

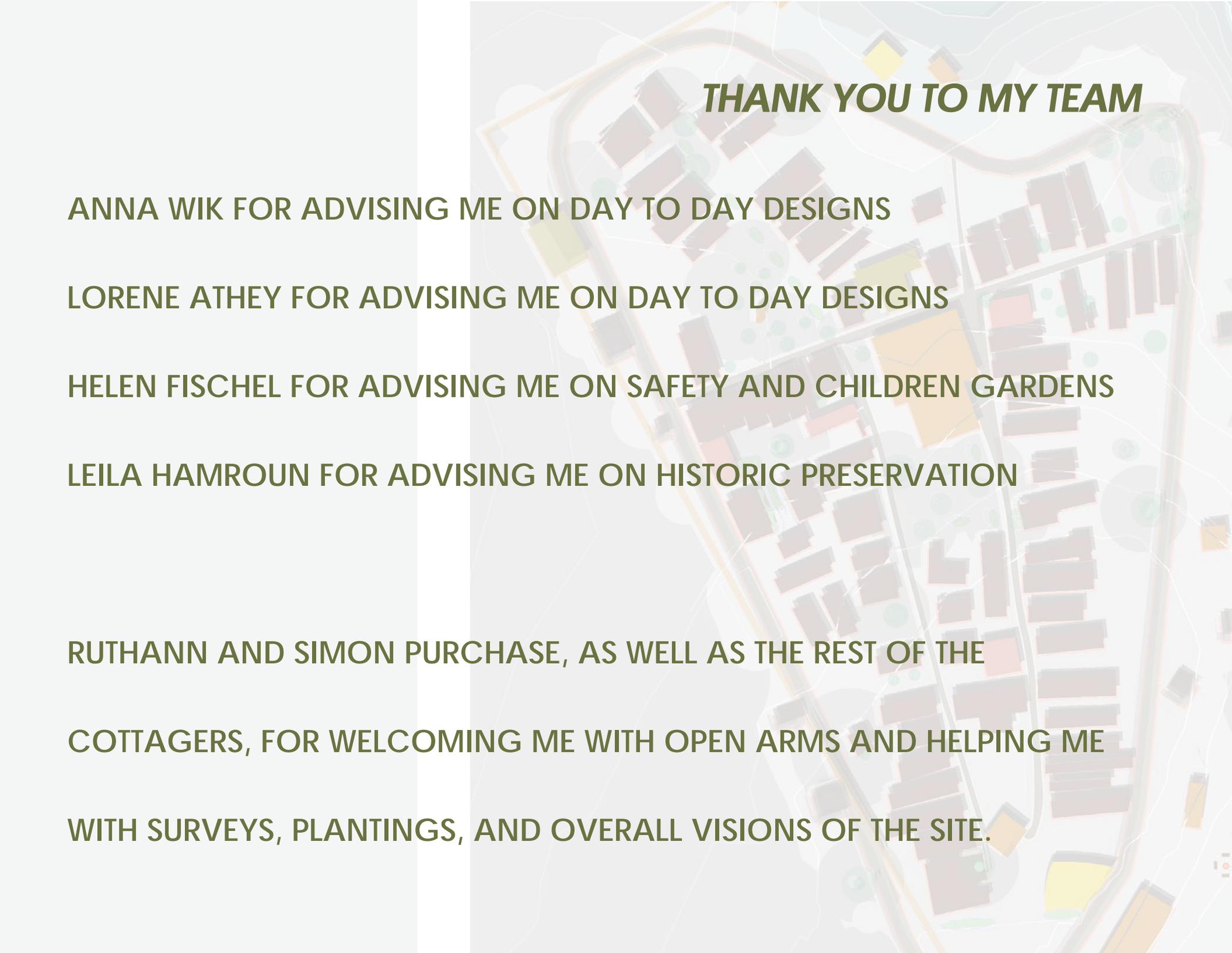
# Brandywine Summit Camp Meeting

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Senior Capstone 2023  
University of Delaware BLA

REVITALIZING A SUMMER CAMP  
THROUGH SPATIAL REORGANIZATION  
AND SUSTAINABLE ECOSYSTEM  
SERVICES

Advisors:  
Anna Wik, RLA  
Lori Athey, RLA  
Leila Hamroun, AIA





## ***THANK YOU TO MY TEAM***

**ANNA WIK FOR ADVISING ME ON DAY TO DAY DESIGNS**

**LORENE ATHEY FOR ADVISING ME ON DAY TO DAY DESIGNS**

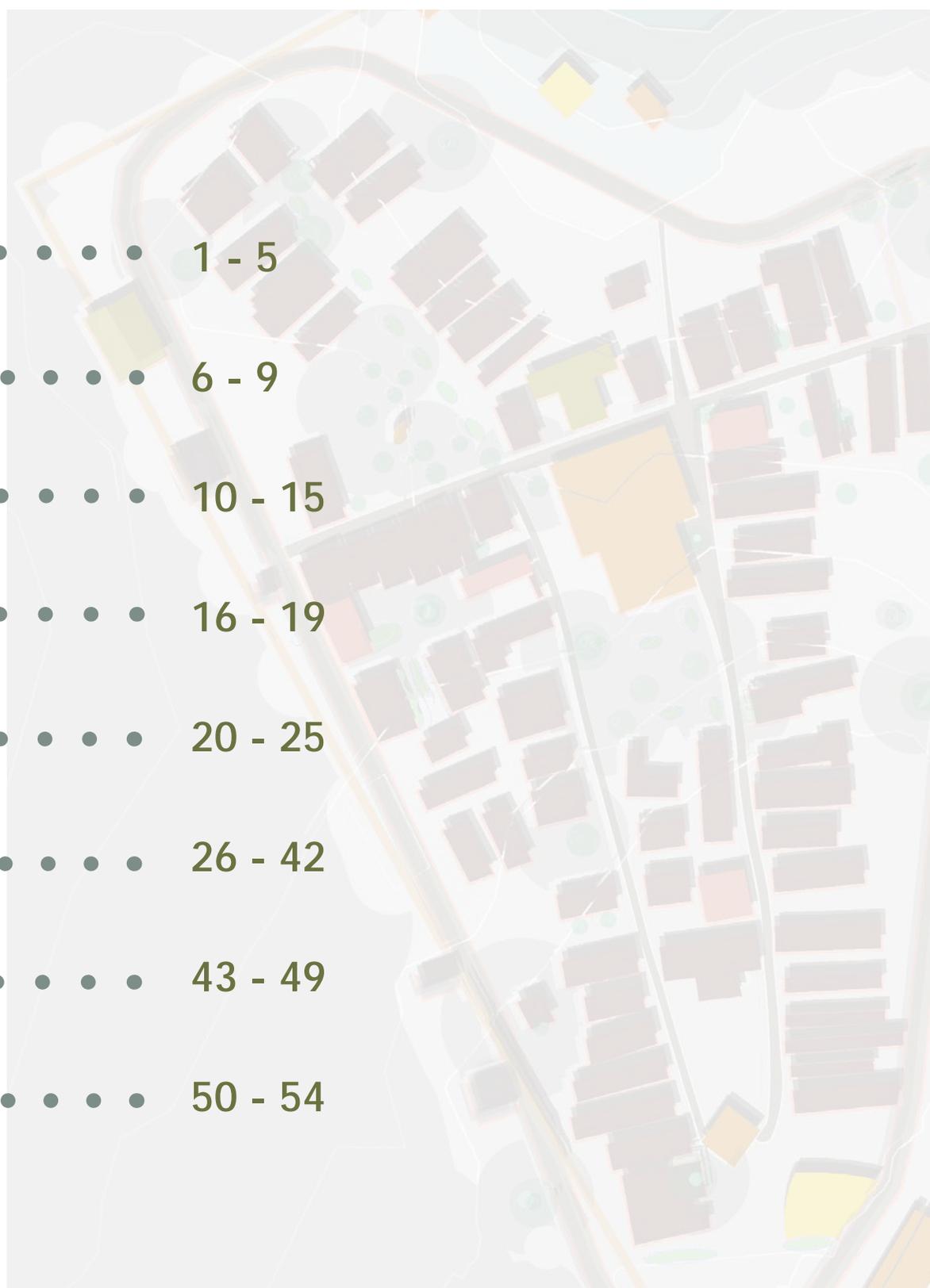
**HELEN FISCHER FOR ADVISING ME ON SAFETY AND CHILDREN GARDENS**

**LEILA HAMROUN FOR ADVISING ME ON HISTORIC PRESERVATION**

**RUTHANN AND SIMON PURCHASE, AS WELL AS THE REST OF THE  
COTTAGERS, FOR WELCOMING ME WITH OPEN ARMS AND HELPING ME  
WITH SURVEYS, PLANTINGS, AND OVERALL VISIONS OF THE SITE.**

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**INTRODUCTION**



# LOCATION

This 13 acre site sits less than a mile from the Delaware border and is part of a large patch of protected lands which includes:



FIRST STATE NATIONAL HISTORIC PARK **A**

BRANDYWINE CREEK STATE PARK **B**

WINTERTHUR GARDEN AND ESTATES **C**



## SITE ORIGINS

In 1866, five churches from Wilmington, Delaware came to **Johnson's Wood** to share food, music, and words of encouragement. Starting as one grand meeting, these city folk came year after year, **setting up tents made of old sails**. Each church set up a guild of tents and would take care of a different part of the camp. After the Civil War ended, people started to make more permanent structures: wooden roofs were added over the tents, then wooden walls were built to create the first cottages on site in the early 1900's. Farmer Johnson's only rule was to **preserve and conserve the stand of trees** (Glass, B. D. (n.d.)). This rule still applies today, which results in cottages being modified to allow the trees to grow without boundaries.



Figure 1: Early tent campers



Figure 2: 19th century cottage grounds



Figure 3: Present day tree in cottage

## SITE SUMMARY

Founded in **1866** as a **Methodist Camp Meeting**, it has been enjoyed by thousands. At its height, there were more than 120 family cottages.

This **157 year old camp** has stood the test of time. Through the years it has become less strict socially and theologically and is becoming a place for **simple living through nature-based lives**.

There are **66 cottages remaining** to buy and rent, and the camp is open from **May to November**.



Figure 4: Fall photo of Tabernacle



Figure 5: Fall photo of Hilltop Pavilion where first built structure was located

## MISSION

Our goal is to preserve the historic status of the 13-acre site while creating low-maintenance reflection gardens that promote biodiversity, improve water quality, and provide spaces for contemplation. We will prioritize safety concerns and strive to replicate historic aspects in all modifications while enhancing community involvement and accessibility through historical tours and nature-based education.

## GOALS

- Promote biodiversity, improve water quality and retention, and enhance ecosystem services through the creation of rain gardens using historic plantings and materials.
- Design low-maintenance gardens that are sustainable over the long-term and will not create future problems.
- Enhance community involvement and accessibility through historical tours and nature-based education trails and structures.
- Prioritize safety concerns by addressing tree canopy issues, vacant cottages, and uneven surfaces on the site.
- Replicate historic aspects in all modifications, ensuring that changes are seen as long-term solutions.

## OBJECTIVES

- Conduct a thorough site analysis to understand what aspects make it historic and how future designs can mimic these historic aspects.
- Develop a historic guideline list to ensure that all future modifications replicate historical aspects, and choose materials for longevity as well as aesthetics.
- Encourage more outside visitation and revenue through historical group tours and nature-based education trails and structures.
- Create a welcoming, ADA-compliant environment that encourages more visitors and residents through nature education and engagement and provides an outdoor social life through picnic areas, outdoor classrooms, and beds.
- Re-establish and update historic areas such as fern gardens and a moss garden in the Sacred Circle. Encourage community members to share ideas for the site through workshops and informational walk-throughs and offer cost-effective, manageable, and long-term solutions to their needs.

