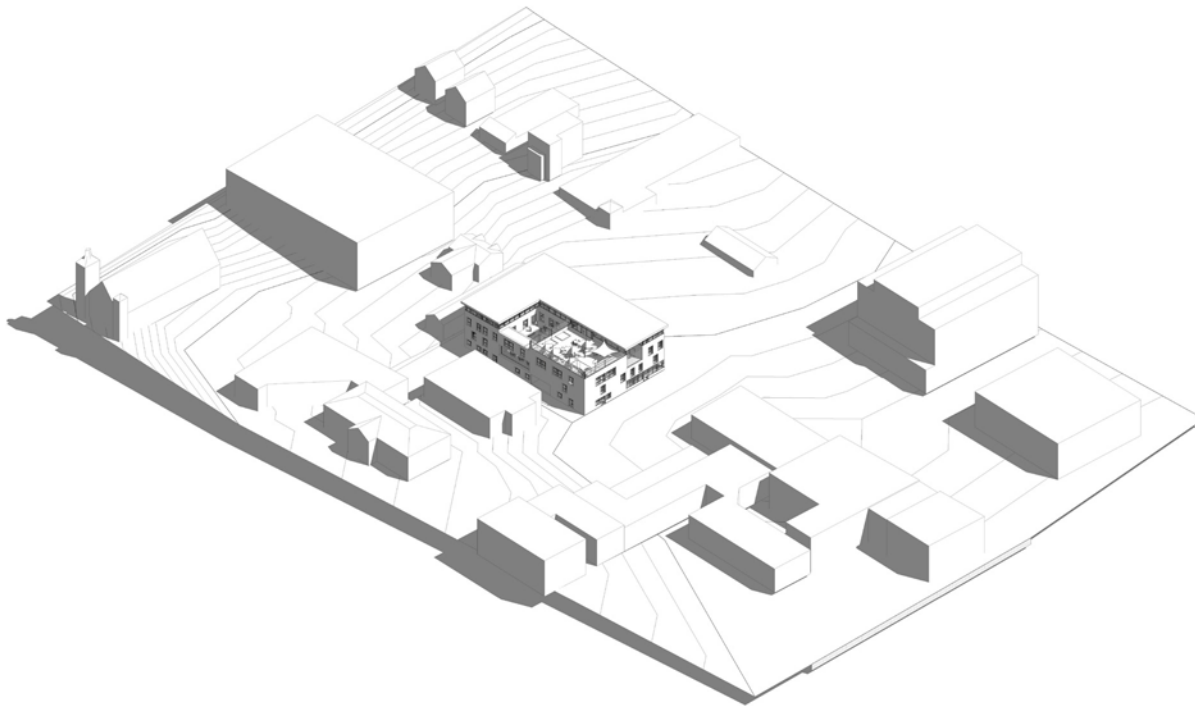


MAIN STREET

cross section through main courtyard



longitudinal section through main courtyard



1/32" building model in context

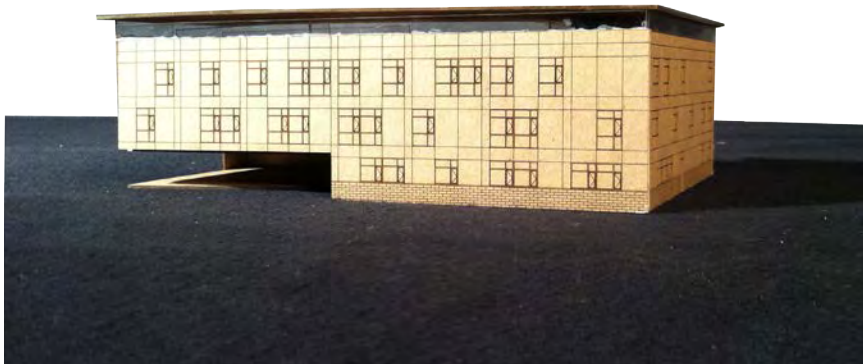




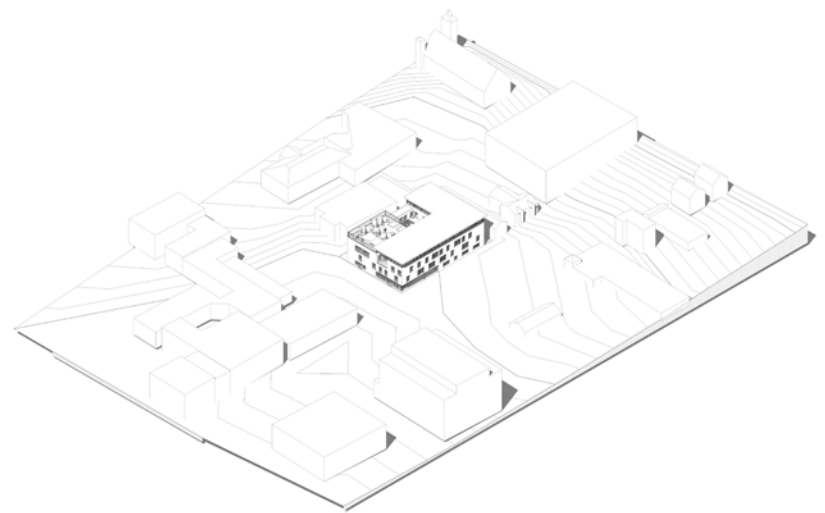
1/32" building model in context

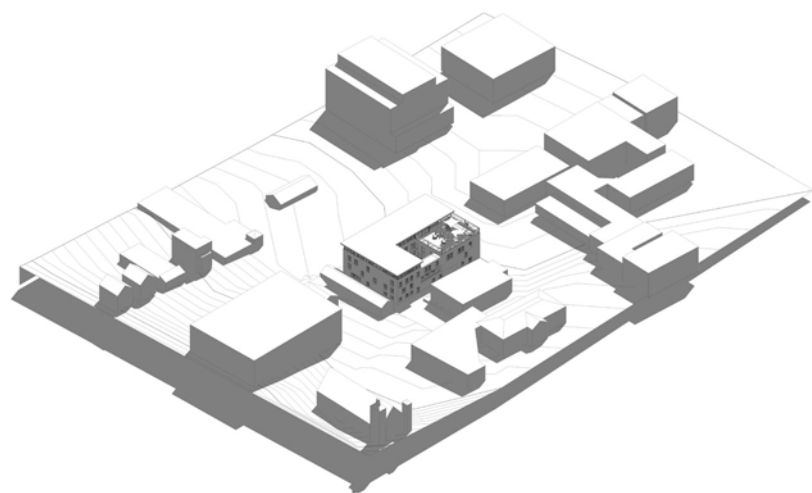
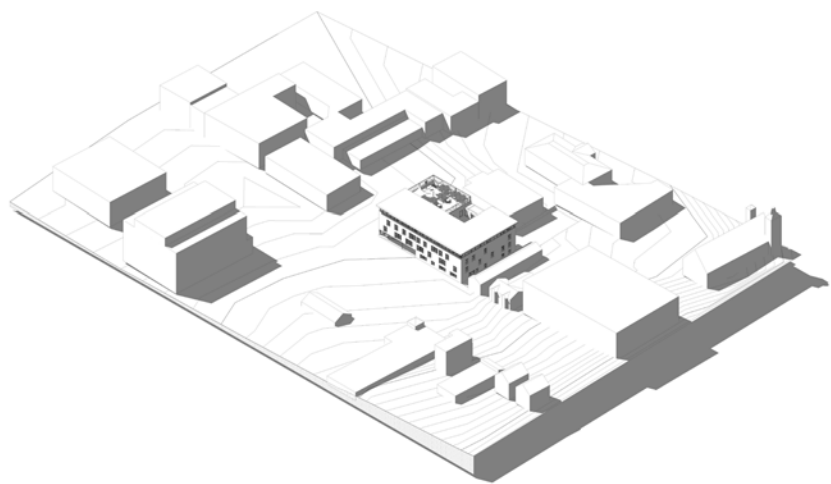


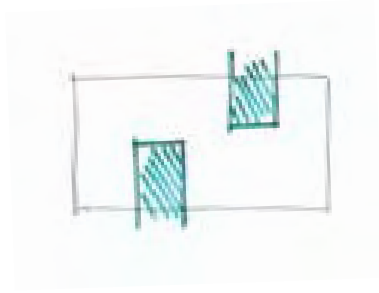
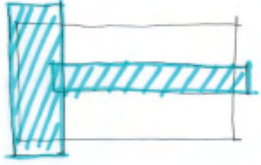
The variety and flexibility of program elements in this building help to establish a strong foundation for recovery and self-rejuvenation without losing the individual freedoms that we all prize. The building is permeable, allowing for a constant ebb and flow of inhabitants, learning from one another and contributing to a stronger community. The journey out of the building is just as important, if not more, than entering into it. As the first step in Burlington's housing continuum, this building strives to create an environment where residents feel safe enough to let their guard down, get their lives in order, ask for help when needed, and leave with a strong foundation.



1/16" building model\_southern facade

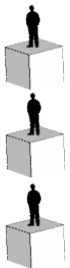






The second typology in the process is a transitional unit, with generally longer stays than the shelter. This building begins to individualize living, while still offering common spaces and activities as an option.

There are two schemes that investigate the relationship between the living units and the common spaces. The first scheme occupies the entire depth of the site, with common spaces running along as the spine of the building, anchored at one end with a larger community center and child care center. The second scheme emphasizes its contrasting living style from the shelter typology. The building becomes very narrow on the site, continuing the depth of the adjacent building and providing room for a common green space. The building shares a similar language with that of the shelter, carving away from the mass to create common terraces and roof gardens. The street facade respects the existing datum of its neighbors, stepping the upper floor back. The straightforward mass allows for a flexible interior with a combination of private living units and common spaces, with services provided on the ground floor. The living units themselves are flexible and can accommodate a single resident, a couple with a pet, or a family with anywhere from one to six children. Common kitchen, dining and living spaces are incorporated into the design, however each unit is also equipped with a kitchenette and small dining area. The building offers childcare and counseling support on the ground floor, with a family owned and operated restaurant, and small grocery. Additional services offered at the shelter can accommodate the residents of these transitional units as well, ensuring that the underlying support and training is always accessible, leaving no resident without resources.



t r a n s i t i o n a l



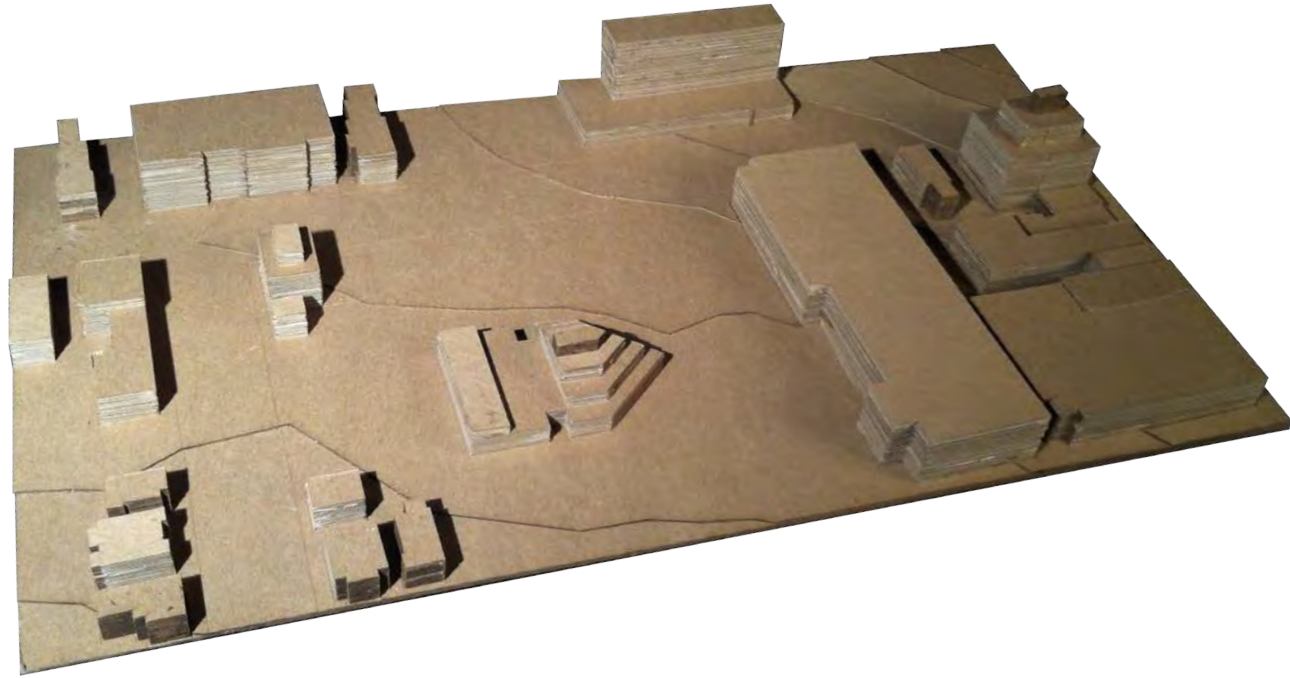




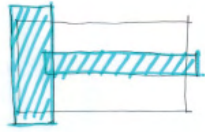
neighboring buildings along pearl street



