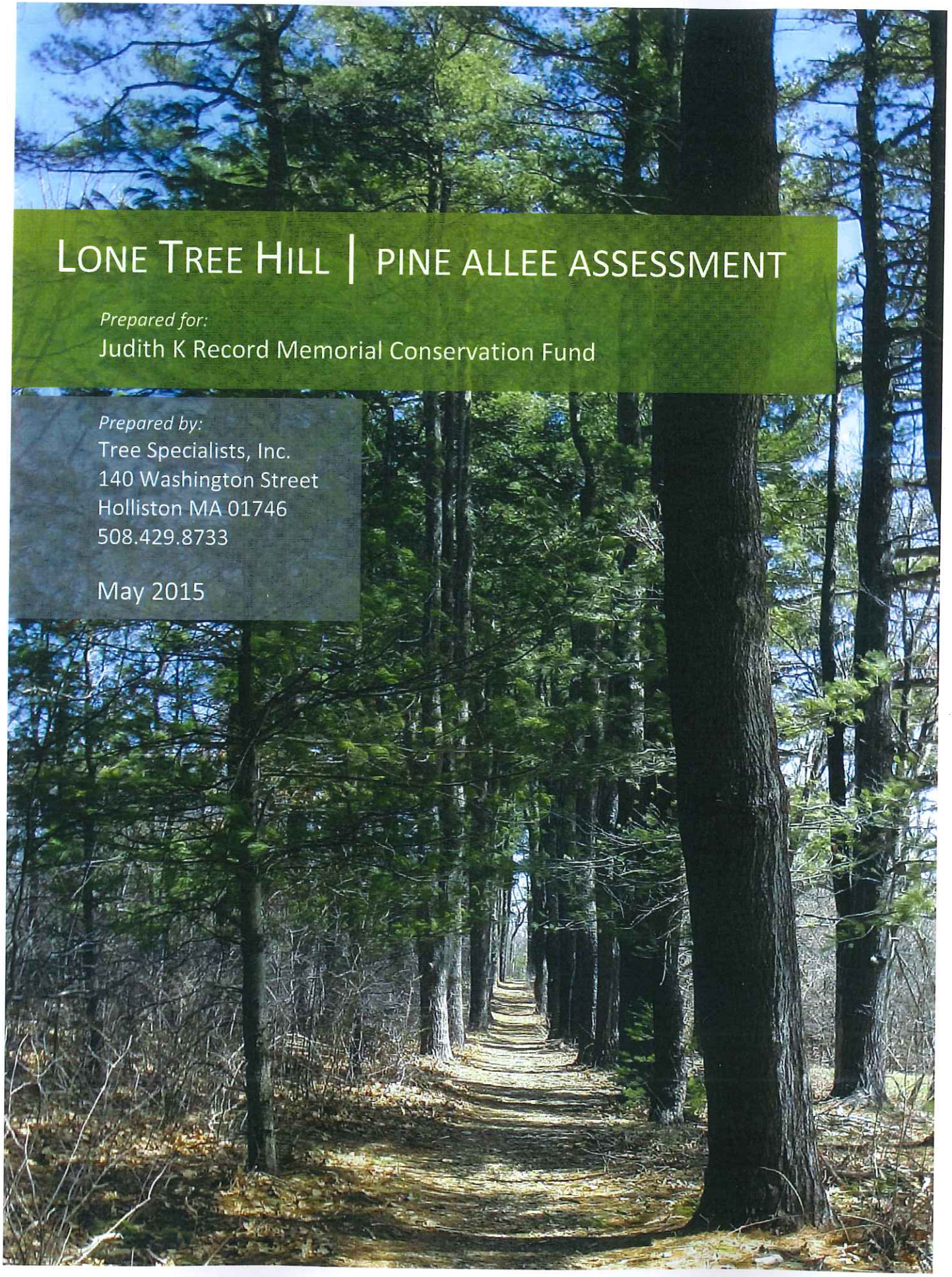

LONE TREE HILL | PINE ALLEE ASSESSMENT

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Introduction

Lone Tree Hill offers a diversity of natural and cultural resources for Belmont and surrounding towns. The meadows, woodlands, wetlands and trail complex within the Lone Tree Hill Open Space have been expertly assessed through a series of studies and reports. This report will add to that work, and will focus specifically on a single important feature within the larger resource area — the Pine Allee.

stabilize and perpetuate this interesting arrangement of trees.

Whatever the setting or context — in a park, along a street, or in the middle of a wooded area — all trees are large, dynamic structures that benefit from proper management. What's different about trees growing within a planned, human-designed environment is that they become part of that design, either by intention or default. People have a certain expectation about the performance and

Figure 1: *Aerial image shows allee running roughly east west. Note vernal pool area and the thicket of invasive deciduous trees encroaching on the eastern half of the feature.*

The allee is growing in an area that originally belonged to the Highland Stock Farm, established in 1859. The portion of the property south of Concord Avenue was sold to the Maclean Hospital in 1906. As a working farm, it is possible that the pines were planted to act as a windbreak. But the issue of whether the allee was conceived as a functional windbreak, artistic creation, or both is not critical, in our opinion. Its significance to the modern users and managers of Lone Tree Hill is undeniable. As one of the site's cultural resources, it does require a slightly different management approach than many of the other vegetative components of the site. As we examine the functional and aesthetic attributes of the feature and its current physical condition, maintenance priorities will come into focus, allowing the site managers to make objective decisions about the best way to

predictability of managed structures within a built environment, and this carries over to natural features. For "intentional" trees, such as the White pines that make up the allee, the science of assessing and caring for them is *arboriculture*. Though related to forestry and other natural resource management disciplines, a fundamental difference of arboriculture is an emphasis on aesthetics, and on the value and contribution that individual plants make to the *human* environment.

From a *natural resource* management perspective, the death of a tree is viewed as an important part of the process of resource regeneration. In a woodland, a dead tree may actually serve a higher function as a resource for animal life than it did as a living tree. From an arboricultural perspective, the value of the tree is all but lost upon its death, and its asset value quickly turns to a safety liability that

must be addressed. While we acknowledge that the trees within the allee do provide habitat, our assessment will primarily approach the feature as a designed landscape, to be maintained as such by applying the principles of arboriculture and landscape management.

