

# Portfolio

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Environmental Design 3  
Landscape + Urbanism



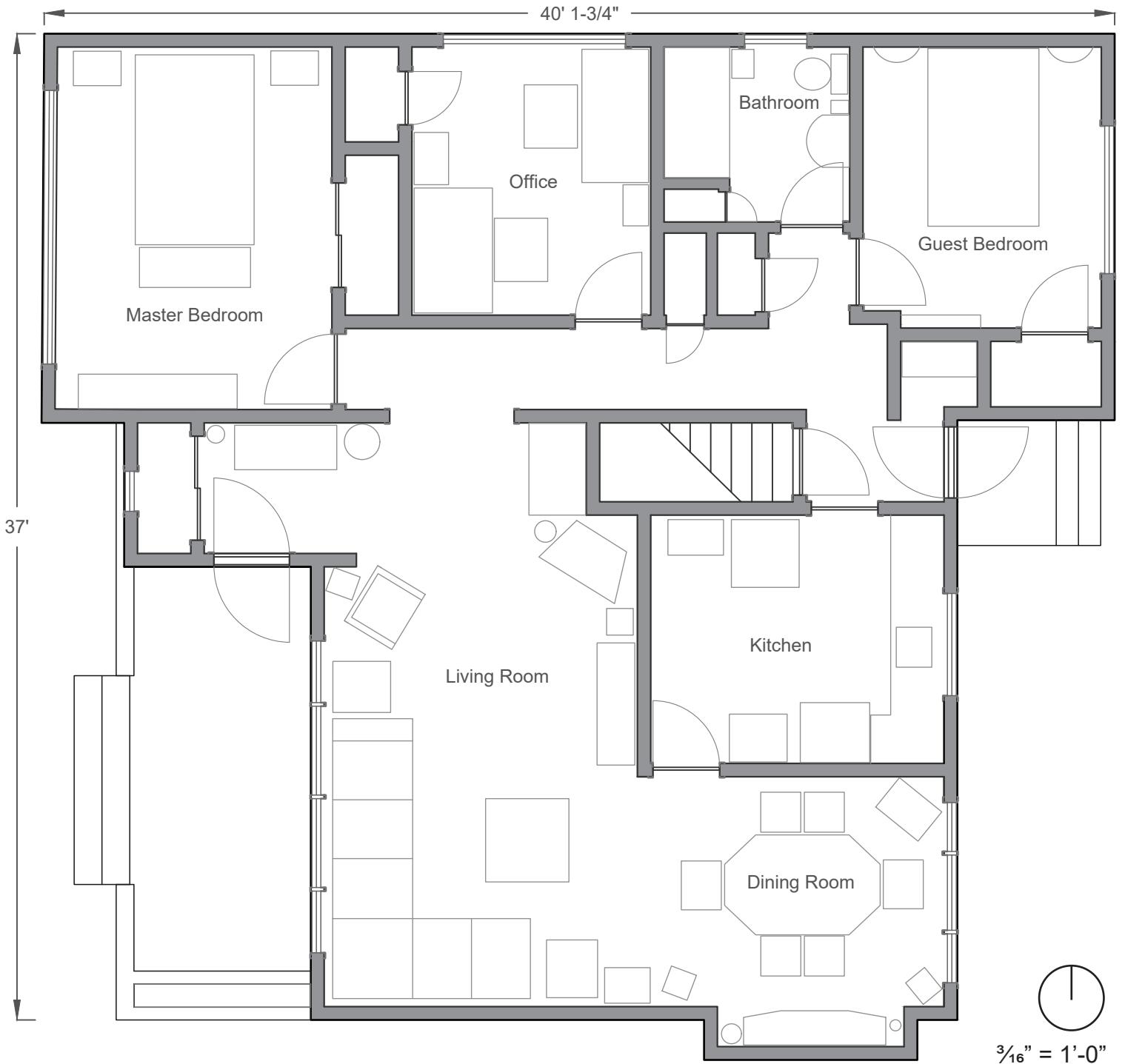
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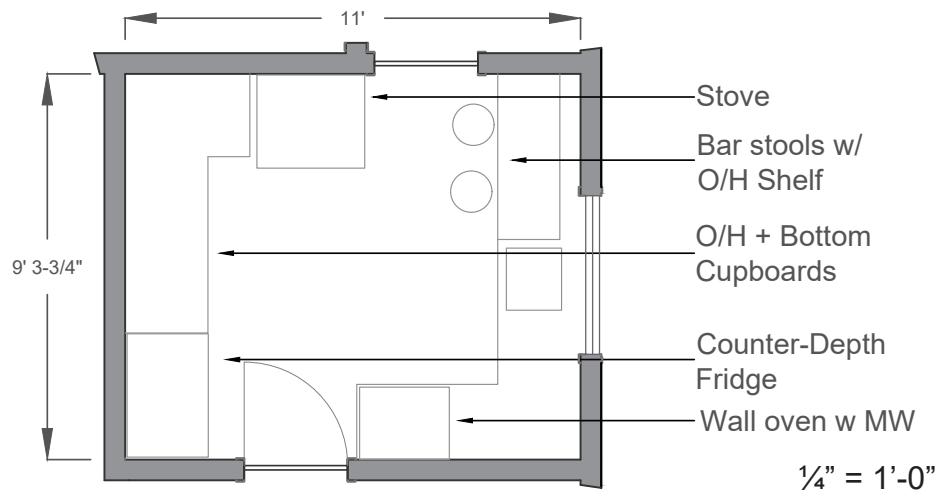
## Personal Work

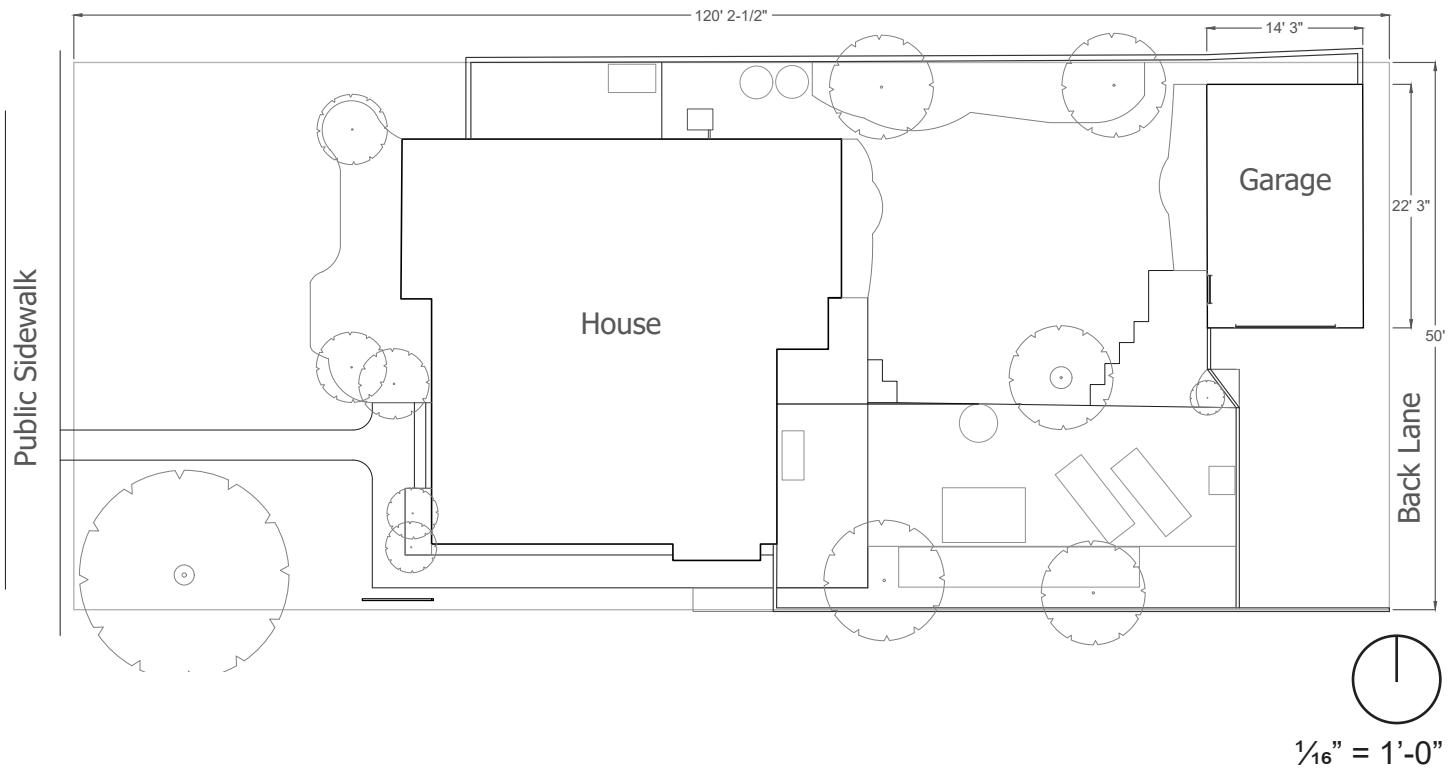
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### Kitchen Renovation

