FOOD FOREST FINAL REPORT STU UPPER COURTYARD

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PATCH 71: GUILD DESIGN AND DESIGN CONCEPT

Vision Statement

The St. Thomas community food forest is a flourishing outdoor refuge where anyone can harvest food and reconnect with nature. This is a natural gathering space where individuals can escape the busyness of the campus, outdoor classes can be held, and students can engage in regenerative agriculture experiential learning. In the summer, partnerships with community organizations bring people into the space, promoting food forests and the beautiful STU campus to the public.

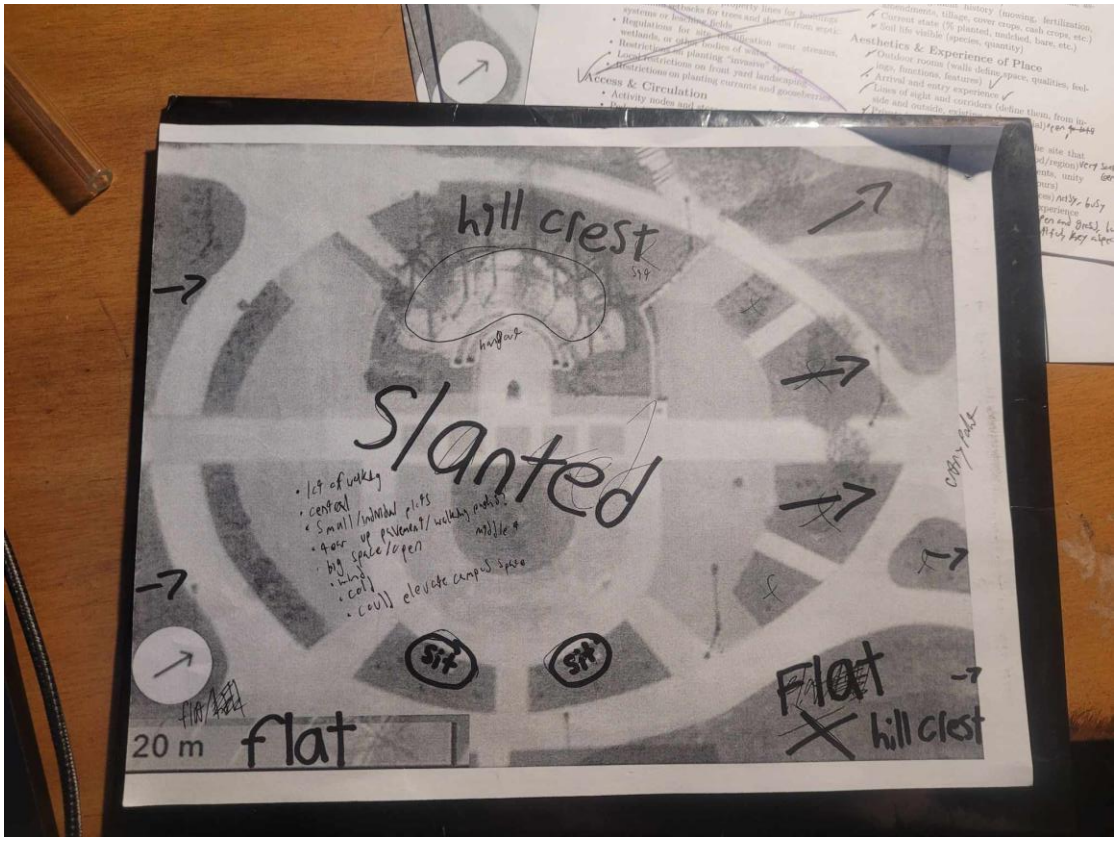
Design Concept: The overarching goal for this space is to create a space for engagement, that fosters a creative connection with nature and provide space for active learning on campus. With this design we hope to encourage exploration and inspire curiosity for nature on STU grounds.
With the addition of an outdoor classroom while using the prior amphitheater structure can blend well within the courtyard. Offering an outdoor hub for students and the community can offer a unique environment for students, staff, and the community to engage with each other and nature through regenerative practices.

SITE ANALYSIS AND ASSESSMENT

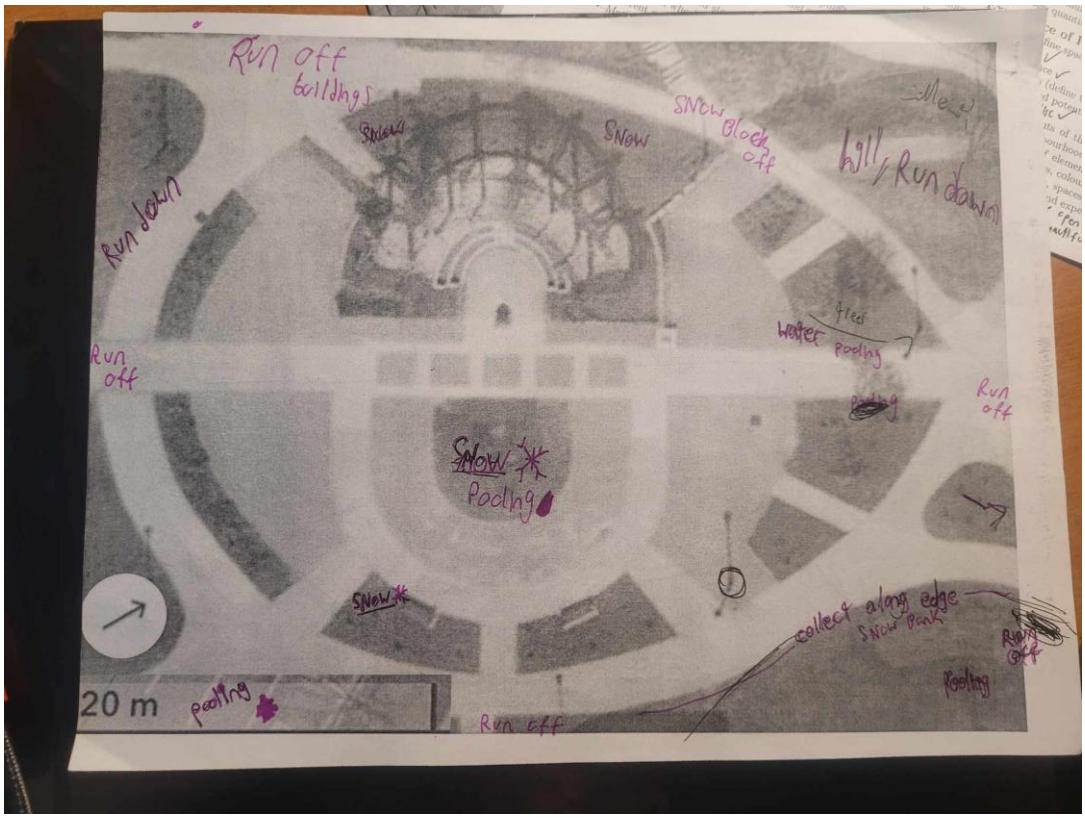
Maps

The following maps include site analysis maps, as well as zone, sector and summary maps of the proposed food forest at St. Thomas University.

