

**PRE-CONSTRUCTION TREE SURVEY, TREE RISK ANALYSIS &
RECOMMENDATIONS FOR BEST MANAGEMENT PRACTICES
REPORT**

**WOODBURY AND ONAWAY ELEMENTARY SCHOOLS
15400 S WOODLAND ROAD AND 3115 WOODBURY ROAD
SHAKER HEIGHTS, OH 44120**



PREPARED FOR:

Shaker Heights City Schools
15600 Parkland Drive
Shaker Heights, OH 44120

PREPARED BY:

Andrew C. Pratt, M. Bio.
ISA Certified Arborist/Tree Risk Assessor
The Dirty Horticulturist, LLC
www.thedirtyhorticulturist.com

December 5, 2024

Table of Contents

EXECUTIVE SUMMARY

1.0	INTRODUCTION	1
1.1	Detailed Scope-of-Services.....	1
1.2	Study Limitations.....	1
1.3	User Reliance.....	1
2.0	SITE INVENTORY AND ASSESSMENT	3
2.1	Comprehensive Tree & Shrub Inventory and Assessment	3
2.2	Surface and Subsurface Concerns.....	5
2.3	Field Deviations.....	5
3.0	PROFESSIONAL OPINION AND RECOMMENDATIONS	6
3.1	Potential Significant Impacts to Existing Tree Specimens	6
3.2	Recommendations/Best Management Practices	6
4.0	LIMITATIONS AND EXPLANATION OF ASSESSMENTS	9
5.0	CERTIFIED ARBORIST STATEMENT	10

Tables

Table 1 Tree Assessment Summary

Appendices

Appendix A Tree Identification Maps
Appendix B Detailed Tree Reports
Appendix C Tree Health Overview
Appendix D Tree Priority
Appendix E Tree Protection Zones
Appendix F Critical Root Zones
Appendix G Current Risk Rating of Trees

Appendices have previously been submitted to the City of Shaker Heights. They have not been included in this submission due to size. However they are available upon request.

1.0 INTRODUCTION

The Dirty Horticulturist, LLC (DH) was retained by Shaker Heights City Schools to provide arboricultural consulting expertise prior to the construction of building renovations on the western portion of Onaway and Woodbury Elementary Schools (3115 Woodbury Road and 15400 South Woodland Road, respectively) in Shaker Heights, Cuyahoga, Ohio, USA (the Site). The report was prepared by DH for Shaker Heights City Schools in accordance with the proposal date October 21, 2024, and in general conformance with the scope and limitations of the International Society of Arboriculture’s (ISA) standards. Exceptions to, or deletions from, this practice are described in this report. The findings, opinions and conclusions presented in the executive summary should be considered in context with this report as a whole.

1.1 Detailed Scope-of-Services

The scope of work was to complete a site tree inventory and recommend best management practices to minimize and mitigate surface and subsurface damage to trees on the western portion of the above-referenced Site during construction. DH conducted a site visit with a comprehensive inventory and analysis and review of potential construction conflict issues in general conformance with the scope and limitations of ISA standards, more specifically, American National Standards Institute (ANSI) A300 Tree Care Standards. In addition, the health of all trees, unless deemed free of visually or acoustically identifiable defects or determined to be marked for removal, were assessed via ISA’s Level 2 Tree Risk Assessment standards.

As specified in the agreed upon scope of work, an ISA Level 3 Tree Risk Assessment was not conducted as part of this initial Scope of Work, as the assessor was not initially aware of trees in need of the aforesaid Level 3 analysis of the Site before conducting their survey.

1.2 Study Limitations

DH shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by the client at the time this assessment was performed. In addition, the findings and opinions expressed in this report are subject to certain conditions and assumptions, which are noted in the report. Any party reviewing the findings of the report must carefully review and consider all such conditions and assumptions.

This report and all field data and notes were gathered and/or prepared by DH in accordance with the agreed upon scope of work and generally accepted scientific practices in effect at the time of DH's assessment of the Site. No assessment can wholly eliminate uncertainty regarding risk in connection with the trees. The assessment is intended to reduce, but not eliminate, uncertainty regarding whether or not in connection with the Site. Per ANSI A300, 13.3.5., the tree risk assessor should inform the client that not all defects or conditions that predispose a tree or tree part to failure are detectable and not all tree failures are predictable.

1.3 User Reliance

This report was prepared pursuant to an agreement between Shaker Heights City Schools and DH and is for the exclusive use of Shaker Heights City Schools. No other party is entitled to rely on the conclusions, observations, specifications, or data contained herein without first obtaining DH's written consent and

provided any such party signs an DH-generated Reliance Letter. A third party's signing of the DH Reliance Letter and DH's written consent are conditions precedent to any additional use or reliance on this report.