Assignment and Approach

Our assignment includes the creation of an existing conditions and recommendations plan with a corresponding inventory and map component. To acquire the data needed to conduct our assessment and produce the inventory section, we provided the following services:

- A *Level 2 Visual Tree Assessment,* as described in the American National Standards Institute (ANSI) publication "A300 (part 9)", performed on all pines in the allee feature. This includes a 360-degree, ground-based visual inspection of the tree crown, trunk, trunk flare, above-ground roots, and site conditions around the tree in relation to targets. It did not include any aerial inspection, or the use of decay detection equipment or tissue analysis. Please note: All trees possess some risk of failure. ***Tree Specialists makes no guarantee about the structural integrity or longevity of any of the trees examined.***
- Trees and significant stumps or standing remnants of trees were physically tagged with numbers that correspond to the inventory and site map.
- Soil testing and analysis was performed to identify soil structure and/or fertility issues.
- The condition of the ground plane, spacing, and other details were recorded, as they relate to the stabilization and perpetuation of the feature.

Our goal was to produce a *working document,* to serve the overseers as a management tool by providing objective observations and prioritized maintenance recommendations.

The report is divided into 3 sections:

1. *Existing Conditions*
2. *Recommendations*
3. *Inventory and Corresponding Map*

Existing Conditions

The allee appears to have originally consisted of four rows of our native White pine, *Pinus strobus*. By counting the growth rings of several fallen trees and stumps (not an exact science in the field), we estimate the feature to be over 100 years old. There is a 10 foot wide trail that runs through the middle of the allee, allowing pedestrians to appreciate the unique visual quality of the allee arrangement.

Some facts about the allee include:

- Length is approximately 921 feet.
- There are 165 existing White pine.
- There are approximately 182 missing White pines.
- The largest diameter tree at breast height (DBH) is 38" (tree #132) vs. the smallest at 5" (recent replacement trees).
- Trees are laid out in a triangular pattern, spaced roughly 10 feet apart.
- The feature runs roughly east to west.

Figure 1: *This image shows the double row configuration. The allee's east-west orientation explains the larger stem growth on the southern facing trees.*

Figure 3: *Growth rings reveal that this 10" diameter tree was ±50 years old. Growing in the northernmost row of the allee, it was likely planted as a replacement for a lost tree, but remained stunted by shading from the trees to the south.*

Figure 2: *Growth rings reveal that this 28" diameter tree was over 100 years old.*

White pine attributes

White pines are one of our region's most common and prolific tree species. They offer year round beauty and important resource value for songbirds, upland ground birds and small mammals and deer.

Other characteristics include:

- natural habitat is United States central and eastern regions. They occur in upland mesic, northerly slop aspects, in sheltered covers, along rocky streams, and steep rocky land. Soil texture: coarse to fine; loam, silt loam, loamy sand, less common in clay.
- prefers moist to average moisture.
- will grow in strongly acid to slightly acid soil, pH 4.5-6.5.
- medium growth rate of 1½ to 2 feet per year on the average for the first 50 years.
- White pine has an intermediate shade tolerance (index 4.4).
- longevity: long – maturity reached in 200 to 350 years, potential to live up to 500 years (though most succumb to storms and heart rot well before then).
- urban tolerance: sensitive to salt, soil compaction and drought.
- root pattern: weak taproot, several large coarse deep laterals, transplants readily in early spring.
- crown pattern: tend to be single or double leaders in a wooded setting. When grown in full sun, trees develop a rounded, multi-stem shape due to feeding activity on terminals by the White Pine weevil.

White pine health vs. structure

From a maintenance perspective, White pines are highly susceptible to storm damage. Their fine textured, year round foliage tends to accumulate snow, and provides significant resistance to the forces of wind. In conjunction with relatively soft, brittle wood, this results in a high frequency of branch and whole tree failures, relative to other common overstory species. This is evident in the number of missing trees, and the presence of uprooted trees, snags and stumps.

Live crown ratio

This is a forestry term used to describe the approximate percentage of foliar canopy in relation to the overall size of the tree. For example, a 100 foot tall tree with a foliar canopy that occupies the top 40 feet of the plant would have a Live Crown Ratio of 40%. Foresters like to see enough canopy to sustain good growth, but also long, branchless stems to produce high quality, knot free lumber. For arborists, *live crown ratio* is useful in assessing the vigor of the plant, but also the physics of the tree structure as it relates to the effects of high winds.

Figure 4: *Example of low crown ratio (top) vs a medium crown ratio (bottom)*

A tree stem act's as a lever, and when the weight of the canopy is concentrated at the end of the lever arm, it increases the amount of force placed on the lower stem and the root system during a wind event. Many trees in the allee have low live crown ratios, which is common for this species when grown in a group setting. Unfortunately, as trees within the feature are lost, it exposes previously protected trees to the full force of the wind.

Heartwood decay

Like most temperate forest tree species, White pines form *heartwood* in the center of the stem and larger branches. This wood is technically dead — there is no living protoplasm in the cells. The tree uses these as vessels for storing water and nutrients in solution, and for physical support of the canopy structure. As trees age, the heartwood eventually becomes exposed to decay fungi, which begin to break down the cell walls. Carpenter ants appreciate the soft wood, moisture, and protection of the heartwood, and mine this tissue to build their colonies. The increased flow of air opens up more of the heartwood mass for decay fungi, leading to a condition called heart rot. Because the heartwood is not critical in the conduction of water and food material between the roots and leaves (needles), trees with severe heartwood decay can continue to grow and appear quite healthy to the outside observer. Unfortunately these trees are more susceptible to failure in a storm event.

Root rot

There are a number fungal pathogens that can cause root decay in White pines, including Armillaria, Phyopthora, and Procera. Armillaria, which causes *Shoestring Root Rot*, is a saprophyte as well as a pathogen, meaning it can feed on dead woody tissue such as stumps, logs and other dead tissue as well as attack live tissue. Roots are also killed by the stress of drought, and these often become the entry points for secondary decay pathogens. Loss of root mass can also contribute to tree failure, and there were several stumps we observed that have been uprooted by storms.