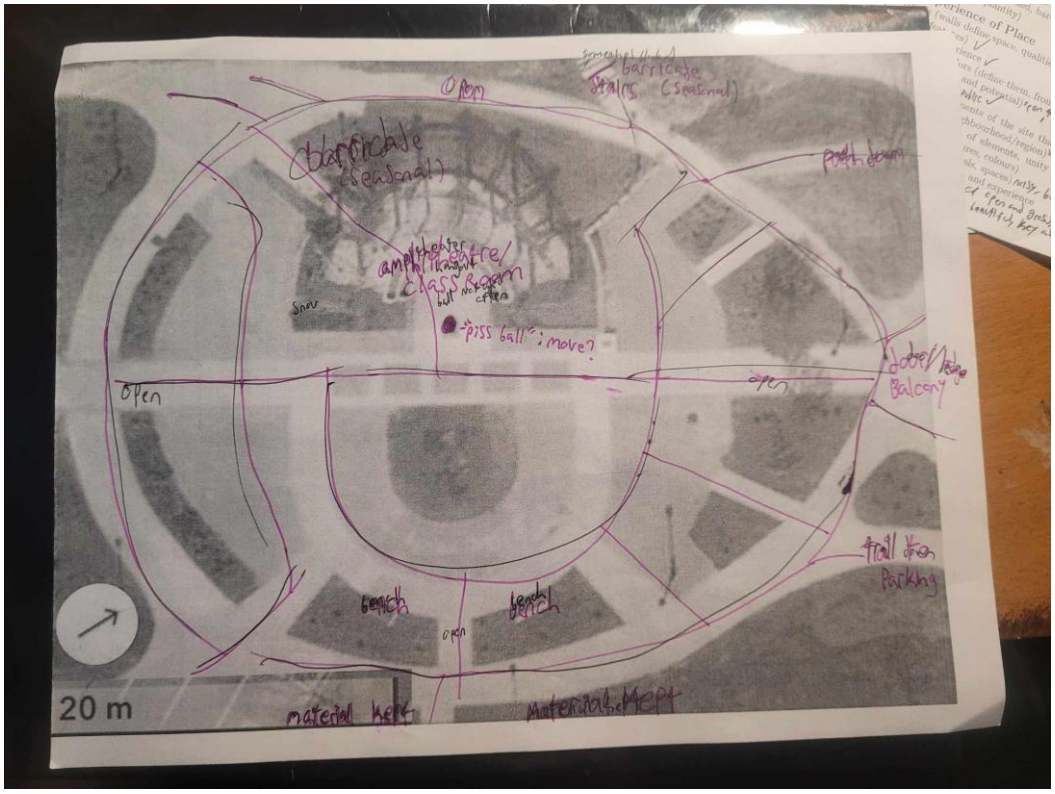
MAP 1: GEOGRAPHY



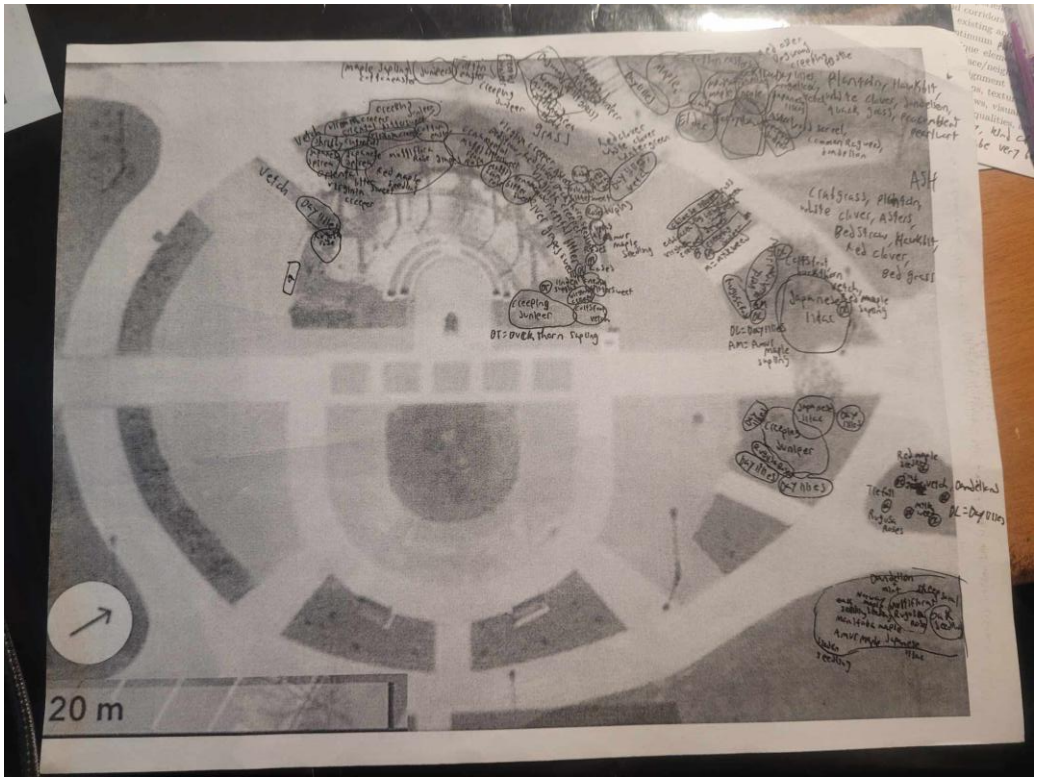
MAP 2: WATER



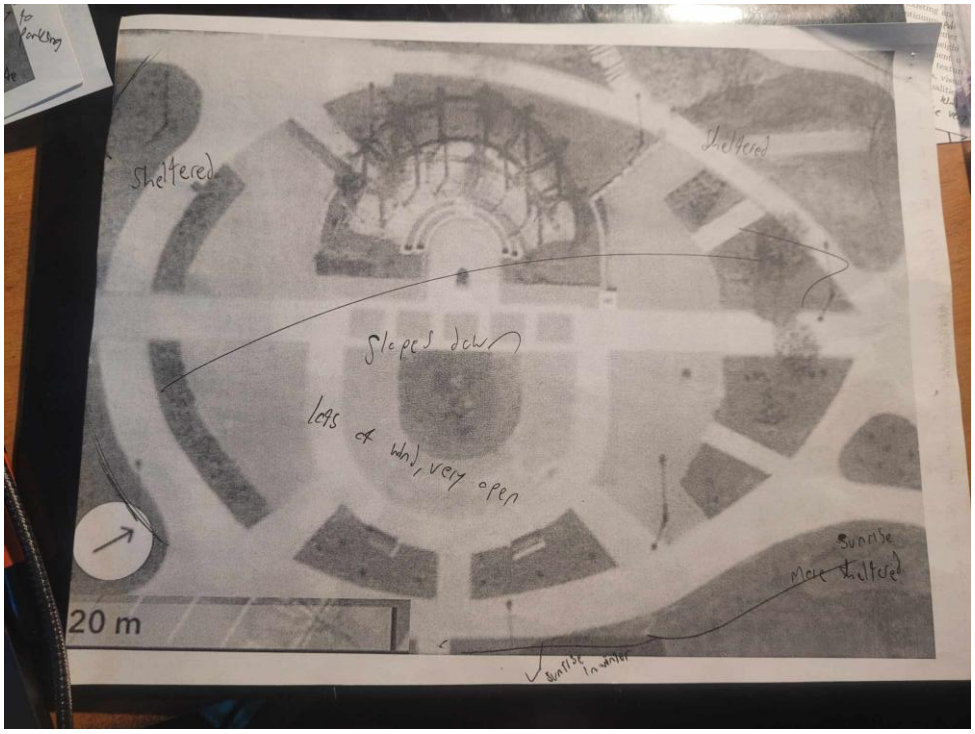
MAP 3: ACCESS AND CIRCULATION



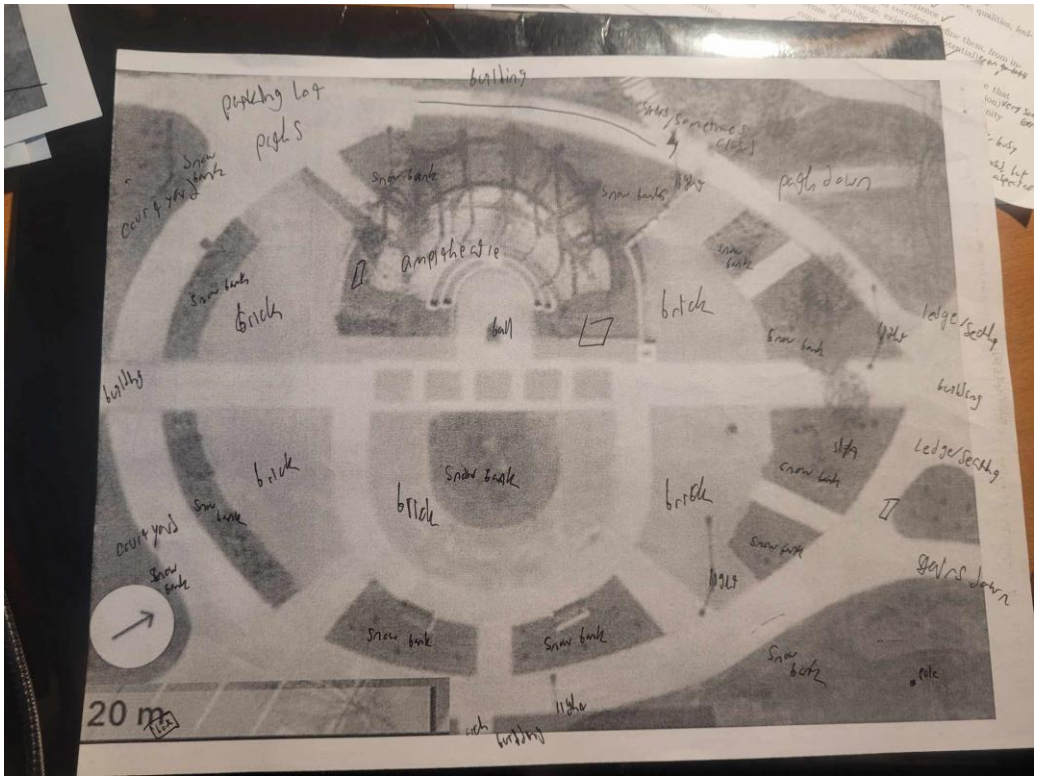
MAP 4: VEGETATION AND WILDLIFE



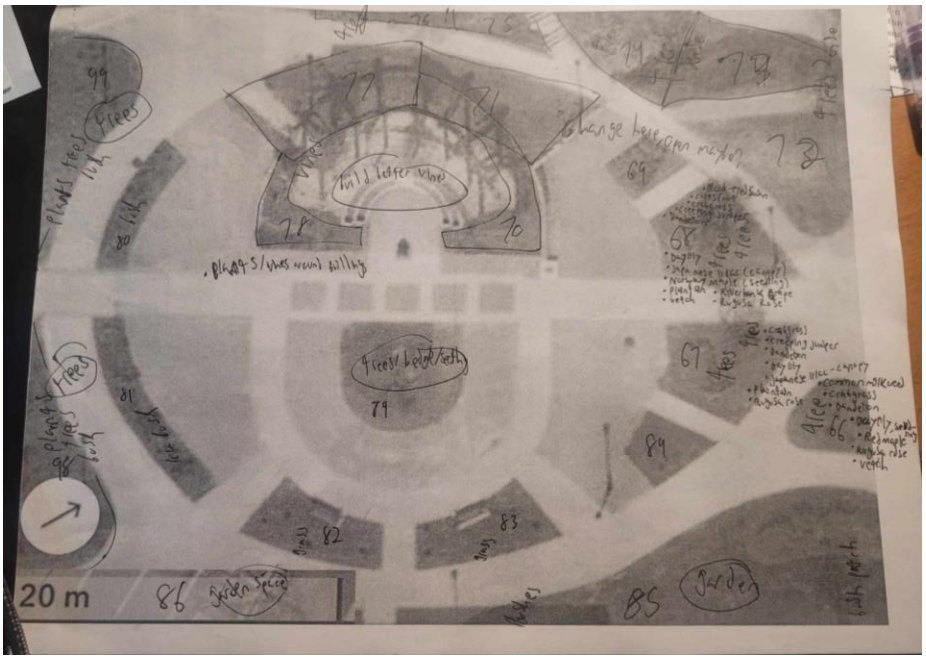