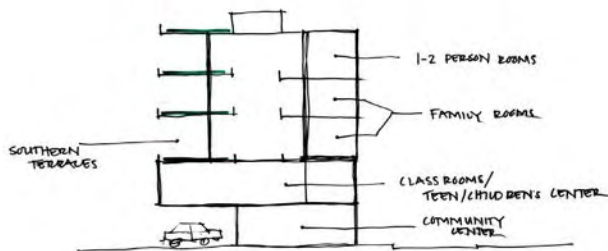
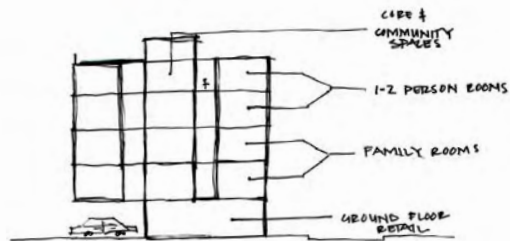
building immediately adjacent to site



scheme 1

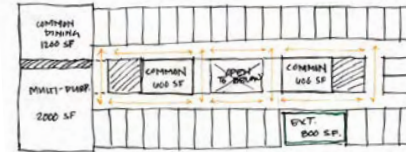


process



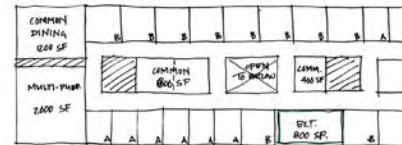
SCHEME 1. FOURTH FLOOR-

40 UNITS (1-2 PERSON)  
 @ 280 SF EA.  
 11,200 SF  
 4,400 SF COMMON SPACE  
 800 SF EXT. SPACE



SCHEME 1.  
 THIRD FLOOR-

20 UNITS:  
 12 UNITS (1-2 PERSON) @ 450 SF EA.  
 8 UNITS (2-4 PERSON) @ 400 SF EA.  
 8,000 SF  
 4,400 SF COMMON SPACE  
 800 SF EXT. SPACE

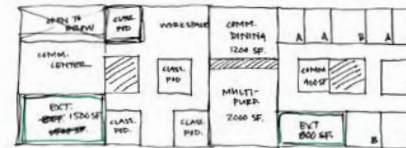


SCHEME 1.  
 SECOND FLOOR-

MULTI-USE

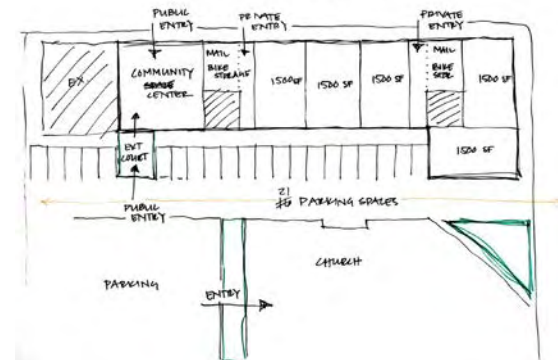
CHILD CARE M-F 8-5  
 TEEN/COMM. CENTER S-S ALL DAY  
 M-F 6-10 PM

8 UNITS:  
 4 UNITS (1-2 PERSON) @ 450 SF EA.  
 4 UNITS (2-4 PERSON) @ 400 SF EA.

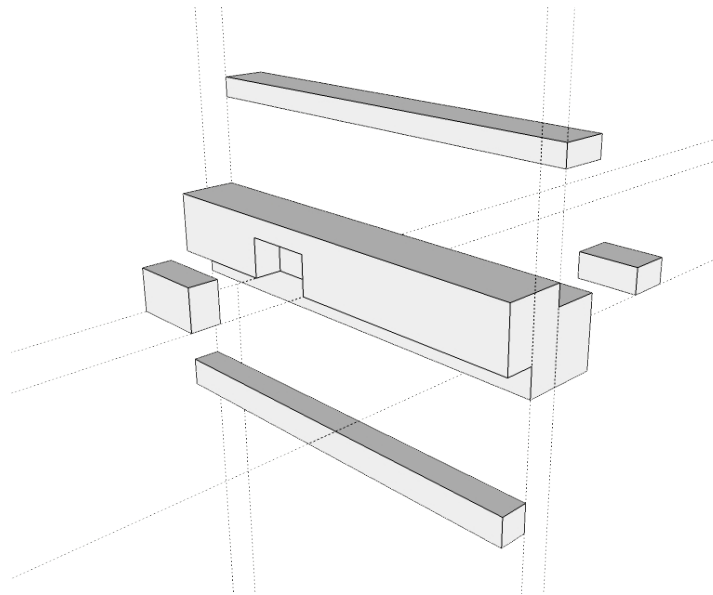
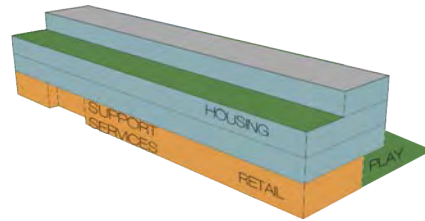
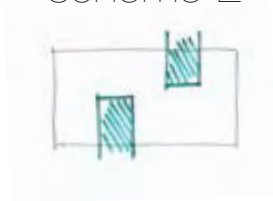


SCHEME 1. GROUND FLOOR-

RETAIL @ 1500 SF  
 COMMUNITY @ 2500 SF



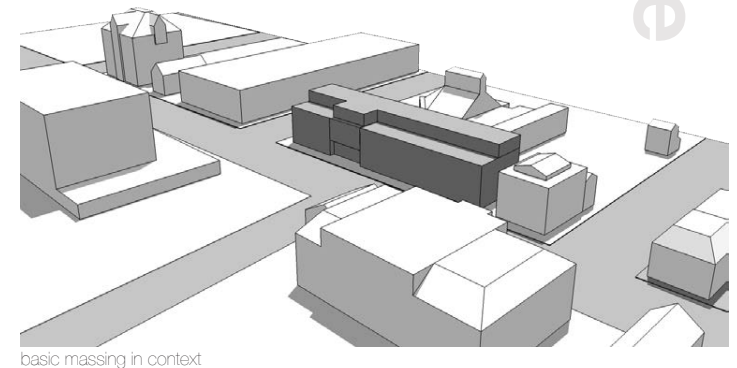
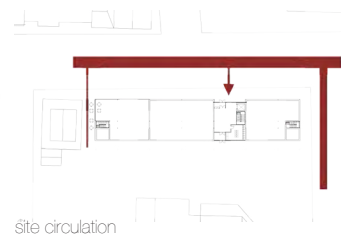
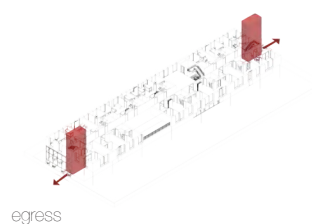
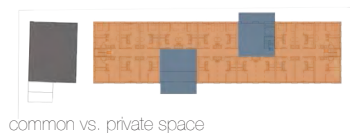
scheme 2



## transitional housing 36,000 sf

restaurant  
child care center  
child play area (exterior)  
small grocery store  
offices & counseling  
common kitchen & dining  
common lounges (interior)  
common lounges (exterior)  
roof garden  
private kitchenette & dining  
private bedrooms  
private bathrooms

final scheme







fourth floor



third floor

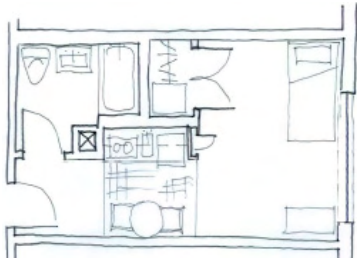


second floor

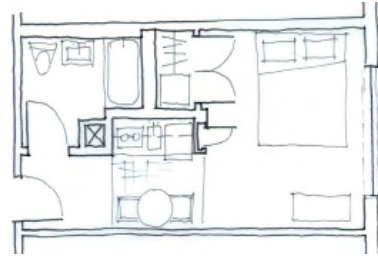


ground floor

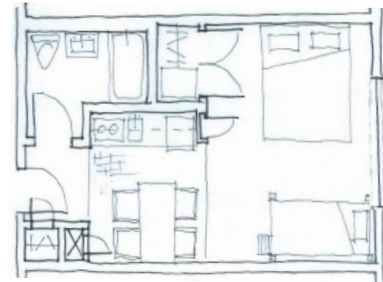
With this typology in particular it was very important analyze the dimensions of the individual living units. The goal was to understand the absolute minimum dimensions needed for a variety of family types. Minimizing unit dimensions would allow for maximum occupancy on the site. Diagrammed to the right are the four units that I devised as necessary arrangements for the transitional housing typology. The first, and smallest, can accommodate a single person. From there the rooms grow fractionally to accommodate a couple, a couple with 1-2 children, and finally a couple with 2-4 children. After determining the types of units that this housing typology would need I was able to simplify the rooms to fit within the structural bay and remain flexible enough to accommodate more than one type of family. The units are flexible, sub-dividable rooms that can change with the needs of the individual or family who occupies them at any given time.



single person room\_260 sf



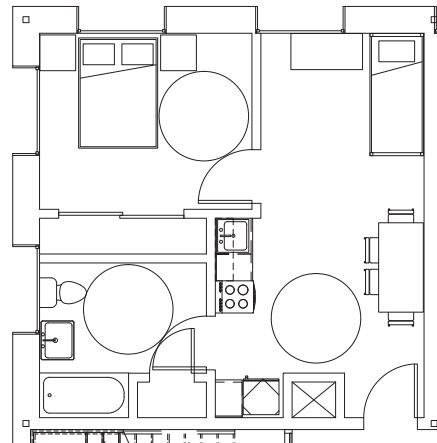
couple's room\_286 sf



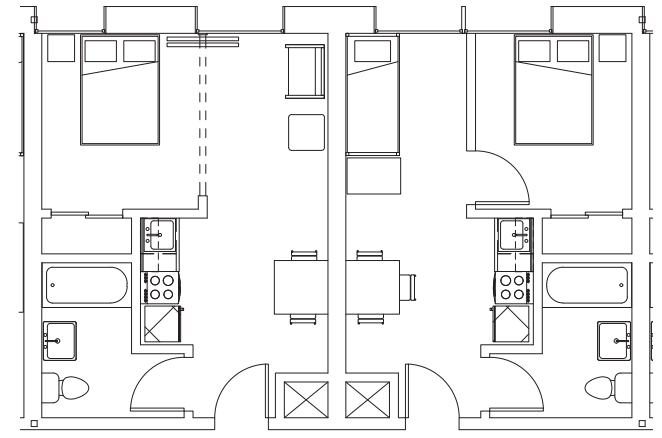
couple with 1-2 children\_352 sf



couple with 2-4 children\_484 sf

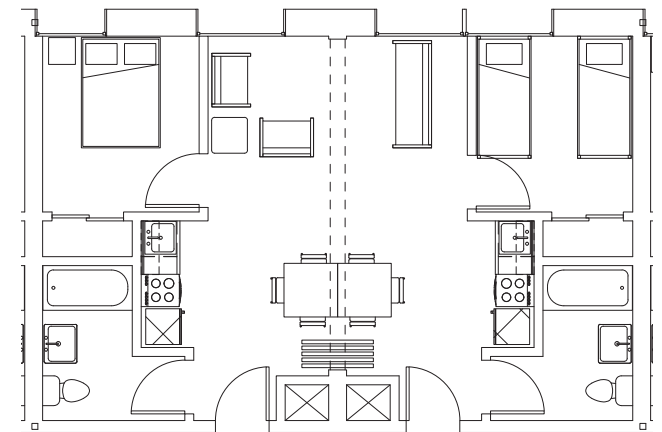


handicap accessible corner unit

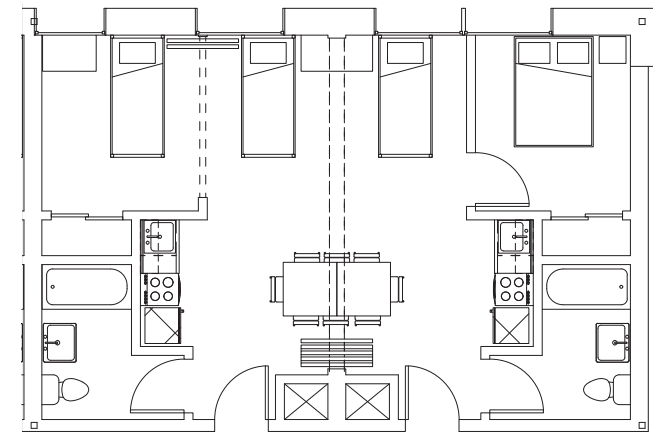


basic unit\_single person or couple

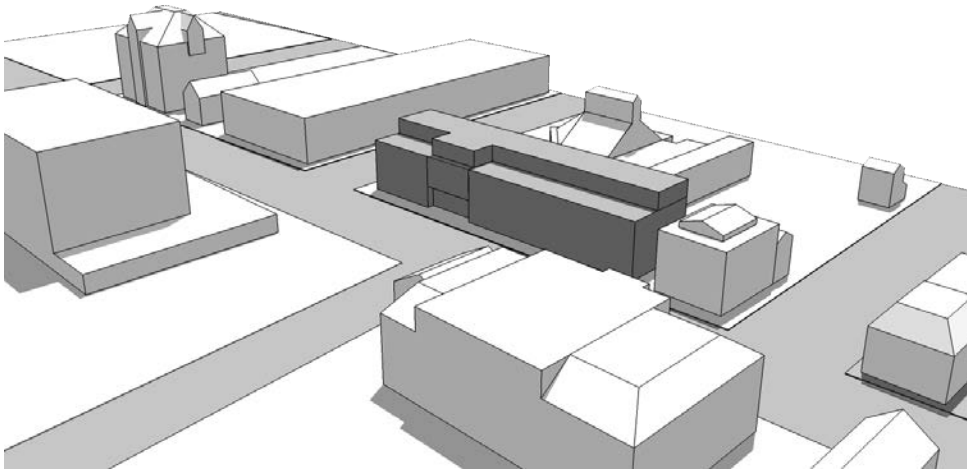
sub-divided basic unit\_couple with 1 child