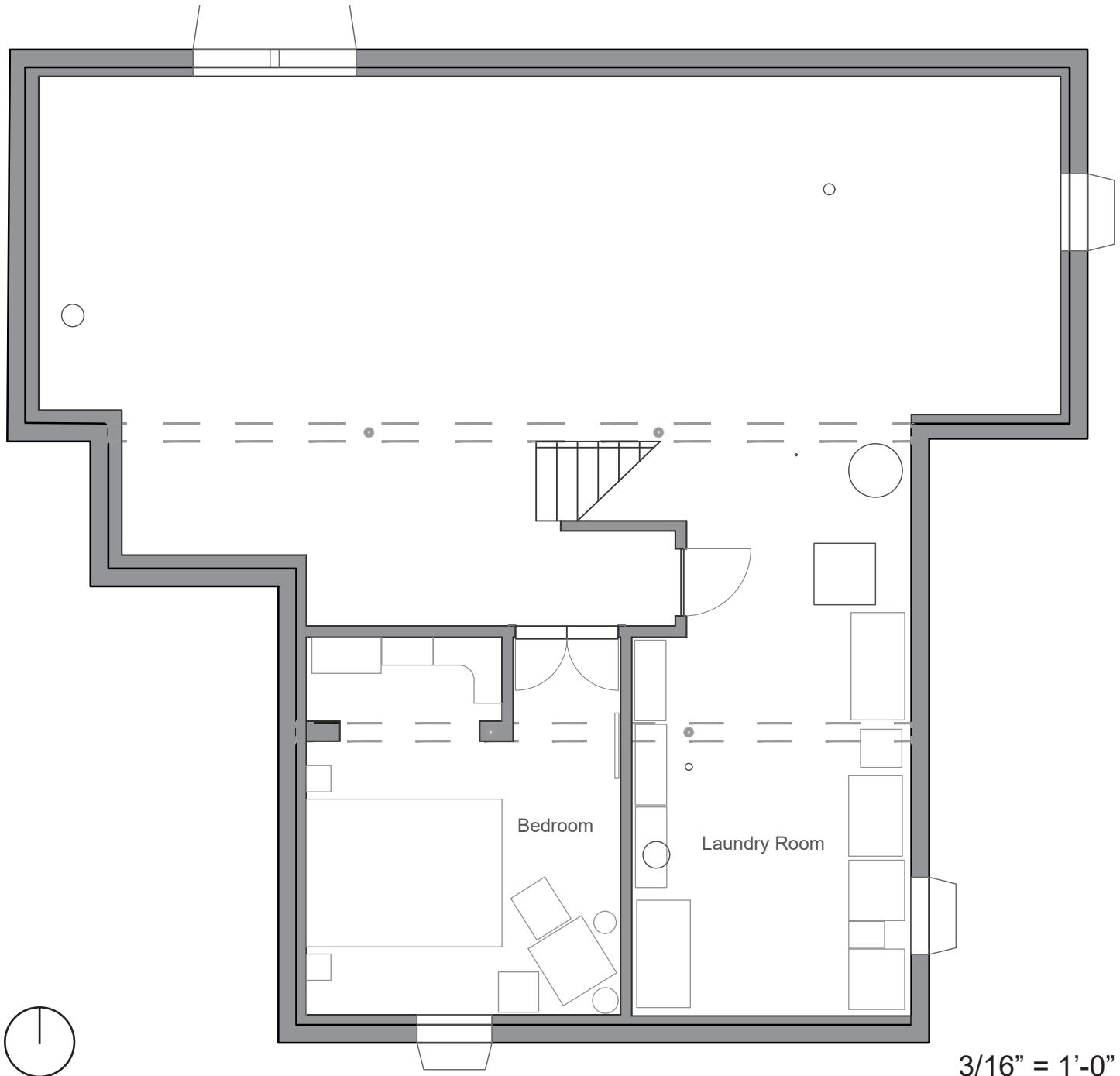
This was a small planning project that was done to test out possible layouts for a kitchen renovation within a house, based on actual measurements and client requests. Floor plan measured within 1/8" accuracy.





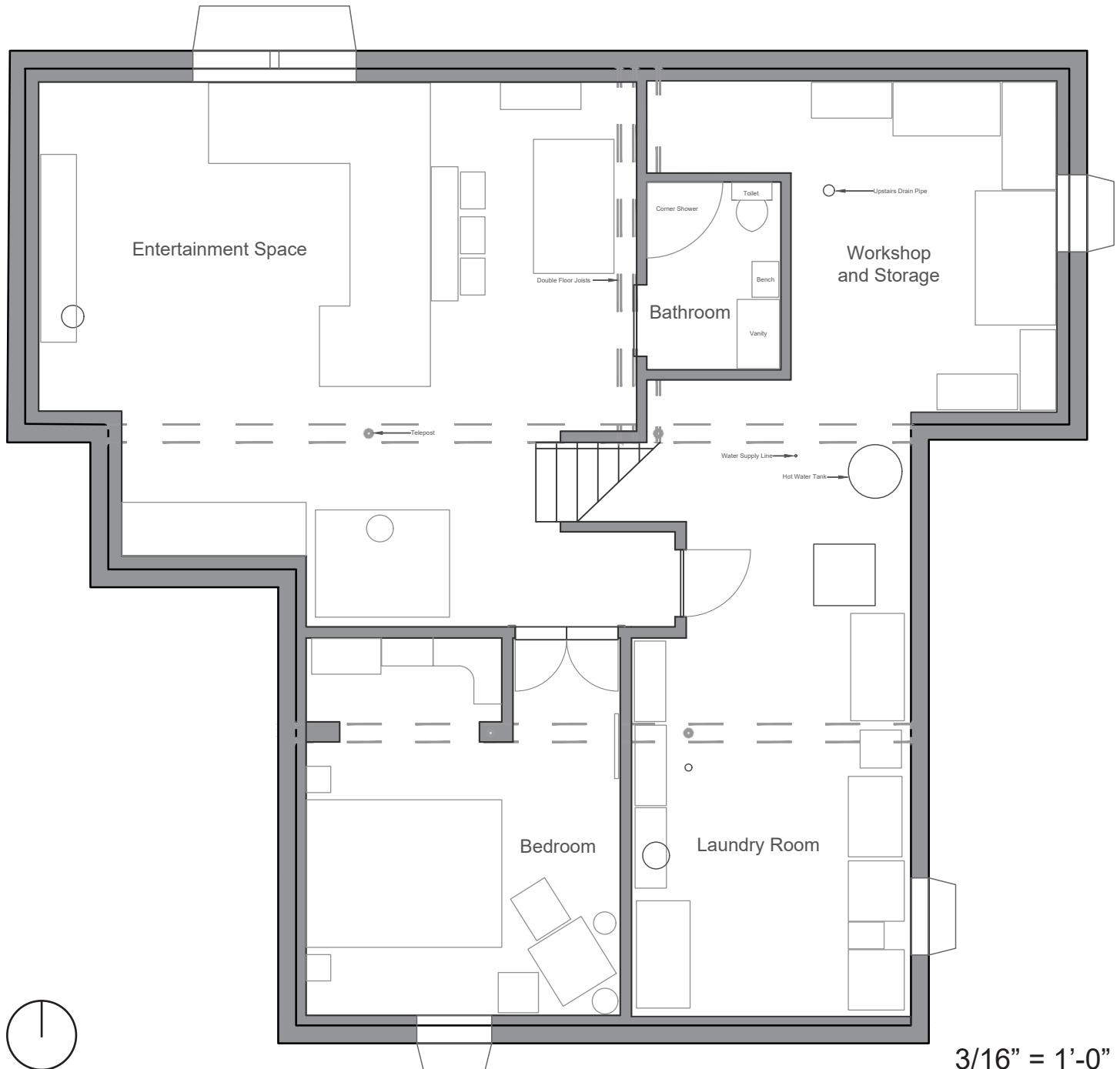
## Existing Basement Plan

This plan drawing of the basement of the same property was created for testing layouts for future renovations.



## Basement Renovation Plan

This is just one example of a potential layout for the new entertainment space and bathroom.





# An Operational Precinct Strategy

Fall 2019 | Individual Work

EVLU3006 Studio 3 | Leanne Muir + Dr. Richard Perron

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Relating to the preceeding project, *An Operational Metaphor*, as well as our site from *Dwelling In On The Road*, we were required to apply our metaphor to our precinct. In this case my focus was on Conserving green space, Seeding existing properties to create green space, and Connecting them through potential green corridors within the neighbourhood.

## Maintain

Within this collage, controlled forest fires are used as an example of maintenance, as these controlled fires help maintain the forest. The ideal, healthy forest is separate from the controlled forest fire. Within the metaphorical jar, while the controlled fire burns on the outside.



