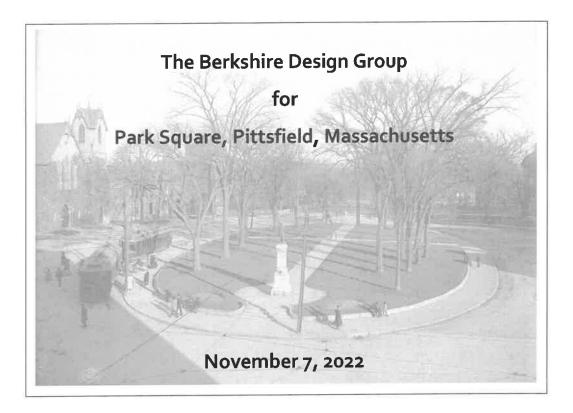
Existing Tree Inventory and Assessment Report

Prepared for



PREPARED BY: DAVID C. HAWKINS, CONSULTING ARBORIST URBAN FORESTRY SOLUTIONS, INC.

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Summary

Thirteen trees in Pittsfield's Park Square were assessed for health, risk and safe useful lifespan after a November 8, 2022, onsite meeting with James McGrath from Pittsfield Community Development Office, members of Pittsfield's Park's Department and a representative of Pittsfield Beautiful. In addition to the tree assessment, there were discussions on the future plans for this park including a suitable replacement elm for the center of the park, a permanent verses temporarily annual Christmas tree, possible transplanting of two weeping cherries from the west section of the park to the east garden area, a suitable crabapple variety for the eastern most section of the park's 'tear drop' design (see Site Illustrations Page 4), and the benefits of installing composted woodchip mulch around the base of the larger shade trees. These topics, in addition to the assessment data are included in this report.

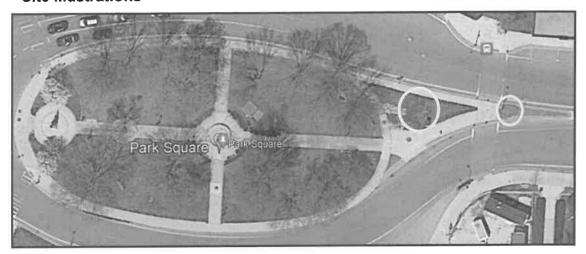
The assessment data is in an Excel spreadsheet that lists a tree number unique to that tree, tree species, trunk diameter (DBH¹), condition, noticeable defects, maintenance needs, relevant notes for that tree (see Field Data table on page 5). The individual tree numbers correspond with the spreadsheet data and round aluminum tags affixed to each the 13 trees assessed. These tags are located on the trees' east side at a height of 6 to 8 feet. The exception are the two weeping cherries where the tags are attached to a branch on the crown's east side.

The Site Illustrations on the next page show the numbered trees on a base map of the park and an aerial view of the park showing the current design.

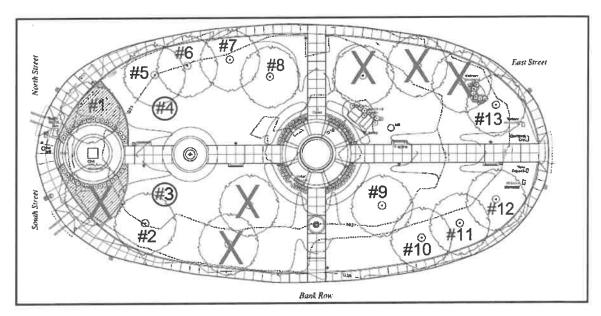
¹ DBH: diameter of the trunk measured 4.5 feet high or where is best represents the trunk's diameter. Trees less than 6 inches diameter were measure at 12 to 18 inches high.



Site Illustrations



Google Earth Aerial Image (2014) showing the current park configuration. The east garden area and proposed crabapple locations are circled.



Base plan (1999) provided by Berkshire Design with trees located. The 'X' trees have subsequently been removed. The existing trees are numbered in the sequence they were assessed.