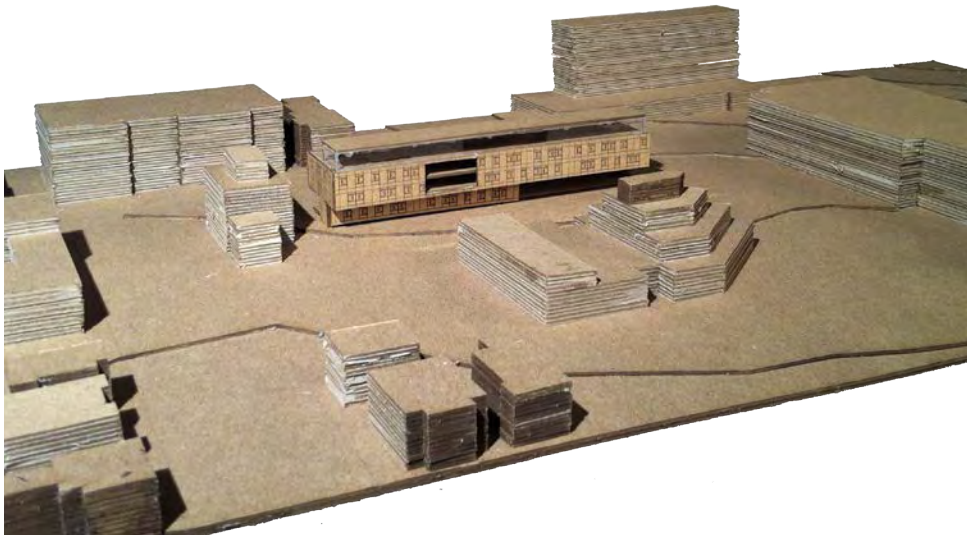
double unit\_couple with 2-4 children



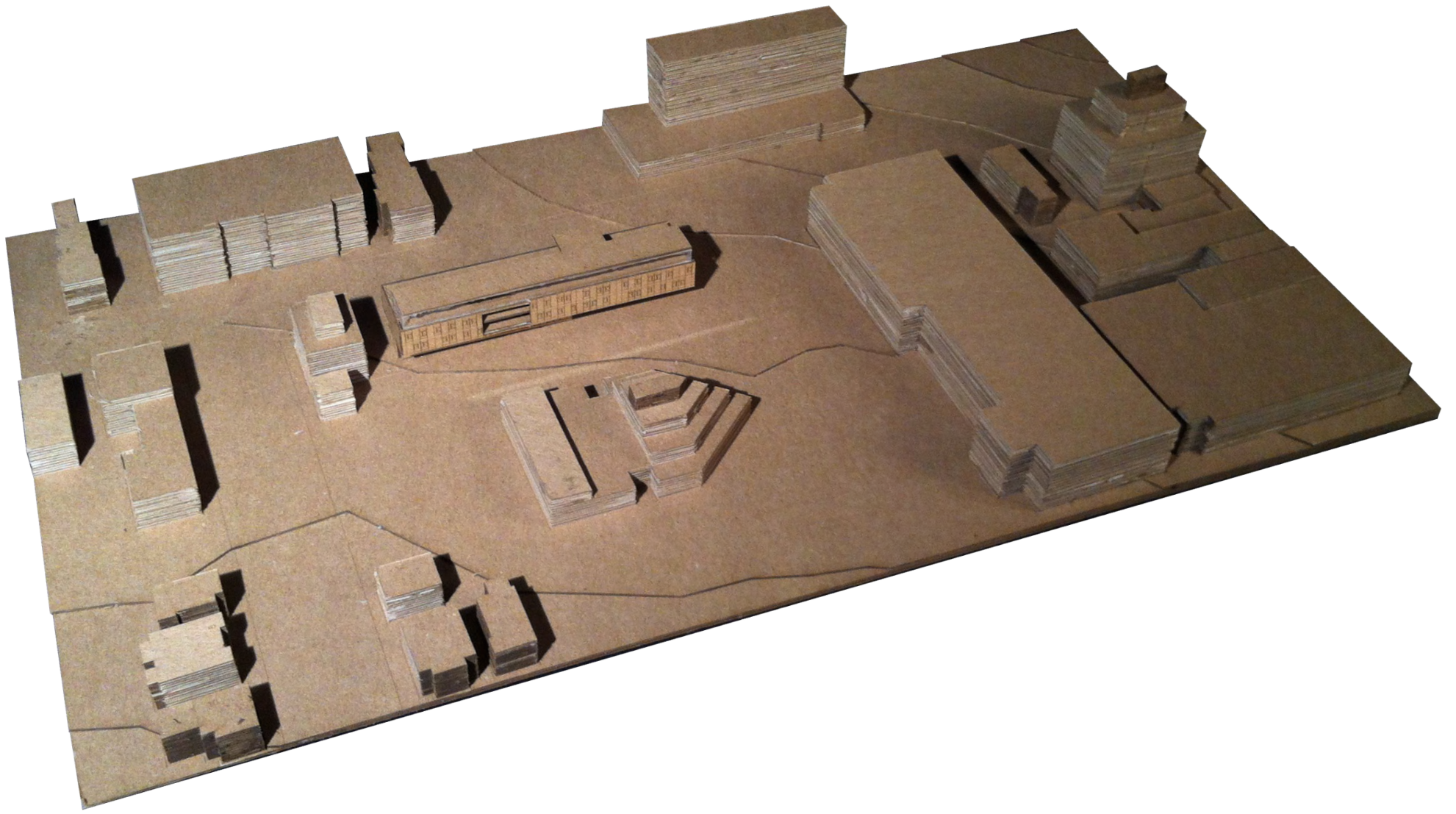
open double unit\_couple with 3-6 children



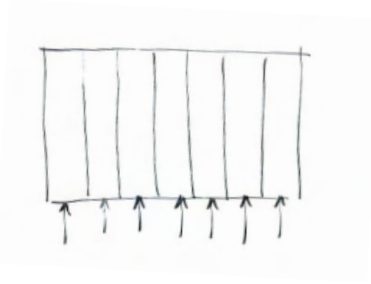
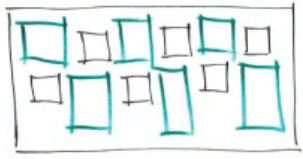
massing model in context



1/32" building model in context





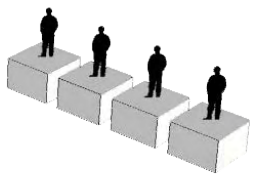


The third typology is a permanent dwelling unit. This typology focuses in on the living space of a family unit. This typology can be achieved in any number of ways, however given the site conditions I investigated two main schemes for this site: the multi-family detached house and the row house.

The first scheme investigates the rough dimensions of the neighboring houses to see how many families this particular site can accommodate. The organization emphasizes the idea of houses within a garden, offering shared gardens and green spaces between the units.

The second scheme is a more straight forward organization of rowhouses with vehicular access to the north of the site and pedestrian access on the southern side. This scheme followed the same massing language as the previous two typologies: carving away from the solid mass to create terraces, lightwells and roof gardens.

In both schemes the living style is completely private, however in the second scheme each dwelling unit offers a semi-private space that can be utilized for business operations, rentable space, or additional living space, based on the occupants needs. Again, the themes of flexibility and accommodation carry through all typologies, from the shelter to the transitional and finally to the permanent.



permanent





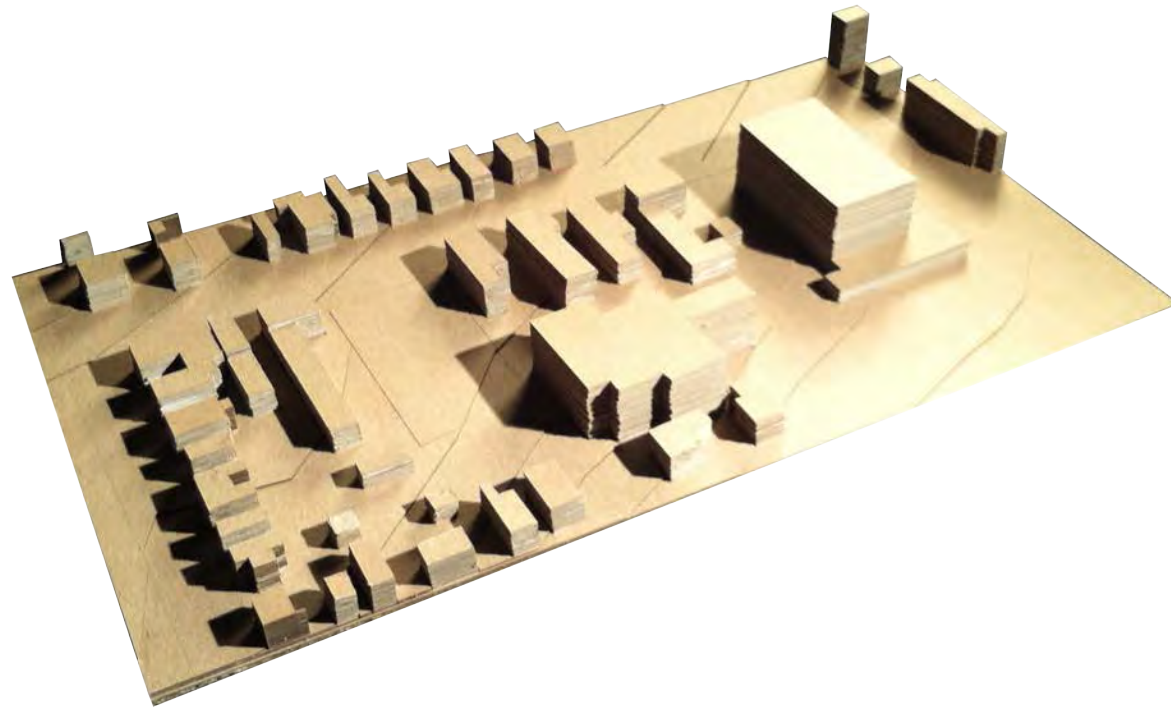
neighboring buildings along elmwood avenue