## Protect

Ocean pollution is a major issue in today's world, but countless efforts have been made by both individuals and companies to clean up the ocean. This collage depicts the containment of several species so that their habitat may be thoroughly cleaned to protect it.





## Save

The collage shows sustainability by selectively choosing to light certain buildings over others. This effort is made to save electricity so that it may be collected and efficiently dispersed when required. The electricity is collected via solar panels, shown within the medium of the jar.



## Preserve

The melting of ice shelves is one of the most frequently aired segments on a news broadcast, which is what inspired this collage. This collage shows an environment which is slowly increasing in temperature, this process is what leads to the collapse of ice shelves, however, an ideal condition is separated, preserved within the jar.

# Growing, Growing, Gone!

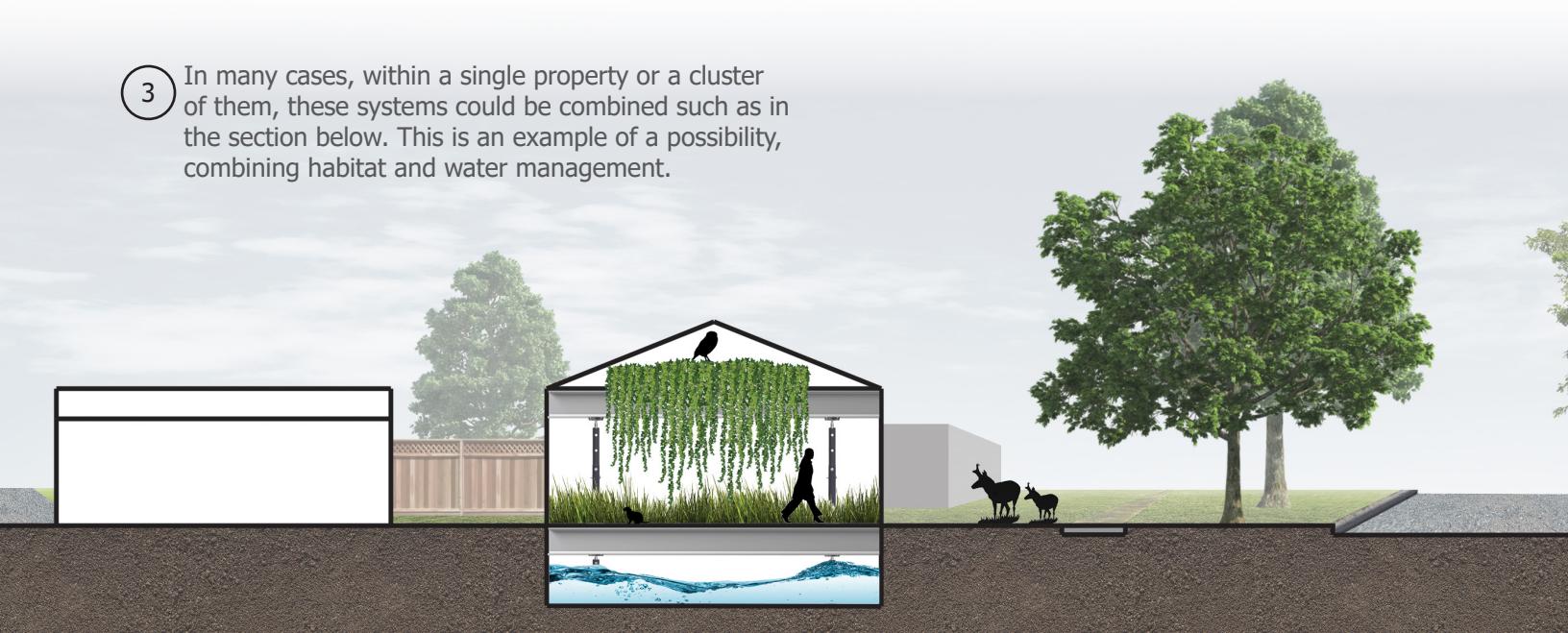
## Lord Roberts Green Space Synthesis

### The Concept

The idea of conserving green space within the precinct came from the application of an operational metaphor. The focus was put on green space during a study when it was realized that Lord Roberts has a lack of green space based on the overall area of the precinct. The goal is to increase the amount of green space by preserving it on existing lots that will thread through the precinct to connect the existing spaces.



- 3 In many cases, within a single property or a cluster of them, these systems could be combined such as in the section below. This is an example of a possibility, combining habitat and water management.





2 Green Space Locations  
Scale 1:16000





Solar



Geothermal



Compost

Several opportunities are opened up if the house is removed from the lot. Some options may include a community composting site, a solar garden or geothermal field, or a new neighbourhood playground.





Bike Repair



Butterfly Sanctuary



Arboretum



If the house is left on-site, the structure could be repurposed or left to be overgrown and reclaimed by nature. It could be turned into a butterfly sanctuary, a bike recycling and repair shop, or a plant museum showcase.

④ Adjacent properties could be used together to create a different scale for several systems. While the houses may not have a built connection, they could be connected within the larger network.





# Recovering the Road

Fall 2019 | Individual Work

EVLU3006 Studio 3 | Leanne Muir + Dr. Richard Perron

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*Recovering the Road* builds off the preceeding project, *An Operational Precinct Strategy*, by applying the strategy that was explored in that project to our street site from *Dwelling In On the Road*. This project is a more specific application compared to the generalized application of a strategy from the preceeding project.

# Urban Orchard

## Berwick Place Orchard Integration



Precinct Context

### ① Ecological Context

These zones contain several different mediums and spaces which host several systems including; Habitats, Water Management, Active Transportation, and other Integrated Networks. In a few situations, there are green spaces that contain clusters, or groves, of these trees along with understory.

### ② Social Context

These zones combine ecological and community elements. Community Spaces are a major factor in these zones, but Active Transport and Integrated Networks are also present. In addition to the green space, these sites also include an actual structure or other infrastructure to support a variety of activities.



### Site Context Parti Diagram

This parti diagram shows the sight-lines from the houses to the path and infiltration channel. The boundaries that are set by the houses and fences are shown here, which create a set public and private space condition.