Field Data

200	Designation of	75	100 T 1	7 30 C 10	Maint	LUCK C. LEWY LO B. C. LOWER B.	
No.	Location	DBH	Cond	Defects	Needs	Notes	
1	Callery Pear (Pyrus calleryana	12.0	Dead		Remove	Tree is dead	
2	Red Oak (Quercus rubra)	42.0	Good	Deadwood	Prune	Small to large deadwood throughout crown - some over road	
3	Weeping Flowering Cherry (Prunus pendula)	4.5	Good	None	None	Consider transplanting to east garden area. Recommend bare root transplant method using water and compressed air excavation	
4	Weeping Flowering Cherry	3.5	Good	None	None	Consider transplanting to east garden area. Recommend bare root transplant method using water and compressed air excavation	
5	Red Oak (Quercus rubra)	29.0	Good to Excellent	Deadwood; trunk seam	Prune	Small deadwood throughout crown. Trunk seam 7 to 20 ft. high on east side. Appears superficial. Sounded solid	
6	Red Oak	25.5	Good to Excellent	Minor deadwood	Prune	Small deadwood throughout crown.	
7	Sugar Maple (Acer saccharum)	19.0	Fair to Poor	Deadwood; cavity; decay	Remove	Trunk decay and cavity east side. Poor tree architecture - deadwood, dieback on east leader. Prune deadwood if retained.	
8	Sugar Maple	28.0	Fair	Deadwood; decay; dieback	Prune; Fertilize	Deadwood. Low vigor. Decay in 8" branch east side at 25'. Clear light	
9	Sugar Maple	32.5	Fair to Good	Large deadwood	Prune; Fertilize	Deadwood. Low vigor. Some top dieback	
10	Sugar Maple	19.0	Fair to Poor	Deadwood; dieback; no root collar	Prune, fertilize, and airspade or remove tree	30 to 40 percent dead. In decline. No root flare. If retained, airspade to expose root collar, prune and fertilize. Possible girdling roots below surface	
11	Red Oak	25.0	Good to Excellent	Minor lean	Prune	Prune low limbs over road. Weight and lean to road.	
12	Red Maple (Acer rubrum	11.0	Good	Small deadwood. No root crown	Airspade to expose root crown	Suppressed by Tree #11. Possible girdling roots below surface	
13	Red Maple	20.0	Fair to Good	Deadwood; Large lateral leader. Excessive weight	Prune	Prune deadwood and to reduce weight of south leader. Clear light	

Field Discussion Responses

Elm Replacement Cultivars

The space that previously contained an elm cultivar is in a prominent part of the park and suitable for a medium to large sized tree. The only limitation is the actual amount of soil space which, if limited to the area surrounding the planting spot could affect the tree's longevity and limit the new tree's size. Nevertheless, here are three medium to large elm cultivar species that have excellent resistance to Dutch elm disease and moderate to good resistance to elm leaf beetle and elm yellows.²

- Pioneer (Ulmus 'pioneer')
- Prairie Expedition (Ulmus americana 'Lewis and Clark')
- Triumph (Ulmus 'Morton Glossy). I like this one.

Permanent Verses Annual Christmas Tree

An annual evergreen Christmas tree has traditionally been cut down in one part of the city and transported to the northeast quadrant of the park for the holiday season. The advantage of this is the immediate gratification of a large tree that is noticeable from a far distance. The disadvantages associated with a temporary tree is that it is labor intensive requiring cooperation and organizing with multiple city departments. Large evergreen trees may also not always be available and complaints regarding cutting down a tree for that purpose and then disposing of it after the holidays have occurred.

Planting a permanent Christmas tree will not be as labor and equipment intensive (after the initial planting) and readily available for lighting for many seasons. The disadvantage is it will likely have to start out as a comparatively smaller tree – perhaps 15 to 20 feet in height which translates to a 6-to-8-inch diameter tree. It will also have to be maintained just as any new tree planting – especially the first 2 or 3 years until it gets established on the site. Underground utilities may also prevent a hole large enough to accommodate a tree of that size.

If a permanent tree is to be planted, I would recommend a spruce variety — either Colorado Blue (Picea pungens) or White (Picea glauca). They have a dense form, retain their conical shape, and grow well in this area. Alternatives to spruce are Concolor Fir (Abie concolor), Douglas Fir (Pseudotsuga menzeisii) or Fraser Fir (Abies fraseri). There are local and regional large tree moving companies that may have large sizes of the above species.

² More cultivars with a detailed description for each can be found at: Elm cultivars | The Morton Arboretum



Transplanting the Weeping Cherries

The two weeping cherries are in the west section of the park close to or under the crowns of larger shade trees. Typically, these trees are planted as a feature tree in the landscape but in their present location seem somewhat suppressed or overshadowed by the larger trees. One area where they would stand out as is in the east garden area where presently ornamental grasses are growing. Once the grasses are removed, there would be enough space for both trees. One limitation to this would be the presence of underground utilities in that area.