**Overall, the goal of this project is to preserve history, promote reflection, and improve the environment for all species to benefit for years to come while enhancing community involvement and accessibility.**

# ***SITE HISTORY***



## HISTORICAL STRUCTURES

**Hilltop Pavilion** was the first built structure on the site and is still a main gathering spot

**Tabernacle** is used for community gathering, teaching, and ceremonies.

**General store** sells candy, camp supplies, and trinkets

**Museum** has old photos, maps, and books

**Turtle Lodge** is a children's play area

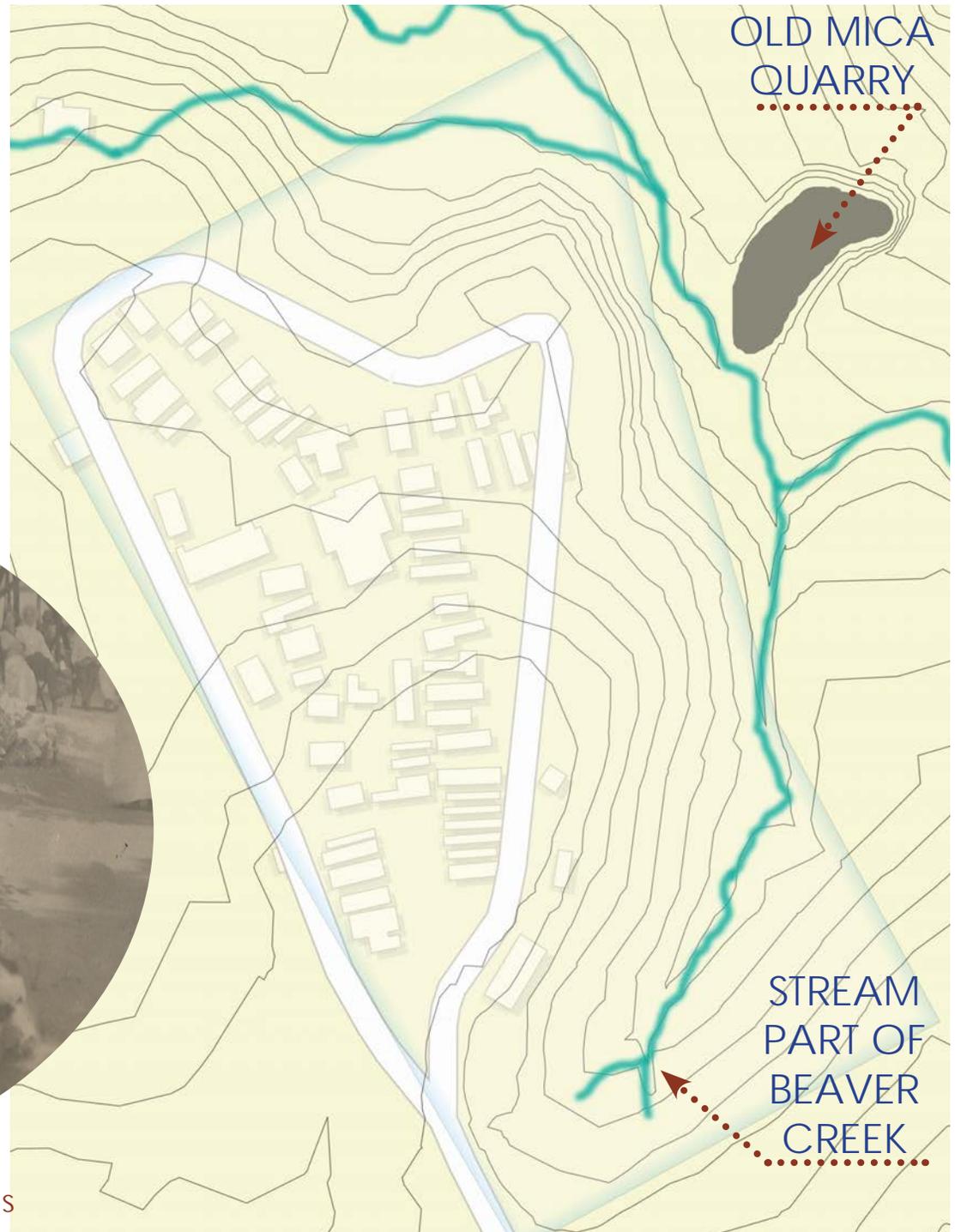
**Trees** grow without interference, which results in a uniqueness as adjustments are made to cottages to accommodate tree growth



Figure 6: 19th century cottage grounds

# HISTORY OF THE SITE'S STREAM AND QUARRY

Photographs from the mid-1950's showing the rocks used for borders around planting beds. The quarry is not on their property, but neighboring farmers agreed to let cottagers use whatever is in the forest.

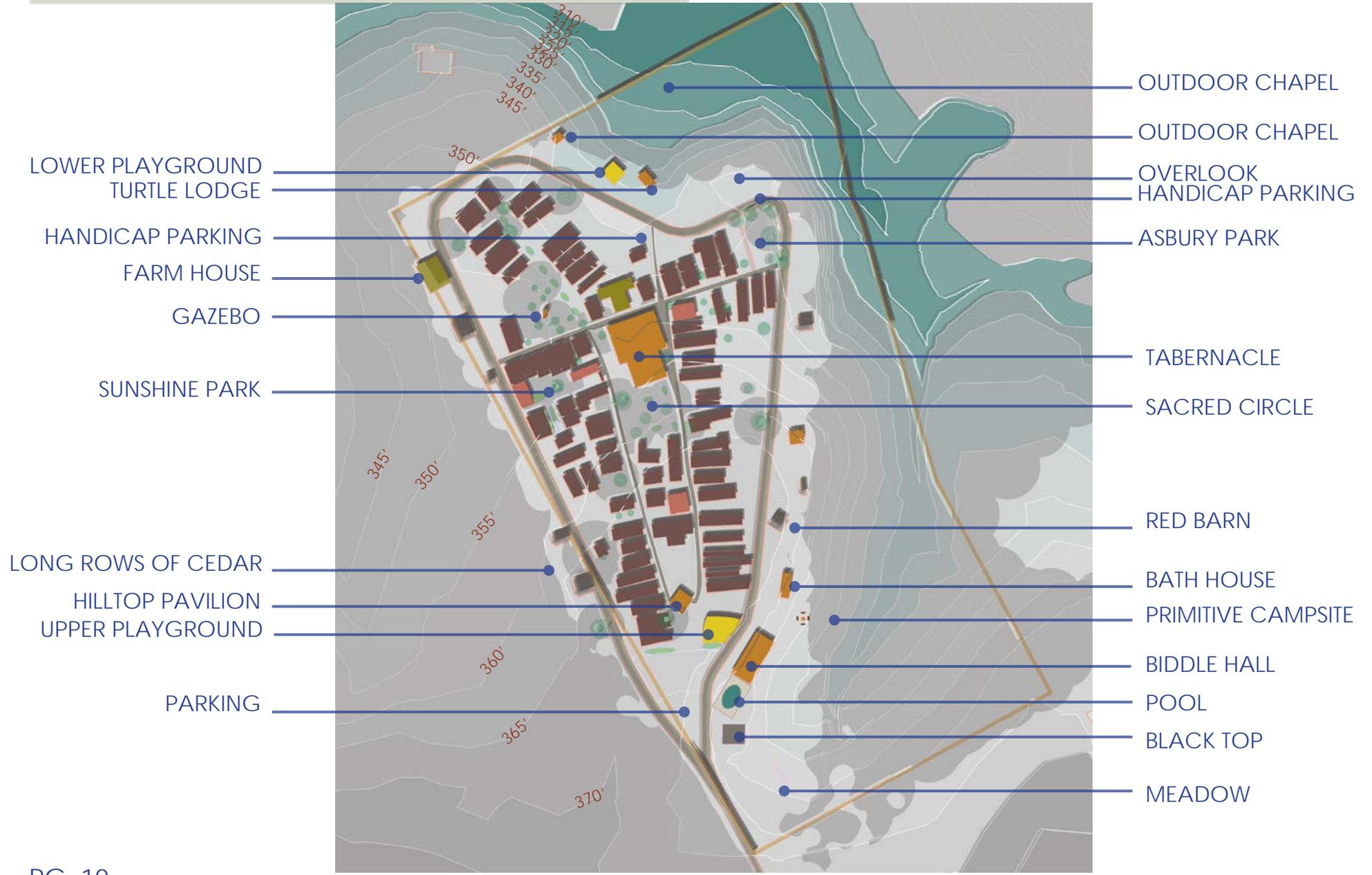


PG. 8 Figure 7: 19th century cottage grounds

# ***SITE ANALYSIS***



# PRE EXISTING CONDITIONS



# HUMAN MOVEMENT

-  **VEHICULAR**  
ASPHALT DRIVEWAY, CARS ARE ASKED NOT TO DRIVE UP TO THEIR COTTAGE
-  **PEDESTRIAN**  
MAIN ASPHALT WALKWAYS ARE DARK ORANGE, WHOLE SITE IS WALKABLE



N<sup>^</sup> 1" = 200' 

# AREAS OF REST AND ACTIVITY

-  **INSIDE REST**  
areas of relaxation,  
calming socialization
-  **OUTSIDE ACTIVITY**  
areas of play, active  
socialization, and  
reflection



# SUN AND SHADE



**FIXED SHADE**  
COTTAGES, TREES



**PART SHADE**  
TREE CANOPY



N ^ 1" = 200' 0' 100' 200'

# OPPORTUNITIES

# AND CONSTRAINTS

NOT STEEP WOODED  
AREA, POTENTIAL  
STREAM WALK ROUTE

CANNOT BE MOVED  
GAZEBO WITH LOTS  
OF GRASS

NEGLECTED  
SUNSHINE PARK

SACRED CIRCLE NEEDS  
TREE REPLANTING AFTER  
LOSING SOME TO DISEASE

EMPTY AREA  
WHO WILL WATER?

GRASS AREA, ALSO  
HAD TREE CUT  
DOWN RECENTLY

GRASS AREA POTENTIAL  
VEGETABLE OR NATIVE  
GARDEN

WOULD TAKE AWAY  
VOLLEYBALL AREA

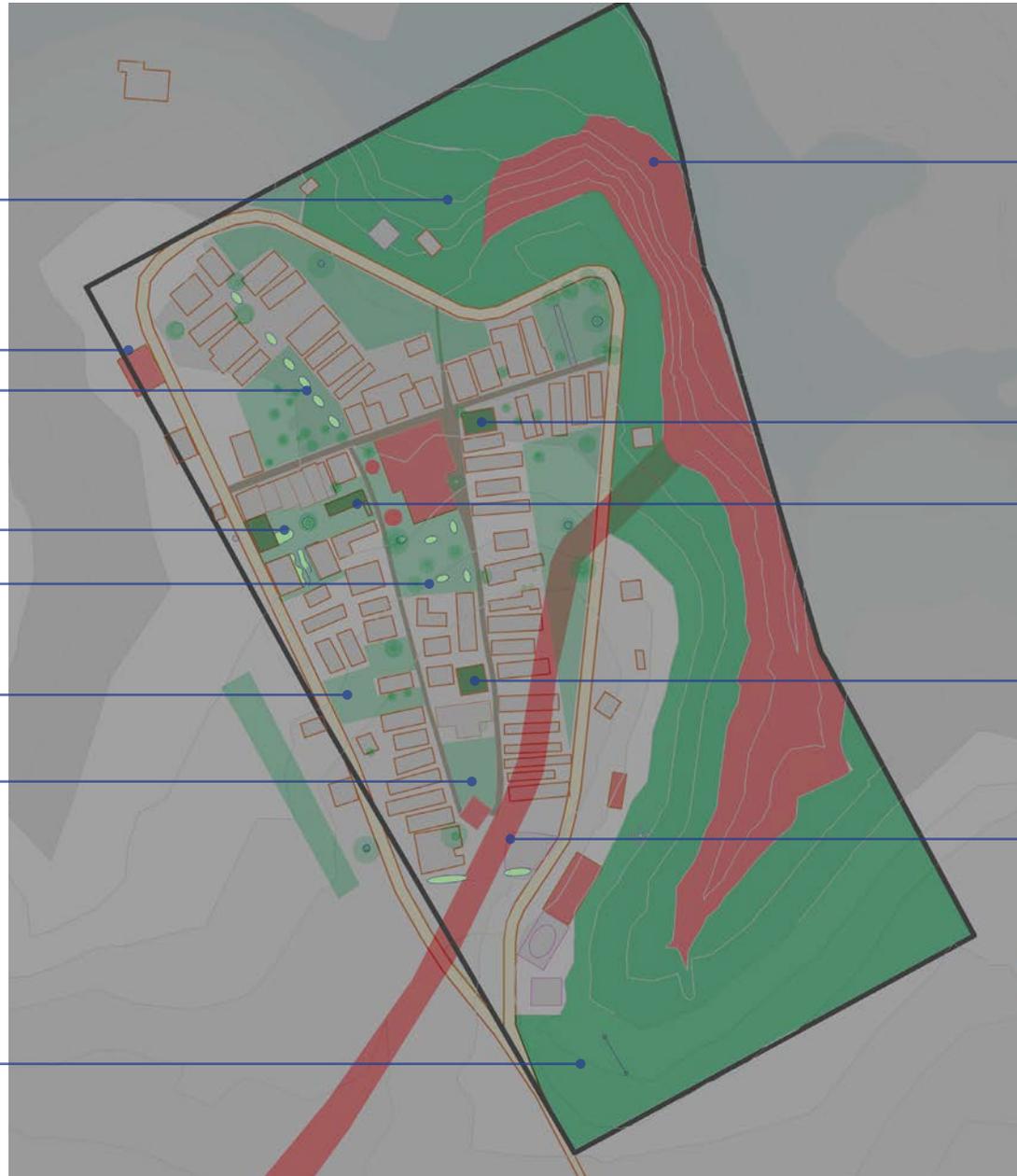
STEEP TOPOGRAPHY  
OBSTACLE COURSE OR  
ROPE CLIMB

ROTTING HOUSE  
OPEN SPACE

HOUSE CAVING IN  
COVERED SITTING  
AREA

VACANT HOUSE  
LIBRARY OR  
INDOOR SITTING  
NOOK

LINE OF EROSION  
POTENTIAL FOR  
RAIN GARDENS



N ^ 1" = 200' 0' 100' 200'

## CONCERNS ON SITE

## AND POSSIBLE SOLUTIONS



### TREES TAKE PRIORITY OVER STRUCTURES

Move tree seedlings to areas not by structures or build a structure around pre existing tree, so that it is the center point.