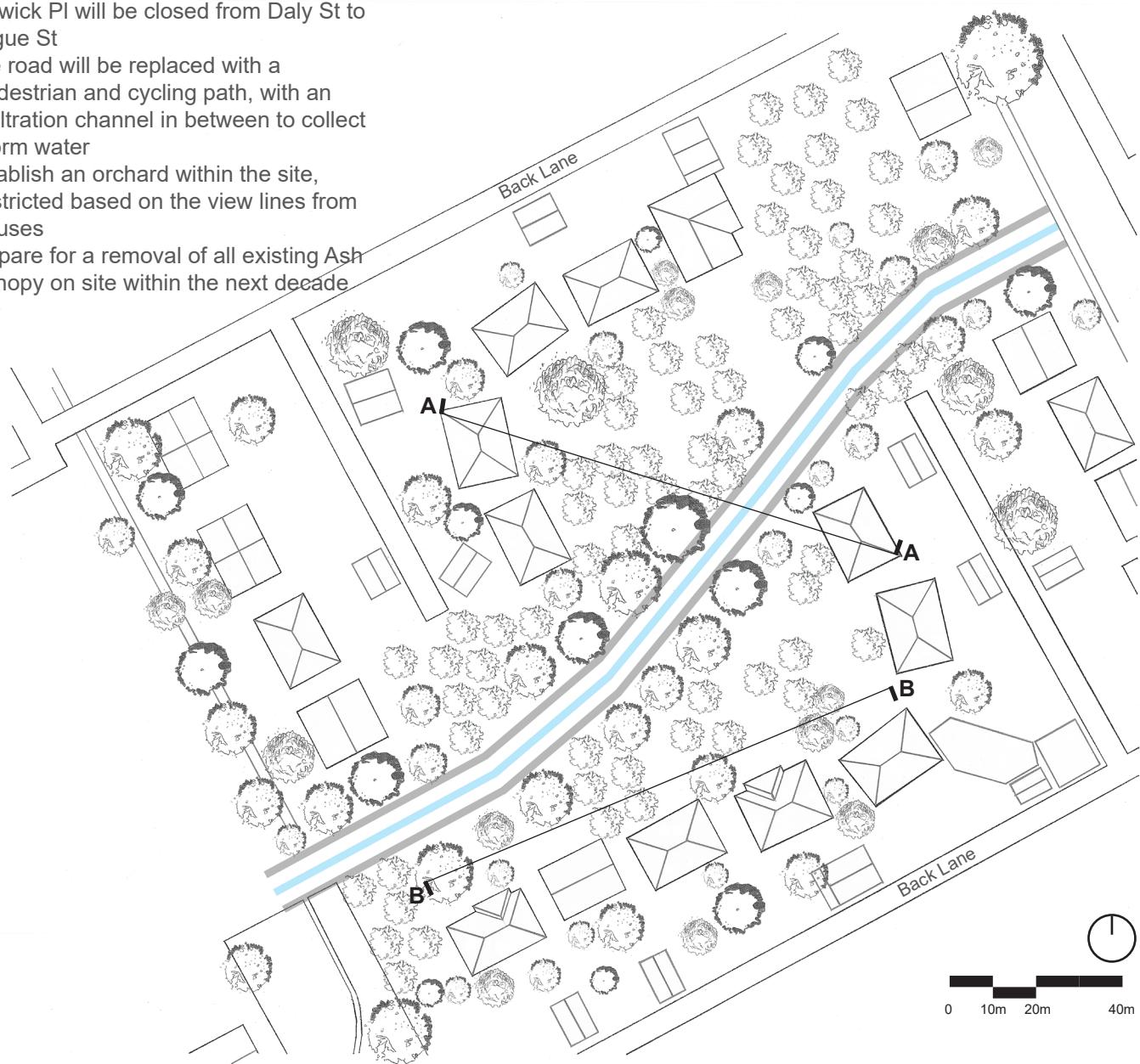
### Spatial Context

- Private Space** - The space that contains people's homes and backyards, that is adjacent to the overall public space
- Public Space** - The space that contains both existing trees and trees from the orchard addition
- Central Circulation** - The space that contains the infiltration channel and paths where people circulate through the area

## Proposed Site Condition

- Berwick Pl will be closed from Daly St to Argue St
- The road will be replaced with a pedestrian and cycling path, with an infiltration channel in between to collect storm water
- Establish an orchard within the site, restricted based on the view lines from houses
- Prepare for a removal of all existing Ash canopy on site within the next decade

## Berwick Place Site Plan



**A** Cross-Path Section



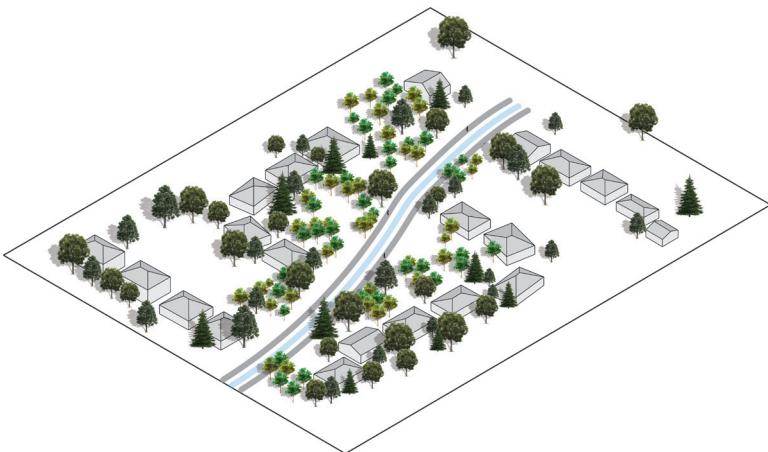
ORCHARD





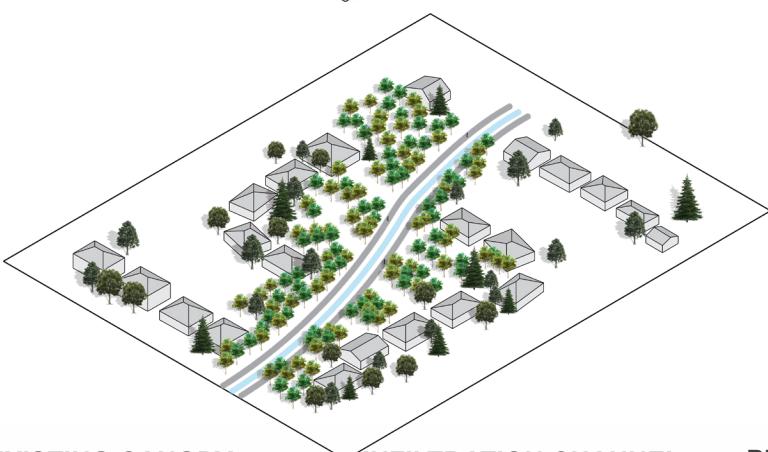
### ***Existing Density Condition***

- Existing canopy is made up of primarily of Green Ash, and some Black Ash
- The infestation of the Emerald Ash Borer is only a moderate concern, management programs are underway to try and prevent the spread



### ***Approximately 10 Years After Planting Orchard***

- The city has decided to remove Ash trees from the original canopy, new trees have been planted in the orchard
- The original canopy is now extremely sparse as the Emerald Ash Borer has decimated the population of ash trees within the urban canopy of Winnipeg



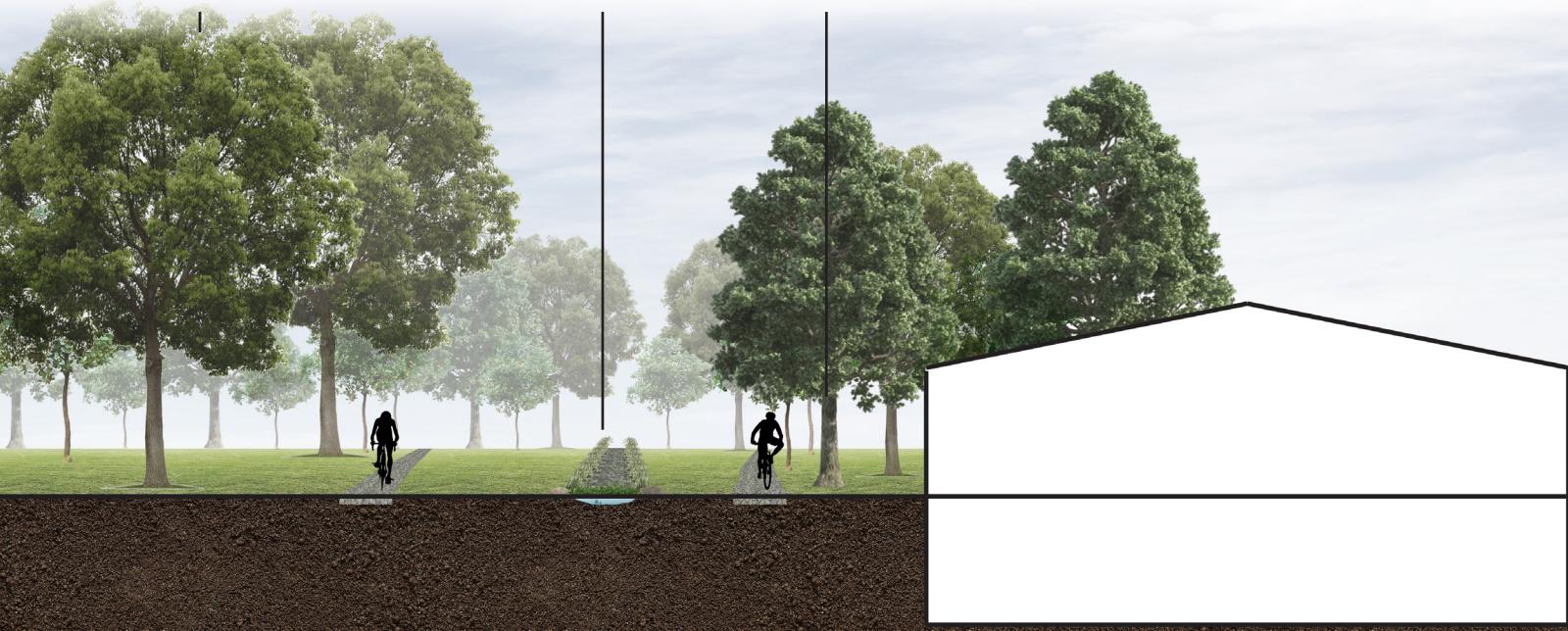
### ***Approximately 25 Years After Planting Orchard***

- The majority of Ash and Elm trees have been removed from the neighbourhood
- To maintain the density of the orchard, more fruit-bearing trees have been added to the site, some of the original trees have also been replaced