It was originally discussed that using a tree spade to transplant the trees might be the best option. After inspecting the trees, I would recommend bare root transplanting. Both trees have a root system dominated by one large root that spreads well beyond the drip line and into the lawn area. A tree spade would sever this at or inside the drip line leaving a significant portion of the root behind – possibly enough to cause the tree to dieback over time. Underground utilities at the present and proposed location may also impede this process.

Bare root transplanting involves pneumatic air excavation which retains near 100 percent of the root system, only goes as deep as the roots (usually around 18 inches), results in a shallow planting hole and does not need heavy equipment to move the trees once bare rooted. Trees this size could be moved by hand with two or three people. The equipment consists of a 185 CFM compressor, hose and an Airspade or Airknife and a large quantity of water to saturate the soil around the roots. The Airspade/Airknife tools are specifically designed to remove soil from roots with minimal damage. Once the roots are exposed, the tree can be easily moved to the new spot where a shallow hole will accommodate the tree without concern for underground utilities. An example of a tree similar in size to the cherries is show below.



Crabapple Variety

Dawn from Pittsfield Beautiful recommended a Sargent Crabapple (Malus sargentii) for the east teardrop garden. A concern with all Malus species is the susceptibility to apple scab and other foliar blight diseases. Sargent crabapple appears to be mostly resistant to these. It's size, white or pink flowers in the spring, and fall fruit will suit this spot. The only other concern is exposure to road salt which it has a low to moderate tolerance. Planting the tree higher on a berm or mound, may reduce this exposure.

Addition of Mulch Around Existing Shade Trees

My recommendation for all urban shade and ornamental trees is to install partially composted woodchips around the tree's base – extending as far from the trunk as possible. This will eliminate damage from weedwackers, incidental mower contact, reduce competition with grass for water and nutrients, mitigate soil compaction, provide organic matter to the soil, retain soil moisture longer during dry periods and moderate soil temperature during the dormant seasons. The downside of mulch is it takes away useable lawn area, can be messy if foot traffic is in the area and it needs to be replaced periodically. Composted wood chips are also not as aesthetic as most landscape bark mulch, but this can be fixed with a thin layer of ornamental mulch if that is a concern.

Site Photographs with Tree Numbers





Tree #1. Dead pear

Tree #2. Red oak in good condition.



Tree #3. One of 2 cherries proposed for Transplant. Circled is the large root referred To earlier.





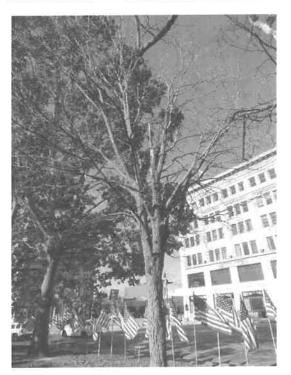
Tree #4. Second cherry proposed for
Transplant. Circled is the large root referred
To earlier. Note right side of the tree is
Sparse due to the canopy of the adjacent
Tree.







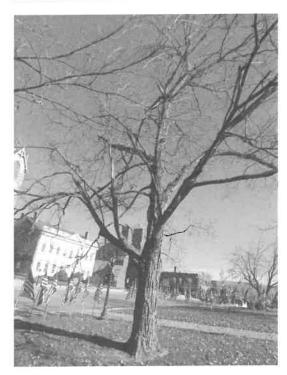
Tree #5. Red oak in good/excellent condition Tree #6. Red oak. Good/excellent condition





Tree #7. Sugar maple in fair to poor condition. Open cavity and decay in main trunk which extends 8 inches deep.





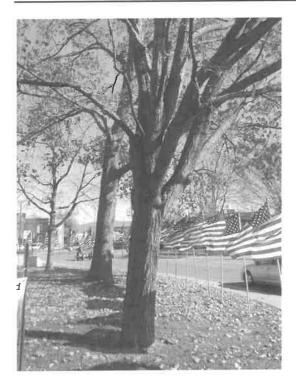


Tree #8. Sugar maple in fair condition. Deadwood and some decline. Note branch with a cavity and decay over walkway (right).





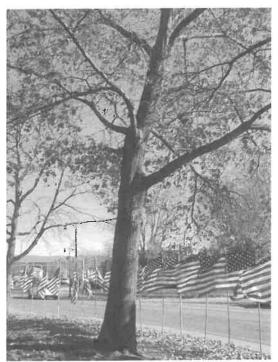
Tree #9. Sugar maple in fair/good condition. Deadwood and some decline. Also, minor decay on the main trunk (right).