The passage of time may result in changes in site conditions, which would render the report inaccurate. Reliance on this report after the date of issuance as an accurate representation of current site conditions shall be at the user's sole risk. Per ANSI A300 13.3.6, it shall not be the tree risk assessor's responsibility to select and implement the mitigation, schedule repeat or advanced assessments, or to schedule future monitoring and maintenance, unless included in the scope of work. In addition, per ANSI A300 13.7.1, The tree risk assessor should inform the client of the need for monitoring. Per ANSI A300 13.7.2 monitoring recommendations should be made based on the objective, targets, current level of risk, mitigation recommendations, and residual risk. Finally, per ANSI A300 13.6.4.1 recommendations to mitigate risk should contain a statement that not all risk associated with trees can be eliminated, so the aforesaid standards are statements, here within.

2.0 SITE INVENTORY AND ASSESSMENT

Mr. Andrew Pratt of DH conducted an assessment and inventory of all trees on the Site on multiple dates in October and November 2024. The assessment included inventorying and documenting pre-construction tree health based on ISA's Tree Risk Assessment, Level 2: Basic Standards which is a detailed visual inspection of a tree and its surrounding site, culminating in the provided synthesis of information. DH also recorded observations of the presence or likely presence of conditions that may pose an impact to trees during construction based on site analysis by identifying Tree Protection Zones (TPZ) per tree. The following sections summarize each task.

2.1 Comprehensive Tree & Shrub Inventory and Assessment

A comprehensive tree inventory with general health assessment (pre-construction) of all trees on the western portion of the Site was assessed via ISA's Tree Risk Level 2 Assessment standards. Tree identification maps are included in **Appendix A**.

TreePlotter Inventory™ was utilized to collect and analyze data for each individual tree species. TreePlotter Inventory™ is a comprehensive GIS tree management and tree inventory software application for field data collection and data management used by trained industry professionals.

Data collected included, but was not limited to, tree species, height, canopy width, and Diameter at Breast Height (DBH). A summary of the data collected is included in **Table 1**. A Level 2 Tree Risk Assessment was completed which included identifying mechanical defects and abnormalities of tree trunks/limbs, root issues, destructive insects, diseases, identifiable and potential decay sites, potential risks associated with the tree, target sites (people, structures, vehicles, etc.). A sounding mallet was used to attempt to identify localized decay in the tree along with a 12" tree probe. Other tools utilized included binoculars and a Nikon Forestry Pro II range finder. In addition, current and potential future site conditions were evaluated. A detailed summary report for each tree along with photographs is included in **Appendix B**. A general summary of health conditions (dead, poor, fair, good, and excellent) is depicted in **Appendix C**. Based on the results of the assessment, a tree priority map (**Appendix D**) was completed to depict a low, medium, high, or urgent need for intervention/suggested mitigation such as imminent maintenance needs, potential tree removal, or the need for further assessment (Level 3 Assessment). Refer to **Appendix B** for detailed information on recommended intervention.

Establishment of TPZ (**Appendix E**) and Critical Root Zones (CRZ) (**Appendix F**) were also recommended. According to ANSI A300 (2003) standards 9.10.1.3, the calculated TPZ should be defined based on:

- Species tolerance to construction activities;
- Tree size (e.g., trunk diameter); and,
- Relative age and current health.

Establishing TPZ and CRZ are imperative to the survivability of trees in or around construction sites or where the ground is disturbed or overlaid with objects or machinery. TPZ is a demarcated area in which the following activities should be avoided:

- Changing the grade (soil cuts and fills)
- Excavating of trenches

- Cuttings of roots
- Pedestrian or equipment traffic that could compact the soil or physically damage roots
- Parking or operation of personal or construction vehicles or equipment
- Burning of brush or other debris
- Storing soil, construction materials, petroleum products, water or building refuse
- Disposing of wash water, fuel, or other potentially damaging liquids

Important Note: DH attempted to designate a TPZ that strives to maintain tree health while not restricting construction activities; however, for the purpose of reporting, DH provided a TPZ required based on calculations for all trees, regardless of construction proximity. TPZ may be adjusted by DH, client, consultant, or construction project manager if in agreement, recognizing that subjecting select trees to these adjustments may result in deleterious effects on tree(s) up to and including death of trees.

Quercus palustris (pin oak), was the predominant tree found along Woodbury and Onaway Road, bordering the Site; therefore, the body of this report will primarily focus on these trees. The species has a medium to high tolerance to construction impacts, however, it should be noted that most of trees in this study received a health value of “Fair,” primarily due to the following:

- Damaged to buttress/lateral roots from previous severance of said roots for new sidewalk installations. Removing any of said roots within the CRZ can lead to stability issues and subject trees to failure during windthrow. Removal of said roots also leads to corresponding branch loss in the canopy and aid in general decline of trees as apparent to the discoveries of this study.
- Heartwood decay was suspected in many of the *Q. palustris* surveyed. Considering many of these trees exceed 100 years of age, it is assumed a tree of this age will have “some” degree of decay.
- Mechanical injury by machinery – a majority of the trees in this study were found to have medium-sized wounds from impacts caused by mowers, snowplows, and front-end loaders. These seemingly benign impacts can lead to the colonization of fungi at the wound site.
- Decay/butt rot fungi was noted on or near a portion of the trees in this study. Said fungi may rot roots of trees, leading to failure during windthrow events.
- Finally, many large limbs have been removed in previous years. As with mechanical injury, when one removes branches, it becomes a race against time to occlude (heal) the pruning wound before fungi may began to decay these sites. Many former branch sites have not healed over well leading to pockets of decay, which may as a result, spread deeper into the tree.