Figure 6: *Heart rot located at the base of the tree.*

Figure 7: *Vertical column of heart rot – probably caused by a lightning strike.*

Other pests

White pine are vulnerable to a variety of other insect and disease pests, including White Pine Blister rust (fungal disease), White Pine weevil (insect), Pine Bark adelgid (insect), and several stem cankers. We have also seen an uptick in foliar diseases on White pine in recent years. *Canavirgella Needle cast* and *Brown Spot Needle blight* are foliar fungal diseases that cause thinning and discoloration of needles. Most of these pests are *secondary* in nature, meaning that they tend to affect trees that are already weakened, and are not lethal in their own right. Chemical treatments are not generally advisable for these issues, and the best way to manage insect and disease populations in this type of setting is to maintain plant health.

Soil

Soil types can have a dramatic effect on plant health and structural stability. The allee appears to be growing in a deposit of fine sandy loam (USGS soil maps suggest Montauk Fine Sandy Loam). This soil type includes a strong to very strongly acidic, well-drained sand based soil, typically with a subsoil of sand and gravel.

This does have implications for root structure, fertility, water retention, and drought. In our opinion, soil compaction from foot traffic is not a significant management issue here. Periodic access to the path with service vehicles should also not be a problem. We have collected soil samples and will include our findings in the final report.

Understory growth

There are numerous deciduous species saplings establishing in the understory of the feature. This problem will worsen as the loss of overstory pines is increasing available sunlight and will stimulate even more growth. In this setting, any deciduous tree growth, including native tree species, is undesirable.

Past maintenance practices

Pruning

We did observe some deadwood pruning on the trees, performed fairly recently. While not harmful to the trees, it is not terribly constructive. It is natural for the lower limbs on White pines to decline and die due to light competition, and they can retain these limbs for many years. It also does nothing to alter the top-heavy growth pattern of the trees.

Figure 8: *This uprooted tree illustrates a soil profile consistent with Montauk Fine Sandy loam.*

Figure 9: *Slash attracts borers and feeds fungi that can then infest the live trees. Improving sanitation practices will address both the health and aesthetics of the allee.*

Slash removal

We observed numerous stumps, logs, and brush piles on site. From a *natural resource* perspective, it may seem reasonable to leave this material, but it can feed borers and fungal pathogens, and create opportunities for carpenter ants to expand colonization.

Planting vs natural regeneration

On the western portion of the allee, we observed several White pine replacement plantings. These are clearly nursery grown trees, which seem to be having a tough time adapting to low light levels and dry conditions. Also, their placement is not in keeping with the consistent spacing of the feature. Typically, sites with an established White pine overstory will regenerate spontaneously, even in sub-stantial shade.

The paucity of young pine seedlings here may have something to do with past understory management practices, like annual brush mowing for example.

The number of gaps that do not have an identifiable stump or mound in place may indicate that these trees died early in the feature's establishment period. Subsequent replacements either were unsuccessful or not attempted at all.

Summary of existing conditions

- Large number of missing trees.
- Evidence of significant, recent storm damage to feature.
- Significant number of trees with structural issues.
- Loss of strength from heartwood decay.
- Top heavy architecture with increasing exposure to high winds.
- Sandy, low fertility soil.
- Windy, exposed site increases water demands on plants.
- Increased light penetration to ground plane raises soil temperatures and further desiccates the soil.
- Maintenance pruning efforts are not addressing the trees' structural issues.
- Undesirable tree growth is establishing in the understory.

Figure 10: *Understory growth is primarily that of deciduous, invasive species (left). Image on right (not from this site) illustrates regeneration potential of White Pine stands, even in low light levels.*

Recommendations

Managing mature trees is always a challenge. Variables in tree structure, soil conditions, insects and disease, and site factors all come into play. Managing a feature that includes hundreds of trees, arranged in a very specific pattern, with a pedestrian trail running through it is a larger task, but the principles remain the same:

- Conduct regular assessments;
- Identify any immediate issues that threaten the safety of site users or the integrity of the feature itself;
- Identify long term management goals and objectives, and
- Implement a maintenance plan to meet goals and objectives based on available funds.

Priority #1

Stabilize tree structure – tree risk and public safety

All trees possess some element of risk as all trees periodically shed limbs due to wind, snow load, or other weather related events. In most cases though, large limb or whole tree failures can be traced to some form of structural flaw or defect - either a naturally occurring growth pattern or as a result of some past injury. A tree with significant structural defects can be termed *high-risk*. A high-risk tree in proximity to a potential *target* such as people, buildings, or vehicles can then further be defined as a *hazard*. In this situation, both site users and the allee itself would be considered the targets.

Quantifying the amount of risk that trees represent is not an exact science, but it is a critical part of any site management program. Having qualified professionals assess and document the trees is the first step, and commissioning this inventory and report helps demonstrate due diligence. Moving forward, maintenance activities must also address tree risk management in a demonstrable, meaningful way.

In this case we are recommending:

- Prompt removal of all trees as identified as High Priority removals in the inventory. These are trees where we identified significant structural decay that could be expected to increase failure potential. These trees need to be removed carefully, so as not to cause ancillary damage to adjacent trees. All resulting wood that is not chipped should be removed off site for aesthetic reasons, and to avoid providing food and cover for unwanted fungi and insect pests.
- Crown reduction pruning for all trees identified as High Priority involves the removal of live limbs, concentrating on terminals of the upper canopy. Some of these cuts may be large, up to 10" in diameter, and made in conjunction with numerous smaller cuts as needed. This will:
  - Reduce weight and windthrow, and
  - Stimulate more growth in the remaining lower canopy.

Figure 11: *Tree has been crown reduced (note climber in lower left quadrant of the circle).*

Figure 12: *Modern equipment that is well suited for the Pine Allee site conditions.*

This pruning will not *eliminate* the risk of tree failure, but it is a proven method for increasing tree stability. Modern equipment such as self-propelled track lifts and compact, powerful wood chippers make it possible to access the trees, work efficiently, and reduce potential damage to the feature.

Priority #2
Managing understory vegetation

To keep this feature healthy and free of competition from the root growth of undesirable tree saplings and brush, we need to develop a good long term strategy for managing understory growth within the allee. Essentially there are two options:

- **Mowing** – Mowing is effective, and does not require chemicals to get the job done. This approach would require some initial handcutting of the larger saplings.
- **Chemical control** – cut stump method Chemical controls are effective because they reduce the likelihood of resprouting.