### COTTAGE IN DISREPAIR AT SUNSHINE PARK

Turn cottage into a covered sitting area which allows for people to face towards the Sacred Circle or towards Sunshine Park.



### HUMIDITY AND DENSE TREE COVER ENCOURAGES MOSS GROWTH

As shingles need replacing, using roofs made of metal, slate, or clay will allow moss to grow problem free due to their durability

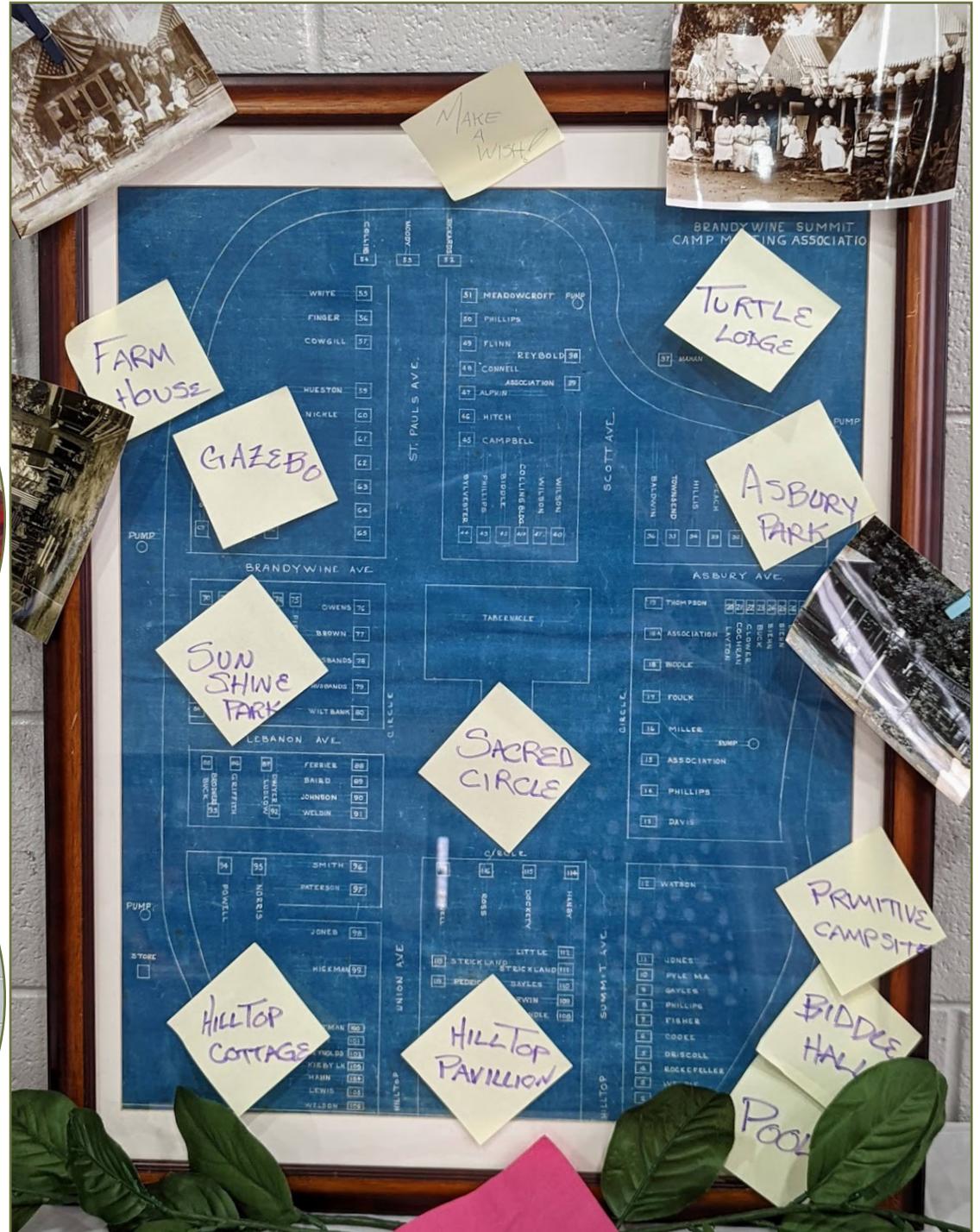
**COMMUNITY  
ENGAGEMENT**



# WINTER SOCIAL

INTRODUCED TO THE COTTAGERS AND SHARED WITH THEM MY PROJECT. I HANDED OUT A SURVEY TO SEE WHICH AREAS OF CAMP TOOK PRIORITY IN GETTING IMPROVEMENTS ON

NOTE: SURVEY RESULTS IN APPENDIX



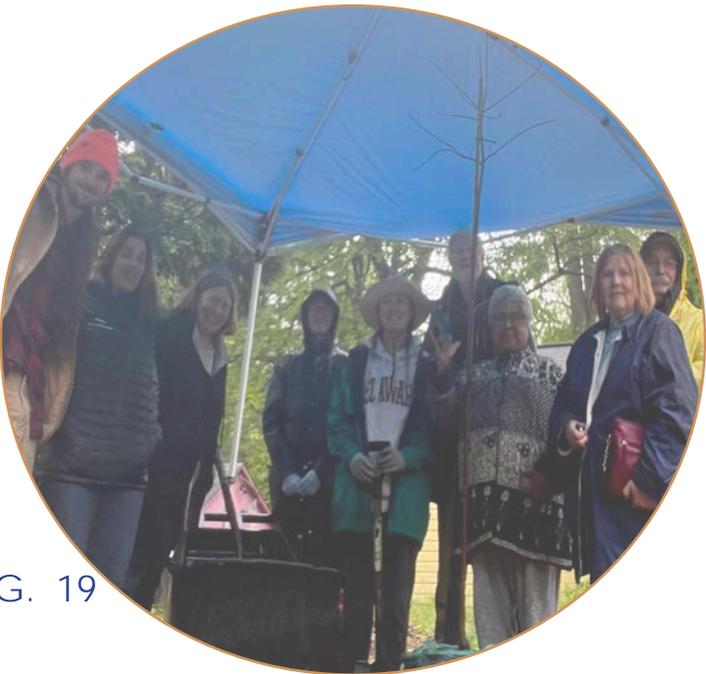
## VARIOUS SITE VISITS

WALKED THE GROUNDS WITH COTTAGERS AND MET AT BIDDLE HALL TO BRAINSTORM THEIR VISIONS OF THE SITE. I GOT TO HEAR THE COTTAGER'S MEMORIES OF PREVIOUS SUMMERS. AS WE WALKED THE GROUNDS THEY TALKED ABOUT THEIR VISIONS FOR THE CAMP AND THEIR SAFETY CONCERNS.



# ARBOR DAY PLANTING (4/28) AND COMMUNITY WORK DAY PLANTINGS (5/6)

1. SCARLET OAK
2. CORAL BERRY
3. CORAL BERRY
4. HEMLOCK
5. GRAY DOGWOOD
6. SCARLET OAK
7. RIVER BIRCH



**INITIAL CONCEPT  
DESIGNS**



# INITIAL DRAFTS

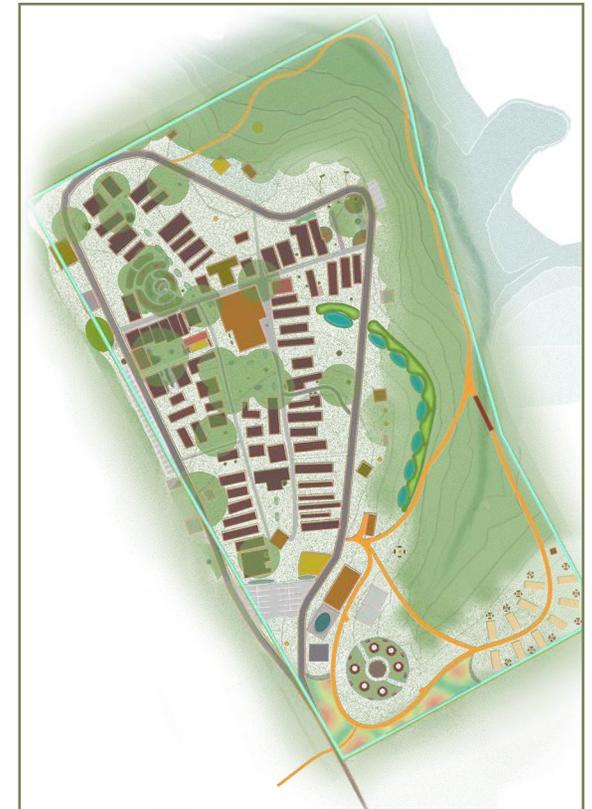
Through drafting and interactions, my design improved in functionality, moveability between the East and West parts of camp, and became more realistic with topographic changes.



NATIVE PLANT  
DEMONSTRATION GARDEN



LABYRINTH GARDEN WITH  
CONVERSATION CIRCLE IN THE  
MIDDLE



CIRCULAR EVENT PAVILION  
WITH ROWS OF CANVAS TENTS

# DEMONSTRATION GARDEN

## INITIAL IDEA

### PREEXISTING INFRASTRUCTURE

PAVILLION

PLAYGROUND

BIDDLE HALL

VOLLEYBALL NET  
(LOCATION MOVED)

SWIMMING POOL

BLACKTOP /  
BASKETBALL COURT

STREAM WALK  
(USING WOOD CHIPS  
ON SITE)