As a result of the current conditions of the trees, a TPZ/CRZ were calculated that slightly exceeds the requirements of a *Q. palustris* with moderate to high tolerance to construction disturbance. In addition, because of the impervious surface over one side of all street trees, a lower tolerance multiplier was used.

Furthermore, it is important to note that TPZ zones need not be circular in shape, depending on other site and environmental factors and may be adjusted by a Certified Arborist before and during the construction process.

In addition to TPZ, CRZ should be calculated per tree with a multiplier of approximately 1.5 x the DBH of a tree. For example, 32” DBH x 1.5” 48” / 12” = 4’ Absolutely no disturbance should occur in this zone, or trees may be subject to failure during windthrow events or precipitous decline and death. It should be noted that per ISA, there are no firm standards for determining CRZ per tree, however a multiplier between 1-1.5

x the DBH is commonly used as outlined above. Note: the minimum TPZ for any tree per ISA, should be 5' (radius from the center of a tree) so, ignore auto calculated TPZ's under 5' in the report.

This information was gleaned from ISA's Best Management Practices (BMP) – *Managing Trees During Site Development and Construction*.

2.2 Surface and Subsurface Concerns

Observations were made of the surface and subsurface concerns based on CRZ compared to DH's general limited knowledge of construction site plans.

2.3 Field Deviations

Level 2 assessment was not completed for the following conditions: trees in "good" or greater health with no observed deficiencies; trees in poor health AND under a certain stature with no risk or deemed deceased and no threat; and trees in "fair" condition with no visible, detectable, or suspected defects.

3.0 PROFESSIONAL OPINION AND RECOMMENDATIONS

This report presents the results of the assessment and inventory of trees located on the western portion of Onaway and Woodbury Elementary Schools (3115 Woodbury Road and 15400 South Woodland Road, respectively), Shaker Heights, Ohio, Cuyahoga County, Ohio, USA. The report has been completed in general accordance with the ANSI A300 Tree Care Standards and the scope of services as described in **Section 1.1** of this report. The findings, opinions and conclusions presented in this section should be considered in context with this report as a whole.

3.1 Potential Significant Impacts to Existing Tree Specimens

DH conducted a comprehensive inventory and analysis and review of existing plant (tree) material to prepare for potential construction conflict issues in general conformance with the scope and limitations of ISA standards, more specifically, ANSI A300 Tree Care Standards. In addition, the health of all trees was assessed via ISA's Tree Risk Assessment standards. Based on limited knowledge of potential site construction, and field discoveries, trees 11 through 19, 22 through 31, 141-153 are at greatest risk of harm during the construction process. A summary of risk ratings is depicted in **Appendix G**.

Based on current discoveries of decay, mechanical defects, current conditions, and potential for construction impacts, 17 trees – all *Quercus palustris* (pin oak) warrant a Level 3 Assessment to discover or refute existing levels of decay. The trees are as follows, tree IDs: 1, 2, 4, 6, 7, 11, 12, 13, 23, 24, 25, 30, 36, 39, 40, 41, 54. This said, identification of decay in trees does not necessitate or translate into the need to remove a tree, as the extent of decay, measurable structural loss of heartwood decay, mitigation options, and the client's acceptable level of risk, all factor into the decision to remove a tree. Trees can lose a measurable amount of sound wood and still remain standing.

During the inventorying/discovery phase of this project, the following trees are of greatest concern ranked in order from most concern to moderate concern: Trees #1, 25, 30, 23, 2, 4, 6, 7, 39, 24, 41, 44, 54. Note there is not a direct correlation between the trees of greatest concern when compared to trees recommended for a Level 3 Assessment, as there may be specific parts of a tree, such as a single branch that is of concern and not the whole tree. Concern was based on evaluating the tree holistically while in the field. Note: DH is not advocating for the removal of the aforementioned trees, unless explicitly stated in the provided field data.

3.2 Recommendations/Best Management Practices

The best management practices to minimize and mitigate surface and subsurface damage to trees include the following in no ranked order:

Preconditioning options:

1. Meet with the general contractor and agree on TPZ/CRZ limits and articulate the need to protect the existing trees during the construction project and the importance of the trees to the community and future site use. Discuss impacts to trees such as rinsing concrete trucks in vicinity of existing trees, etc.
2. Pre-emptively prune and remove all branches that will likely conflict with construction activities. **However, no *Quercus* species (oaks) should be pruned during the growing season between**

April 15th and October 1st. This includes removal of limbs, injury to trees, and/or exposed severed roots. If pruning of any type is absolutely necessary during the aforementioned growing season, it is imperative to dress the wounds. This can be completed by using latex paint, tree wound dressing, or covering roots immediately after severance.