buildings immediately adjacent to site

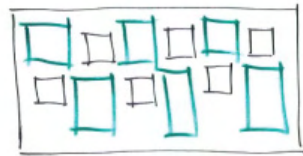






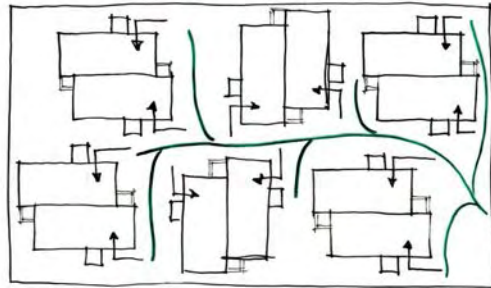


scheme 1

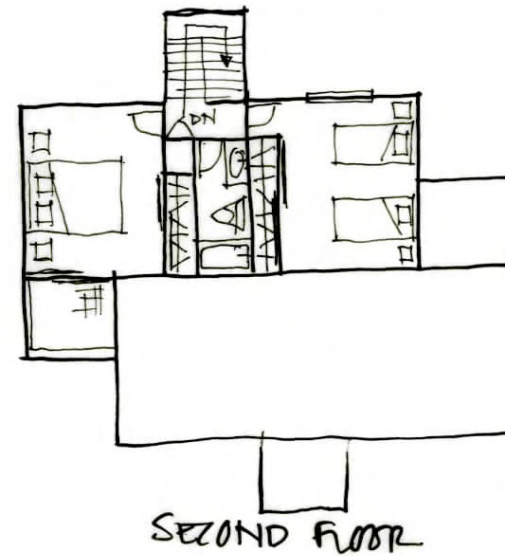
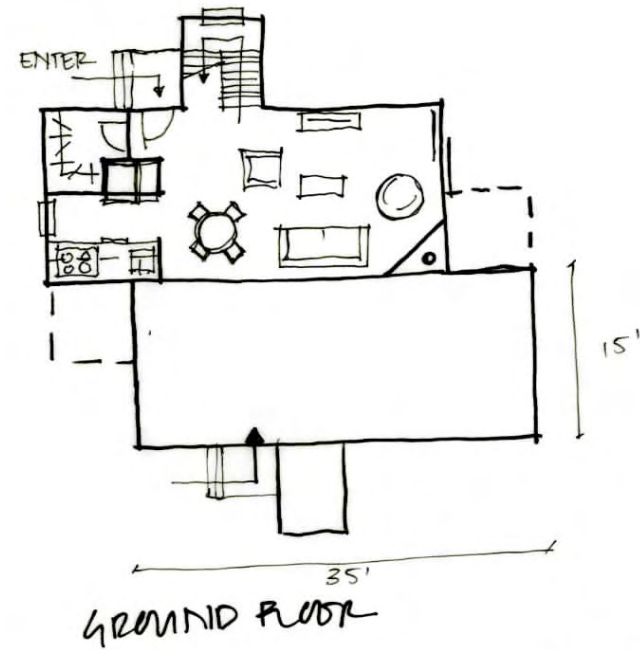
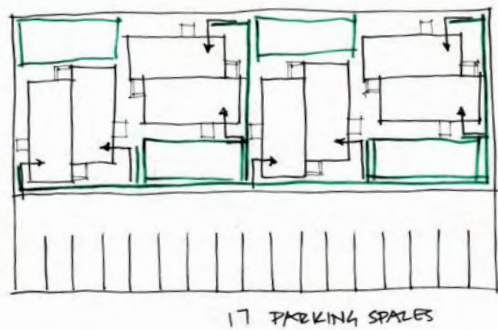


process

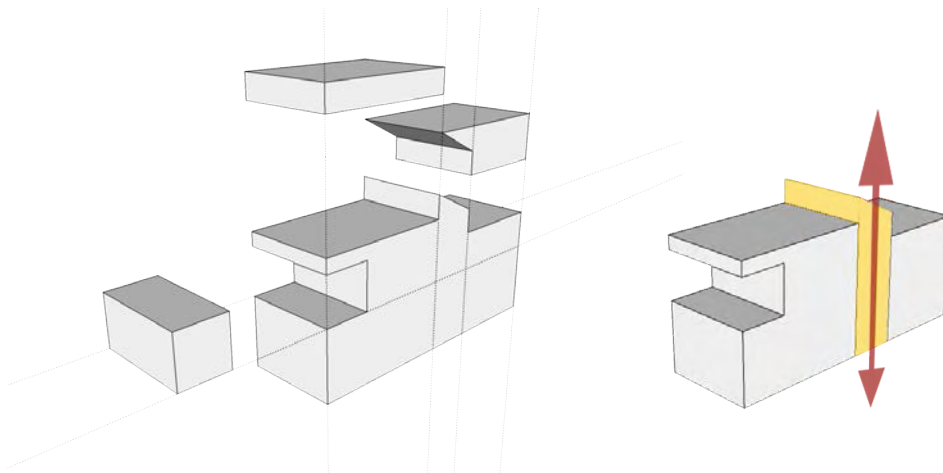
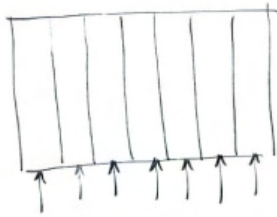
12 UNITS (1050 SF)  
NO PARKING



8 UNITS (1050 SF)  
W/ 2 PARKING SPACES EACH.

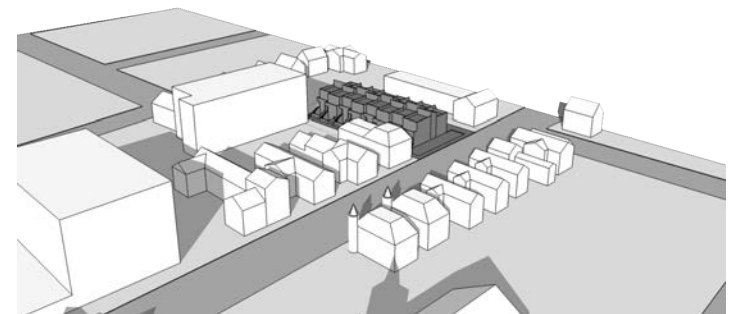
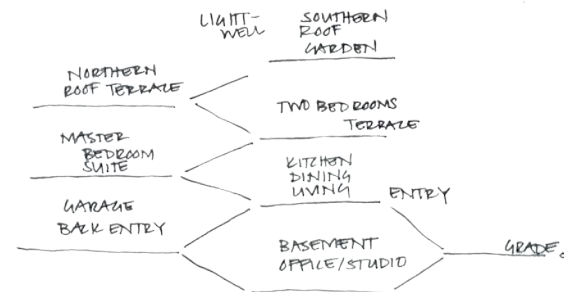


scheme 2



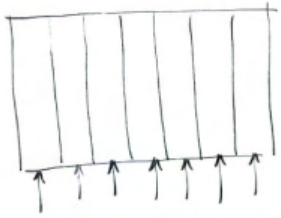
permanent dwelling units  
2,800 sf

kitchen  
dining  
living (interior)  
living (exterior)  
3 bedrooms  
2 bathrooms  
bonus room  
with private entry & 1/2 bath  
1 car garage  
roof garden

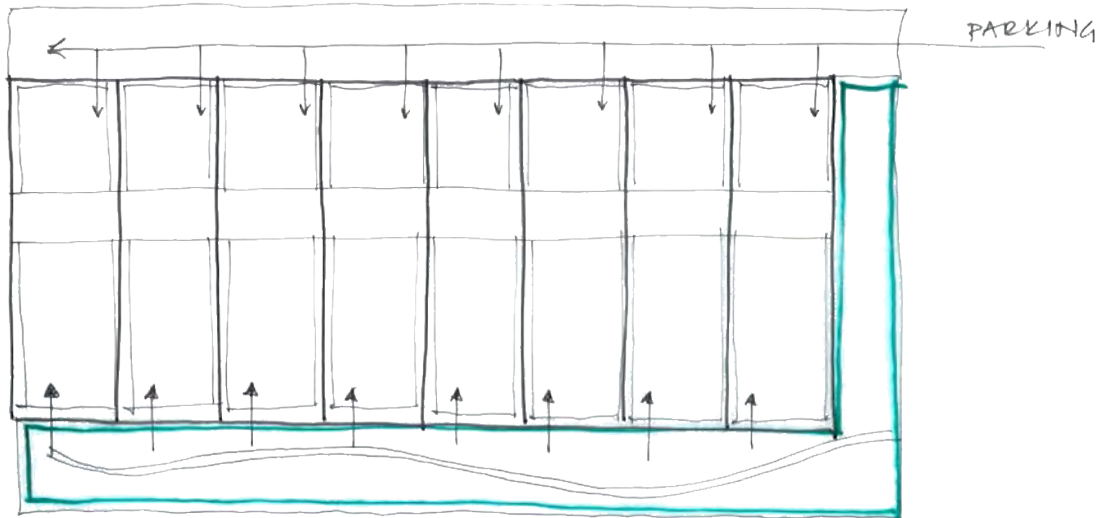


massing in context

final scheme

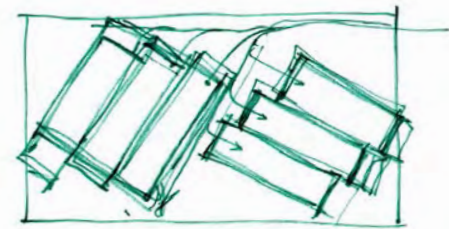
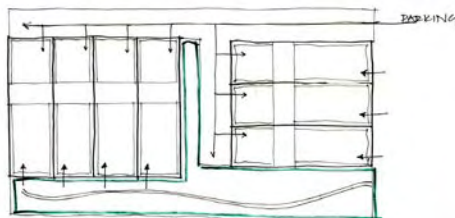
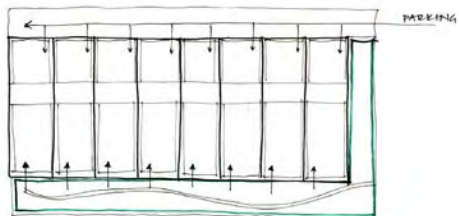


8 family units

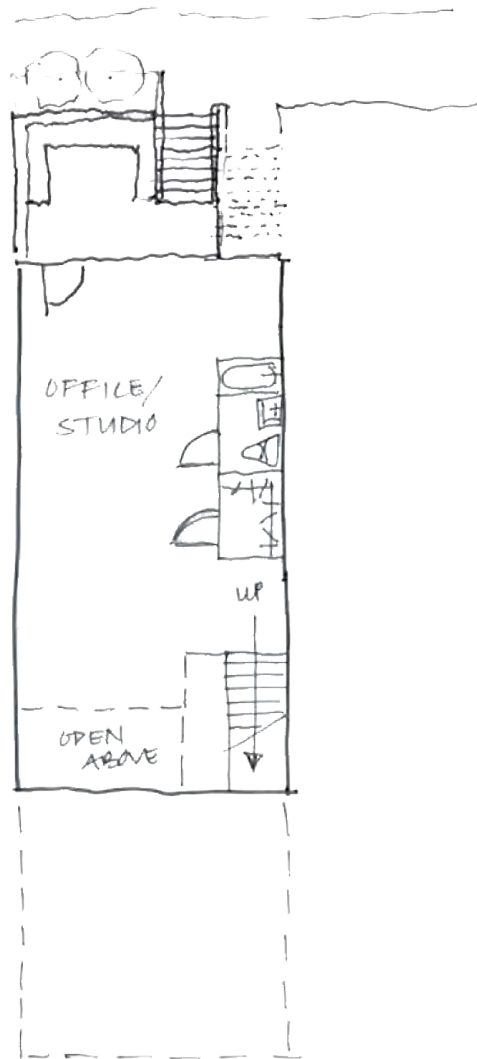


8 UNITS  
w/ 1 PARKING SPACE EACH.

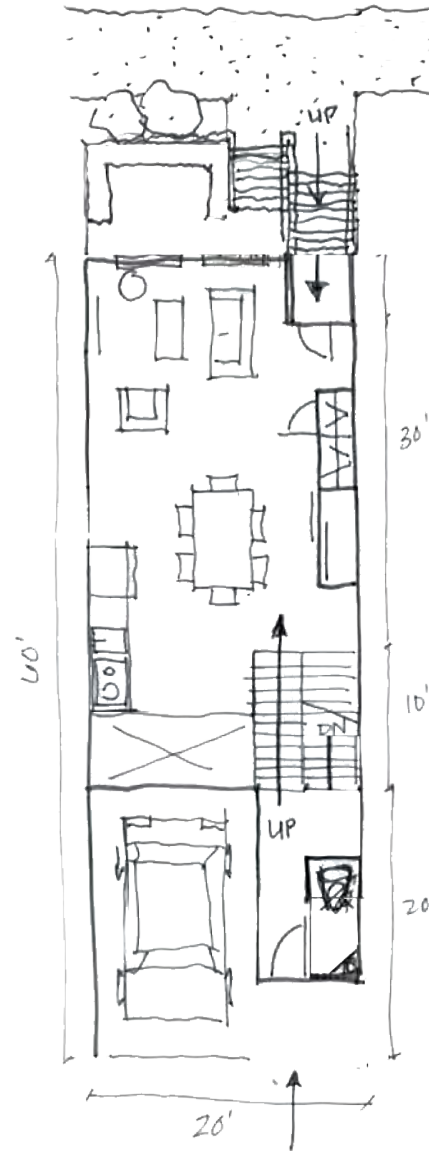
7 UNITS  
w/ 1 PARKING SPOT EACH.