ROD IRON AND  
WOOD BRIDGE

NATIVE  
WOODLAND  
PLANTINGS  
ADDED TO  
PREEXISTING  
WOODS

WETLAND  
PLANTS

MEADOW

VEGETABLE  
GARDEN

SUNNY NATIVE  
DEMONSTRATION  
GARDEN

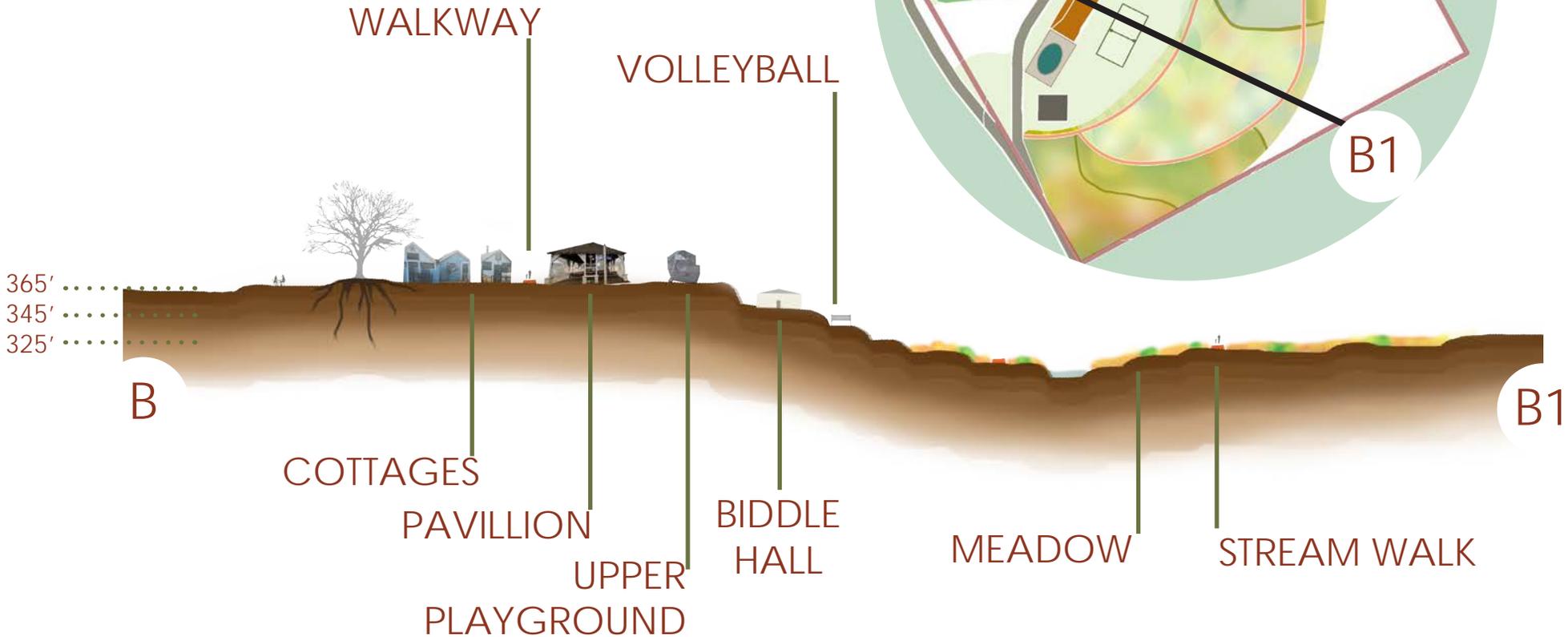
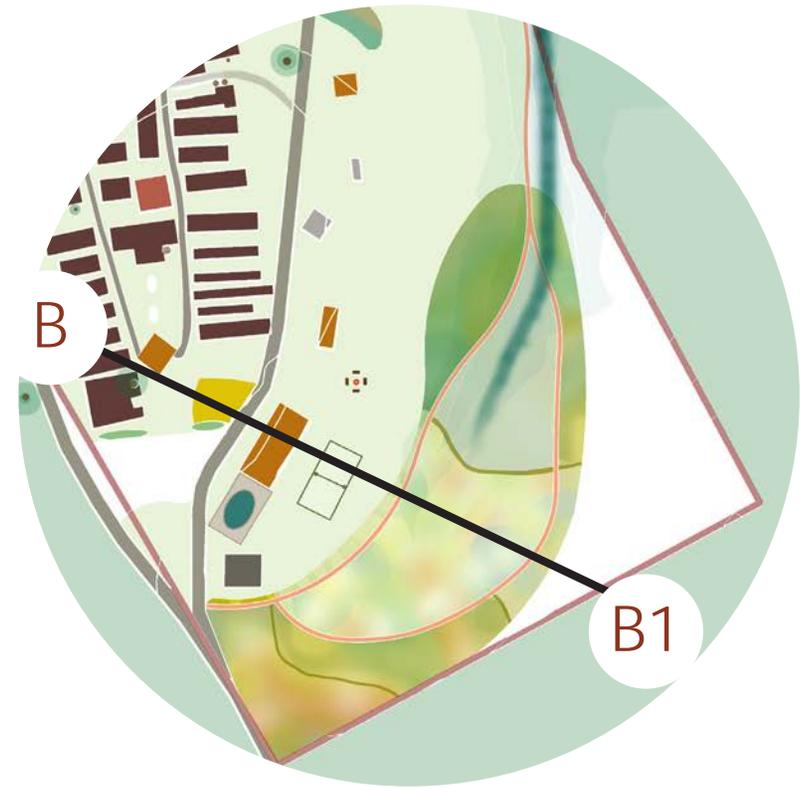
N<sup>^</sup> 1" = 80'

0' 40' 80'



# DEMONSTRATION GARDEN

## INITIAL SECTIONS

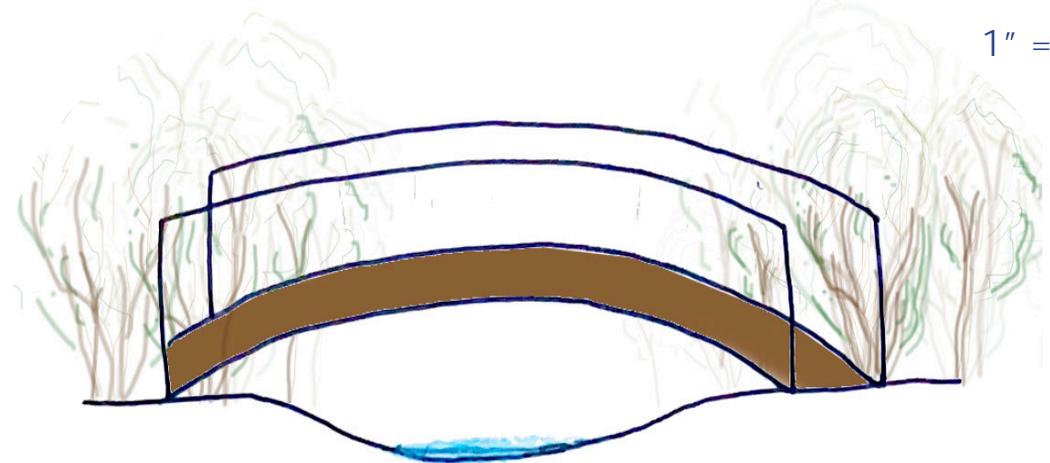
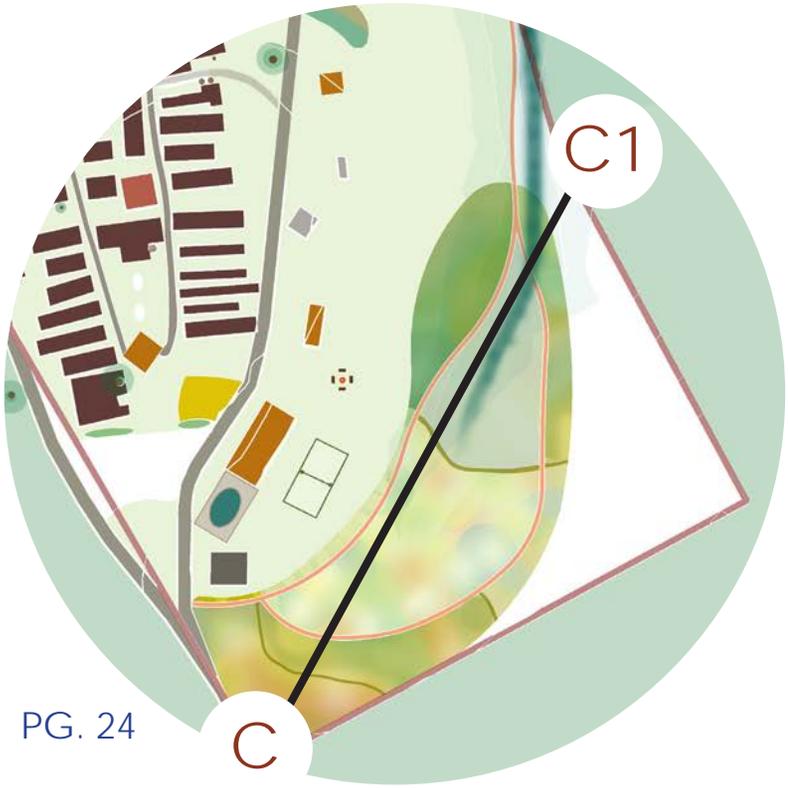
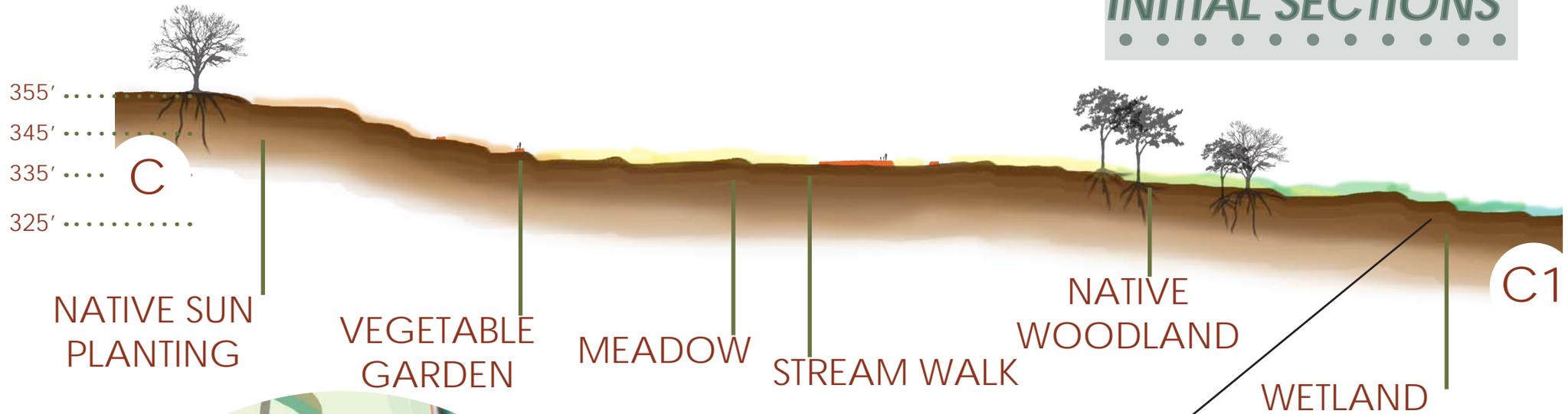


0' 20' 40'

1" = 20'

# DEMONSTRATION GARDEN

## INITIAL SECTIONS



BRIDGE CROSSING



Figure 8: Stained glass window

Stained glass "walls"  
placed in the  
garden which tell the  
story of the camp.



Figure 9: Stained glass archway



Figure 10: Stained glass wall

#### EXAMPLE SIGNAGE:

"In 1866, five churches came together in Beaver's Valley to enjoy the tranquility of Johnson Woods."  
"People would gather year after year, setting up tents, wooden roofs were added over the tents, until more  
PG. 25 permanent structures appeared in the early 1900's."

**MASTER PLAN**



# MASTER PLAN

REFLECTION GARDEN

HAMMOCK GROVE

SUNSHINE PARK

60+ OVERFLOW PARKING

OUTDOOR COMMUNITY AREA  
AND EVENT SPACE

STREAM WALK

OVERLOOK

ASBURY PARK

15 DESIGNATED  
PARKING SPOTS

HUGELKULTUR MOUNDS  
AND RAIN GARDENS

1870 CANVAS TENT  
REPLICAS TO RENT

43 DESIGNATED  
PARKING SPOTS



# PROPOSED PHASING

## PHASE 1

### **REFLECTION GARDEN AND SUNSHINE PARK**

PRE EXISTING GAZEBO WILL BE SURROUNDED BY A LABYRINTH STYLE PRAYER GARDEN USING NATIVE PLANTINGS. A VEGETABLE GARDEN WILL ALSO BE PLANTED USING PRODUCE FOUND LOCALLY IN THE 1800'S. SUNSHINE PARK'S PIE LADY'S HOUSE WILL BE TURNED INTO AN OUTDOOR KITCHEN WHERE HALF OF THE APPLIANCES ARE LOWER FOR CHILDREN TO USE. CHILDREN WILL BE ENCOURAGED TO OCCUPY AND PLAY IN SUNSHINE PARK'S GARDENS.