3. Before construction begins, soil around that may be affected can be improved to bait new roots into the critical root zone and away from unprotected areas via aeration of soil using a pneumatic airspade.
4. A slow-release fertilizer used to encourage root growth should be applied within the critical root zone or via tree injections.
5. 4-6" of mulch may be applied in the TPZ to add organic matter to the soil and hold water avoiding placing mulch against tree trunks. A synthetic weed free barrier fabric may be installed first to make removal easier if the mulch will be removed after construction.
6. Providing supplemental water of one inch per week on the CRZ using soaker hoses or other water techniques will help maintain tree vigor while under stress and during a drought. A tensionmeter may be used to determine when soil moisture is less than adequate.
7. Establishing and installing barriers to create a TPZ set by DH and insist contractors abide by the limitations of the Zone.
8. Establishing a CRZ set by DH and insist contractors abide to the limitations of the Zone. The CRZ is a radius in which disturbance to the trees cannot occur, or determinantal results may be manifested within trees and their root system, leading to severe decline, death or need for removal.
9. **Chemical growth retardants that stimulate fine root production are highly recommended for any tree found within or near the construction site and may be applied between now and before construction begins.** These applications reduce adverse reactions in trees from construction disturbances including damage caused by sidewalk installations and have been successfully used by DH to mitigate damage and retain large trees found within similar construction sites.
10. To prevent soil compaction during construction, the following may be used: weight absorbing grid mats with or without perforation, geocell weight absorbing mats, or organic woodchip mulch barriers may be used to provide a thick, temporary barrier between the soil surface and machinery.
11. Air/gaseous exchange systems may be engineered and installed to offset soil/fill exceedances greater than 12" from the current soil surface. As a general industry principal, no more than 12" of organic substrate may be applied on top of existing soil surface as to not interfere with gaseous exchanges and water infiltration. Ideally all grade changes (raising or lowering the level of the soil) should occur outside the CRZ.
12. Substrates such as gravels, soil, etc. should be analyzed to ensure they do not negatively impact the soil pH of the existing tree inventory, which primarily consists of *Quercus palustris* (Northern pin oak), which requires acidic soil conditions ranging from a pH of 5.5-6.5.
13. Ground penetrating radar (GPR) may be used to determine exact spread and extent of roots on trees and may add in decision making for future playground installation. It's important to note that *Quercus palustris* (pin oak) develops a strong, deep taproot and fibrous root system.

14. Several trees on the Site may require treatment for iron chlorosis, an iron nutrient deficiency seen in plants growing in alkaline conditions.

During-construction the following is recommended by DH:

1. TPZ and CRZ monitoring 2x per day.
2. Consultation in-person or via Zoom/Teams video calls by DH if removing any roots encountered during construction, ensuring the most minimal impact to roots/trees. Highly recommend an arborist perform any root pruning, air excavation, or root trenching.

Post-construction the following is recommended by DH:

1. Root collar excavation and/or vertical mulching via air spading service. This process provides fracturing of the soil surface to loosen compacted soils allowing water/nutrient percolation to improve, improve gaseous exchange between atmosphere and roots, and introduce organic matter if desired. This process helps mitigate soil surface damage caused by compaction due to construction equipment.
2. Creating mulched zones around existing trees to prevent mechanical damage by mower, retain moisture, and introduce organic matter.

4.0 LIMITATIONS AND EXPLANATION OF ASSESSMENTS

Tree risk ratings are based on three main factors: the likelihood of failure, the likelihood that the failure will impact a target, and the severity of the impact. These factors are categorized according to ISA's BMP for Tree Risk Assessment, which classifies risk ratings as Extreme, High, Moderate, or Low. The factors influencing your tree's risk rating will be detailed in this report. Since trees can change over time, reassessment is advised annually and following major storms.

Property owners need to recognize that all trees carry some level of inherent risk. The information and recommendations in this report reflect the conditions identified during the inspection and are based on ISA guidelines. However, no risk rating or recommendations can completely eliminate the possibility of tree failure due to hidden conditions, weather events, or other unforeseen factors. Even without visible or detectable defects, trees do and can fail unpredictably. It is the owner's or manager's responsibility to arrange for future assessments, make decisions, and follow through on recommendations, including continued monitoring and mitigation.

DH does not guarantee or warrant the safety of any tree, regardless of the risk assessment level, risk rating, or despite any executed mitigation efforts. The information provided in a tree risk assessment is meant to assist the tree owner or manager in their decision-making process and is not intended as legal, architectural, engineering, or other professional advice. Tree risk assessments are simply tools to be used in conjunction with the owner's or manager's knowledge, observations, and careful decision-making.

Assessment for risk was based on current condition, current targets, current occupancy/use, and does not factor in future structures of recreational purpose. The value of a target and its consequences in the event of a limb, trunk, root or whole tree failure may change based on new occupancy rate/use and frequency of use.