site configuration study



basement



ground floor

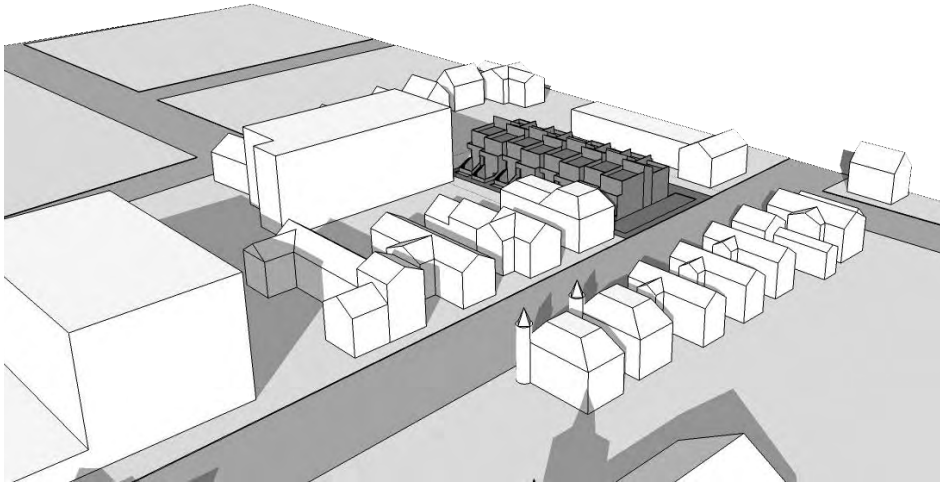


second floor



roof



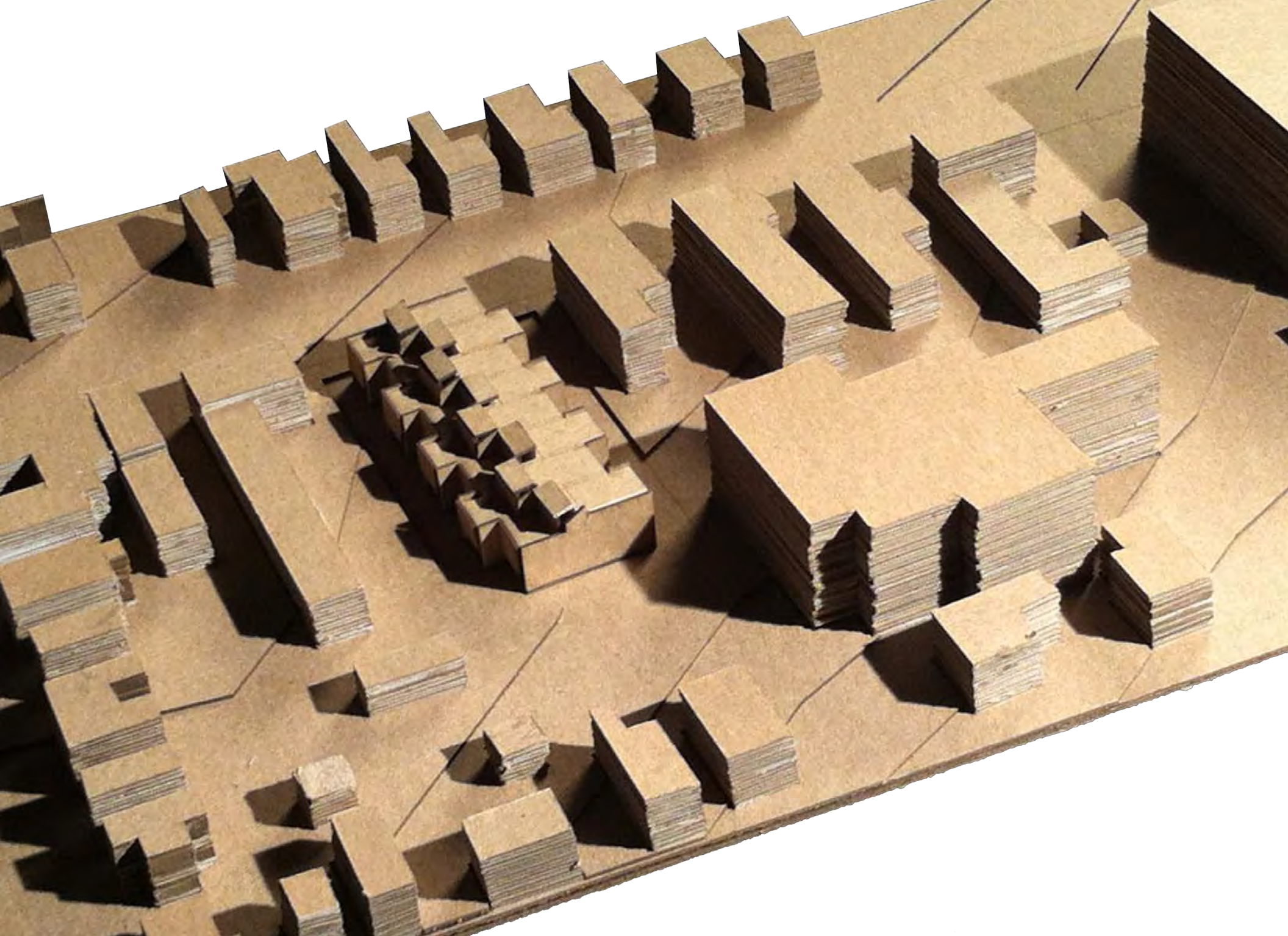


massing model in context



1/32" building massing in context







CONCLUSION



Homelessness has been a perpetual issue in our country and will continue to be one if something does not change. Our interventions are often incomplete or too narrow. Understanding homelessness requires a grasp of several social issues: poverty, affordable housing, disabilities, and others.

A major contributor to homelessness is a general shortage of affordable housing. This poses a problem not only for those who find themselves suddenly homeless for one reason or another, but also for those who may be transitioning from other temporary housing solutions. When there is no housing available, many people find themselves without any options.

The second major contributor to the issue of homelessness is the disconnect between housing solutions and support services. People transition from one temporary solution to the next and find that they do not have the resources to remain independent for very long, putting them right back to where they started. The jump from the aid and services typically provided in a short-term shelter to a transitional or permanent dwelling with little to no aid, where one is assumed to already be independent and self-sufficient, is sometimes too much to expect individuals to handle.

It is important to design these type of housing environments with an understanding of the importance of community. The mix of people and activities is what gives a city its vibrancy, but it is also what gives a community its character, and a home its individuality. This mixing of people and activities is an integral part of this housing investigation. This thesis works to design a place of identity for those who find themselves without a place to call home. With the establishment of individuality, it is also important to foster connections to support services, social services, childcare, and all of the small things that make independence possible. It is not just enough to give the homeless a place to live.

This thesis is an investigation into an holistic approach to the issue of homelessness in Burlington, Vermont that establishes a series of housing environments that work together to establish a strong support foundation, transition individuals into a state of self-sufficiency while still offering aid, and helping them to secure independence. It is an investigation of urban interventions in a small american city that can re-purpose under-utilized sites to establish a typology for change.

## PLACING MY THOUGHTS IN THE CONTEXT OF OTHERS

Davis, Sam. *Designing for the Homeless: Architecture that Works*.  
Berkeley: University of California Press, 2004.

In this book, author and architect Sam Davis discusses the role of the architect in response to the issue of homelessness. He identifies that the solution is about more than just a place to live. He argues that homeless individuals and families are denied many other necessities, opportunities and choices as a result of a lack of permanent dwelling. He brings into the equation, also, the importance of access to services and amenities such as healthcare, education, job training, etc... He argues that the role of the architect in this situation is to design quality buildings that integrate themselves into the community and make easier these connections to services and amenities.

Much of what Sam Davis argues has become part of my approach to this thesis. I am working to design a place of identity for those who find themselves without a place to call home. With the establishment of this individuality, it is also important to foster connections to support services, social services, childcare, and all of the small things that make independence possible. It is not just enough to give the homeless a place to live. I argue that there needs to be a continuum of services and community connections that allow for independent life to be possible.

Leguia, Mariana. "Latin America at the Crossroads." *Architectural Design* 81, no. 3, pp. 26-41. 2011.

In this issue of *Architectural Design* the articles all address the issue of housing in South American cities, in response to the massive and unofficial expansion of informal settlements. Many architects have made this area the focus for design solutions that engage with informal settlements and directly address social and economic problems. In the article "The Experimental Housing Project (previ), Lima: The Making of a Neighborhood", the architects look at how, abandoned by the authorities part way through the project, the families at Previ took it upon themselves to complete the housing project to render the neighborhood as an integrated part of the city. This article looks at the patterns and qualities needed to contribute to a successful community. The article "Elemental Do Tank" looks at the work of Alejandro Aravena in South America and Mexico, as a method to capitalize on a city's capacity to create wealth and provide a short cut to equality by improving quality of life without waiting for income distribution. These projects utilize a prefabricated system that is both affordable and flexible for its inhabitants, while responding to climatic conditions and utilizing accessible materials. The article "Tlacolula Social Housing, Oaxaca, Mexico", discusses the social housing climate of southern Mexico, and the issue of diminishing social and cultural connections within communities. Dellekamp Arquitectos describe how they have set out to create a housing development that engenders locality and a sense of community through a traditional barrio neighborhood design.

These articles contributed to my thinking about the relationship between architecture and community. I am looking to design affordable housing that will contribute to existing neighborhood identities, as well as take advantage of accessible transportation and services within the larger community, and create a sense of safety, individuality and community within the housing development to ensure permanent homes for previously homeless individuals and families.

Sprague, Joan Forrester. *A Manual on Transitional Housing*. Boston: Women's Institute for Housing and Economic Development, 1986.

This manual was published by the Women's Institute for Housing and Economic Development as a means to aid community-based organizations in providing opportunities for low-income women. At the time of publication, in 1986, transitional housing was a relatively new typology. This manual includes information for community groups, individuals, and government agencies to create physical space and a network of services through which low-income women can become independent and self-sufficient. The driving idea behind this manual is to express that housing planning concerns more than shelter. It involves comprehensive assistance towards life improvement.

This housing typology is one of the three stages of housing that I looked at for homeless housing typologies. This manual targets transitional housing to aid women in becoming independent, but the illustrated principles of planning transitional housing is something that I am interested in incorporating into the idea of affordable housing. I think that transitional housing is often successful in, and of, itself, however the next step is often the place that loses people and sends them back into homelessness. The jump from the aid and services provided in transitional housing to a permanent dwelling, where one is assumed to be independent and self-sufficient, is sometimes too much to expect individuals to handle. I am working to address this issue within my thesis. I am looking to create a housing continuum, one that transitions individuals and families from homelessness to permanent housing, without losing the available services and aid that often knocks them off their feet. I am trying to break the homeless cycle.





# BIBLIOGRAPHY

## CONTENT SOURCES

- "Affordable Housing." *David Baker + Partners Architects*. <http://www.dbarchitect.com/projects/2/affordable.html>.
- "Affordable Housing for All." *Burlington Housing Authority*. [www.burlingtonhousing.org/](http://www.burlingtonhousing.org/)
- Aga Khan Award for Architecture (Organization). *Intervention Architecture: Building for Change*. London: I.B. Tauris & Co, 2007.
- Arieff, Allison. "Affordable Housing that Doesn't Scream Affordable." *The Atlantic Cities*. Atlantic Media Company, 2012.
- Bell, Bryan. "Relating." *Good Deeds, Good Design: Community Service through Architecture*. New York: Princeton Architectural Press, 2004. 151-83.
- Bell, Michael. *16 Houses: Designing the Public's Private House*. New York: Monacelli, 2003.
- Boyle, Sheryl. "New Shoes For Batawa." *Canadian Architect* 54.8 (2009): 30. Avery Index to Architectural Periodicals. Web. 1 Feb. 2013.
- "Burlington, VT." NOAA National Weather Service. <http://www.nws.noaa.gov/climate/index.php?wfo=btv>.
- Busch-Geertsema, Volker. "Does Re-Housing Lead to Re-Integration: Follow-up Studies of Re-housed Homeless People." *Innovation, Vol. 18, No. 2*. Routledge, 2005.
- Casselman, Ben. "High Design for Low Income Housing: Established and Rising Architects Bring Innovation to Affordability." *Wall Street Journal*. December, 2007.
- "City of Burlington, GIS." City of Burlington. <http://gis.ci.burlington.vt.us/gm/>.
- Datta, Ayona. "Architecture of Low-Income Widow Housing: 'Spatial Opportunities' in Madipur, West Delhi." *Cultural Geographies*, 15 (2008): 255-60. Avery Index to Architectural Periodicals. Web. 1 Feb. 2013.
- Davis, Sam. *Designing for the Homeless: Architecture that Works*. Berkeley: University of California Press, 2004.
- Farmer, Trey. "Bridge Homeless Shelter Cuts Neighborhood Crime by 18%." *inHabitat*. [inhabitat.com/bridge-homeless-shelter-wins-aia-national-housing-award/](http://inhabitat.com/bridge-homeless-shelter-wins-aia-national-housing-award/).
- Galvin, Terrance. "Eastern Promises." *Canadian Architect*. July, 2009.
- Greer, Nora Richter. *The Search for Shelter*. Washington, D.C.: American Institute of Architects, 1986.
- Hurst, Rachel. "Whitmore Square Eco-Housing". *Architecture Australia*. May/June, 2011.