## PHASE 2

### **FLOODING AND EROSION CONTROL USING HUGELKULTUR MOUNDS AND RAIN GARDENS**

RAIN GARDENS WILL BE PLACED UPHILL OF AREAS WHICH HAVE FLOODING, IN HOPES THEY WILL HELP SLOW WATER AND ALLOW FOR MORE INFILTRATION. THE MOUNDS WILL ALSO HELP SLOW SURFACE WATER DOWN. USING PLANT WASTE FOUND ON SITE, THESE MOUNDS WILL BE A DESIGNATED SPOT FOR COTTAGERS TO DUMP LEAVES, STICKS, AND OTHER BIODEGRADABLE MATERIALS. THIS WILL ELIMINATE THE NEED TO DUMP LEAVES ON THE FOREST'S PERIMETER AND ALSO CREATE A UNIQUE LANDFORM WHICH WILL BE PLANTED.

## PHASE 3

### **OUTDOOR COMMUNITY / EVENT SPACE**

THIS PHASE IS THE MOST EXPENSIVE DUE TO AN ADDITION OF A PARKING LOT AND A LARGE, OPEN PAVILION. CONSTRUCTING THE TENTS FIRST WILL CREATE REVENUE WHICH CAN BE USED TO AFFORD THE COMMUNITY PAVILION. THIS PAVILION IS A MIXTURE OF THE PRE EXISTING TABERNACLE AND HILLTOP PAVILION WHICH ARE BOTH USED A LOT. THIS NEW STRUCTURE WILL BE USED FOR EVERYDAY CONVERSATION AND THE PARKING ALLOWS FOR LARGE GATHERINGS TO OCCUR.