Tree #10. Sugar maple in fair to poor condition. Deadwood and top dieback. Tree appears to be in decline. The presence of no root flare (below) could indicate girdling or encircling roots that may be restricting nutrient transport. This usually occurs when a tree is planted too deep.







Tree #11. Red oak in good/excellent condition. Tree #12. Red maple in good condition.

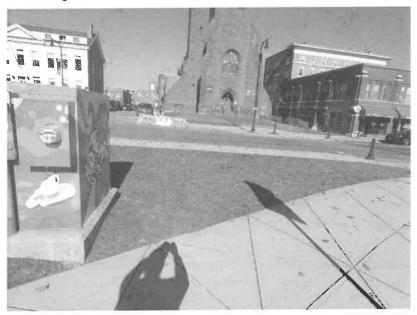




Tree #13. Red maple in fair/good condition. Some deadwood and dieback. Note left leader (right) appears dominant with a lean and weight to the south. This could be problematic as the tree grows and the limb gets heavier. Weight reduction pruning on the branch ends would reduce the risk of failure.



East garden area and proposed cherry transplant location



East 'tear drop' area and proposed location for the crabapple.

Disclaimer

By the nature or their size, weight and miscellaneous structure, constant exposure to the weather and the elements, susceptibility to insect's pest and decay organisms, use as homes to birds and animals and other reasons, trees always pose an inherent degree of hazard and risk from breakage, failure and other causes and conditions.

Recommendations made by Urban Forestry Solutions, Inc. are intended to minimize, reduce or eliminate hazardous conditions associated with trees. However, there is not, and can never be, any guarantee or certainty that these recommendations will totally correct unsafe conditions or prevent failure or breakage of a tree, or that conditions will not change.

The recommendations carried out as stated, should reduce the risk but they cannot completely eliminate it (except when the tree is removed), especially in the event of future growth, further deterioration, subsequent insect attacks, extreme weather conditions, eternal factors, (lightning strikes, fallen objects, vehicular damage, act.), storms or other acts of God or man.

Certification

I certify the statements in this report are, to the best of my knowledge, true, accurate and represent my professional opinion.

-MK-

Date November 10, 2022

David C. Hawkins, Consulting Arborist

ISA Board Certified Master Arborist
ISA Tree Risk Assessor Qualification
Massachusetts Certified Arborist
Rhode Island Licensed Arborist
Member: The Tree Care Industry

Member: American Society of Consulting Arborists

Registered Consulting Arborist

Member: Mass. Tree Wardens' and Foresters' Assoc

Executive Board Member

#NE-0541B TRAQ March 2014, Renewed Oct. 2018 MCA #1425 License. #969

RCA #743

Pittsfield Park Square

Pittsfield, MA

Prepared for:

City of Pittsfield Office of Community Development 70 Allen Street Pittsfield, MA 01201



ATTAINED ATT

Locus

Prepared by:



Landscope Architecture Civil Engineering Planning

4 Allen Place, Northampton, Massachusetts 01060 Tel (413) 582-7000 • FAX (413) 582-7005 December 16, 2022 REVIEW SET

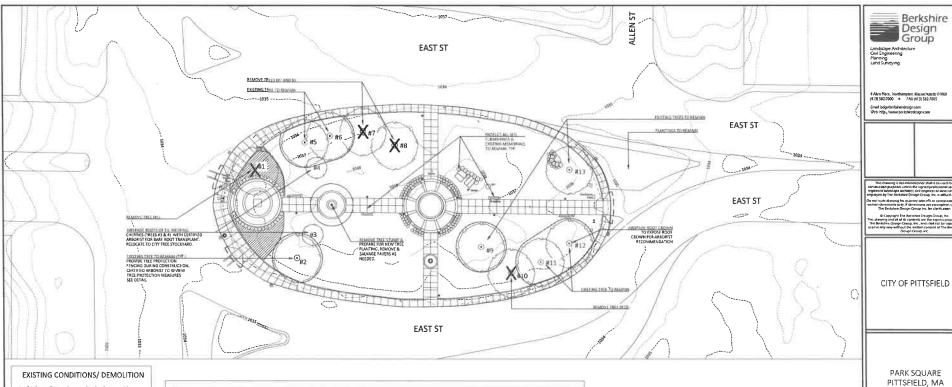
Sheet Index:

Cover Page

LC-101 Existing Conditions & Demolition Plan

LC-121 Site Layout & Planting Plan

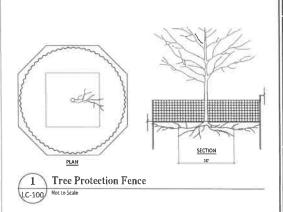
LC-501 Site Details



- Existing conditions and topography taken from a partial field survey by Berkshire Design Group, Northampton, MA.
- 2. Project benchmarks are indicated on the plan sheets.
- The Contractor shall be responsible for a thorough size examination to determine the extent of demolition necessary to prepare the sits for construction and shall verify all items to be demolished or salvaged with the Landscape Architect prior to beginning work.
- Care shall be taken not to damage any items designated to remain; repair or replacement of damaged litems designated to remain shall be at the Contractors' expense.
- 5. Disposal of property designated to be removed shall be at the direction of the Landscape Architector Owner, and shall conform out all applicable leava and regulations. All salvagobie material shall be delivered by the Contractor strongs areas sedigitated by the Landscape Architector. Sociological Conformation of the Contractor of the Immove all existing unsufrable materials from the abit.

- The Contractor shall use temporary fencing to control the site during construction. Prior to the finalization of the project, the Contractor shall remove all temporary fencing and barricades.
- 9. The locations of eaithing underground utilities we shown in a sporounate way only based on available data and all unifies may not be shown. Prior to consociation, the unifies may not be shown. Prior to consociation, the request utilities to be metaled on the ground. The consociation all the responsible for determining the vacci for the contractor agrees to be fully responsible for any and all cranges which highly be occasioned by shifter facilities and increases when highly be occasioned by shifter facilities and increases which highly be occasioned by shifter facilities and prevent any net all cutilities prevented in the contractor and prevent any net all cutilities prevented in the contractor of t

	IFICANT TREES - AS AS			OFFFCTS		NOTES
No.	SPECIES	CALIPER/DBH	CONDITION		MAINTENANCE NEEDS	
1.	Callety Pear (Pyrus calletyana)	12*	Dead	None	Remove	Tree is dead
2.	Red Oak (Querous rubra)	424	Good	Deadwood	Prune	Small to large deadwood throughout crown - some over road
3.	Weeping Cherry (Prunus pendula)	4,5"	Good	None	Refocate	Consider transplanting to east garden area. Recommend bare noot transplant method using water and compressed air excavation.
4.	Weeping Charry (Prunus pendula)	3.54	Good	None	Relocate	Consider transplanting to sest garden area. Recommend bare root transplant method using water and compressed air excavation.
5.	Red Oak (Quercus rubra)	29"	Good to Excellent	Deadwood; trunk seam	Prune	Small trumk deadwoodthroughout crown Trunk seam 7 to 20 it high on east side, Appears superficial. Sounded solid.
6.	Red Oak (Quercus rubra)	25.5*	Good to Excellent	Minor deadwood	Prune	Small deadwood throughout crown.
7.	Sugar Maple (Acer saccharum)	19"	Fair to Poor	Deadwood; cavity; decay	Remove	Trunk decay and cavity sest side. Poor tree architecrture - deadwood, dieback on east leader. Prune deadwood if not retained.
8.	Sugar Maple (Acer sectharum)	28"	Fair	Deadwood; decay; dleback	Remove	Deadwood. Low vigor. Decay in 8° branch east side at 25'. Clear light.
9.	Sugar Mapie (Acer saccharum)	32.5*	Fair to Good	Large deadwood	Prune; Fertifize	Deadwood. Low vigor. Some top dieback,
10.	Sugar Maple (Acer seccharum)	19*	Fair to Poor	Deadwood; dleback; no root coller	Remove	30-40% dead/ in decline, No root flare. If retained, efrspade to expose root collar, prune and fertilize. Possible girdling roots below surface.
11.	Red Oak (Quercus rubra)	25"	Good to Excellent	Minor lean	Pruna	Prune low limbs over road. Weight and lean to road.
12.	Red Maple (Aver rubrum)	11"	Good	Small deadwood; no root crown	Airspade to expose root srown	Supressed by Tree #11. Possible girdling of roots below surface.
13.	Red Maple (Acer rubrum)	20*	Fair to Good	Deadwood; large lateral leader; excessive weight	Prune	Prune deadwood and reduce weight of south leader, Clear light.



EXISTING CONDITIONS AND DEMOLITION PLAN



Date: December 16, 2022 Sheet Number

MET LC-101