- Jones, Mary. "The Bridge Reverses the Paradigm of Homeless Shelters in America." *Next City*. <http://nextcity.org/daily/>.
- King, John. "Bringing Good Design to Affordable Housing: Bay area architects see their affordable housing work as part of a long tradition of progressive culture and urbanism." *San Francisco Chronicle*.
- Leguia, Mariana. "Latin America at the Crossroads." *Architectural Design* 81, no. 3, pp. 26-41. 2011.
- Menking, William. "Housing in Vienna." *The Architect's Newspaper*. Web. 1 Feb. 2013. <<http://archpaper.com/news/articles.asp?id=6205>>.
- Moos, David, and Gail Andrews. *Samuel Mockbee and the Rural Studio: Community Architecture*. Birmingham, Alabama: Birmingham Museum of Art, 2003.
- Olshansky, Rob. "Planning and Public Health: Urban and Landscape Design." *Journal of the American Planning Association*. 70.4 (2004): 483-4. Avery Index to Architectural Periodicals. Web. 1 Feb. 2013.
- Penn, Shelley. "Habitat 21." *Architecture Australia*. June, 2011.
- "Plan BTV: Downtown & Waterfront." Burlington, Vermont Planning and Zoning. <http://www.burlingtonvt.gov/PlanBTV/>.
- "Policy and Design for Housing." *Lessons of the Urban Development Corporation 1968-1975*. Web. 1 Feb. 2013. <<http://udchousing.org/>>.
- "Property Management." Burlington Housing Authority. <http://burlingtonhousing.org>.
- "Sheltering the World." *Architectural Record: New Models for Social Housing*. March, 2013.
- Shelton, Ted. "Ghost Houses and Trojan Horses." *Journal of Architectural Education*, pp.34-45. ACSA 2010.
- Sprague, Joan Forrester. *A Manual on Transitional Housing*. Boston: Women's Institute for Housing and Economic Development, 1986.
- "State of Homelessness in America 2011." National Alliance to End Homelessness. <http://www.endhomelessness.org/library/entry/state-of-homelessness-in-america-2011>.
- Theodore, David. "Evolutionary Design." *Canadian Architect*. June, 2008.
- Towers, Graham. *Building Democracy: Community Architecture in the Inner Cities*. London: UCL Press, 1995.
- "Zoning Ordinance." City of Burlington, Vermont. <http://www.burlingtonvt.gov/PZ/Zoning/Zoning-Ordinance/>.



## IMAGE SOURCES

- "Architectural fabrics." S E F A R - Architecture Interior. <http://www.sefar.com/htm/609/en/Interior.htm?Folder=1514065>.
- "The Bridge Homeless Shelter, Dallas, Texas." CamargoCopeland Architects, LLP. [http://www.camargocopeland.com/#!\\_\\_hac](http://www.camargocopeland.com/#!__hac).
- "Blurt: The Seven Days Staff Blog." Seven Days: Vermont's Independent Voice. <http://7d.blogs.com/blurt/vermont/page/95/>.
- "Cladding, Composite Panels And Cladding Panels." Steni UK. <http://www.theconstructioncentre.co.uk/companies/steni-uk/16639/>.
- "Climate Zone Information." USDA Rural Development. [http://www.rurdev.usda.gov/zone\\_map.html](http://www.rurdev.usda.gov/zone_map.html).
- "Colorhouse Field Guide: people, places and things that inspire us.." YOLO Colorhouse Blog. <http://www.yolocolorhouse.com/blog/page/4/>.
- "Contemporary Murphy." ArchiExpo the Online Architecture and Design Exhibition. <http://www.archiexpo.com/prod/lift-security/contemporary-murphy-modular-sofa-beds-78372-1102139.html>.
- Davis, Sam. *Designing for the Homeless: Architecture that Works*. Berkeley: University of California Press, 2004.
- "Destination: Burlington, Vermont." Now Associations. <http://associationsnow.com/2013/10/destination-burlington/>.
- "ELEMENTAL." Alejandro Aravena Arquitecto. <http://alejandraravena.com/obras/vivienda-housing/elemental/>.
- "Facts About Homelessness." We Feed The Homeless Philly. <http://www.wefeedthehomelessphilly.org/homeless-facts.html>.
- "For homeless, getting off the streets could come with a cost." msnbc.com. <http://www.nbcnews.com/id/43254521/#.UrydmRDvLM>.
- "Ghost houses." Curb: Architecture Made Fresh Daily. <http://www.curb.cc/index.php?/root/ghost-house/>.
- Greer, Nora Richter. *The Search for Shelter*. Washington, D.C.: American Institute of Architects, 1986.
- "Homelessness Has a Face." Union Rescue Mission. <http://urm.org/>.
- "Iron lattice screen." ArchiExpo: The Online Architecture and Design Exhibition. <http://www.archiexpo.com/prod/unopiu/iron-lattice-screens-49658-701222.html>.
- "Lake Champlain Aerial Vermont Photos." Vermont Photo Mag. <http://vermontphotomag.com/2013/07/lake-champlain-aerial-vermont-photos/>.

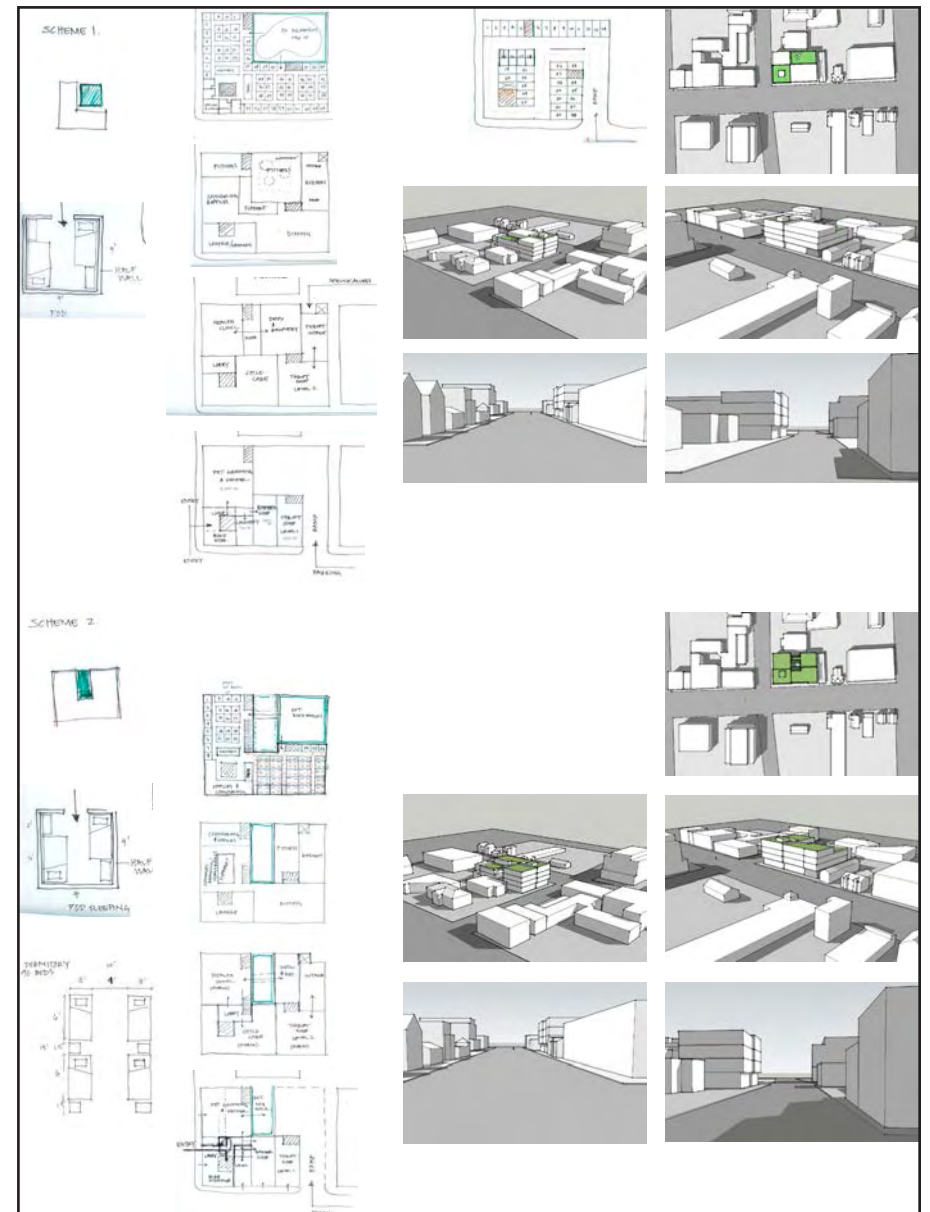
- Leguia, Mariana. "Latin America at the Crossroads." *Architectural Design* 81, no. 3, pp. 26-41. 2011.
- "Making Homelessness A Crime On Both Sides Of The Atlantic." *The Periled Sea*. <http://theperiledsea.ning.com/profiles/blogs/making-homelessness-a-crime-on-both-sides-of-the-atlantic>.
- "Manhattan Plaza - players on a rooftop." *Kompan*. <http://www.kompan.us/cases/manhattan-plaza-players-on-a-rooftop/>.
- "Modular Office Design." *Hytner Exhibitions*. <http://blog.hytner.com/modular-office-design-burkhardt/497>.
- "Native Child and Family Services of Toronto Roof Garden." *World Landscape Architecture landscape architecture webzine*. <http://worldlandscapearchitect.com/native-child-and-family-services-of-toronto-roof-garden-toronto-canada-scott-torrance-landscape-architect/>.
- "Natura Rainscreen Cladding used at Caerphilly Hospital." *Marley Eternit*. <http://www.marleyeternit.co.uk/Resources/Case-Studies/Caerphilly-Hospital.aspx>.
- "Photos." *The Urban Hound*. <http://www.urbanhounds.com/photos/>.
- "Plan BTV: Downtown & Waterfront." *Burlington, Vermont Planning and Zoning*. <http://www.burlingtonvt.gov/PlanBTV/>.
- "Property Management ." *Burlington Housing Authority* . <http://burlingtonhousing.org/index.asp>.
- Roberts, Dan. "US homeless numbers expected to rise as spending cuts deepen." *theguardian.com*. <http://www.theguardian.com/world/2013/apr/09/usa-homeless-numbers-spending-cuts>.
- "Roca Barcelona Gallery." *ArchiTravel*. <http://www.architravel.com/architravel/building/roca-barcelona-gallery/>.
- "Sheltering the World." *Architectural Record: New Models for Social Housing*. March, 2013.
- THE SLIDING DOOR COMPANY. "Light and Truth: Greener Interiors with Glass Partitions." *Architectural Record*. <http://continuingeducation.construction.com/crs.php?L=252&C=910>.
- "Suspended Ceilings. Office Partitioning. Dry Lining. Bespoke Joinery. Raised Flooring. Office Furniture.." *SCi Ltd.*. <http://www.sciltd.org.uk/>.
- "USGBC earns LEED Platinum." *MNN: Mother Nature Network*. <http://www.mnn.com/money/green-workplace/blogs/usgbc-earns-leed-platinum>.
- "Vision and Inspiration." *HABITAT 67*. <http://www.habitat67.com/home.html>.
- "Weekend Recommender: June 14–17." *Michigan Avenue Magazine*. <http://michiganavemag.com/the-latest/homepage/postings/weekend-recommender-june-14-17>.
- "What To Do About The Homeless?." *Robert Nielsen Blog*. <http://robertnielsen21.wordpress.com/2013/08/27/what-to-do-about-the-homeless/>.
- "Wood Light Frame Construction Platform Frame." *Construction 53*. <http://www.construction53.com/2011/06/wood-light-frame-construction-platform-frame/>.
- Yahoo!. "Boat House, Lake Champlain Waterfront, Burlington, Vermont." *Flickr*. <http://www.flickr.com/photos/36338186@N05/3490513749/in/photostream/>.
- "You Won't Believe This NYC Homeless Shelter Story." *Conservative Byte*. <http://conservativebyte.com/2013/04/you-wont-believe-this-nyc-homeless-shelter-story/>.
- "Zoning Ordinance." *City of Burlington, Vermont*. <http://www.burlingtonvt.gov/PZ/Zoning/Zoning-Ordinance/>.