Per ANSI A300, risk is the level of risk you, the property owner(s), are willing to assume. I, the assessor am not responsible for your identified risks nor mitigation of identified risks.

5.0 CERTIFIED ARBORIST STATEMENT

Mr. Andrew Pratt was the Certified Arborist for this project.



Andrew C. Pratt, M. Bio.
ISA Certified Arborist #OH6537A
ISA Tree Risk Assessor
Ohio Certified Nursery Technician – Master #500

December 5, 2024

Date

Citations:

American National Standard for Tree Care Operations – Tree, Shrub, Palm, and Other Woody Landscape Plant Management – Standard Practices (ANSI A300: 2023). American National Standards Institute, 2023.

Costello, Larry, Gary Watson, and Thomas Smiley. *Root Management: Best Management Practices*. ISA, 2017.

Digital BMP - Managing Trees During Site Development and Construction, Third Edition. 2023, International Society of Arboriculture.

Harris, Richard W. *Arboriculture: Integrated Management of Landscape Trees, Shrubs, and Vines*. 5th ed., Pearson, 2019.

International Society of Arboriculture. *Tree Inventories: Best Management Practices*. 2nd ed., ISA, 2013.

International Society of Arboriculture. *Best Management Practices: Root Management*. International Society of Arboriculture, 2017.

Luley, Christopher J. *Wood Decay Fungi Common to Urban Living Trees in the Northeast and Central United States*. Arborist Press, 2005.

Matheny, Nelda. *Trees and Development: A Technical Guide to Preservation of Trees During Land Development*. International Society of Arboriculture, 1997.

Watson, Gary, et al., editors. *The Landscape Below Ground IV*. 2020, International Society of Arboriculture.

TABLES

**Table 1
Tree Assessment Summary
Woodbury and Onaway Schools
Shaker Heights, OH**

Tree Id	Address	Common Name	Scientific Name	Priority	Condition	Tree Work-Pruning	Monitor	Tree Work-PHC	Tree Work-Other	DBH	Tree Height (Ft. Est.)	TPZ	CRZ	Crown Spread (Ft)	Overall Risk Rating	Mitigation Options	Residual Risk	Final/Preliminary
1	3115 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Poor	--	Yes	--	Remove	35.75	54	44.6875	4.46875	95	Low	Remove Tree	None	Preliminary - Need Level 3 or Other
2	3004 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	Nutrient/ Fertilize	--	35.5	60	44.375	4.4375	80	Low	Other	Low	Preliminary - Need Level 3 or Other
3	3004 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	34.5	60	43.125	4.3125	86	Low	Prune Branch(es)	Low	Final
4	3012 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	No	--	--	28	70	35	3.5	67	Low	Prune Branch(es)	Low	Preliminary - Need Level 3 or Other
5	3016 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	31.5	70	39.375	3.9375	70	Low	Prune Branch(es)	Low	Final
6	3016 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	36.5	70	45.625	4.5625	90.5	Low	Other	Low	Preliminary - Need Level 3 or Other
7	3016 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	34.75	70	43.4375	4.34375	90	Low	Other	Low	Preliminary - Need Level 3 or Other
8	3020 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	46	77	57.5	5.75	108	Low	Prune Branch(es)	Low	Final
9	3020 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	44	76	55	5.5	87	Low	Prune Branch(es)	Low	Final
10	3024 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	43	66	53.75	5.375	96	Low	Prune Branch(es)	Low	Final
11	3028 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	Nutrient/ Fertilize	--	37.5	63	46.875	4.6875	70	Low	Prune Branch(es)	Low	Preliminary - Need Level 3 or Other
12	3028 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	Nutrient/ Fertilize	--	35.5	67	44.375	4.4375	70	Low	Cable/Brace	Low	Preliminary - Need Level 3 or Other
13	3038 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	Chemical Systemic	--	47	73	58.75	5.875	101	Low	Prune Branch(es)	Low	Preliminary - Need Level 3 or Other
14	15400 South Woodland Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	Chemical Systemic	--	55	77	68.75	6.875	100	Low	Prune Branch(es)	Low	Final
15	15600 Parkland Drive	Pin oak	<i>Quercus palustris</i>	Low	Excellent	Deadwood	Yes	Cultural Control	--	36	54	45	4.5	85	Low	Prune Branch(es)	Low	Final
16	15600 Parkland Drive	Crabapple	<i>species</i>	Low	Fair	Crown Thin	Yes	--	--	13	22	16.25	1.625	36	Low	Prune Branch(es)	Low	Final
17	15600 Parkland Drive	Crabapple	<i>species</i>	Low	Fair	--	No	--	--	25.16	25	16.354	3.145	46	--	--	--	--
18	15400 S. Woodland Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Excellent	--	No	--	--	3	19	3.75	0.375	13	--	--	--	--
19	15400 S. Woodland Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Excellent	--	No	--	--	3	19	3.75	0.375	11	--	--	--	--
20	15400 South Woodland Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Good	--	No	--	Remove	13	35	16.25	1.625	30	--	Remove Tree	None	Final
21	15400 South Woodland Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Good	--	No	--	Remove	13	45	16.25	1.625	29	--	Remove Tree	None	Final
22	3028 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	41	68	51.25	5.125	82	Low	Prune Branch(es)	Low	Final
23	3028 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	33	70	41.25	4.125	77	Low	Other	Low	Preliminary - Need Level 3 or Other
24	3038 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	35	67	43.75	4.375	79	Low	Other	Low	Preliminary - Need Level 3 or Other
25	3038 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	Remove	39	63	48.75	4.875	86	Low	Remove Tree	None	Preliminary - Need Level 3 or Other
26	3042 Woodbury Rd.	Northern red oak	<i>Quercus rubra</i>	Low	Good	Structure Prune, Young Tree Training	No	--	--	6	21	7.5	0.75	22	--	--	--	--
27	3046 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	39	71	48.75	4.875	97	Low	Prune Branch(es)	Low	Final
28	3046 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	44	65	55	5.5	90	Low	Prune Branch(es)	Low	Final
29	3046 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	38	66	47.5	4.75	110	Low	Prune Branch(es)	Low	Final
30	15400 South Woodland Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	38	74	47.5	4.75	88	Low	Other	Low	Preliminary - Need Level 3 or Other
31	15400 South Woodland Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	45	71	56.25	5.625	88	Moderate	Cable/Brace	Low	Final
32	15400 South Woodland Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	38	61	47.5	4.75	67	Low	Prune Branch(es)	Low	Final
33	15400 South Woodland Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Fair	--	No	--	Remove	11	35	13.75	1.375	26	--	--	--	--
34	3070 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	41	74	51.25	5.125	91	Low	Prune Branch(es)	Low	Final