MAP 5: MICROCLIMATE



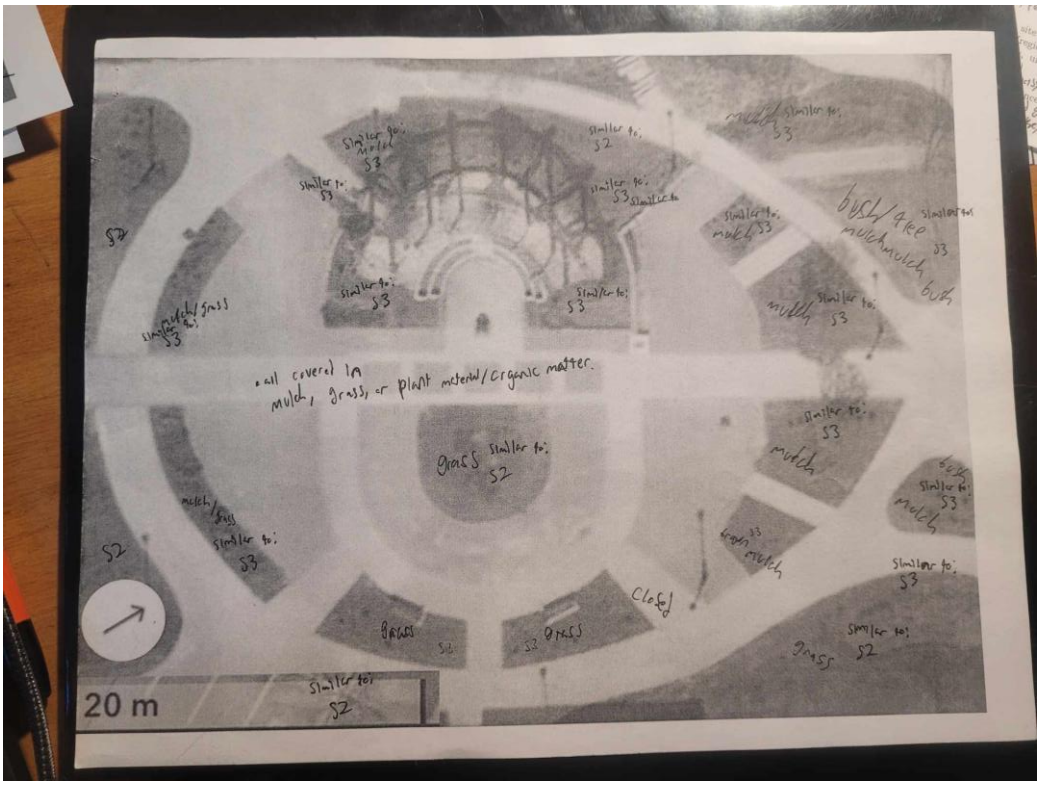
MAP 6: BUILDINGS AND INFRASTRUCTURE



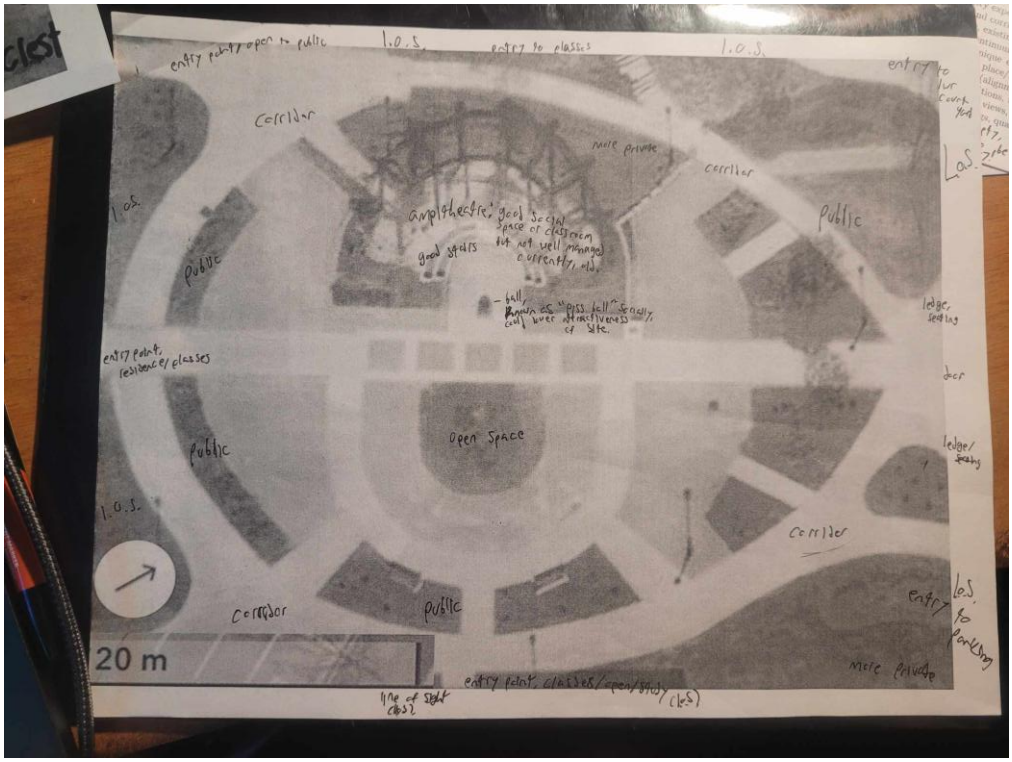
MAP 7: ZONES OF USE



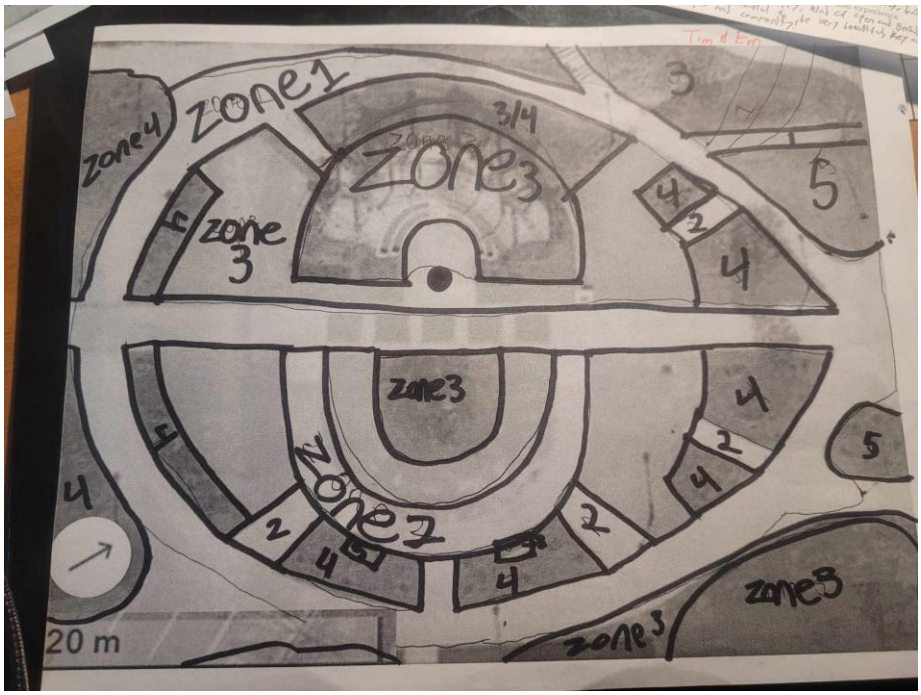
MAP 8: SOILS



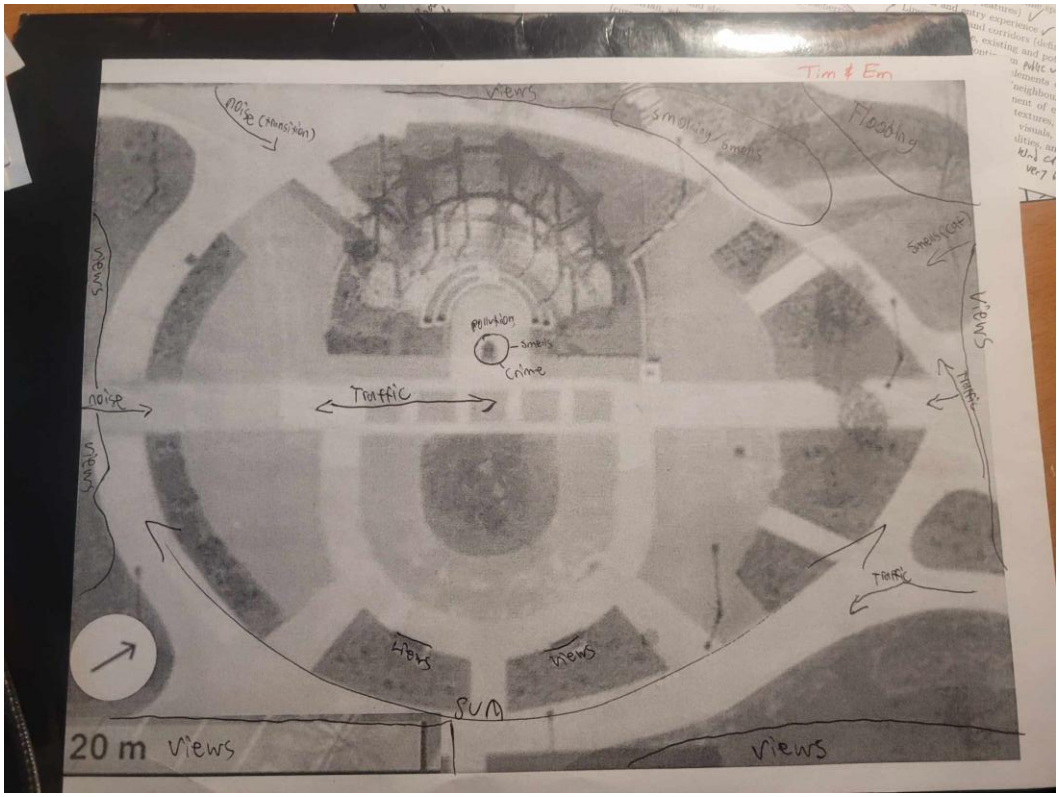
MAP 9: AESTHETICS & EXPERIENCE OF PLACE