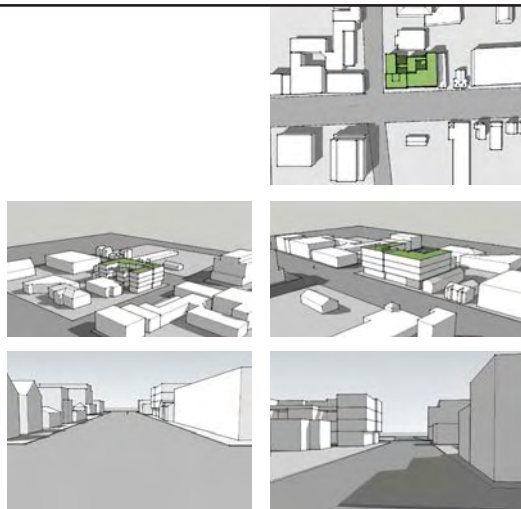
# APPENDICES



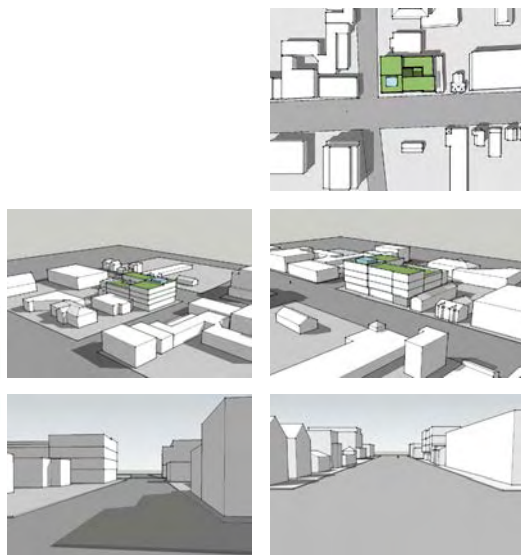
## CONCEPT REVIEW BOARDS



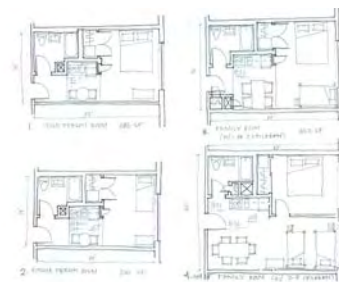
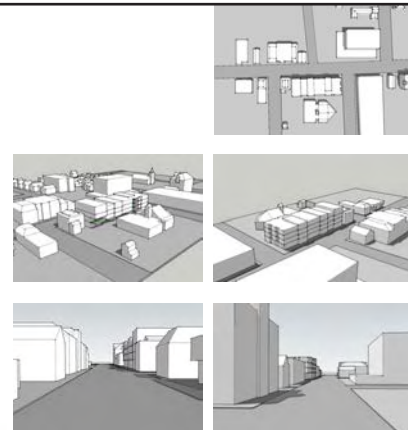
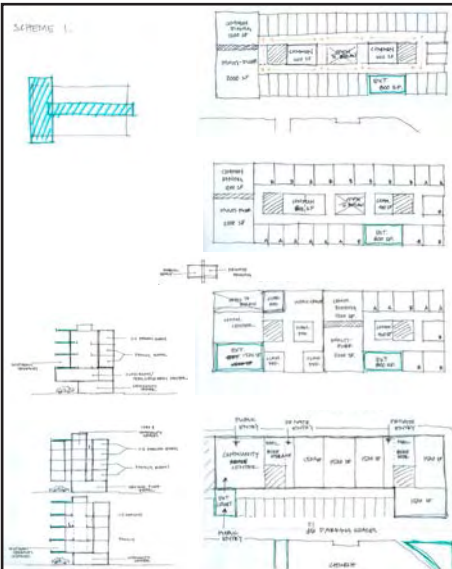
SCHEME 8.



SCHEME 9.



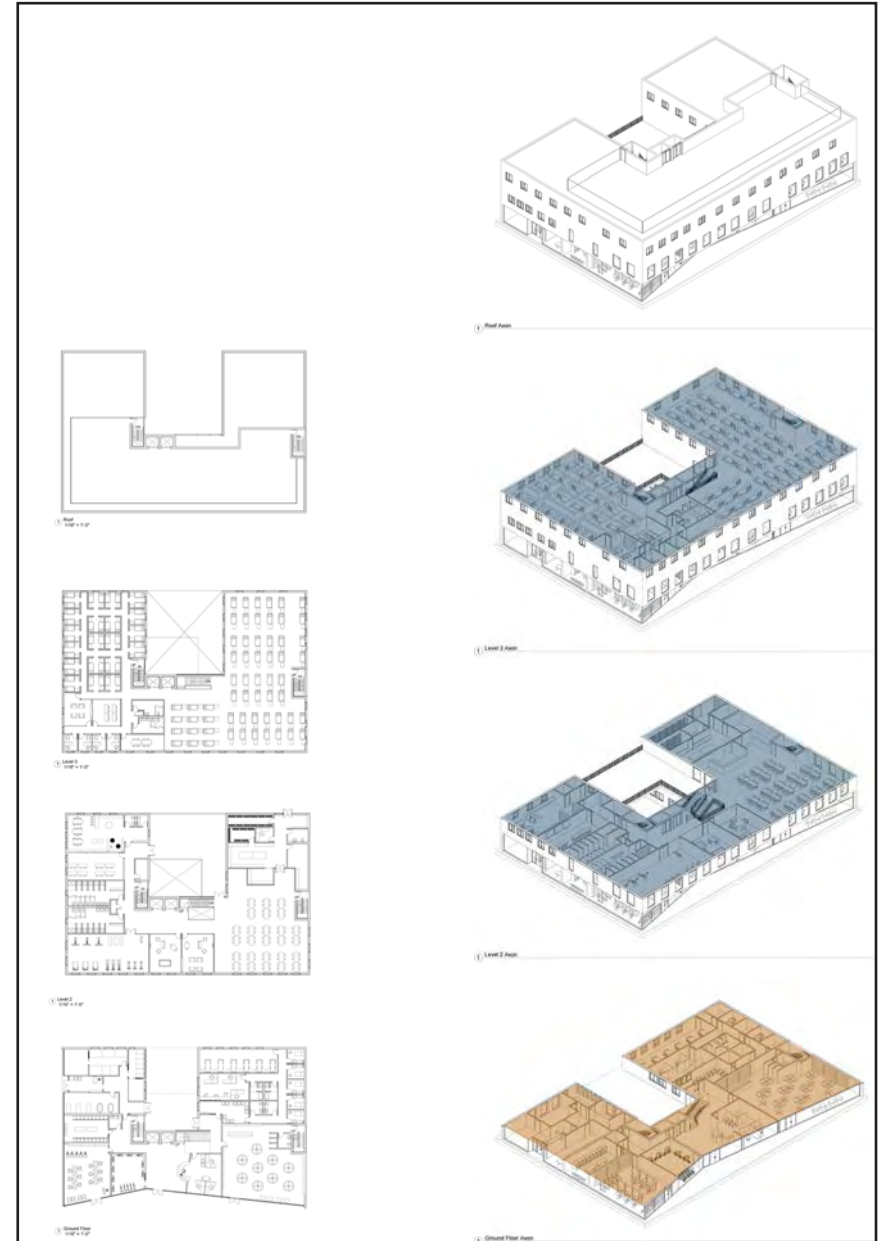
SCHEME 1.