Table 1
Tree Assessment Summary
Woodbury and Onaway Schools
Shaker Heights, OH

Tree Id	Address	Common Name	Scientific Name	Priority	Condition	Tree Work-Pruning	Monitor	Tree Work-PHC	Tree Work-Other	DBH	Tree Height (Ft. Est.)	TPZ	CRZ	Crown Spread (Ft)	Overall Risk Rating	Mitigation Options	Residual Risk	Final/Preliminary
35	3076 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	No	--	--	39	75	48.75	4.875	78	Low	--	--	--
36	3082 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	42	70	52.5	5.25	76	Low	Other	Low	Preliminary - Need Level 3 or Other
37	3084 Woodbury Rd.	Slender Silhouette sweetgum	<i>Liquidambar styraciflua</i>	Low	Fair	Young Tree Training	No	--	--	4	23	8	1	5	--	--	--	--
38	3111 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	39	65	48.75	4.875	74	Low	Prune Branch(es)	Low	Final
39	3111 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	37	68	46.25	4.625	74	Low	Other	Low	Preliminary - Need Level 3 or Other
40	3111 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	39	61	48.75	4.875	81	Low	Other	Low	Preliminary - Need Level 3 or Other
41	3111 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	34	60	42.5	4.25	82	Low	Other	Low	Preliminary - Need Level 3 or Other
42	3111 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	41	63	51.25	5.125	86	Low	Prune Branch(es)	Low	Final
43	3106 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	Deadwood	Yes	--	--	27	47	33.75	3.375	53	Low	Prune Branch(es)	Low	Final
44	3106 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	High	Good	Deadwood	Yes	Chemical Systemic, Nutrient/ Fertilize	--	25	42	31.25	3.125	47	Low	Other	Low	Final
45	3106 Woodbury Rd.	Hedge maple	<i>Acer campestre</i>	Low	Good	Structure Prune, Young Tree Training	Yes	--	--	2	9	2.5	0.25	8	--	--	--	--
46	3116 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	22	45	27.5	2.75	42	Low	Prune Branch(es)	Low	Final
47	3116 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	31	48	38.75	3.875	71	Low	Prune Branch(es)	Low	Final
48	3122 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	28	53	35	3.5	55	Low	Prune Branch(es)	Low	Final
49	3126 Woodbury Rd.	Hybrid oak	<i>Quercus hybrid</i>	Medium	Fair	Structure Prune, Young Tree Training	No	--	--	4	25	5	0.5	6	--	--	--	--
50	3126 Woodbury Rd.	Red maple	<i>Acer rubrum</i>	Medium	Good	Structure Prune, Young Tree Training	No	--	--	3	10	3.75	0.375	11	--	--	--	--
51	3130 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	30	60	45	7.5	71	Low	Cable/Brace	Low	Final
52	3140 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Fair	Deadwood	Yes	--	--	33	62	49.5	8.25	72	--	Prune Branch(es)	Low	Final
53	3130 Woodbury Rd.	Northern red oak	<i>Quercus rubra</i>	Low	Dead	--	No	--	Remove	3	11	--	--	9	--	--	--	--
54	3115 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Medium	Fair	Deadwood	Yes	--	--	41	70	51.25	5.125	82	Low	Other	Low	Preliminary - Need Level 3 or Other
55	3115 Woodbury Rd.	Pin oak	<i>Quercus palustris</i>	Low	Good	--	Yes	--	Deadwood	32	68	40	4	72	--	--	--	--
56	3115 Woodbury Rd.	Northern hackberry	<i>Celtis occidentalis</i>	Low	Fair	Crown Thin, Structure Prune, Young Tree Training	No	--	--	2	9	2.5	2	8	--	--	--	--
57	3115 Woodbury Rd.	Oriental oak	<i>Quercus variabilis</i>	Low	Excellent	Young Tree Training	No	--	--	4	15	5	4	11	--	--	--	--
58	3115 Woodbury Rd.	River birch	<i>Betula nigra</i>	Low	Excellent	--	No	--	--	4	19	6	3	17	--	--	--	--
59	3115 Woodbury Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Good	--	No	--	Remove	8	20	10	2	21	--	--	--	--
60	3115 Woodbury Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Good	--	No	--	Remove	12	26	15	3	35	--	--	--	--
61	3115 Woodbury Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Fair	--	No	--	Remove	16	28	20	4	52	--	--	--	--
62	3115 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.33	8	2.9125	0.5825	12	--	--	--	--
63	3115 Woodbury Rd.	Northern bayberry	<i>Morella pensylvanica</i>	Low	Fair	--	No	--	--	2.57	9	3.2125	0.6425	13	--	--	--	--
64	3115 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	4.01	11	5.0125	1.0025	18	--	--	--	--
65	3115 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.02	8	3.03	1.01	14	--	--	--	--