Another factor is the growth of undesirable trees and brush along the flanks of the allee, particularly along the southeastern perimeter that borders the vernal pool area. Here the encroachment of sizable trees, primarily Black locust, has implications for Priority #3 — establishing replacement trees within the allee. The North and South perimeters would benefit from the creation and maintenance of a 20-30' "buffer zone". This will help to define the feature, reduce seed infiltration and provide lightflow for establishing young pine replacements.

Priority #3
Improving growing conditions

The size and number of trees in the feature, plus the nature of the insects and diseases that generally affect White pine make chemical control of pathogens impractical. Though drought is an issue for the tree health, addressing this directly with supplemental irrigation is not practical. For these reasons, our best approach is to try and affect the soil environment. We can do this by:

- **Increasing organic matter** – Instead of piling logs and brush from removal and pruning operations, process this material on site and distribute the wood chips over the root zone to add to the humus layer. This will help moderate temperatures in the short term, reserve soil moisture, and add nutrients over the long term as the material breaks down. It is important to note the difference between woodchips and bark mulch. Woodchips contain roughly the same material composition as the natural forest floor. By contrast, bark mulch is a more "sterile" material, and provides little in the way of stored nutrients.

Priority #4
Develop a replanting strategy

Allees present some unique challenges for site managers. Consistency in species, size, and spacing is a critical part of the "allee experience", but as these features age, individuals are inevitably lost. The few planted replacement trees that we observed west of the access gate to Concord Avenue illustrate the problem with inter-planting within an

established feature. Low light levels, root competition and lack of irrigation make for a difficult transition for nursery trees that have been pampered by full sun, irrigation and fertilizer. To improve the success rate, we recommend using small, wild collected trees from on site.

***Figure 13**: Rather than using nursery grown pines for replacements (top), consider collecting small, native trees from other areas of the site. These can be economically harvested, are adapted to the site, and will grow quickly when established.*

In order to aid in establishment:

- Collect trees in early spring, just after the soil thaws out.
- Choose trees that are 3-4 feet high. If collecting from areas where multiple saplings are growing together, do not attempt to separate the root systems. Simply dig a grouping of a reasonable size, retain one individual in the center of the "rootball" (more like a disc), and snip off surrounding seedlings with pruners. The surrounding root systems will help keep the root mass intact, and will provide organic matter for the growing tree as they break down.
- Prepare a large planting hole. By preparing a wide, shallow hole, and cutting back the roots of the surrounding mature trees, you will give the new plant a season or two without root competition.
- Consider a watering and fertilization program for the new saplings. Providing supplemental water and a boost from some low nitrogen fertilizer during the first and second year is a great investment.

Spacing within the allee is consistently ±10 feet on center. If natural regeneration were occurring on its own, then one might consider a program of thinning to cultivate trees that are "close to" the original spacing. Since this is not happening in any significant way and planting will be required, we feel that maintaining the original spacing is preferable.

Summary of maintenance action items

- Remove any High Priority removals as identified in the inventory
- Apply additional funds as available to perform crown reduction pruning to stabilize other trees identified as High Priority pruning
- Process any stockpiled debris on site with a chipper, and distribute the chips diffusely over the root zones and path.
- Examine the options of mowing vs. chemical control of undesirable understory growth
- Remove some of the larger encroaching trees between the allee and the vernal pool area.
- Maintain a 10 foot swath on the outer most rows to reduce competition for light and space.

Inventory and Corresponding Map

Approach and methodology for data collection

The following Pine Allee Inventory and Assessment is presented in a table format that corresponds to the map. The numbering system facilitates record keeping for individual plants and provides an efficient way to communicate specific needs to committee members or contractors. The map pinpoints the location of all entries and is included as an attachment to this report.

Reading the inventory and assessment table

- Map ID#: the number of the tree as it relates to its location on the map.
- Plant identification: verifies that all plants recorded are White Pine, Pinus strobus.
- Size – DBH (Diameter at Breast Height): The diameter of the stem measured 4.5 feet above the ground.
- Condition: combines the structural and vigor ratings into good, fair, poor or dead ratings.
- Recommendation: this category includes recommendations for structural tree work such as crown cleaning, thinning, reduction, or structural bracing. In this case, all pruning work involves crown reduction. Other recommendations not related to preservation pruning are described. Removal indicates trees recommended for removal. Risk: poses a potential risk to public safety.

Map ID #	Plant Identification	DBH	Condition	Recommendation	Priority H/M/L
1	Stump	26"	Dead	Remove wood on the ground left from fallen tree	M
2	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
3	White Pine, *Pinus strobus*	16"	Fair	Crown reduce	L
4	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
5	White Pine, *Pinus strobus*	23"	Fair	Deadwood	L
6	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
7	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
8	White Pine, *Pinus strobus*	21"	Fair	Crown reduce	L
9	White Pine, *Pinus strobus*	11"	Fair	Prune deadwood over path, do not crown reduce	M
10	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
11	White Pine, *Pinus strobus*	13"	Fair	Crown reduce	M
12	White Pine, *Pinus strobus*	28"	Dead	Snag – retain to mark spot for future replacement	L
13	White Pine, *Pinus strobus*	13"	Poor	Crown reduce	L
14	White Pine, *Pinus strobus*	23"	Fair	Crown reduce	L
15	White Pine, *Pinus strobus*	23"	Fair	Crown reduce	L
16	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
17	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
18	White Pine, *Pinus strobus*	21"	Fair	Crown reduce	L
19	White Pine, *Pinus strobus*	18"	Poor	Wound located 3' up from the ground, crown reduce	L
20	White Pine, *Pinus strobus*	11"	Poor	Wound located 2' up from the ground, crown reduce	L
21	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L