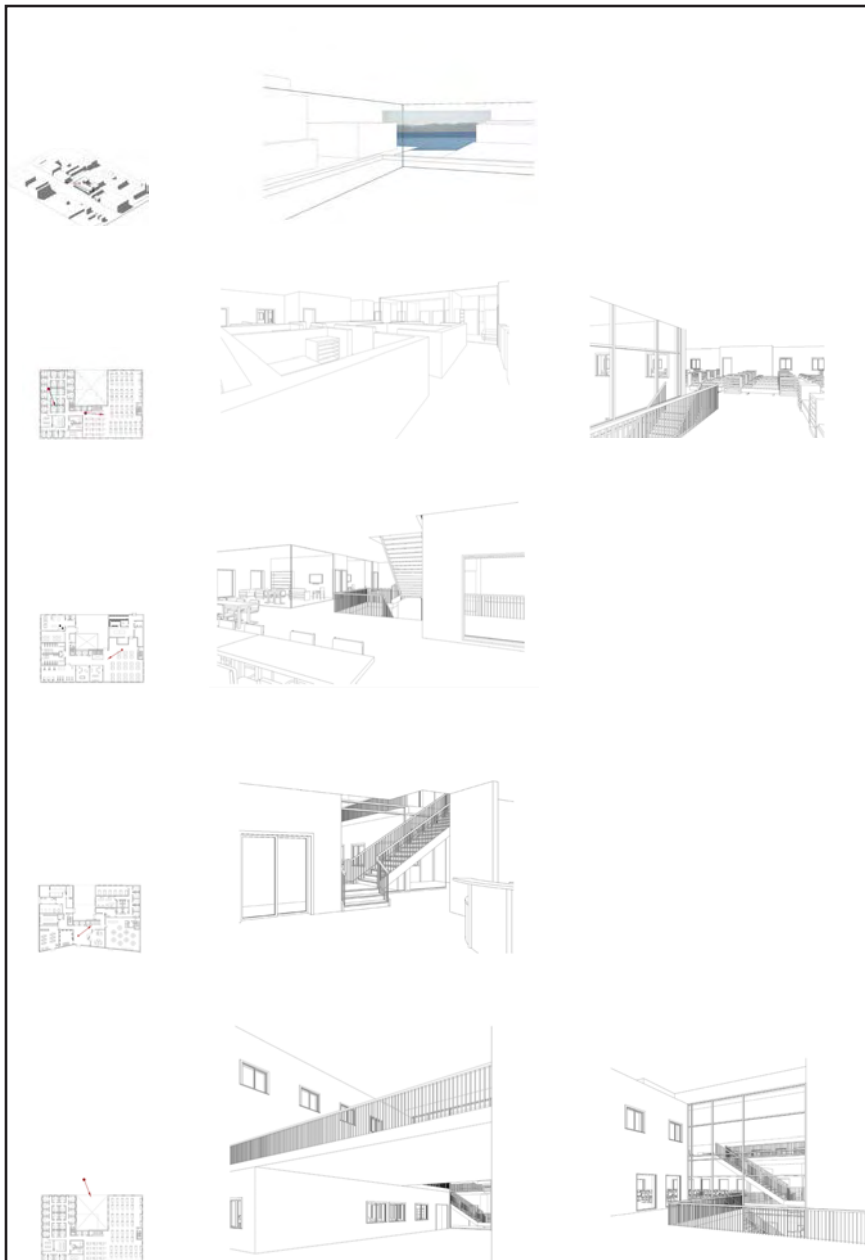


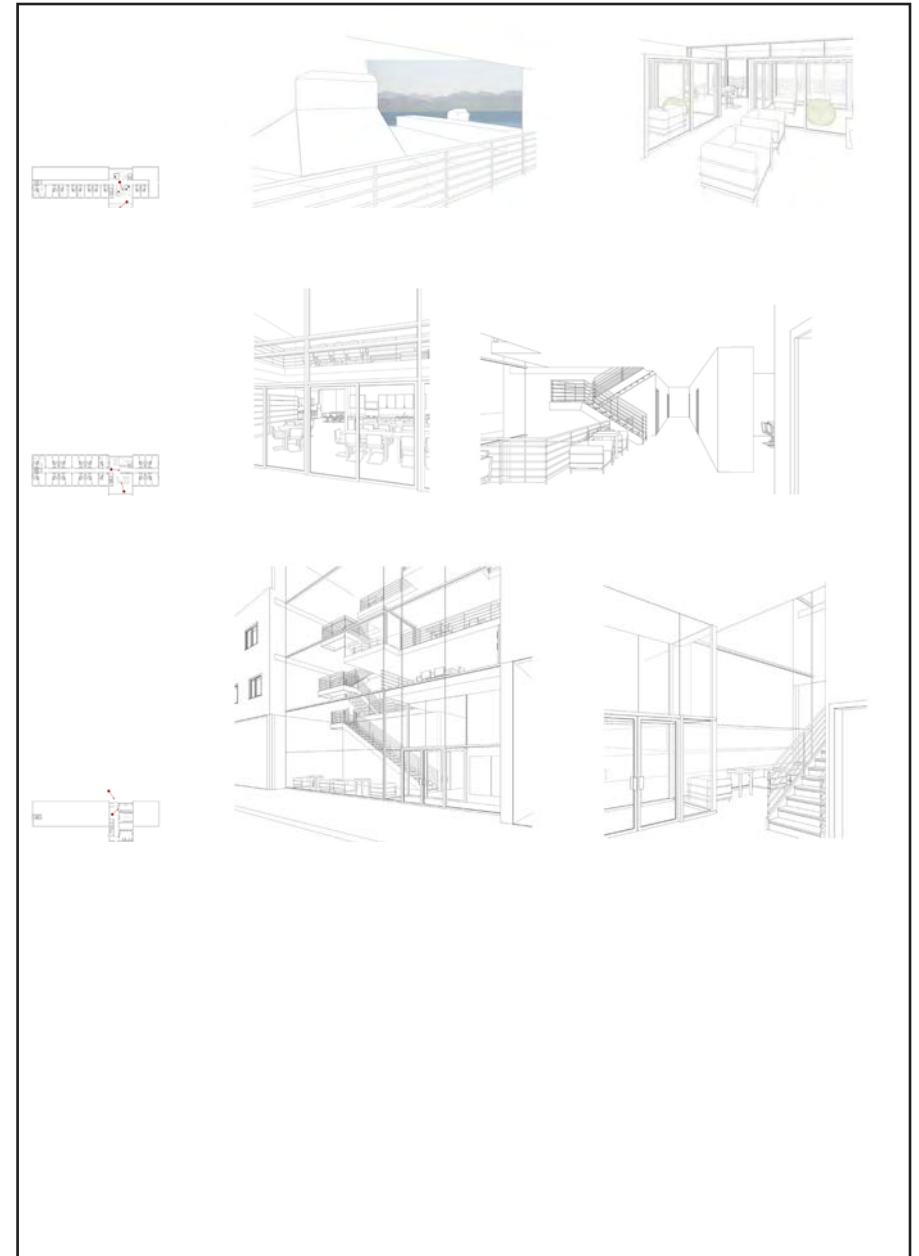
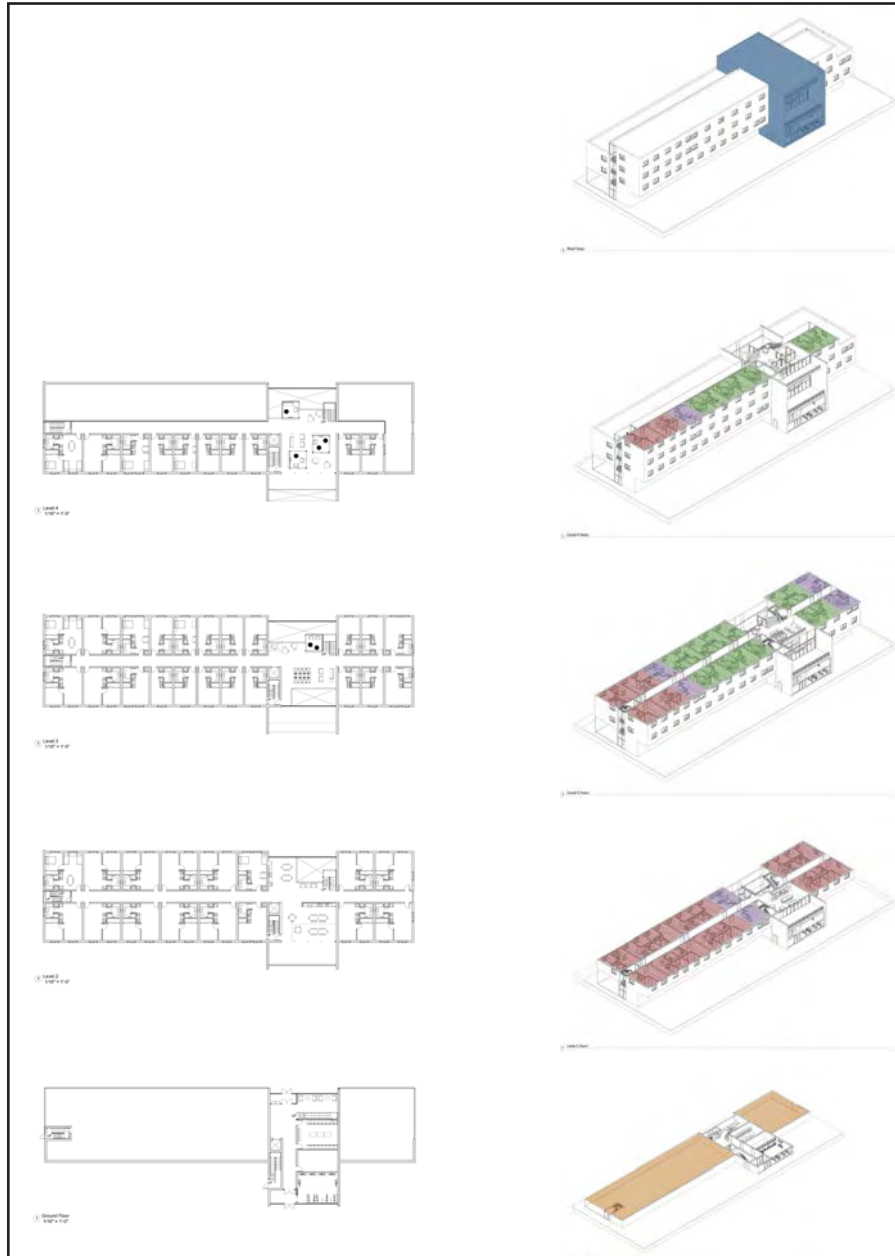




## MID-REVIEW BOARDS







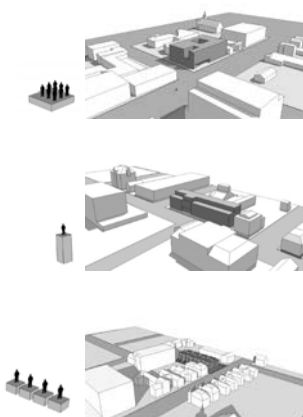
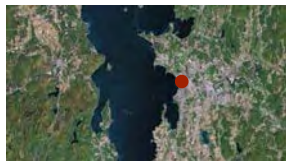


# GATE REVIEW BOARDS



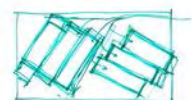
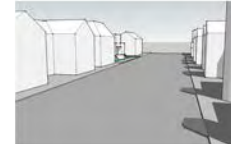
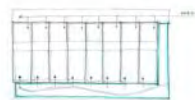
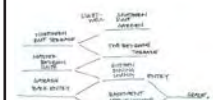
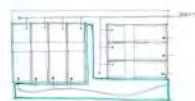
homelessness  
humility and homelessness  
a housing continuum

program components

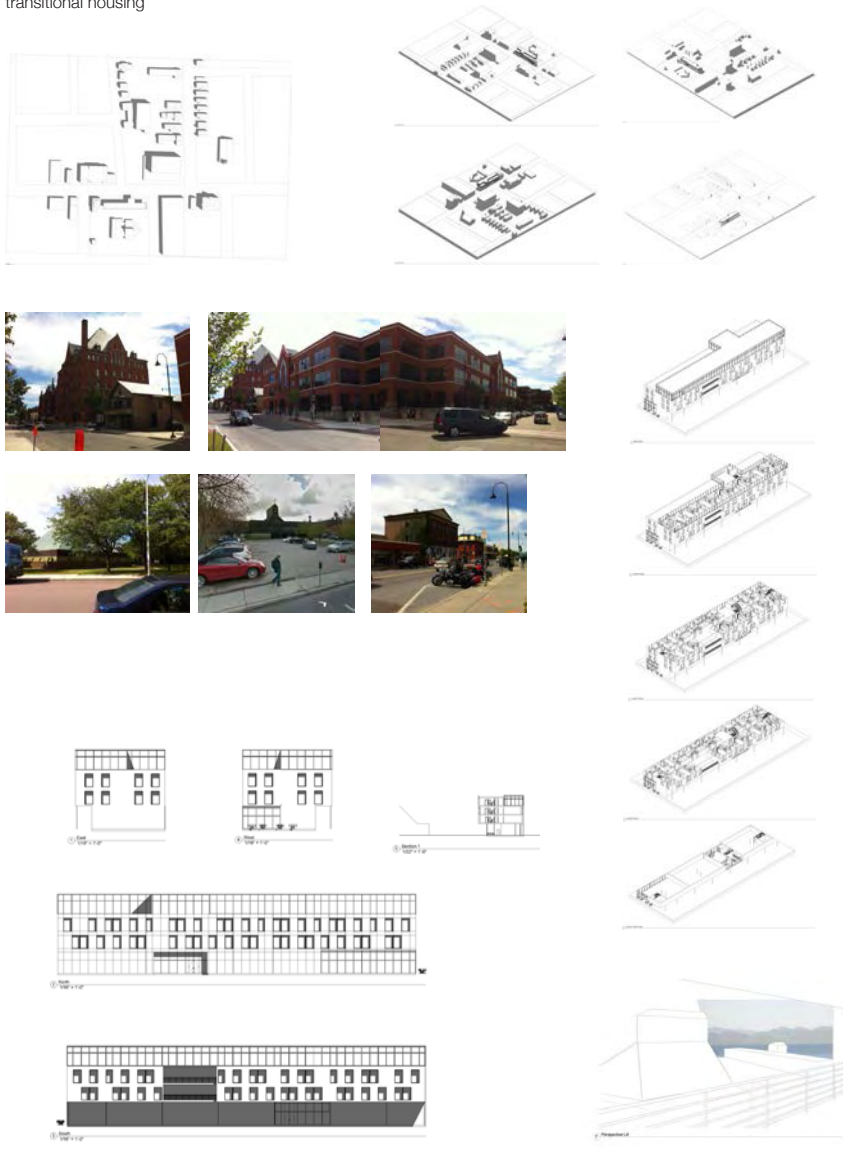
[illegible]

## permanence

permanent housing



transitional  
transitional housing



# shelter homeless shelter









FINAL REVIEW BOARDS

homelessness


humility and homelessness

a housing continuum

Roger Williams University

Graduate Thesis Studio

Andrea Ann Donald



**Homelessness in the United States**

**The Big Picture**

Homelessness is a complex issue that affects millions of people in the United States. It is not just a lack of a roof over one's head, but a state of vulnerability and instability that can lead to a host of other problems, including health issues, mental health problems, and involvement with the criminal justice system.

**By the Numbers**

Over 100 million people in the United States live in poverty, and homelessness is a direct result of this economic inequality. The number of homeless people in the United States has increased significantly in recent years, with an estimated 6.5 million people experiencing homelessness in 2017.

**Causes**

There are many factors that contribute to homelessness, including lack of affordable housing, job loss, domestic violence, and mental health issues. These factors often interact in a complex way, making it difficult to identify a single cause for homelessness.

**Consequences**

Homelessness has a wide range of negative consequences for individuals and society as a whole. It can lead to poor health, mental health problems, and involvement with the criminal justice system. It also has a significant impact on the economy, as homeless people are often unable to work and contribute to the economy.

**Solutions**

There are many ways to address homelessness, including providing affordable housing, creating job opportunities, and offering mental health services. It is important to take a holistic approach to homelessness, addressing all of the factors that contribute to it.

substance abuse

disability

physical

eviction

re-entry from institutions

aging


displacement


domestic violence

natural disaster

eviction

disability








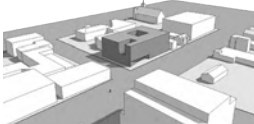

U.S. Homelessness Rate







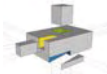
21

Homeless People Per 10,000 in the General Population

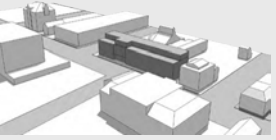
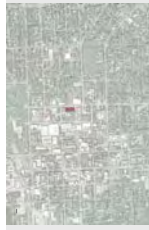
### HOUSING TYPOLOGIES


shelter






### transitional






Level 2 plan




Level 2 & 3 plan


### SITE




View the location in downtown Washington




development area




Neighborhood of full site




underdeveloped area



View the location in downtown Washington



View the location in downtown Washington



View the location in downtown Washington

Thompson has been working on the site for a long time, and he has a lot of experience with the area. He has a lot of knowledge about the site and the surrounding area, and he has a lot of experience with the area. He has a lot of knowledge about the site and the surrounding area, and he has a lot of experience with the area.

A higher number of shelter, transitional, and permanent housing units are needed in the area. The site is a good location for these units, and it is a good location for the area. The site is a good location for these units, and it is a good location for the area.

160



Bed 1 plan  
1/2" = 1'



Bed 2 plan  
1/2" = 1'



Bed 3 plan  
1/2" = 1'



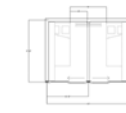
Bed 4 plan  
1/2" = 1'



Bed 5 plan  
1/2" = 1'



Bed 6 plan  
1/2" = 1'



Bed 7 plan  
1/2" = 1'