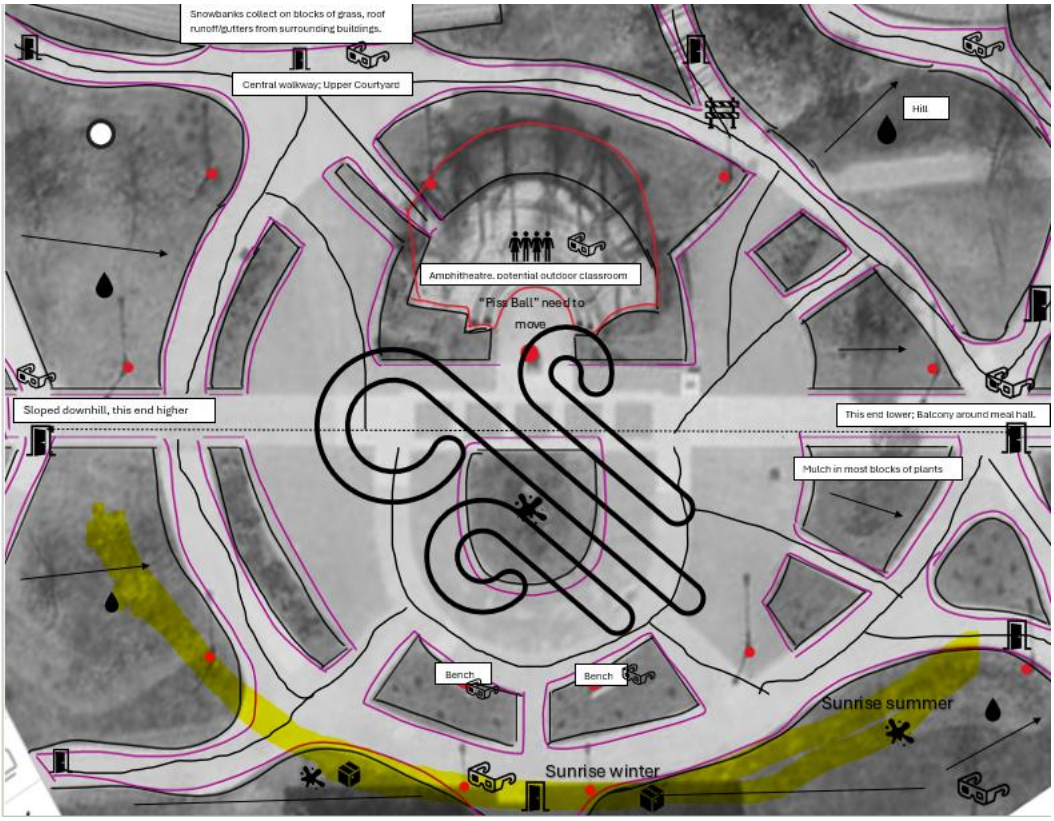
MAP 10: ZONE ANALYSIS



MAP 11: SECTOR ANALYSIS



MAP 12: SUMMARY MAP



Needs and Yields Analysis

Needs

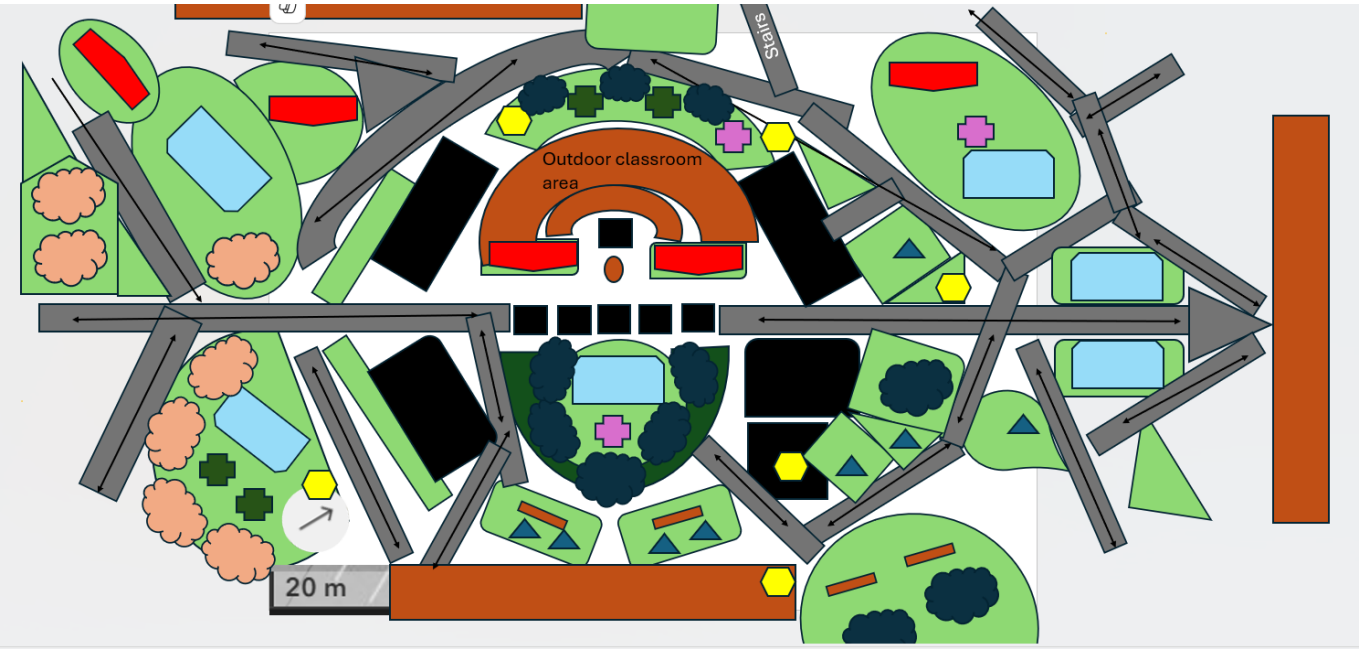
- Caretakers: This can be provided by students or community members.
- Mulch: The plants will need this; Comfrey yields this.
- Compost: Plants will need this, and the kitchen can provide it.
- Collection buckets for Maple syrup: Sugar maples will need these to collect maple syrup.
- Harvesters: This can be provided by students or community members.
- Water: This can be provided by the rain.
- Sun