Map ID #	Plant Identification	DBH	Condition	Recommendation	Priority H/M/L
22	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
23	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
24	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
25	White Pine, *Pinus strobus*	11"	Poor	Wound located 3.5' up from the ground, crown reduce	L
26	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
27	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
28	White Pine, *Pinus strobus*	18"	Dead	Uprooted tree - remove wood on the ground	M
29	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	M
30	White Pine, *Pinus strobus*	21"	Dead	Snag – retain to mark spot for future replacement	L
31	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
32	White Pine, *Pinus strobus*	25"	Fair	Crown reduce	L
33	White Pine, *Pinus strobus*	15"	Fair	Crown reduce	L
34	White Pine, *Pinus strobus*	25"	Fair	Crown reduce	L
35	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
36	White Pine, *Pinus strobus*	21"	Fair	Crown reduce	L
37	White Pine, *Pinus strobus*	10"	Dead	Wound at base, crown reduce	L
38	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
39	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
40	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
41	White Pine, *Pinus strobus*	12"	Poor	Wound on base and stem, crown reduce	L
42	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
43	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
44	White Pine, *Pinus strobus*	15"	Fair	Crown reduce	L
45	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
46	White Pine, *Pinus strobus*	20"	Poor	Severely crown reduce or cut down. Seam in trunk, hollow	H
47	White Pine, *Pinus strobus*	14"	Fair	Crown reduce	L
48	White Pine, *Pinus strobus*	22"	Fair	Crown reduce, leaning	H
49	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
50	White Pine, *Pinus strobus*	26"	Fair	Crown reduce	L
51	White Pine, *Pinus strobus*	26"	Fair	Crown reduce	L
52	White Pine, *Pinus strobus*	10"	Fair	Crown reduce	L
53	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
54	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
55	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
56	White Pine, *Pinus strobus*	17"	Fair	Crown reduce, wound at base	L
57	White Pine, *Pinus strobus*	18.5"	Fair	Crown reduce	L
58	White Pine, *Pinus strobus*	5"	Fair	Replacement tree – spacing does not match historic configuration	M

Map ID #	Plant Identification	DBH	Condition	Recommendation	Priority H/M/L
59	White Pine, *Pinus strobus*	5"	Fair	Replacement tree – spacing does not match historic configuration	M
60	White Pine, *Pinus strobus*	6"	Fair	Crown reduce	L
61	White Pine, *Pinus strobus*	22"	Fair	Crown reduce for weight reduction, co dominant stem, heavy on one side	H
62	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
63	White Pine, *Pinus strobus*	18"	Poor	Hollow, light canopy	–
64	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
65	White Pine, *Pinus strobus*	20"	Poor	Cut down - tear from storm damage on one side	H
66	White Pine, *Pinus strobus*	18"	Poor	Crown reduce, hollow	M
67	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
68	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
69	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
70	White Pine, *Pinus strobus*	18"	Fair	Crown reduce – hollow, lean, heavy crown	H
71	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
72	White Pine, *Pinus strobus*	9"	Fair	Crown reduce	L
73	White Pine, *Pinus strobus*	16"	Dead	Snag – retain to mark spot for future replacement	L
74	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
75	White Pine, *Pinus strobus*	20"	Dead	Crown reduce	L
76	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
77	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
78	White Pine, *Pinus strobus*	18"	Dead	Uprooted tree – clean up and replace in kind	M
79	White Pine, *Pinus strobus*	18"	Dead	Uprooted tree – clean up and replace in kind	M
80	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
81	White Pine, *Pinus strobus*	24"	Fair	Crown reduce	L
82	White Pine, *Pinus strobus*	21"	Fair	Crown reduce	L
83	White Pine, *Pinus strobus*	11"	Dead	Snag – retain to mark spot for future replacement	L
84	White Pine, *Pinus strobus*	12"	Fair	Crown reduce	L
85	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
86	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
87	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
88	White Pine, *Pinus strobus*	22"	Fair	Crown reduce, damaged stem	M
89	White Pine, *Pinus strobus*	23"	Fair	Crown reduce	L
90	White Pine, *Pinus strobus*	19"	Poor	Crown reduce, co-dominant stem with steam	L
91	White Pine, *Pinus strobus*	24"	Fair	Crown reduce	L
92	White Pine, *Pinus strobus*	18"	Fair	Crown reduce, wounds on stem, hollow	H
93	White Pine, *Pinus strobus*	19"	Poor	Crown reduce, broken top	L
94	White Pine, *Pinus strobus*	12"	Dead	Snag – retain to mark spot for future replacement	L

Map ID #	Plant Identification	DBH	Condition	Recommendation	Priority H/M/L
95	White Pine, *Pinus strobus*	26"	Fair	Crown reduce	M
96	White Pine, *Pinus strobus*	17"	Poor	Crown reduce	M
97	White Pine, *Pinus strobus*	27"	Fair	Crown reduce	L
98	White Pine, *Pinus strobus*	21"	Fair	Crown reduce, co-dominant stem	L
99	White Pine, *Pinus strobus*	20"	Poor	Crown reduce, hollow, wound on stem	H
100	White Pine, *Pinus strobus*	5"	Poor	Replacement tree – spacing does not match historic configuration	M
101	White Pine, *Pinus strobus*	18"	Fair	Crown Reduce	L
102	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
103	White Pine, *Pinus strobus*	21"	Fair	Crown reduce	L
104	White Pine, *Pinus strobus*	17"	Poor	Crown reduce	L
105	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
106	White Pine, *Pinus strobus*	23"	Dead	Snag – retain to mark spot for future replacement	L
107	White Pine, *Pinus strobus*	13"	Fair	Crown reduce	L
108	White Pine, *Pinus strobus*	27"	Poor	Crown reduce	L
109	White Pine, *Pinus strobus*	15"	Fair	Crown reduce	L
110	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
111	White Pine, *Pinus strobus*	16"	Fair	Crown reduce	L
112	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
113	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
114	White Pine, *Pinus strobus*	18"	Poor	Crown reduce, hollow at base	M
115	White Pine, *Pinus strobus*	25"	Fair	Crown reduce	L
116	White Pine, *Pinus strobus*	14"	Fair	Crown reduce, hollow at base	M
117	White Pine, *Pinus strobus*	26"	Fair	Crown reduce	L
118	White Pine, *Pinus strobus*	17"	Fair	Crown reduce, lean	M
119	White Pine, *Pinus strobus*	23"	Fair	Crown reduce	L
120	White Pine, *Pinus strobus*	5"	Poor	Replacement tree – spacing does not match historic configuration	M
121	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
122	White Pine, *Pinus strobus*	13"	Fair	Crown reduce	M
123	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
124	White Pine, *Pinus strobus*	23"	Fair	Crown reduce	L
125	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	L
126	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
127	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
128	White Pine, *Pinus strobus*	14"	Poor	Crown reduce, hollow at base	H
129	White Pine, *Pinus strobus*	24"	Fair	Crown reduce	L
130	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L