# PHASE ONE



# REFLECTION GARDEN WITH COLONIAL BASED PLANTS

COMMUNITY VEGETABLE GARDEN WITH WROUGHT IRON FENCING

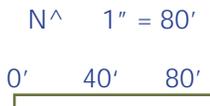
PRE EXISTING INFRASTRUCTURE

CIRCLE GARDEN

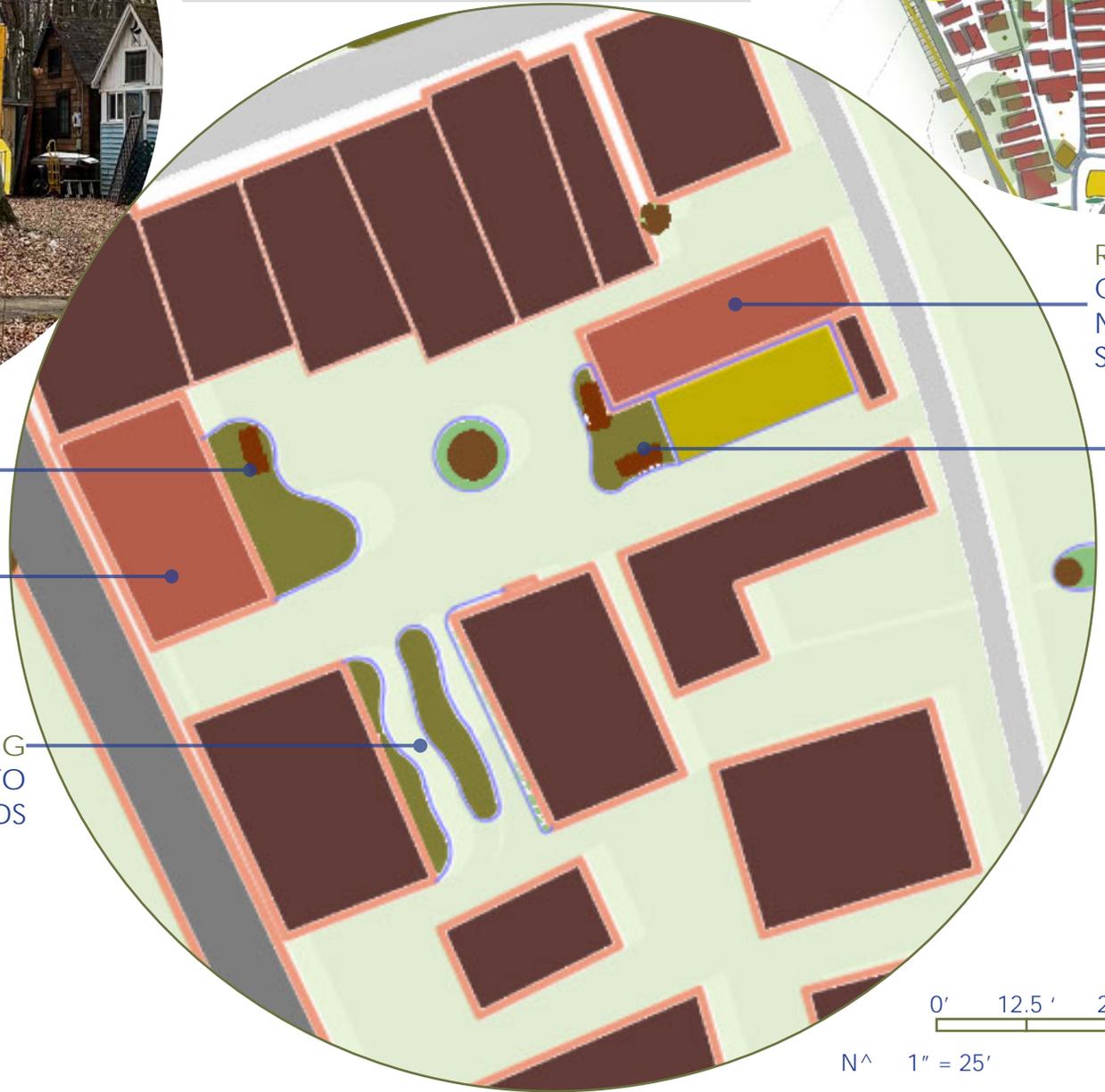
GAZEBO

COTTAGES

PRAYER GARDEN



# SUNSHINE PARK AND PIE LADY'S HOUSE RENOVATION



EXTENDED PLANTING  
BED WITH BENCH

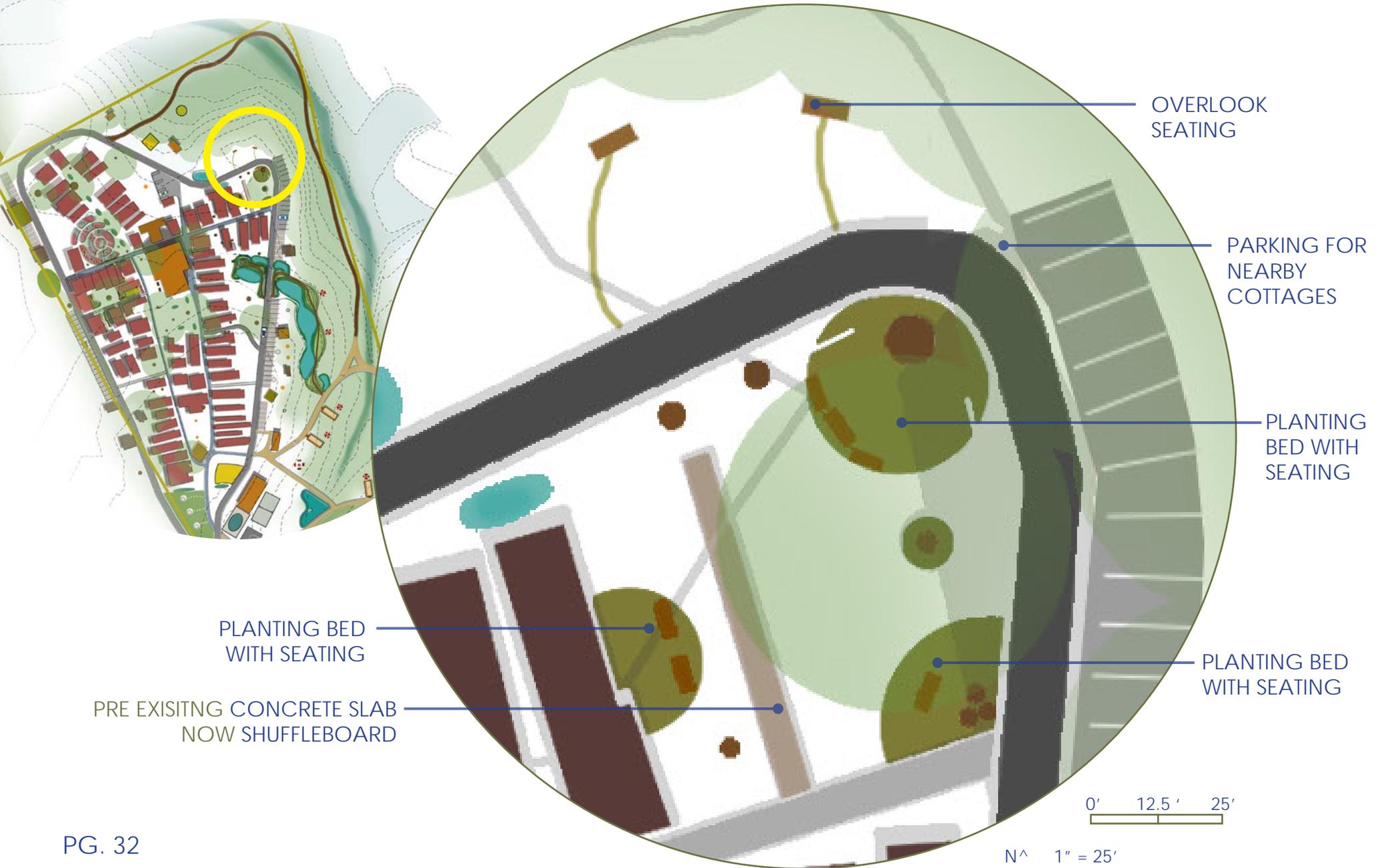
RENOVATED "PIE LADY"  
HOUSE  
NOW AN OUTDOOR  
KITCHEN

DEFINED PRE EXISTING  
PLANTING BED INTO  
WALKWAY AND BEDS

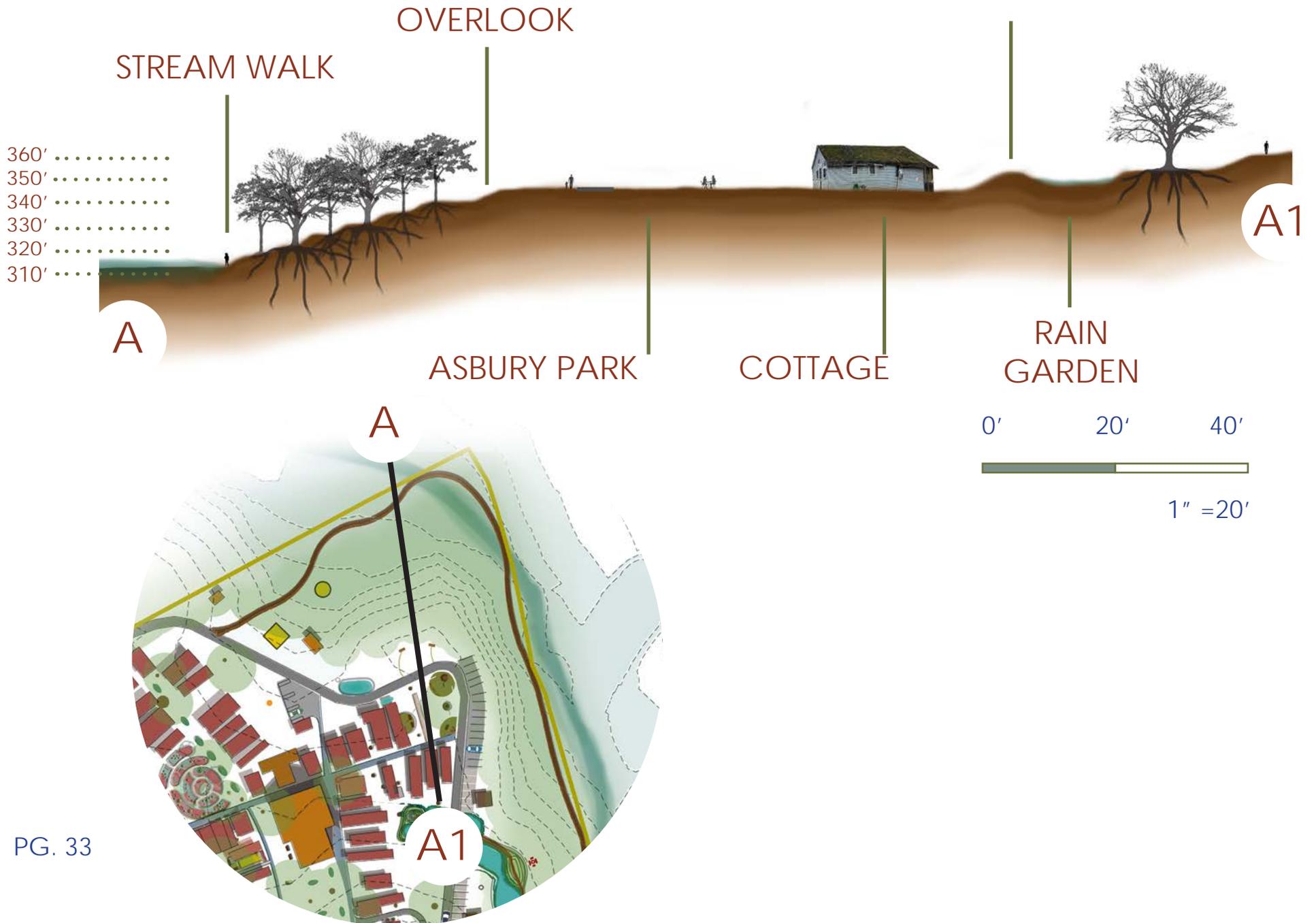
RENOVATED  
COTTAGE  
NOW COVERED  
SITTING AREA

CHILDREN'S  
GARDEN

# ASBURY PARK AND OVERLOOK



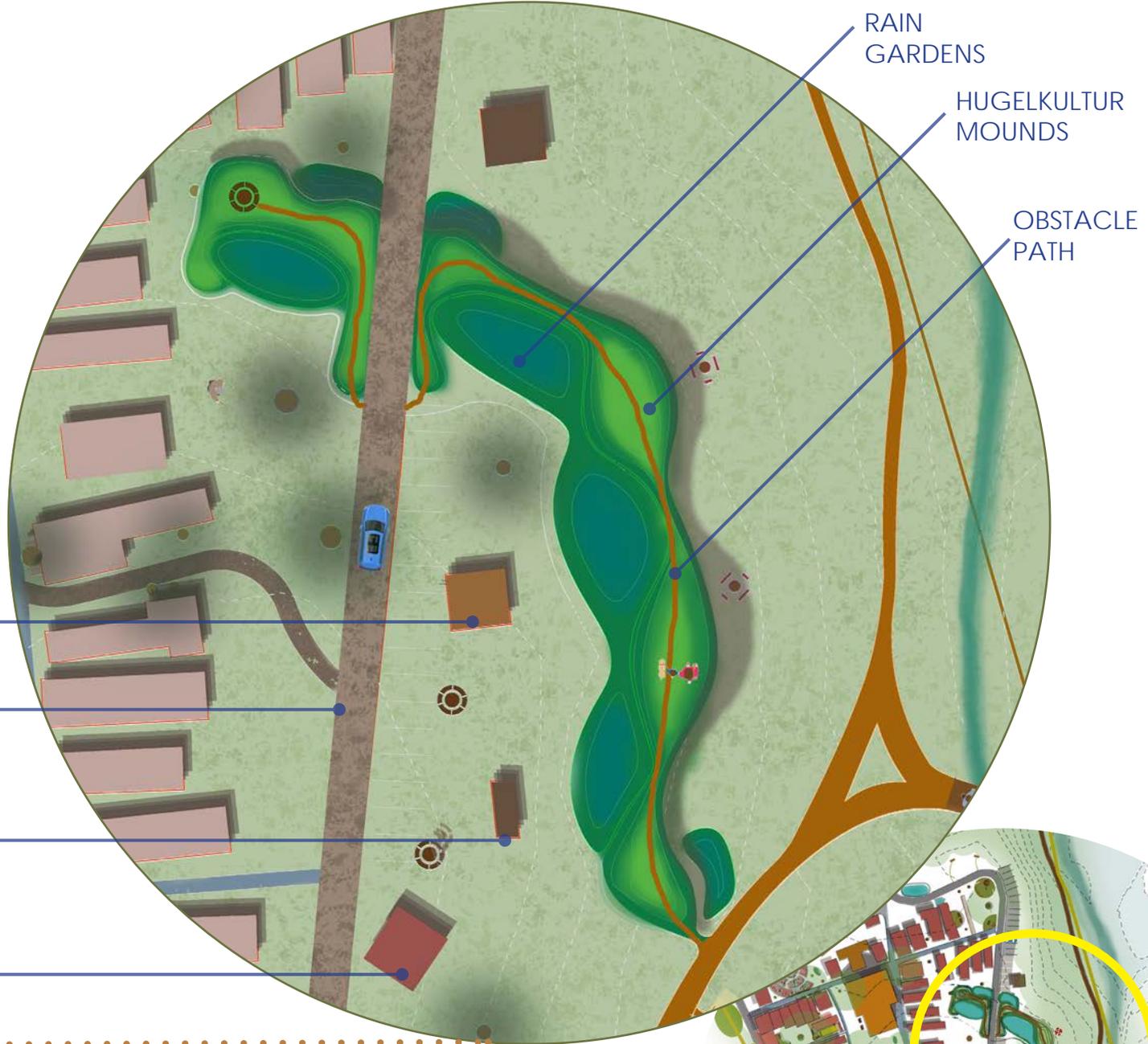
# ASBURY PARK AND OVERLOOK



# *PHASE TWO*



# FLOODING AND EROSION CONTROL



## PRE EXISTING INFRASTRUCTURE

LAUNDRY ROOM

FIRE LANE

AUXILIARY

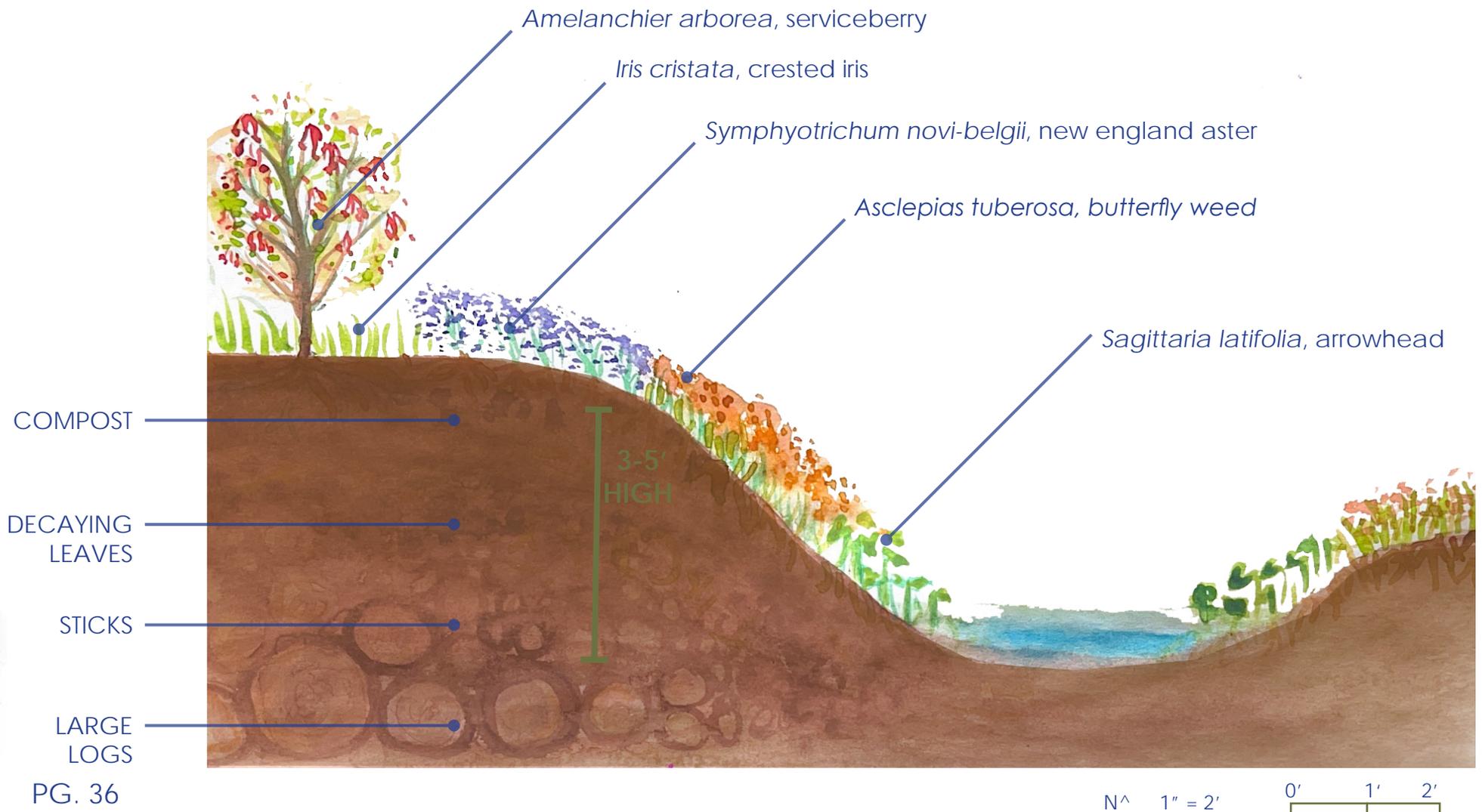
RED BARN

N ^ 1" = 80' 0' 40' 80'



# HUGELKULTUR MOUNDS AND RAIN GARDENS

BRANDYWINE SUMMIT CAMP MEETING HAS MANY PILES OF DEBRIS LINING THE FOREST. PLACING ALL PLANT MATERIAL IN THESE DESIGNATED MOUNDS WILL NOT ONLY ORGANIZE THE CAMP, BUT CREATE BEAUTIFUL PLANTINGS IN THE PROCESS.



***PHASE THREE***



# OUTDOOR COMMUNITY AREA AND EVENT SPACE

## PRE EXISTING INFRASTRUCTURE

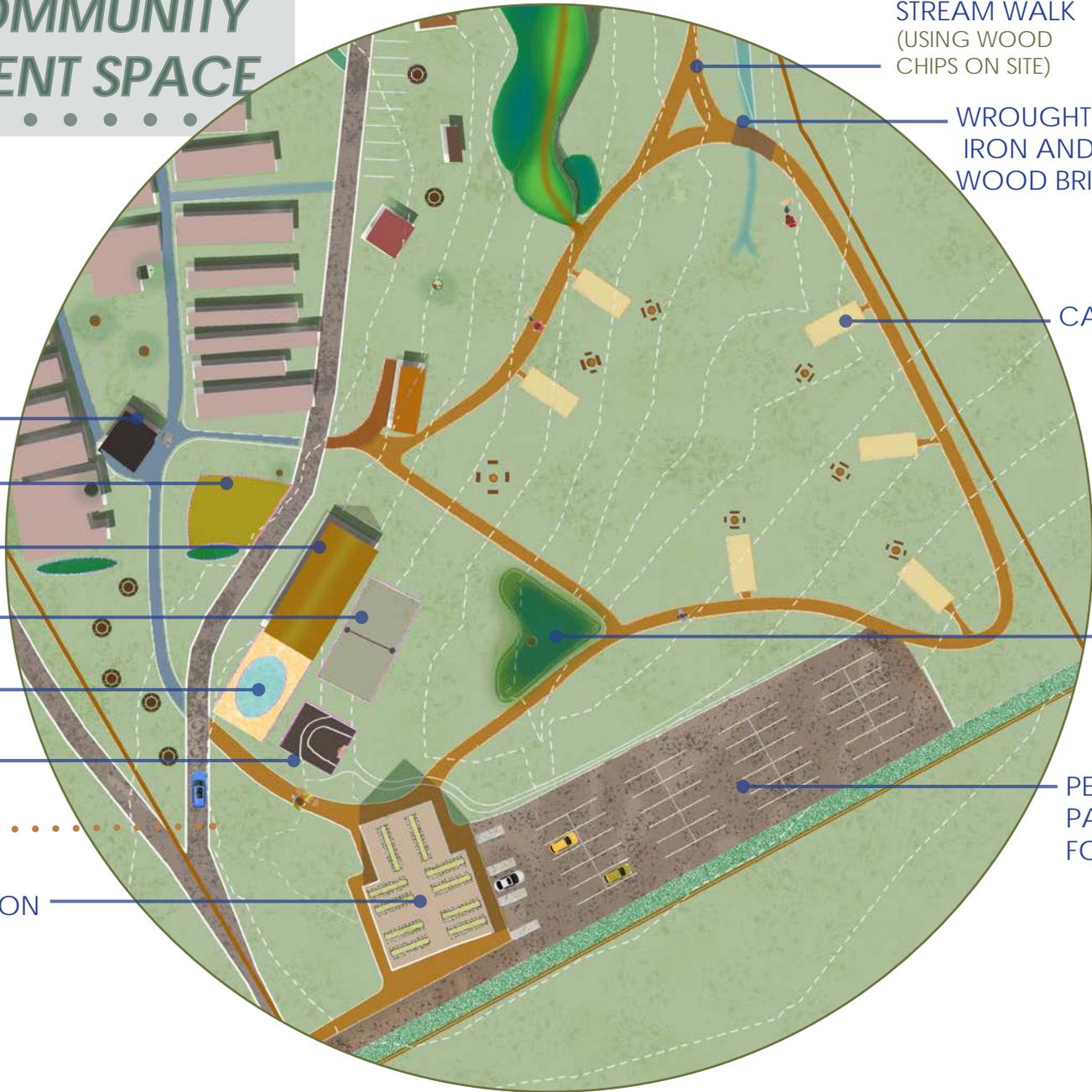
- PAVILION
- PLAYGROUND
- BIDDLE HALL
- VOLLEYBALL NET  
(LOCATION MOVED)
- SWIMMING POOL
- BLACKTOP /  
BASKETBALL COURT
- EVENT PAVILION