Table 1
Tree Assessment Summary
Woodbury and Onaway Schools
Shaker Heights, OH

Tree Id	Address	Common Name	Scientific Name	Priority	Condition	Tree Work-Pruning	Monitor	Tree Work-PHC	Tree Work-Other	DBH	Tree Height (Ft. Est.)	TPZ	CRZ	Crown Spread (Ft)	Overall Risk Rating	Mitigation Options	Residual Risk	Final/Preliminary
66	3115 Woodbury Rd.	Northern bayberry	<i>Morella pensylvanica</i>	Low	Fair	--	No	--	--	4.66	9	5.825	2.33	18	--	--	--	--
67	3115 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	Crown Thin, Structure Prune	No	--	--	2.45	8	3.0625	0.6125	11	--	--	--	--
68	3115 Woodbury Rd.	Flowering dogwood	<i>Cornus florida</i>	Low	Good	--	No	--	--	1	7	2	1	5	--	--	--	--
69	3115 Woodbury Rd.	Flowering dogwood	<i>Cornus florida</i>	Low	Good	--	No	--	--	1	6	2	0.5	6	--	--	--	--
70	3115 Woodbury Rd.	Yellow buckeye	<i>Aesculus octandra</i>	Low	Excellent	--	Yes	--	--	28	58	42	7	67	--	--	--	--
71	3126 Woodbury Rd.	Northern red oak	<i>Quercus rubra</i>	Low	Fair	Structure Prune, Young Tree Training	Yes	--	--	2	12	2.5	0.25	5	--	--	--	--
72	3130 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Excellent	--	No	--	--	0.61	9	1.22	0.305	6	--	--	--	--
73	3115 Woodbury Rd.	Horsechestnut	<i>Aesculus hippocastanum</i>	Low	Good	--	Yes	--	--	21	30	31.5	5.25	45	--	--	--	--
74	3115 Woodbury Rd.	Sweetbay magnolia	<i>Magnolia virginiana</i>	Low	Good	--	No	--	--	2.24	20	3.36	1.12	20	--	--	--	--
75	3115 Woodbury Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Fair	--	No	--	Remove	30.19	36	37.7375	3.77375	67	--	--	--	--
76	3106 Woodbury Rd.	Sugar maple	<i>Acer saccharum</i>	Medium	Good	--	Yes	Chemical Systemic, Nutrient/Fertilize	--	9	30	11.25	1.125	31	Low	Other	Low	Final
77	3106 Woodbury Rd.	Sugar maple	<i>Acer saccharum</i>	Medium	Good	Structure Prune	Yes	Chemical Systemic, Nutrient/Fertilize	--	8	29	10	1	31	Low	Prune Branch(es)	Low	Final
78	3106 Woodbury Rd.	Sugar maple	<i>Acer saccharum</i>	Low	Good	--	No	Nutrient/Fertilize	--	8	27	10	1	32	Low	Other	Low	Final
79	3106 Woodbury Rd.	Sugar maple	<i>Acer saccharum</i>	Low	Good	--	Yes	--	--	9	26	11.25	1.125	32	--	--	--	--
80	3106 Woodbury Rd.	Sugar maple	<i>Acer saccharum</i>	Low	Good	--	Yes	--	--	7	24	8.75	0.875	27	--	--	--	--
81	3106 Woodbury Rd.	White oak	<i>Quercus alba</i>	Low	Excellent	--	Yes	--	--	13	32	19.5	32.5	31	--	--	--	--
82	3106 Woodbury Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Fair	--	No	--	Remove	10	30	12.5	2.5	26	--	--	--	--
83	3106 Woodbury Rd.	Callery pear	<i>Pyrus calleryana</i>	Low	Fair	--	No	--	Remove	12	30	15	3	30	--	--	--	--
84	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	Structure Prune, Young Tree Training	No	--	--	3.67	20	4.5875	1.835	20	--	--	--	--
85	3106 Woodbury Rd.	Eastern white pine	<i>Pinus strobus</i>	Low	Fair	--	No	--	--	7	25	1.25	0.5	14	--	--	--	--
86	3106 Woodbury Rd.	White fir	<i>Abies concolor</i>	Low	Good	--	Yes	--	--	10	32	12.5	2.5	23	--	--	--	--
87	3106 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	9	34	11.25	2.25	24	--	--	--	--
88	3106 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	7	30	8.75	1.75	19	--	--	--	--
89	3106 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	9	32	11.25	2.25	17	--	--	--	--
90	3106 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	8	30	10	2	19	--	--	--	--
91	3106 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	8	32	10	2	16	--	--	--	--
92	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Fair	--	No	--	--	1	12	2	0.5	7	--	--	--	--
93	3106 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	9	30	11.25	2.25	15	--	--	--	--
94	3106 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Excellent	Deadwood	No	--	--	9	28	11.25	4.5	19	--	--	--	--
95	3115 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	0.75	7	1.5	0.46875	11	--	--	--	--
96	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.94	8	3.675	1.47	13	--	--	--	--
97	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.32	8	1.65	0.66	10	--	--	--	--
98	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.77	9	2.2125	0.885	10	--	--	--	--
99	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.45	8	3.0625	1.225	11	--	--	--	--
100	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.24	9	2.8	1.12	9	--	--	--	--
101	3115 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.34	8	2.01	1.005	8	--	--	--	--
102	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2	9	2.5	1	7	--	--	--	--
103	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.41	8	1.7625	0.705	7	--	--	--	--