Map ID #	Plant Identification	DBH	Condition	Recommendation	Priority H/M/L
131	White Pine, *Pinus strobus*	26"	Fair	Crown reduce	H
132	White Pine, *Pinus strobus*	36"	Fair	Crown reduce, top half of the tree is broken	M
133	White Pine, *Pinus strobus*	24"	Fair	Crown reduce	L
134	White Pine, *Pinus strobus*	13"	Dead	Snag – retain to mark spot for future replacement	L
135	White Pine, *Pinus strobus*	25"	Fair	Crown reduce	L
136	White Pine, *Pinus strobus*	19"	Poor	Crown reduce	M
137	White Pine, *Pinus strobus*	24"	Poor	Crown reduce	M
138	White Pine, *Pinus strobus*	16"	Poor	Crown reduce, hollow at base	L
138	White Pine, *Pinus strobus*	16"	Poor	Crown reduce, hollow at base	L
139	White Pine, *Pinus strobus*	20"	Poor	Crown reduce, high risk – hollow and leaning	H
140	White Pine, *Pinus strobus*	24"	Fair	Crown reduce	L
141	White Pine, *Pinus strobus*	21"	Fair	Crown reduce, very heavy top with lean	H
142	White Pine, *Pinus strobus*	10"	Poor	Crown reduce, hollow at base	M
143	White Pine, *Pinus strobus*	21"	Fair	Crown reduce	M
144	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
145	White Pine, *Pinus strobus*	22"	Fair	Crown reduce	L
146	White Pine, *Pinus strobus*	14"	Poor	Crown reduce	L
147	White Pine, *Pinus strobus*	18"	Fair	Crown reduce, hollow at base	L
148	White Pine, *Pinus strobus*	18"	Fair	Crown reduce	M
149	White Pine, *Pinus strobus*	19"	Fair	Crown reduce	L
150	White Pine, *Pinus strobus*	16"	Fair	Crown reduce	L
151	White Pine, *Pinus strobus*	16"	Poor	Crown reduce, hollow at base	H
152	White Pine, *Pinus strobus*	23"	Fair	Crown reduce, heavy top	M
153	White Pine, *Pinus strobus*	23"	Fair	Crown reduce	L
154	White Pine, *Pinus strobus*	16"	Poor	Cut down, hollow at base	M
155	White Pine, *Pinus strobus*	12"	Fair	Crown reduce	L
156	White Pine, *Pinus strobus*	23"	Fair	Crown reduce	L
157	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
158	White Pine, *Pinus strobus*	19"	Dead	Snag – retain to mark spot for future replacement	L
159	White Pine, *Pinus strobus*	22"	Fair	Crown reduce, heavy top	M
160	White Pine, *Pinus strobus*	20"	Fair	Crown reduce	L
161	White Pine, *Pinus strobus*	28"	Dead	Snag – retain to mark spot for future replacement	L
162	White Pine, *Pinus strobus*	22"	Fair	Crown reduce, leaning and newly exposed	H
163	White Pine, *Pinus strobus*	19"	Fair	Crown reduce, heavy top	M
164	White Pine, *Pinus strobus*	22"	Fair	Locust leaning on tree – high risk, cut down locust	H
165	White Pine, *Pinus strobus*	23"	Fair	Crown reduce, leaning, heavy top	H

Map ID #	Plant Identification	DBH	Condition	Recommendation	Priority H/M/L
166	White Pine, *Pinus strobus*	28"	Fair	Crown reduce, tall tree with heavy top	M
167	White Pine, *Pinus strobus*	28"	Fair	Crown reduce, tall tree with heavy top	M
168	White Pine, *Pinus strobus*	14"	Dead	Snag – retain to mark spot for future replacement	L
169	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
170	White Pine, *Pinus strobus*	26"	Fair	Crown reduce	L
171	White Pine, *Pinus strobus*	29"	Fair	Crown reduce, tall tree with heavy top, leaning	M
172	White Pine, *Pinus strobus*	15"	Poor	Crown reduce	L
173	White Pine, *Pinus strobus*	13"	Dead	Snag – retain to mark spot for future replacement	L
174	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
175	White Pine, *Pinus strobus*	25"	Fair	Crown reduce	L
176	White Pine, *Pinus strobus*	17"	Fair	Crown reduce	L
177	White Pine, *Pinus strobus*	21"	Fair	Crown reduce, exposed tall tree, heavy on one side	M