- STREAM WALK  
(USING WOOD  
CHIPS ON SITE)
- WROUGHT  
IRON AND  
WOOD BRIDGE

CANVAS TENT

RAIN  
GARDEN

PERMEABLE  
PARKING  
FOR 43



N^ 1" = 80'

0' 40' 80'

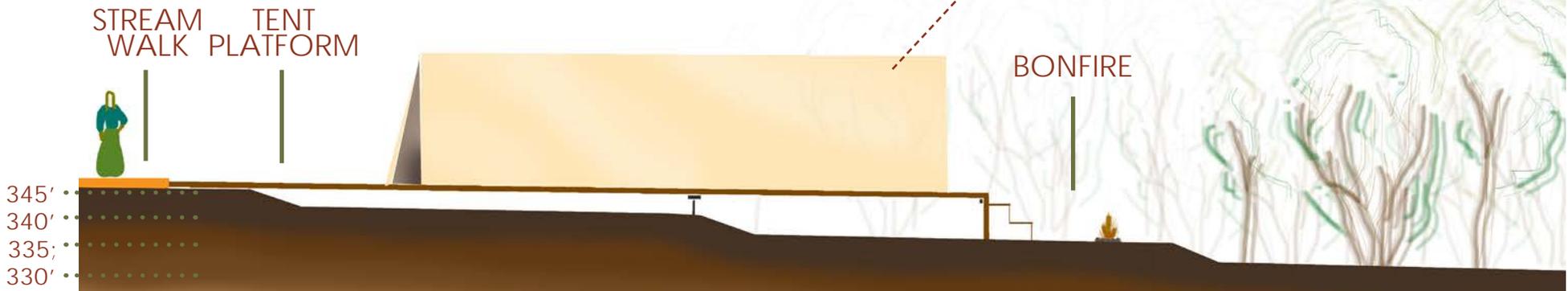
# STREAM WALK ENTRANCE

LOG ARCHWAY WHICH CREATES HABITAT FOR SMALL CRITTERS AND USES MATERIALS ALREADY FOUND ON SITE.



# TENT PLATFORM

REPLICA OF 1870 CANVAS TENTS WITH WOODEN PLATFORM UNDERNEATH FOR RENT.



# WOODY PLANT PALETTE BASED ON 1800'S PLANTS

1. spicebush –  
*Lindera benzoin*

bayberry –  
*Myrica pensylvanica*

2. witch hazel –  
*Hamamelis virginiana*

mountain Laurel –  
*Kalmia latifolia*

sugar Maple –  
*Acer saccharum*

3. sweetbay Magnolia –  
*Magnolia virginiana*

serviceberry –  
*Amelanchier arborea*



1



4



2



5



3



6

Eastern hemlock –  
*Tsuga canadensis*

4. pawpaw –  
*Asimina triloba*

5. black cherry –  
*Prunus serotina*

river birch –  
*Betula nigra*

flowering dogwood –  
*Cornus florida*

shagbark hickory –  
*Carya ovata*

6. black gum –  
*Nyssa sylvatica*

# HERBACEOUS PLANT PALETTE BASED ON 1800'S PLANTS

## SUN

1. butterfly weed – *Asclepias tuberosa*

2. New England asters –  
*Symphotrichum novae-angliae*

wild indigo – *Baptisia tinctoria*

tickseed – *Coreopsis verticillata*



1

purple coneflowers – *Echinacea purpurea*

rose mallow – *Hibiscus moscheutos*

crested iris – *Iris cristata*

3. great blue lobelia – *Lobelia siphilitica*

sundial lupines – *Lupinus perennis*

bee balm – *Monarda didyma*

creeping phlox – *Phlox stolonifera*



2



3

Culver's root – *Veronicastrum virginicum*

## SHADE

4. Virginia bluebells –  
*Mertensia virginica*

bloodroot –  
*Sanguinaria canadensis*

sweetflag –  
*Acorus calamus*

5. cardinal flower –  
*Lobelia cardinalis*

wild ginger –  
*Asarum canadense*

Jack in the pulpit -  
*Arisaema triphylla*

spreading Jacob's ladder -  
*Polemonium reptans*

Solomon's seal -  
*Polygonatum biflorum*



4



5



6

6. foamflower - *Tiarella cordifolia*

# MATERIALS PALETTE

## BUILDING MATERIALS :

WOOD

WROUGHT IRON



## PLANT BORDERS :

LOGS

STONE



## WALKWAYS / PARKING :

WOOD CHIPS

PERMEABLE PAVING



# APPENDIX



# SURVEY RESULTS

A SURVEY WAS GIVEN OUT 2/11/23 TO 30 COTTAGE MEMBERS. THE GOAL OF THE SURVEY WAS TO SEE WHICH PARTS OF CAMP THE MEMBERS VALUE THE MOST, AS WELL AS WHAT THEY WOULD LIKE TO SEE IMPROVED. THIS WILL MAKE THE COTTAGERS FEEL LIKE THEY ARE MORE PART OF THE PROJECT, AS WELL AS HAVE THEIR VOICE HEARD.



STREAM WALK



GAZEBO



CAMP SITE



SUNSHINE PARK

Ranking (1-7)	Potential Work Areas	Visions for the site / areas of concern
5	<b>Gazebo:</b> Do you like the spot it is in now? Do you think it should be moved to a more secluded spot, or add plantings or structure around it to make it more secluded?	Make it more inviting - stepping stones leading to it.
3	<b>Making the path along the stream more walkable:</b> Would you use a stream walk? Do you think other cottagers would?	Needs to be safe for walking before inviting others to walk.
2	<b>Eating Areas:</b> Do you think there is an adequate amount of tables and areas for socializing? Are they in good shape?	Would like it to be inviting since its 1 of the 1st things you see.
1	<b>Pocket Park - Sunshine Park - in between cottages:</b> Pocket Park that would have seating and areas of rest. Other things you want incorporated?	Great place with seats - maybe the outdoor classroom area?
4	<b>Outdoor Classrooms:</b> Do you think some should be built? Not necessarily just for classes, they could be used for multi-age groups.	Fun!
6	<b>Primitive Campsites:</b> Do you think these would get enough use? Do you find a need for them?	Not sure - I'm not a camper.
7	<b>Wedding Venue or Photoshoot areas:</b> Could be used as an extra stream of money for the camp.	Nice idea for later maybe.

**Save the Dates:**

**February 24th, 2-4 :** Walk-Thru Site Analysis walk with Landscape Designer  
**March 5th, 3-5 :** Brainstorm Session and Design Charette

Thank you for taking the time to complete this survey. My name is Elisabeth Davis, and I study at the University of Delaware. In May I will have a bachelors in Landscape Architecture. This is my fourth year running a licensed landscaping business. I do mostly residential yards, so I am excited to work on this larger scale project and hear everyone's ideas!

# SURVEY RESULTS

## TOP PRIORITY RANKING:

- Pocket Park(18)
- Eating Areas (28)
- Primitive Campsite(30)
- Gazebo(35)
- Outdoor Classroom(36)
- Wedding Venue(37)
- Stream Walk(38)

## CAMPERS COMMENTS:

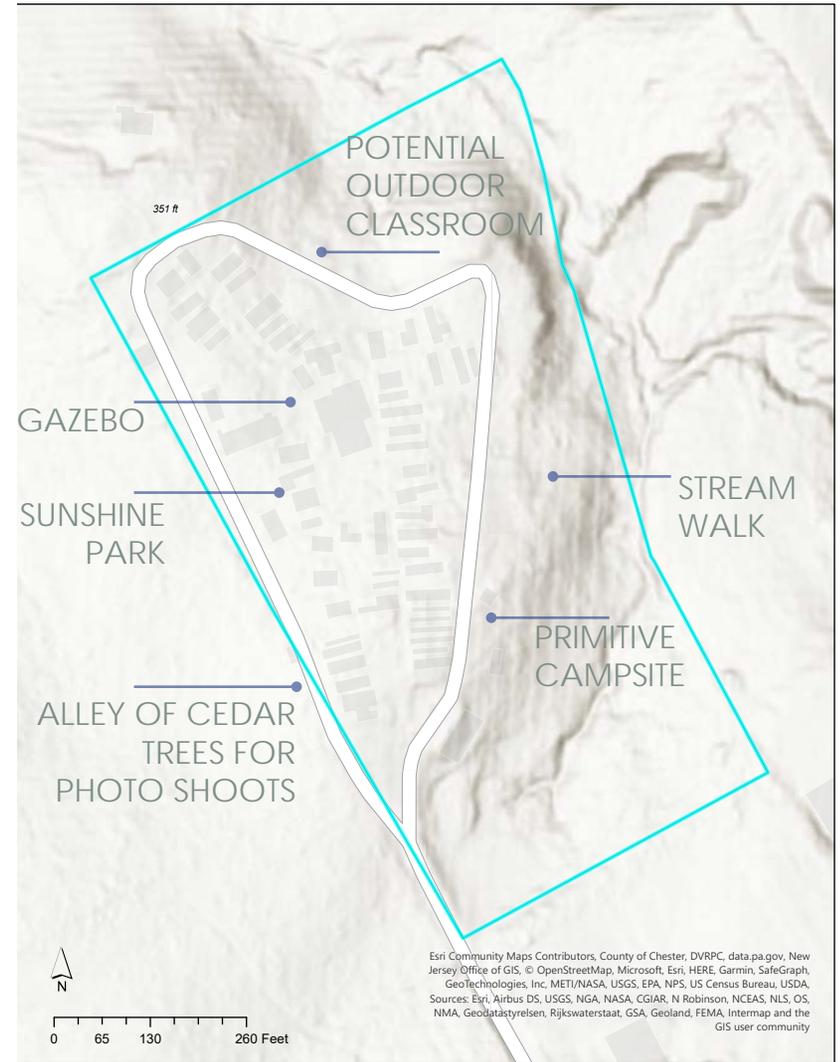
**POCKET PARK:** "would be a great place with seats"  
"root problem, need soil upgrade, 2 cottages in poor shape"  
"table where people can play games or eat"  
"great spot for an outdoor classroom"  
"bird feeding nesting area"

**EATING AREAS:** "I think we have enough"  
"We eat and fellowship so much, this is important"  
"St. Paul needs a seating area"

**PRIMITIVE CAMPSITE:** "I want the one we have maintained!"  
"not much need, if it looked better it could get used more"  
"it would be great if they were fixed up and used!"

**GAZEBO:** "The John Wane prayer garden is to be added to the gazebo area, Plans are needed! Money has been collected to go towards this fund"  
"more privacy"

**OUTDOOR CLASSROOM:** "Would they even get used?"  
"we don't have enough kids to warrant this"



**WEDDING VENUE:** "great way to make money"  
"no programming should bring other people to the site"  
"put it on facebook!"