**EXISTING CANOPY**

**INFILTRATION CHANNEL**

**PEDESTRIAN/CYCLIST PATH**





Sight Line - View From Path

*Species within Orchard*



Goodland Apple



Parkland Apple



Early Gold Pear

B

Cross-View Section



FRAMED  
SIGHT LINE

ORCHARD SECTION

FRAMED  
SIGHT LINE

UTILITY  
SUPPLY LINE



Perspective of Path and Infiltration Channel

*Species at Risk on Site*



Green Ash



Black Ash



White Elm



FRAMED  
SIGHT LINE

ORCHARD SECTION

FRAMED  
SIGHT LINE

EXISTING CANOPY

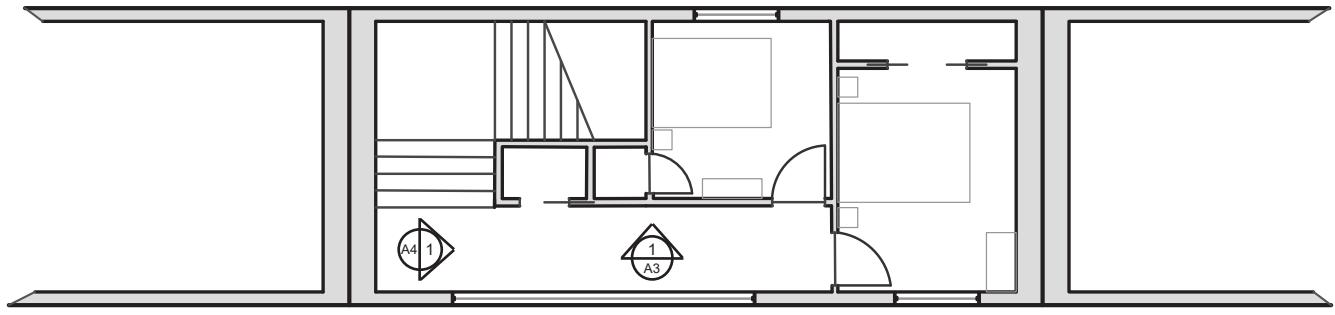


# Share

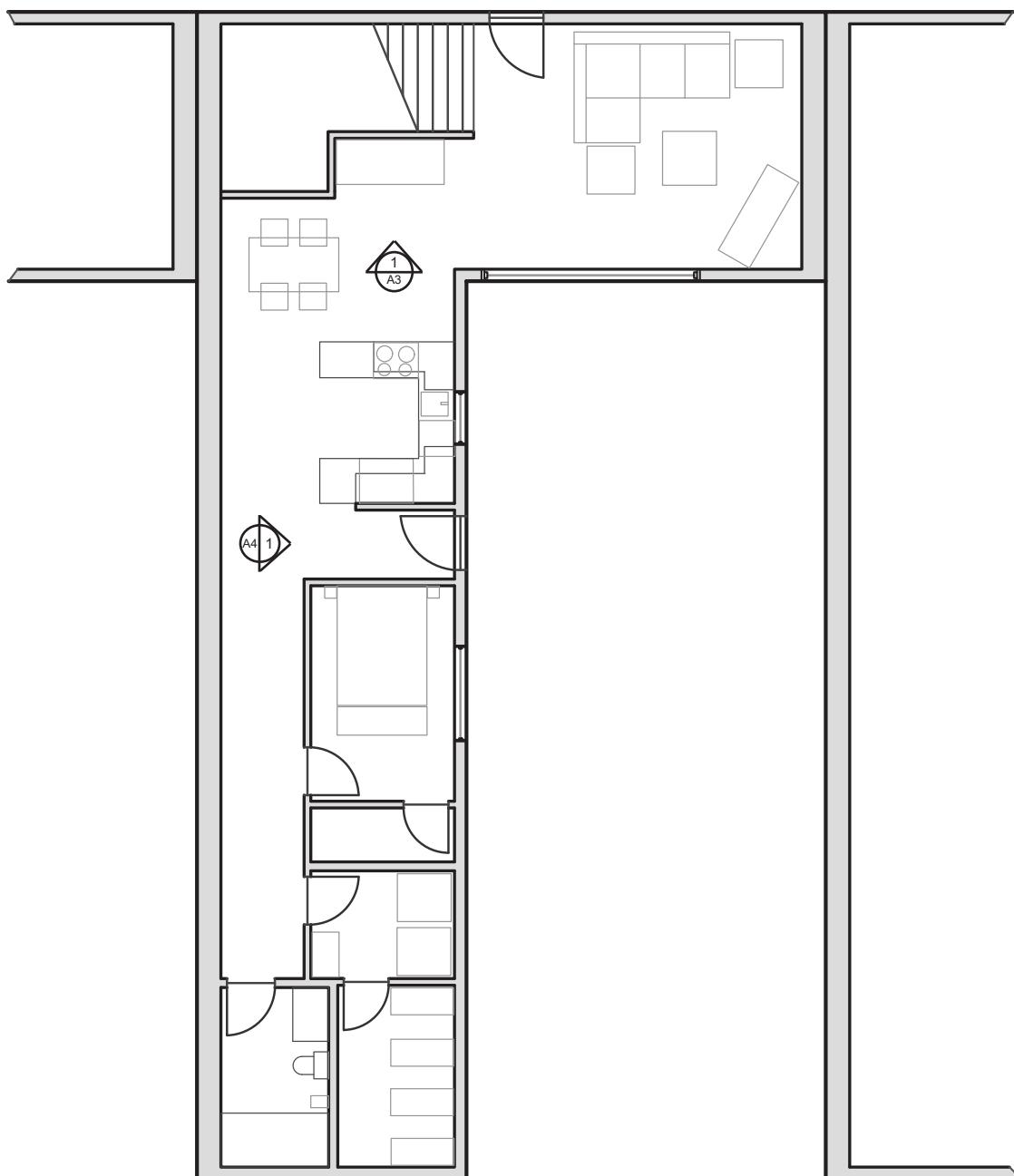
Winter 2019 | Individual Work

EVDS2900 Studio 2 | Prof. Mark Meagher

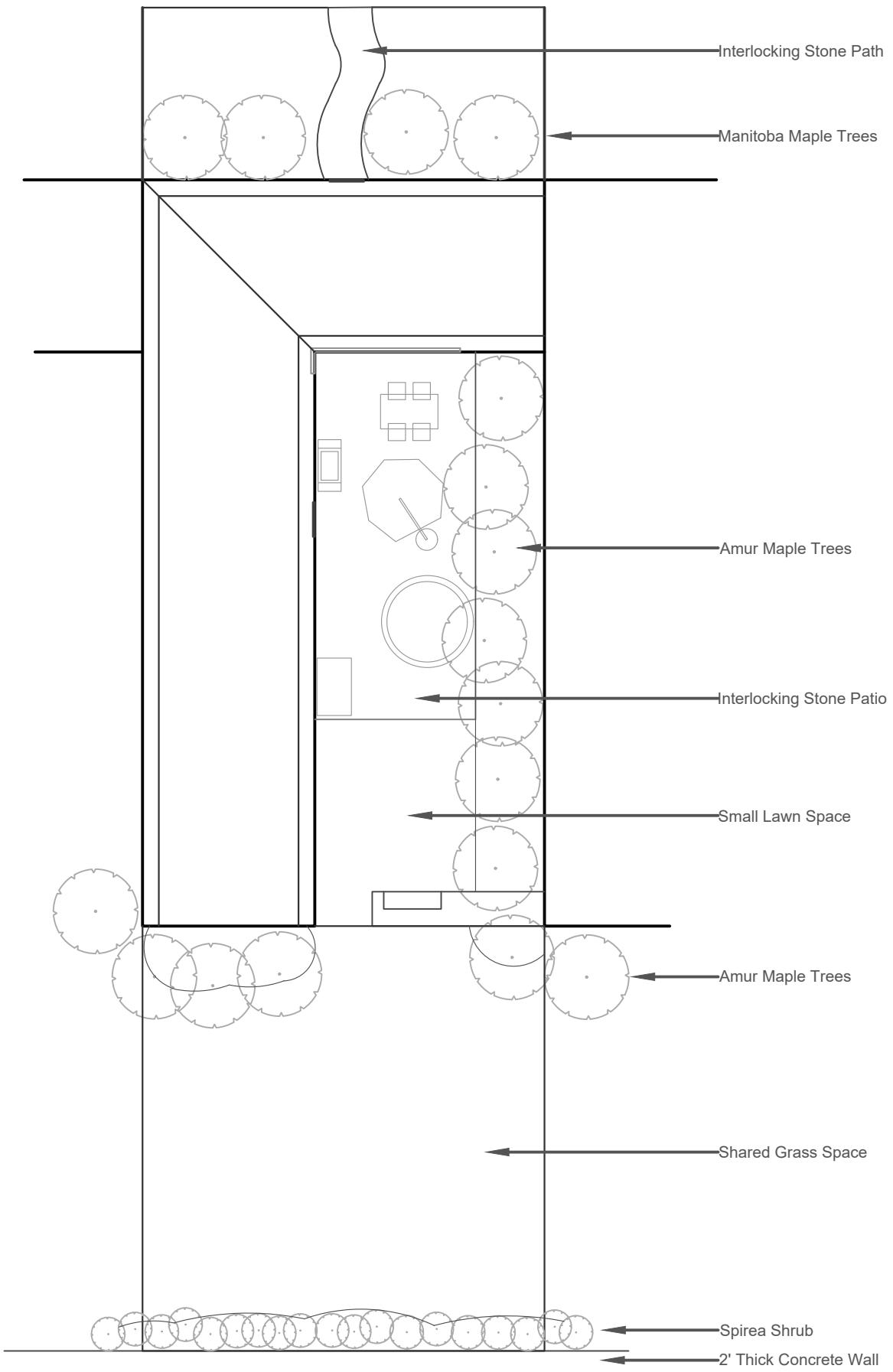
In our studio group, we started out with our character selection based on a movie of our choice. Once we established this, we were assigned a neighbourhood and picked a site within it. Finally, we were required to design a house based on a narrative that involved the characters previously mentioned.