Yields

- Blueberries: Produced by blueberry bushes, blueberries will provide food for students, caretakers, and harvesters.
- Comfrey: This provides mulch and fertilizer that will be used by nearby plants, as well as medicine that could potentially be used by the Wabanaki student center, students, or classes.
- Bee balm: This produces tea that could be used by students or school events, food for bees/birds, and medicine that could be used by students or classes.
- Rhubarb: Rhubarb will provide food for students, caretakers, and harvesters.
- Maple syrup: This is provided by the Sugar Maples and requires collection buckets. Once collected this could be used in the meal hall.
- Raspberries: This is produced by Raspberry bushes and provides food for students, caretakers, and harvesters.
- Apples: This is produced by apple trees. Apples will provide food.
- Beauty: Attracts people to eat the food, care for the land, and harvest the food.
- Light: This attracts people to appreciate the beauty of the forest, it also provides better vision for the people caring for the land.
- Seats: This attracts people and gives them a place to sit, rest, and work from while in the forest.
- Bunchberry: This provides food for the students, caretakers, and harvesters.
- Swamp milkweed: This plant provides medicine that can be used by students and classes. It also attracts butterflies which will help to support surrounding plants and to attract more people to the forest.
- Marsh Blue Violet: This will provide medicine, tea, and food that can be used by students, caretakers and harvesters.

- Mental Health Support- Studies show that being in nature is beneficial for one's mental health. This would be useful for anyone visiting the forest, especially students. [1]
  List of Plants to be added: Bee Balm, Comfrey, Apple tree, Crab Grass (existing), Rhubarb, Sugar Maple, Raspberries, Blueberries,

Marsh Blue Violet, Swamp Milkweed, Bunch Berry,



Light Post

Sugar Maple

Raspberries

Crabgrass

Flower bed (contains Marsh blue violet, swamp milkweed, and BunchBerry)

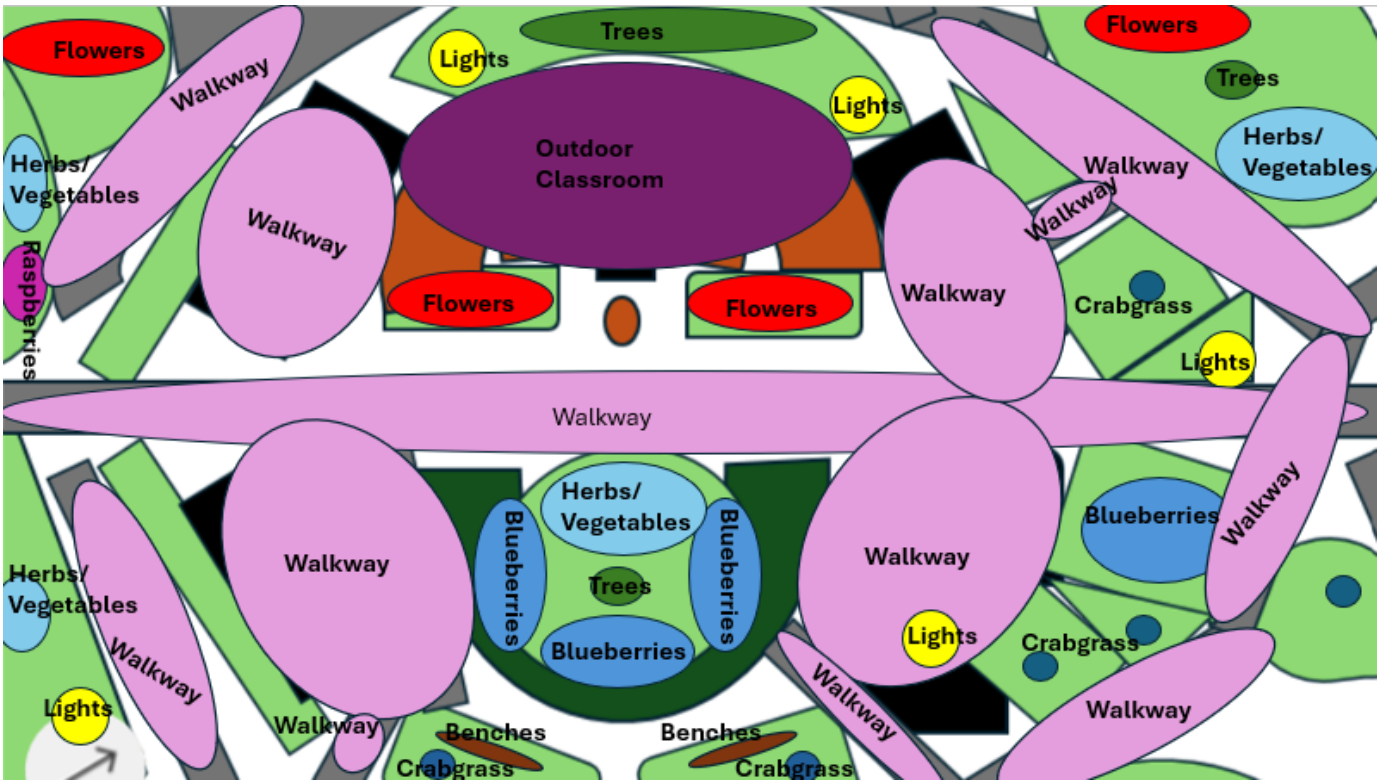
Apple Tree

Herbs/vegetables (Rhubarb, Bee Balm, Comfrey)

[1] The Food Forest Project. (2025.) Benefits to People.

Bench/structure

Blueberries



- **Plant Placement**:
    - Plant apple trees in well-spaced rows or clusters to ensure airflow and sunlight.
    - Place sugar maples away from fruit-bearing plants as they can be large and cast heavy shade.
    - Position blueberries in acidic soil areas with good drainage.
    - Plant raspberries in rows or trellises for vertical growth.
    - Rhubarb should be placed in a sunny area, spaced apart from the rest.
    - Flowering plants should be interspersed to attract pollinators and create biodiversity
- **Mulching**:

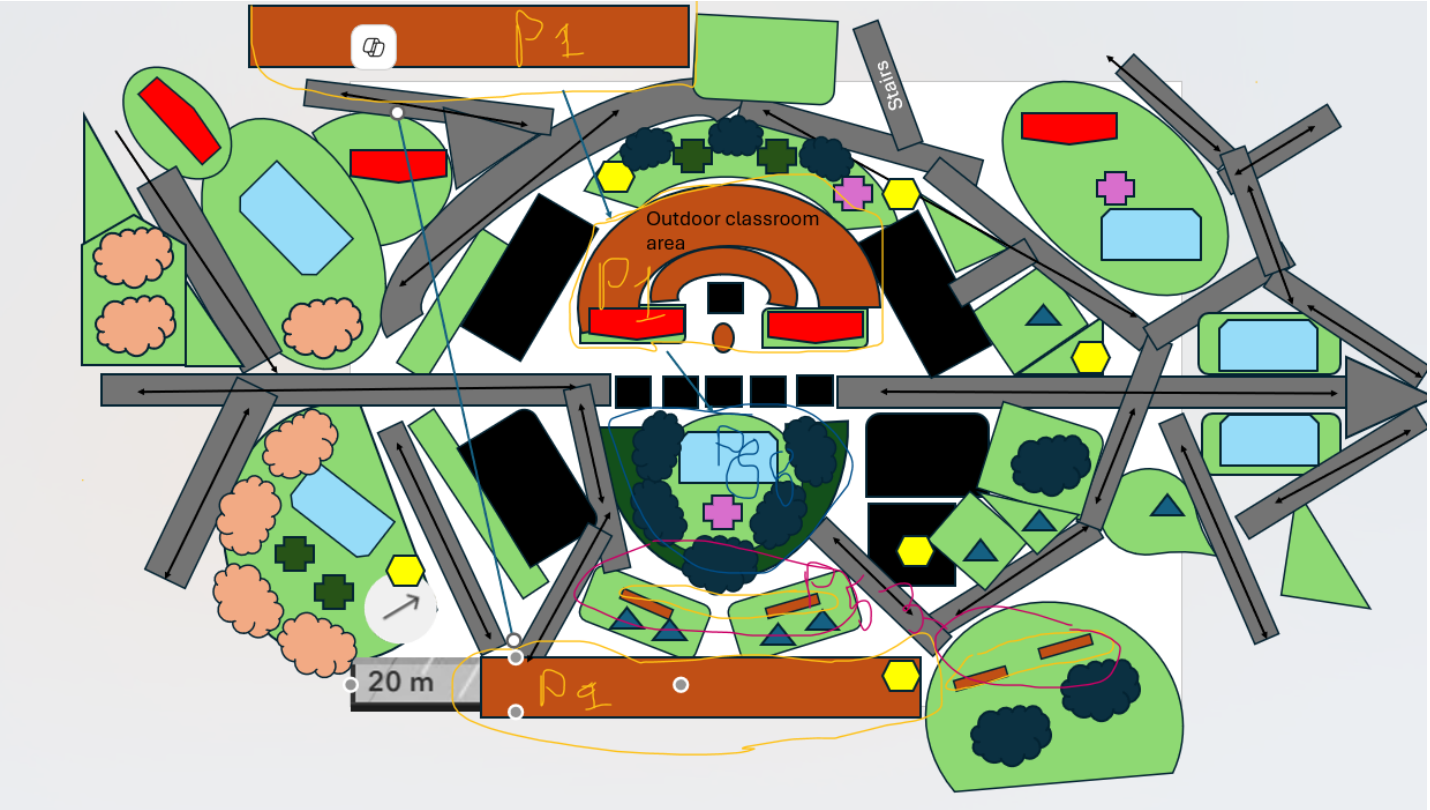
- Apply mulch (e.g., wood chips, straw, or leaves) around all plants to retain moisture, suppress weeds, and improve soil quality.

- **Educational Integration**:
  - Incorporate signs or markers to identify plants and provide educational information about each species.
  - Designate spaces for outdoor lessons, discussions, or hands-on activities surrounding pruning, harvesting, soil care, planting/transplanting workshops, disease identification and treatment student/community workshops.

Maintenance Activities Throughout the Year

- **Spring**:
  - **Pruning**:
    - Prune apple trees to remove dead or damaged wood and encourage healthy growth.
    - Trim raspberry canes to promote new growth and fruit production.
  - **Soil Care**:
    - Add compost or organic fertilizers around plants.
    - Check pH levels of soil and adjust as necessary for blueberries (prefer acidic soil).
  - **Planting**:
    - Plant new flower seeds or transplants to attract pollinators.
    - Start seedlings for rhubarb if not already established.
  - **Watering**:
    - Increase watering frequency as temperatures rise, especially during dry spells.
    - Ensure new plantings receive adequate water.
- **Summer**:
  - **Weeding & Mulching**:
    - Regularly remove weeds to prevent competition for nutrients.

        - Add more mulch if needed to retain water.
    - **Pest & Disease Monitoring**:
        - Check for signs of pests (e.g., aphids on apple trees) and treat organically if needed.
        - Ensure proper air circulation around fruit-bearing plants to prevent fungal diseases.
- **Fall**:
    - **Harvesting**:
        - Harvest apples, raspberries, and blueberries at peak ripeness.
        - Collect rhubarb stalks before the first frost, cut leaves to remain for mulch within the soil.
    - **Pruning & Cleanup**:
        - Prune apple trees after harvest to remove spent wood.
        - Clean up fallen leaves to prevent fungal infections, leaving some for mulch.
    - **Soil Care**:
        - Add compost or organic matter to the soil for over-wintering.
        - Mulch plants to protect roots from cold temperatures.
- **Winter**:
    - **Winterizing**:
        - Ensure that apple trees and rhubarb are protected from extreme cold, especially young plants.
        - Use burlap or other materials to shield tender plants.
    - **Monitoring**:
        - Keep an eye on snow loads on branches, especially sugar maples, to prevent breakage.
    - **Rest**:
        - Use the dormant season to plan for the next growing season, consider student involvement in planning and design.



P1; distribution of buildings and seating arrangements, highly foot trafficked area with little space to sit and enjoy the outdoor weather. Adding an outdoor classroom within this pre-existing structure changes an unused structure into a usable feature for STU and the community. With the pattern directly across this can invite in a private area for studying, small group activities, and hands on learning through sugar tapping, blueberry care, and rhubarb harvesting.

P88; small intimate spaces, using the available green space to create public spaces to use and enjoy, with the dispersed area of buildings adding a space to use while travelling to and from buildings. Adding this space adds privacy with the existing seating structures, and inputting edible shrubs that can be used as study snacks.