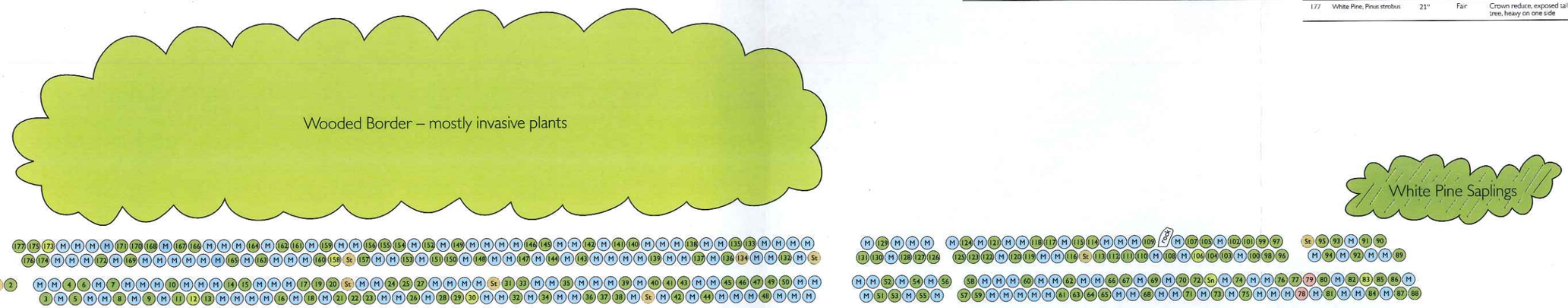
Map ID#	Plant Indentification	DBH	Condition	Recommentation	Priority H/M/L
1	Stump	26"	Dead	Remove wood on the ground left from fallen tree	M
2	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
3	White Pine, Pinus strobus	16"	Fair	Crown reduce	L
4	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
5	White Pine, Pinus strobus	23"	Fair	Deadwood	L
6	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
7	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
8	White Pine, Pinus strobus	21"	Fair	Crown reduce	L
9	White Pine, Pinus strobus	11"	Fair	Prune deadwood over path, do not crown reduce	M
10	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
11	White Pine, Pinus strobus	13"	Fair	Crown reduce	M
12	White Pine, Pinus strobus	28"	Dead	Snag – retain to mark spot for future replacement	L
13	White Pine, Pinus strobus	13"	Poor	Crown reduce	L
14	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
15	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
16	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
17	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
18	White Pine, Pinus strobus	21"	Fair	Crown reduce	L
19	White Pine, Pinus strobus	18"	Poor	Wound located 3' up from the ground, crown reduce	L
20	White Pine, Pinus strobus	11"	Poor	Wound located 2' up from the ground, crown reduce	L
21	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
22	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
23	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
24	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
25	White Pine, Pinus strobus	11"	Poor	Wound located 3.5' up from the ground, crown reduce	L
26	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
27	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
28	White Pine, Pinus strobus	18"	Dead	Uprooted tree – remove wood on the ground	M
29	White Pine, Pinus strobus	19"	Fair	Crown reduce	M
30	White Pine, Pinus strobus	21"	Dead	Snag – retain to mark spot for future replacement	M
31	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
32	White Pine, Pinus strobus	25"	Fair	Crown reduce	L
33	White Pine, Pinus strobus	15"	Fair	Crown reduce	L
34	White Pine, Pinus strobus	25"	Fair	Crown reduce	L
35	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
36	White Pine, Pinus strobus	21"	Fair	Crown reduce	L

Map ID#	Plant Indentification	DBH	Condition	Recommentation	Priority H/M/L
37	White Pine, Pinus strobus	10"	Dead	Wound at base, crown reduce	L
38	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
39	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
40	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
41	White Pine, Pinus strobus	12"	Poor	Wound on base and stem, crown reduce	L
42	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
43	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
44	White Pine, Pinus strobus	15"	Fair	Crown reduce	L
45	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
46	White Pine, Pinus strobus	20"	Poor	Severely crown reduce or cut down. Seam in trunk, hollow	H
47	White Pine, Pinus strobus	14"	Fair	Crown reduce	L
48	White Pine, Pinus strobus	22"	Fair	Crown reduce, leaning	H
49	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
50	White Pine, Pinus strobus	26"	Fair	Crown reduce	L
51	White Pine, Pinus strobus	26"	Fair	Crown reduce	L
52	White Pine, Pinus strobus	10"	Fair	Crown reduce	L
53	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
54	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
55	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
56	White Pine, Pinus strobus	17"	Fair	Crown reduce, wound at base	L
57	White Pine, Pinus strobus	18.5"	Fair	Crown reduce	L
58	White Pine, Pinus strobus	5"	Fair	Replacement tree – spacing does not match historic configuration	M
59	White Pine, Pinus strobus	5"	Fair	Replacement tree – spacing does not match historic configuration	M
60	White Pine, Pinus strobus	6"	Fair	Crown reduce	L
61	White Pine, Pinus strobus	22"	Fair	Crown reduce for weight reduction, co dominant stem, heavy on one side	H
62	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
63	White Pine, Pinus strobus	18"	Poor	Hollow, light canopy	–
64	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
65	White Pine, Pinus strobus	20"	Poor	Cut down – tear from storm damage on one side	H
66	White Pine, Pinus strobus	18"	Poor	Crown reduce, hollow	M
67	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
68	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
69	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
70	White Pine, Pinus strobus	18"	Fair	Crown reduce – hollow, lean, heavy crown	H

Map ID#	Plant Indentification	DBH	Condition	Recommentation	Priority H/M/L
71	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
72	White Pine, Pinus strobus	9"	Fair	Crown reduce	L
73	White Pine, Pinus strobus	16"	Dead	Snag – retain to mark spot for future replacement	L
74	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
75	White Pine, Pinus strobus	20"	Dead	Crown reduce	L
76	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
77	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
78	White Pine, Pinus strobus	18"	Dead	Uprooted tree – clean up and replace in kind	M
79	White Pine, Pinus strobus	18"	Dead	Uprooted tree – clean up and replace in kind	M
80	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
81	White Pine, Pinus strobus	24"	Fair	Crown reduce	L
82	White Pine, Pinus strobus	21"	Fair	Crown reduce	L
83	White Pine, Pinus strobus	11"	Dead	Snag – retain to mark spot for future replacement	L
84	White Pine, Pinus strobus	12"	Fair	Crown reduce	L
85	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
86	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
87	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
88	White Pine, Pinus strobus	22"	Fair	Crown reduce, damaged stem	M
89	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
90	White Pine, Pinus strobus	19"	Poor	Crown reduce, co-dominant stem with steam	L
91	White Pine, Pinus strobus	24"	Fair	Crown reduce	L
92	White Pine, Pinus strobus	18"	Fair	Crown reduce, wounds on stem, hollow	H
93	White Pine, Pinus strobus	19"	Poor	Crown reduce, broken top	L
94	White Pine, Pinus strobus	12"	Dead	Snag – retain to mark spot for future replacement	L
95	White Pine, Pinus strobus	26"	Fair	Crown reduce	M
96	White Pine, Pinus strobus	17"	Poor	Crown reduce	M
97	White Pine, Pinus strobus	27"	Fair	Crown reduce	L
98	White Pine, Pinus strobus	21"	Fair	Crown reduce, co-dominant stem	L
99	White Pine, Pinus strobus	20"	Poor	Crown reduce, hollow, wound on stem	H
100	White Pine, Pinus strobus	5"	Poor	Replacement tree – spacing does not match historic configuration	M
101	White Pine, Pinus strobus	18"	Fair	Crown Reduce	L
102	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
103	White Pine, Pinus strobus	21"	Fair	Crown reduce	L
104	White Pine, Pinus strobus	17"	Poor	Crown reduce	L
105	White Pine, Pinus strobus	17"	Fair	Crown reduce	L