1  
A1 Second Story Floor Plan  
Scale:  $\frac{3}{32}$ " = 1'-0"



2  
A1 First Story Floor Plan  
Scale:  $\frac{3}{32}$ " = 1'-0"



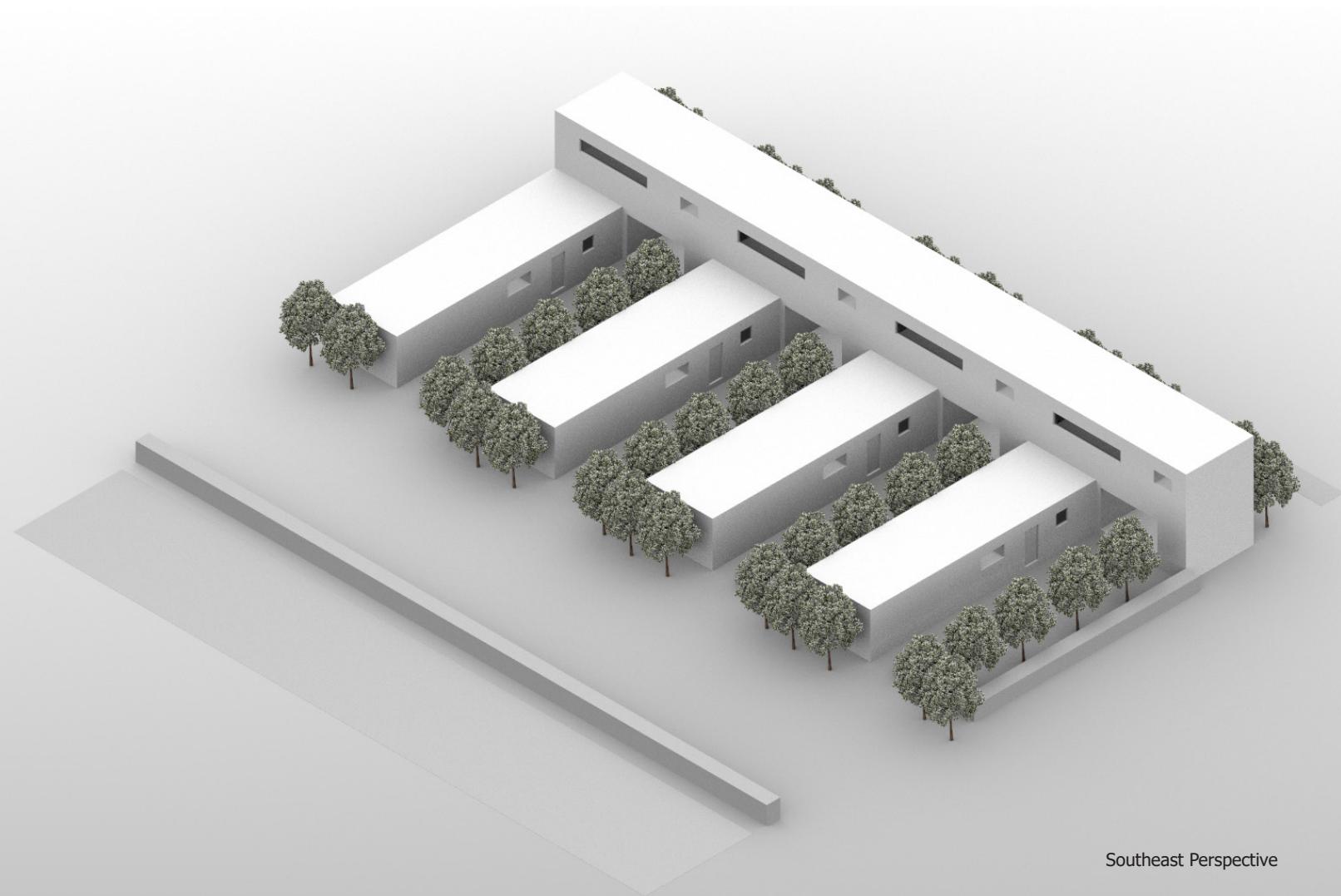
1  
A2 Property Plan  
Scale:  $\frac{1}{8}$ " = 1'-0"



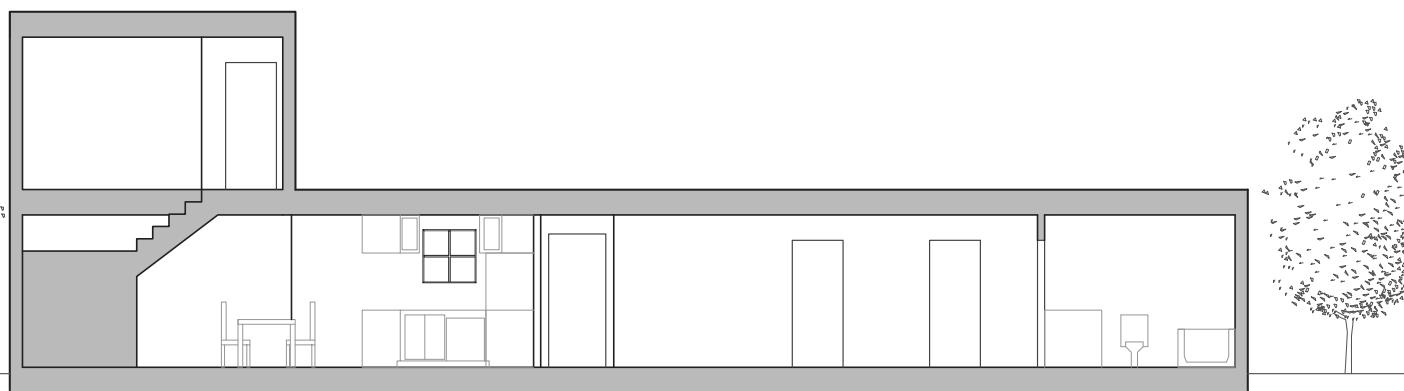
The clients for this project were based on a selection of characters from a movie. In this case, the clients were a three-member family, looking for an affordable single-family dwelling. With this in mind, a layout for the house that would be ideal for a family was created. The yard for the house was also made to have a private space and a shared space for the neighboring houses.



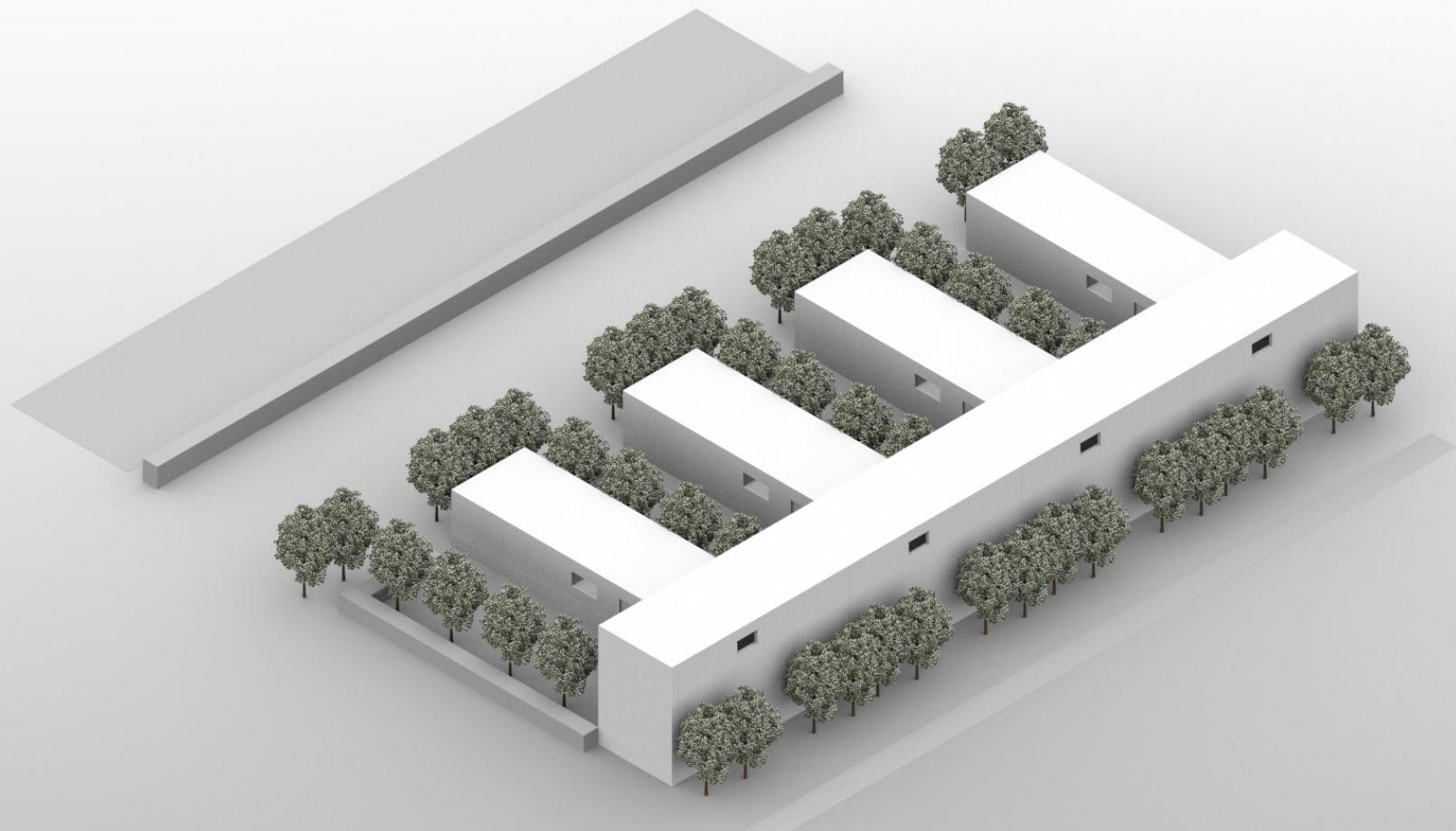
1 Northwest Section  
A3 Scale:  $\frac{3}{32}$ " = 1'-0"