Site Anaylysis and Assesment information;

Sample	S1	S2	S3	S4
Patch(es)	87	98	82, 83, 84	54
Description	Open grass, flat	Patch grass, flat	Mulched low vegetation	Open grass, hill
OM (%)	3.1 A	5.5 H	6.3 H	3.9 A
pH	5.8 L	6.6 A	6.4 A	6.8 SH
CEC (Meq/100 g)	12 Loam	8 Fine Sandy Loam	12 Loam	11 Loam
P (ppm)	28.4 A	73.4 SH	45.0 A	24.5 A
K (ppm)	54.2 L	41.7 L	70.8 L	70.8 L
Ca (ppm)	758 SL	1190 A	1044 A	1561 A
Mg (ppm)	87 SL	50 L	74 SL	96 SL

Table A.1 continued from previous page

Patch #	Common Name	Tree: Canopy/sapling/seedling	Number
55	Grey birch	Canopy	Counted
55	Horsetail		
55	Ninebark		
55	Parsley hawthorn		
55	Red osier dogwood		
55	Rose		
56	Angelica		
56	Aster		
56	Dandelion		
56	Downy arrowwood		
56	Manitoba maple	Sapling	
56	Ninebark		
56	Norway maple	Canopy	1
56	Rose		
56	Staghorn sumac		
56	Tatarian dogwood		
56	White clover		
57	Blue spruce	Canopy	1
57	Grey birch	Canopy	1
57	Multiflora rose		
57	Rugosa rose		
57	Staghorn sumac	Canopy	1
57	Vetch		
57	Yellow twig dogwood		
58	Burning bush		
58	Manitoba maple	Sapling	
58	Ninebark		
58	Rugosa rose		
59	Common milkweed		
59	Daylily		
59	Linden	Seedling	
59	Norway maple	Seedling	
59	Raspberry		
59	Red oak	Seedling	
59	Rugosa rose		
59	Vetch		
60	Aster		
60	Birdsfoot trefoil		
60	Chives		
60	Devil's beggarticks		
60	Plantain		
60	Sedum		

Table A.1 continued from previous page

Patch #	Common Name	Tree: Canopy/sapling/seedling	Number
60	White clover		
60	Wild strawberry		
61	Common milkweed		
61	Daylily		
61	Horsetail		
61	Linden	Seedling	
61	Rugosa rose		
61	Vetch		
61	Viburnum		
61	Yellow twig dogwood		
62	Aster		
62	Blue spruce	Canopy	1
62	Cherry	Sapling	
62	Creeping juniper		
62	Norway maple	Sapling	
62	Norway maple	Seedling	
62	Red oak	Seedling	
62	Riverbank grape		
62	Rugosa rose		
62	Vetch		
62	Viburnum		
62	Virginia creeper		
62	Yellow twig dogwood		
63	Angelica		
63	Aster		
63	Birdsfoot trefoil		
63	Creeping hawthorn?		
63	Dandelion		
63	Glossy buckthorn	Seedling	
63	Linden	Seedling	
63	Norway maple	Seedling	
63	Perennial sow thistle		
63	Ragweed		
63	Red oak	Seedling	
63	Riverbank grape		
63	Vetch		
63	Virginia creeper		
63	Yellow twig dogwood		
64	Amur maple	Sapling	
64	Aster		
64	Autumn hawkbit		
64	Bedstraw		

Table A.1 continued from previous page

Patch #	Common Name	Tree: Canopy/sapling/seedling	Number
64	Birdsfoot trefoil		
64	Blue spruce	Sapling	
64	Creeping buttercup		
64	Daisy		
64	Dandelion		
64	Japanese spirea		
64	Manitoba maple	Sapling	
64	Mouse-eared hawkweed		
64	Ninebark		
64	Plantain		
64	Red clover		
64	Red oak	Canopy	1
64	Selfheal		
64	Vetch		
64	White clover		
64	Wild strawberry		
64	Yellow twig dogwood		
65	Amur maple	Seedling	
65	Dandelion		
65	Japanese lilac	Seedling	
65	Linden	Seedling	
65	Manitoba maple	Seedling	
65	Mint		
65	Norway maple	Seedling	
65	Red oak	Seedling	
65	Rose		
65	Sheep sorrel		
65	Vetch		
66	Common milkweed		
66	Crabgrass		
66	Dandelion		
66	Daylily		
66	Red maple	Seedling	
66	Rugosa rose		
66	Vetch		
67	Crabgrass		
67	Creeping juniper		
67	Dandelion		
67	Daylily		
67	Japanese lilac	Canopy	1
67	Plantain		
67	Rugosa rose		

Table A.1 continued from previous page

Patch #	Common Name	Tree: Canopy/sapling/seedling	Number
68	Black eyed Susan		
68	Coltsfoot		
68	Crabgrass		
68	Creeping juniper		
68	Dandelion		
68	Daylily		
68	Japanese lilac	Canopy	1
68	Norway maple	Seedling	
68	Plantain		
68	Riverbank grape		
68	Rugosa rose		
68	Vetch		
69	Aster		
69	Common milkweed		
69	Crabgrass		
69	Creeping juniper		
69	Echinacea		
69	Feather reed grass		
69	Oriental bittersweet		
69	Riverbank grape		
69	Vetch		
69	Virginia creeper		
70	Coltsfoot		
70	Creeping juniper		
70	Glossy buckthorn	Seedling	
70	Linden	Seedling	
70	Lupin		
70	Multiflora rose		
70	Oriental bittersweet		
70	Riverbank grape		
70	Rose		
70	Vetch		
70	Virginia creeper		
71	Aster		
71	Dandelion		
71	Daylily		
71	Mouse-eared hawkweed		
71	Plantain		
71	Red clover		
71	Vetch		
71	White clover		
72	Ash	Canopy	1

Table A.1 continued from previous page

Patch #	Common Name	Tree: Canopy/sapling/seedling	Number
72	Aster		
72	Autumn hawkbit		
72	Bedstraw		
72	Crabgrass		
72	Plantain		
72	Quackgrass		
72	Red clover		
72	White clover		
73	Angelica		
73	Apple	Canopy	1
73	Aster		
73	Autumn hawkbit		
73	Creeping juniper		
73	Dandelion		
73	Daylily		
73	Forsythia		
73	Glossy buckthorn	Sapling	
73	Japanese lilac	Canopy	1
73	Manitoba maple	Canopy	1
73	Plantain		
73	Pearlwort		
73	Quackgrass		
73	Ragweed		
73	Vetch		
73	White clover		
73	Wood sorrel		
74	Apple	Canopy	Counted previously
74	Cotoneaster		
74	Daylily		
74	Elder		
74	Forsythia		
74	Glossy buckthorn	Seedling	
74	Linden	Seedling	
74	Manitoba maple	Canopy	1
74	Norway maple	Canopy	1
74	Norway maple	Seedling	
74	Red oak	Sapling	
74	Vetch		
75	Angelica		
75	Creeping juniper		
75	Oriental bittersweet		
75	Paper birch	Canopy	3

Table A.1 continued from previous page

Patch #	Common Name	Tree: Canopy/sapling/seedling	Number
86	Vetch		
86	White clover		
86	Wood sorrel		
86	Yew		
87	Aster		
87	Autumn hawkbit		
87	Coltsfoot		
87	Daylily		
87	Mouse-eared hawkweed		
87	Perennial sow thistle		
87	Plantain		
87	Riverbank grape		
87	Rose		
87	Spruce		
87	White clover		
88	Bedstraw		
88	Creeping buttercup		
88	Creeping juniper		
88	Creeping juniper		
88	Dandelion		
88	Daylily		
88	Eastern white cedar		
88	Goldenrod		
88	Mouse-eared hawkweed		
88	Multiflora rose		
88	Norway maple	Canopy	1
88	Norway maple	Sapling	
88	Oriental bittersweet		
88	Plantain		
88	Selfheal		
88	Sheep sorrel		
88	Silver maple	Canopy	1
88	Vetch		
88	Virginia creeper		
88	White clover		
88	Wild strawberry		
88	Yarrow		
89	Birdsfoot trefoil		
89	Black eyed Susan		
89	Burning bush		
89	Chinese silver grass		
89	Common juniper		

References

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