**STREAM WALK:** "If there was a path I'd use it"  
"nature makes its own paths"

# REFLECTION GARDEN COST ESTIMATE

Quantity	Botanical/Common	Unit Cost	Total Cost
5	Actaea racemosa / black cohosh	1 quart for 10	\$ 50.00
2	Amelanchier arborea / Downy Serviceberry	12-18", 1 gal. for 20	\$ 40.00
12	Amsonia tabernaemontana / Eastern Bluestar	72 plugs for 81.62	\$ 81.82
163, getting 96	Asarum canadense / Wild Ginger	LP 32 for 106.89	\$ 320.67
225	Asparagus officinalis / Garden Asparagus	50 for 119.99	\$ 119.90
105	Beta vulgaris / Beet	200 seeds \$3.99	\$ 3.99
206	Brassica rapa rapa / Turnip	500 seeds for 4.99	\$ 4.99
54	Coreopsis verticillata / Tickseed	LP 50 for 79.06	\$ 79.06
1	Cornus florida / Flowering Dogwood	12-24", 1 gal. for 18	\$ 18.00
152	Echinacea purpurea / Coneflower	LP 50 for 82.32	\$ 164.64
239	Epimedium x versicolor / barrenwort	3.5" pot for 29.99	\$ 29.99
106, getting 50,	Fragaria virginiana / Wild Strawberry	4.69	\$ 234.50
16	Geranium maculatum / spotted cranesbill	LP 32 for 90.45	\$ 90.45
99	Iris cristata / Dwarf Crested Iris	50 plugs for 113.30	\$ 226.60
3	Lindera benzoin / Spicebush	6-12", 1 gal. for 14	\$ 42.00
285, getting 150	Lobelia cardinalis / Cardinal Flower	50 plugs for 78.80	\$ 236.40
43	Lobelia siphilitica / Great Lobelia	72 plugs for 73.16	\$ 73.16
73	Lupinus perennis / Wild Lupine	CP 50 for 57	\$ 57.00
120	Phaseolus vulgaris / Common Bean	2 oz packet for 3.99	\$ 3.99
39	Phlox stolonifera / Creeping Phlox	72 plugs for 78.80	\$ 78.80
180, getting 96	Polemonium reptans/spreading Jacob's ladder	LP 32 for 58.79	\$ 179.37
228	Raphanus sativus / Cultivated Radish	500 seeds for 2.99	\$ 2.99
6, getting 3	Rheum rhabarbarum / Rhubarbjumbo bareroot	\$29.99	\$ 89.97
6	Solanum lycopersicum / Tomato	25 seeds for 5.99	\$ 5.99
180	Thymus serpyllum / Creeping Thyme	200 seeds \$3.99	\$ 3.99
29	Tiarella cordifolia / Foamflower	72 plugs for 144.82	\$ 144.82
3	Vaccinium corymbosum / Highbush Blueberry	12-24", 1 gal. for 20	\$ 60.00
66	Zea mays / Corn	250 seeds for 8.99	\$ 8.99



## RESEARCH BRIEFS AND CASE STUDIES ON:

## NATURE BASED LEARNING

- **Nature trails provide ways to develop children’s motor skills through walking, hiking, and playing. Social skills are enhanced as well**

Nature-based education: using nature trails as a tool to promote inquiry-based science and math learning in young children

Lee, C. K., & Baillie, P. E. (n.d.). Nature-based education: Using nature trails as a tool to promote inquiry-based science and math learning in young children. Taylor & Francis. Retrieved February 10, 2023, from <https://www.tandfonline.com/doi/full/10.1080/00368121.2020.1742641>

### RELATED PROJECTS : SUMMER CAMP IN ONTARIO

Contextual learning within the residential outdoor experience: A case study of a summer camp community in Ontario They have a “hands-on minds-on” attitude towards learning on site. Encourage cottagers not just to observe, but to reflect and have action as well. This case study does well at providing curriculums for a wide range of ages and backgrounds, much like Brandywine Summit is. Encouraging positive interactions with nature will help Brandywine Summit become a nature safe haven. This summer camp’s goal is to reconnect children with nature. They have an outdoor curriculum for children who are on summer break. The camp took interviews from 17 past participants and 113 current participants. They analyzed their participation within their personal, social, and physical experiences. Through these insights, their goals are to provide stronger initiatives to get funding and resources towards more ecological education. Oneway that they are creating more education is through camps. Camps are not normally seen as having an educational purpose, but in fact, they are a “diverse educational environment” (pg 31). These camps are for people of “all ages, abilities, disciplines, and sociocultural groups” (pg 31). To create an all inclusive camp, there needs to be not only instruction, but assistance and guidance to do such tasks. By creating positive experiences in STEM, those children are more likely to pursue a career in science. They encourage Conceptual Learning Models through learning in the personal, social, and physical domain. They are also encouraging stronger human and nature relationships through discovering, appealing to nature, and using nature as a source of language, imagination, and material rewards. To create stewards of nature, showing children how to have responsibility is the first step. This behavior will continue as they grow older, resulting in more carers of the earth.

[https://www.academia.edu/766770/Contextual\\_learning\\_within\\_the\\_residential\\_outdoor\\_experience\\_A\\_case\\_study\\_of\\_a\\_summer\\_camp\\_community\\_in\\_Ontario](https://www.academia.edu/766770/Contextual_learning_within_the_residential_outdoor_experience_A_case_study_of_a_summer_camp_community_in_Ontario)

- Benches and cabins faced inward, so that the people in the Tabernacle can be seen worshipping
- The gazes of hierarchy at religious camp meetings, 1850-1925. *Perspective in Vernacular Architecture*  
Andrzejewski, A. V. (2000). The gazes of hierarchy at religious camp meetings, 1850-1925.  
*Perspectives in Vernacular Architecture*, 8, 138. <https://doi.org/10.2307/3514411>

**RELATED PROJECTS : BURNING MAN**

The Burning Man full-week festival keeps nature untouched through their strict environmental policies. These policies include fees from the Bureau of Land Management, environmental assessments, and their work with the Federal and Local Governments. To leave the landscape better than it was, they took a month after the festival to restore the land to its natural setting. They have created principles that allow their festival to be as sustainable as possible. These principles can be used as an outline for proposed rules for Brandywine Summit. Although we cannot turn the site back to the untouched landscape it was 200 years ago, we can bring back species that were present at that time. We can also have cottagers clean up outside decorations when they leave for the fall so that when they come back in spring, they are not littered in other places.

**REFERENCES**



## BIBLIOGRAPHY REFERENCES

### **National Register of Historic Places Registration Form,**

Author(s): Dr. Brent D. Glass and United States Department of the Interior

Source: Glass, B. D. (n.d.). National Register of Historic Places Registration Form. United States Department of the Interior .

Retrieved February 10, 2023, from [https://gis.penndot.gov/CRGIS/Attachments/SiteResource/H001467\\_01H.pdf](https://gis.penndot.gov/CRGIS/Attachments/SiteResource/H001467_01H.pdf)

### **Summary Paragraph/Abstract**

This form is certified by the Historical and Museum Commission stating that the Brandywine Summit Camp Meeting is a national historic place. I will have to approach this project in a way that represents the historic parts while maintaining modern and ecological. This document shows old historic mappings of the site, as well as documentation on the materials present on site, categories of properties, and number of resources within the property. It also has a description of the property from a 1867 publication.

### **Keeping Time: The history and theory of preservation in America: Chapter 10 -Landscape Preservation**

Author(s): W. J. Murtagh

Source: Murtagh, W. J. (2006). Keeping time: The history and theory of preservation in America. John Wiley & Sons, Inc.

### **Summary Paragraph/Abstract**

Natural conservation and historic preservation go hand in hand. Designed landscapes can still have attributes of preserved historic sites. This text goes through examples of historic landscapes and how they are managed.

### **The gazes of hierarchy at religious camp meetings, 1850-1925. Perspective in Vernacular Architecture**

Author(s): A. V. Andrzejewski

Source: Andrzejewski, A. V. (2000). The gazes of hierarchy at religious camp meetings, 1850-1925. Perspectives in Vernacular Architecture, 8, 138. <https://doi.org/10.2307/3514411>

### **Summary Paragraph/Abstract**

Describes the camp layout and details on the structures present. It talks about the different types of cabin orientations as well. It was interesting comparing how the camps talked about in the article and Brandywine Summit are alike and different.

### **Culture, nature, arts: an integrated management model**

Author(s): Francis K

Source: Francis, K. (2019). Culture, nature, arts: an integrated management model. *Landscape Journal*, 38(1–2), 61–73.

#### **Summary Paragraph/Abstract**

Looks into landscape management practices and how they create a sense of place. It investigates cultural approaches and how different types of landscapes need different approaches. What are you prioritizing first? Conservation, development, or maintenance to the heritage and history of the site? Yes you can value all three, but once you prioritize one, the others are lost.

### **Cultural landscape: Balancing nature and heritage in preservation practice**

Author(s): R. W. Longstreth

Source: Longstreth, R. W. (2008). *Cultural landscapes: Balancing nature and heritage in preservation practice*. University of Minnesota Press.

#### **Summary Paragraph/Abstract**

Cultural landscapes is new to the field of historic preservation. Still a lot to be learned. How do both the natural and manmade aspects change over time? Looks into how they already have changes, as well as how will they in the future. It has a section on restoration and mentions some sites and how they were restored.

### **Nature-based education: using nature trails as a tool to promote inquiry-based science and math learning in young children**

Author(s): C. K. Lee and P. E. Bailie Source:

Lee, C. K., & Bailie, P. E. (n.d.). Nature-based education: Using nature trails as a tool to promote inquiry-based science and math learning in young children. Taylor & Francis. Retrieved February 10, 2023, from <https://www.tandfonline.com/doi/full/10.1080/00368121.2020.1742641>

#### **Summary Paragraph/Abstract**

Researches the differences between play-based learning and nature-based education. Looks into correlations between exposure to nature and children's cognitive development, resiliency, and physical activity.

### **The regeneration of public parks**

Author(s): J. Woudstra and K. Fieldhouse

Source: Woudstra, J., Camp; Fieldhouse, K. (2013). The regeneration of public parks. Routledge.

#### **Summary Paragraph/Abstract**

Looks into historical contexts and how they are diverse in the design details. Also explains renovation approaches and how to care for them. Approaches are practical when it comes to their conservation.

### **Forest and garden: Traces of wildness in a modernizing land**

Author(s): M. L. Simo

Source: Simo, M. L. (2003). Forest and garden: Traces of wildness in a modernizing land, 1897-1949. University of Virginia Press.

#### **Summary Paragraph/Abstract**

Almost 300 pages, this book is broken into chapters of different landscape types and places. These places include different regions such as desert, prairies, forests, and urbanized areas. They also have chapters on the making of parks and how to create layers of wilderness. To finish, they touch on different ecologies on roadsides, in water, and in gardens, as well as land ethics.

### **Integrated Land Management on Tule Lake National Wildlife Refuge**

Author(s): Integrated Land Management Working Group

Source: Integrated Land Management, W. G. (2000). Integrated Land Management on Tule Lake National Wildlife Refuge:

An alternative management strategy developed by the Integrated Land Management Working Group: Promoting productive wetland habitats and sustainable agriculture on Tule Lake National Wildlife Refuge. U.S. Fish & Wildlife Service.

#### **Summary Paragraph/Abstract**

Their goal is to help mitigate some problems they've noticed, including, but not limited to... degradation of soil, wetland productivity, diversity, and threatened breeding areas. They want to revitalize wetlands while still having economically thriving agriculture.

## PHOTO REFERENCES

- Figure 1: Early tent campers, by Hunter Oatman-Stanford on Collectors Weekly
- Figure 2: 19th century cottage grounds, by a cottage member late 1900's
- Figure 3: Present day tree in cottage, by author
- Figure 4: Fall photo of Tabernacle in Sacred Circle, by author
- Figure 5: Fall photo of Hilltop Pavilion where first structure was built, by author
- Figure 6: 19th century cottage grounds, by a cottage member late 1900's
- Figure 7: 19th century cottage grounds, by a cottage member late 1900's
- Figure 8: Stained glass window, by Ellie Drake Lee on Glass Garden Art
- Figure 9: Stained glass archway, by Lee on Central Coast Gardening
- Figure 10: Stained glass wall, by Sue Smith Glass on Pinterest
- Figure 11: Avalanche Campgroun, from National Parks Service

NOTE: ANY PHOTOGRAPHS NOT CITED ARE FROM THE AUTHOR