Southeast Perspective



1  
A4 Northeast Section  
Scale:  $\frac{3}{32}$ " = 1'-0"



Northeast Perspective



# Snow Garden

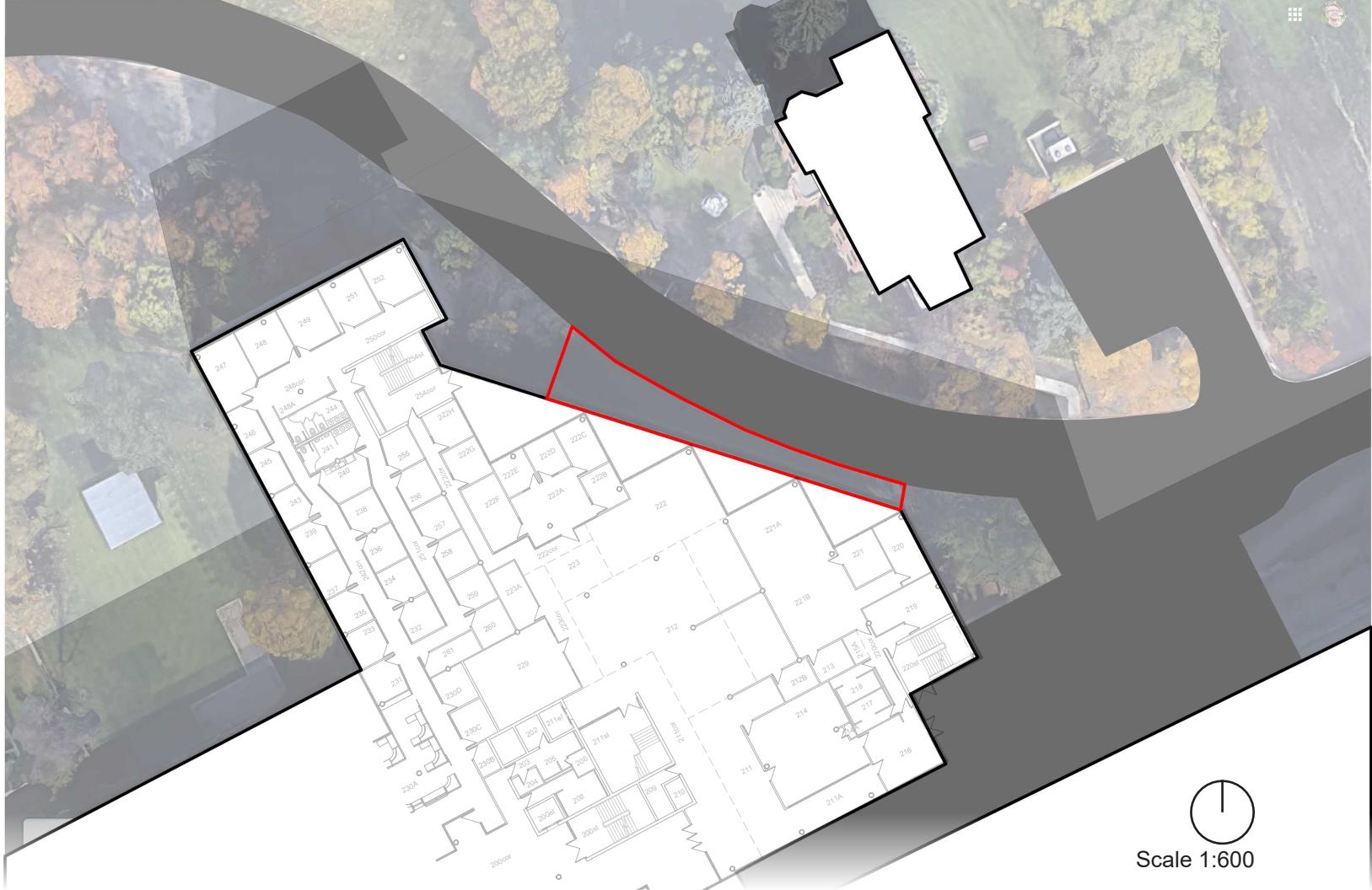
Winter 2020 | Collaborative Work

EVLU 3008 Studio 4 | Prof. Brenda Brown

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This project began with a rigorous observation and analysis of the interior and exterior environments of our chosen site. Upon constructing a model of the interior portion of the site, a separate exterior portion was added to test layouts of our intervention. Following this, studio reviews were done and a vote was conducted to see which projects would be built.

This project was chosen within the first round and was successfully constructed within 16 hours by a team of three people including myself.



500 Level

400 Level

300 Level

200 Level (at Grade)

Machray Hall

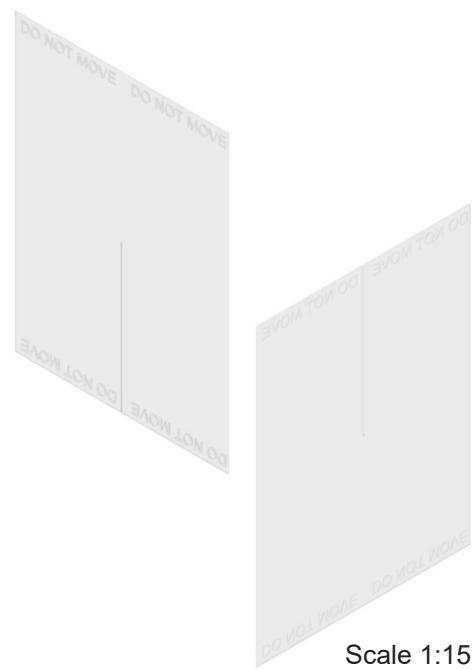
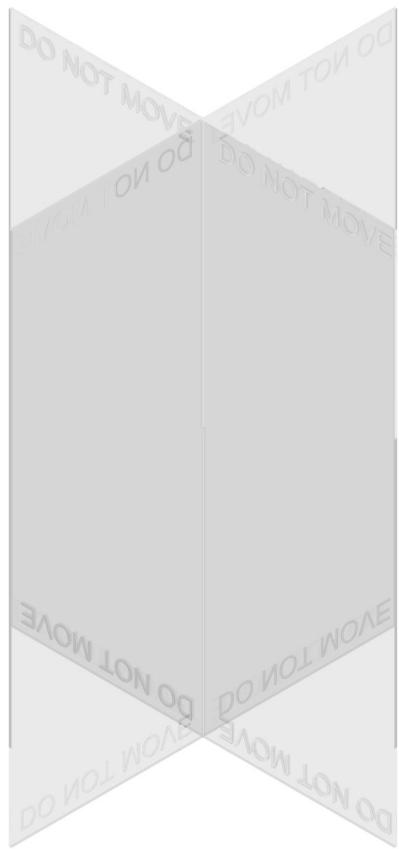
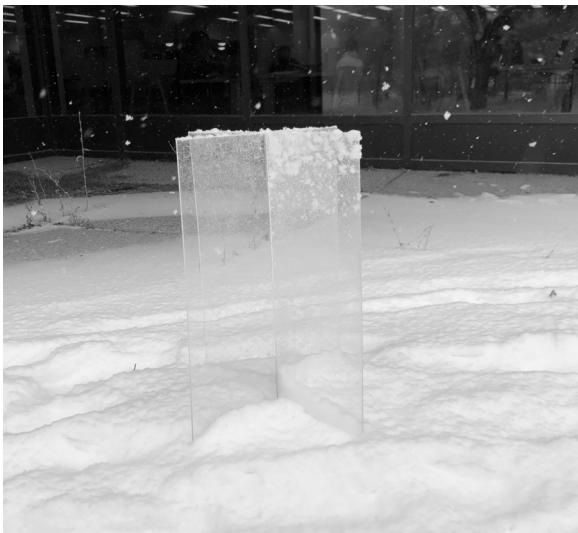
#### **At Ground-Level:**