Map ID#	Plant Indentification	DBH	Condition	Recommentation	Priority H/M/L
106	White Pine, Pinus strobus	23"	Dead	Snag – retain to mark spot for future replacement	L
107	White Pine, Pinus strobus	13"	Fair	Crown reduce	L
108	White Pine, Pinus strobus	27"	Poor	Crown reduce	L
109	White Pine, Pinus strobus	15"	Fair	Crown reduce	L
110	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
111	White Pine, Pinus strobus	16"	Fair	Crown reduce	L
112	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
113	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
114	White Pine, Pinus strobus	18"	Poor	Crown reduce, hollow at base	M
115	White Pine, Pinus strobus	25"	Fair	Crown reduce	L
116	White Pine, Pinus strobus	14"	Fair	Crown reduce, hollow at base	M
117	White Pine, Pinus strobus	26"	Fair	Crown reduce	L
118	White Pine, Pinus strobus	17"	Fair	Crown reduce, lean	M
119	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
120	White Pine, Pinus strobus	5"	Poor	Replacement tree – spacing does not match historic configuration	M
121	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
122	White Pine, Pinus strobus	13"	Fair	Crown reduce	M
123	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
124	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
125	White Pine, Pinus strobus	18"	Fair	Crown reduce	L
126	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
127	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
128	White Pine, Pinus strobus	14"	Poor	Crown reduce, hollow at base	H
129	White Pine, Pinus strobus	24"	Fair	Crown reduce	L
130	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
131	White Pine, Pinus strobus	26"	Fair	Crown reduce	H
132	White Pine, Pinus strobus	36"	Fair	Crown reduce, top half of the tree is broken	M
133	White Pine, Pinus strobus	24"	Fair	Crown reduce	L
134	White Pine, Pinus strobus	13"	Dead	Snag – retain to mark spot for future replacement	H
135	White Pine, Pinus strobus	25"	Fair	Crown reduce	L
136	White Pine, Pinus strobus	19"	Poor	Crown reduce	M
137	White Pine, Pinus strobus	24"	Poor	Crown reduce	M
138	White Pine, Pinus strobus	16"	Poor	Crown reduce, hollow at base	L
139	White Pine, Pinus strobus	20"	Poor	Crown reduce, high risk – hollow and leaning	H
140	White Pine, Pinus strobus	24"	Fair	Crown reduce	L
141	White Pine, Pinus strobus	21"	Fair	Crown reduce, very heavy top with lean	H

Map ID#	Plant Indentification	DBH	Condition	Recommentation	Priority H/M/L
142	White Pine, Pinus strobus	10"	Poor	Crown reduce, hollow at base	M
143	White Pine, Pinus strobus	21"	Fair	Crown reduce	M
144	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
145	White Pine, Pinus strobus	22"	Fair	Crown reduce	L
146	White Pine, Pinus strobus	14"	Poor	Crown reduce	L
147	White Pine, Pinus strobus	18"	Fair	Crown reduce, hollow at base	L
148	White Pine, Pinus strobus	18"	Fair	Crown reduce	M
149	White Pine, Pinus strobus	19"	Fair	Crown reduce	L
150	White Pine, Pinus strobus	16"	Fair	Crown reduce	L
151	White Pine, Pinus strobus	16"	Poor	Crown reduce, hollow at base	H
152	White Pine, Pinus strobus	23"	Fair	Crown reduce, heavy top	M
153	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
154	White Pine, Pinus strobus	16"	Poor	Cut down, hollow at base	M
155	White Pine, Pinus strobus	12"	Fair	Crown reduce	L
156	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
157	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
158	White Pine, Pinus strobus	19"	Dead	Snag – retain to mark spot for future replacement	L
159	White Pine, Pinus strobus	22"	Fair	Crown reduce, heavy top	M
160	White Pine, Pinus strobus	20"	Fair	Crown reduce	L
161	White Pine, Pinus strobus	28"	Dead	Snag – retain to mark spot for future replacement	L
162	White Pine, Pinus strobus	22"	Fair	Crown reduce, leaning and newly exposed	H
163	White Pine, Pinus strobus	19"	Fair	Crown reduce, heavy top	M
164	White Pine, Pinus strobus	22"	Fair	Locust leaning on tree – high risk, cut down locust	H
165	White Pine, Pinus strobus	23"	Fair	Crown reduce, leaning, heavy top	H
166	White Pine, Pinus strobus	28"	Fair	Crown reduce, tall tree with heavy top	M
167	White Pine, Pinus strobus	28"	Fair	Crown reduce, tall tree with heavy top	M
168	White Pine, Pinus strobus	14"	Dead	Snag – retain to mark spot for future replacement	H
169	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
170	White Pine, Pinus strobus	26"	Fair	Crown reduce	L
171	White Pine, Pinus strobus	29"	Fair	Crown reduce, tall tree with heavy top, leaning	M
172	White Pine, Pinus strobus	15"	Poor	Crown reduce	L
173	White Pine, Pinus strobus	13"	Dead	Snag – retain to mark spot for future replacement	H
174	White Pine, Pinus strobus	23"	Fair	Crown reduce	L
175	White Pine, Pinus strobus	25"	Fair	Crown reduce	L
176	White Pine, Pinus strobus	17"	Fair	Crown reduce	L
177	White Pine, Pinus strobus	21"	Fair	Crown reduce, exposed tall tree, heavy on one side	M



NOTES

- This map corresponds with a Pine Allee Assessment Report, also prepared by Tree Specialists.
- Using the spacing of the existing White Pine as a guide, the trees are planted in double rows. In all four rows, the trees are located approximately 10 feet apart. The double rows are staggered in their spacing, creating a triangular spacing arrangement.
- The path is 10 feet wide, plus or minus.
- Missing (M) poses an assumption that trees were once planted in this way. When or how they did not survive is unkown.
- The M's marking the proposed locations do not suggest a recommendation for replanting. It is simply a way of quantifying the gaps.

KEY

- 165 Existing White Pine
- 182 Missing (M)
- 9 Stump (St)
- 2 Fallen/Uprooted Trees
- 7 Snags (Sn)
- White Pine Saplings
- Wooded Border

Lone Tree Hill

Judith K. Record Memorial Conservation Fund

Pine Allee Assessment

May 2015

Tree Specialists, Inc.
Conservation | Preservation | Restoration
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