- Desks are oriented parallel with the windows to allow for a view outside
- Ground level of library is fairly open
- Windows along this side facing Dysart Road go from floor to ceiling for an unobstructed view

#### **At Road-Level:**

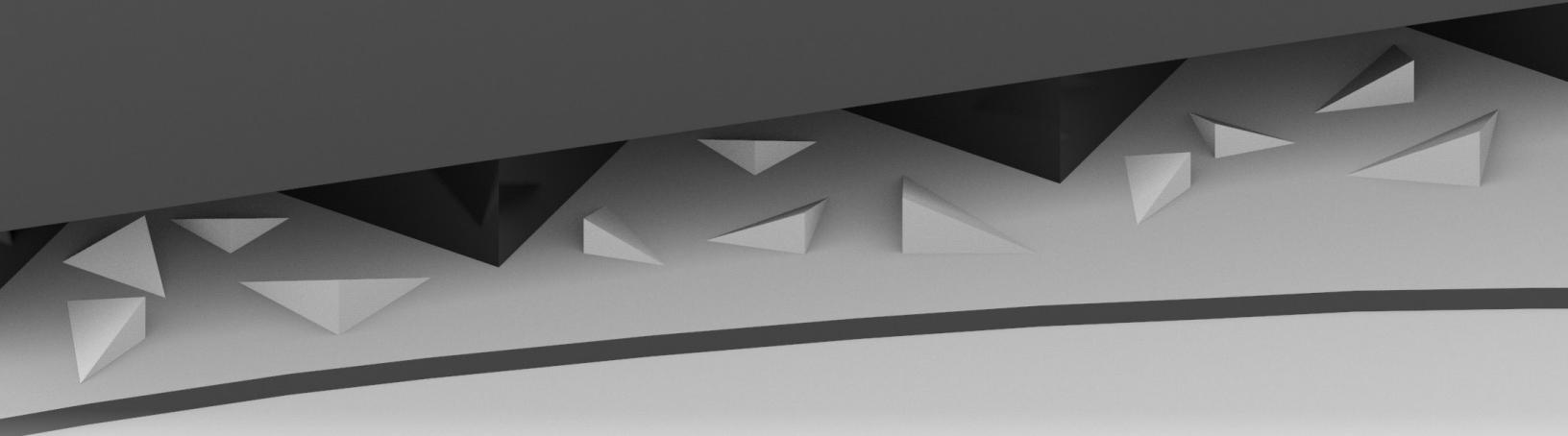
- The top of the curb lines up with the bottom of the passenger-side window
- This allows nearly all vehicles to have a view of the space
- When turning down the winding road, the site can also be viewed nearly head-on, instead of from the side

Dysart Road

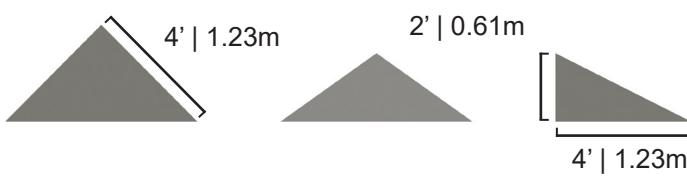


Scale 1:5

Scale 1:15



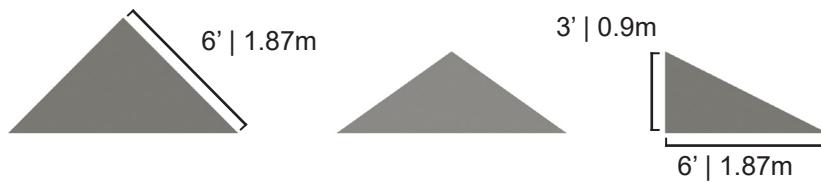
## Measurements



## Construction Plan

### Timeline

Snow Gathering - 3 Hours (Total)  
Mold Packing - 1 Hour (Individual)  
Mold Setting - 1 Hour (Individual)  
Total Time for Construction:  
Approximately 13 Hours



### Required Number of People

(2 Individuals + Myself)  
1 Shoveler  
1 Packer

### Required Materials

1-1/2 Rigid Insulation 4' x 8' Sheet (4)  
1/2" Plywood, 1' x 1' Piece (2)  
Constructed Packer (2)

2 Shovels

### Arrangement

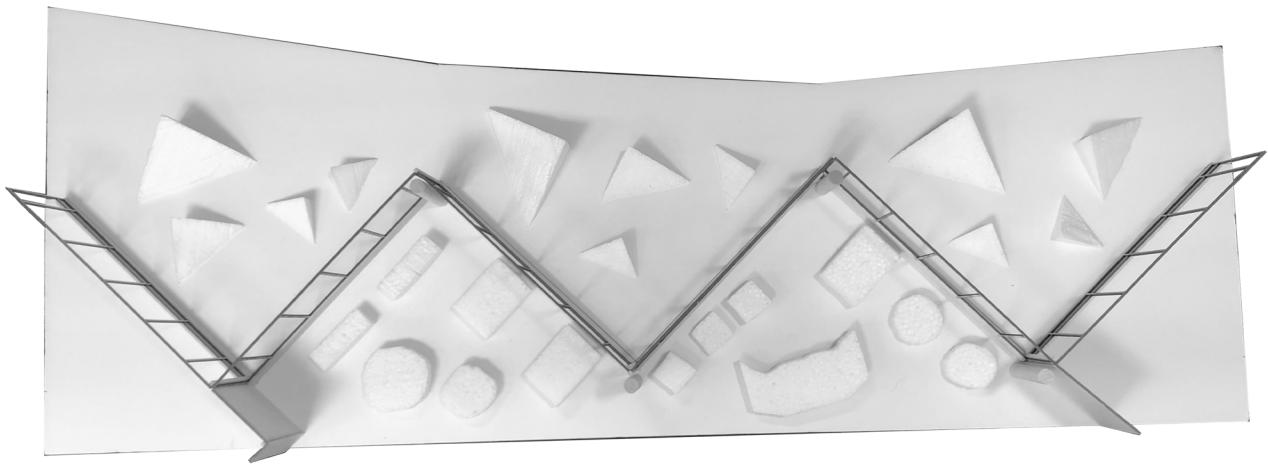
2' x 4' Shape (5.3 cu.ft)  
3' x 6' Shape (18.0 cu.ft)  
4' x 8' Shape (42.7 cu.ft)



Total Volume of Snow  
Approximately 213.9 Cubic Ft



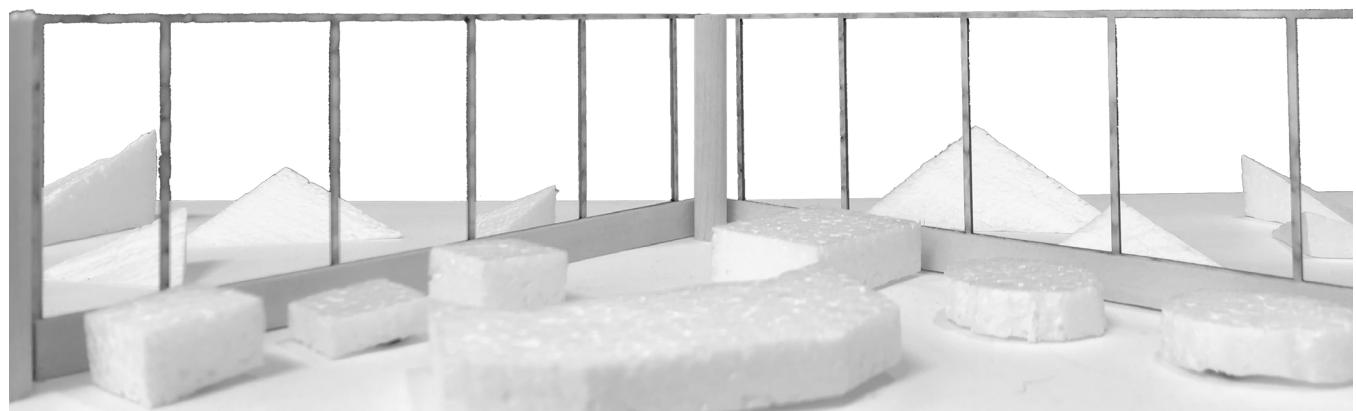
## **Foam Working Model - Final Layout**



Plan view of foam model (1:40)



Interior view looking out (Left half)



Interior view looking out (Right half)