**Table 1
Tree Assessment Summary
Woodbury and Onaway Schools
Shaker Heights, OH**

Tree Id	Address	Common Name	Scientific Name	Priority	Condition	Tree Work-Pruning	Monitor	Tree Work-PHC	Tree Work-Other	DBH	Tree Height (Ft. Est.)	TPZ	CRZ	Crown Spread (Ft)	Overall Risk Rating	Mitigation Options	Residual Risk	Final/Preliminary
104	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.48	7	1.85	0.74	9	--	--	--	--
105	3106 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.24	7	2.8	1.12	11	--	--	--	--
106	3106 Woodbury Rd.	Autumn Blaze maple	<i>Acer x freemanii</i>	Low	Fair	Crown Thin, Structure Prune	Yes	--	--	8.5	35	10.625	2.125	20	Low	Prune Branch(es)	Low	Final
107	3106 Woodbury Rd.	Pussy willow	<i>Salix discolor</i>	Low	Fair	--	No	--	--	6.59	11	8.2375	1.6475	24	--	--	--	--
108	3106 Woodbury Rd.	Rough-leaved dogwood	<i>Cornus drummondii</i>	Low	Fair	--	No	--	--	4.71	11	5.8875	1.1775	19	--	--	--	--
109	3111 Woodbury Rd.	Valley Forge American elm	<i>Ulmus x 'Valley Forge'</i>	Low	Good	--	Yes	--	--	9.6	20	12	1.2	34	--	--	--	--
110	3106 Woodbury Rd.	Valley Forge American elm	<i>Ulmus x 'Valley Forge'</i>	Low	Good	Crown Thin, Structure Prune	Yes	--	--	10	21	12.5	1.25	41	--	--	--	--
111	3115 Woodbury Rd.	Crabapple	<i>species</i>	Low	Good	--	No	--	--	4	11	5	0.5	14	--	--	--	--
112	3115 Woodbury Rd.	Crabapple	<i>species</i>	Low	Good	--	No	--	--	2.6	11	3.25	0.325	14	--	--	--	--
113	3115 Woodbury Rd.	Crabapple	<i>species</i>	Low	Good	--	No	--	--	4	8	5	0.5	15	--	--	--	--
114	3111 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.45	16	3.0625	1.225	11	--	--	--	--
115	3111 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	0.98	8	1.225	0.1225	10	--	--	--	--
116	3111 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.2	10	1.5	0.6	10	--	--	--	--
117	3111 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.22	8	1.525	0.61	10	--	--	--	--
118	3111 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.45	8	3.0625	1.225	10	--	--	--	--
119	3111 Woodbury Rd.	Eastern white pine	<i>Pinus strobus</i>	Low	Good	--	Yes	--	--	19.8	50	24.75	2.475	45	--	--	--	--
120	3106 Woodbury Rd.	Northern red oak	<i>Quercus rubra</i>	Low	Good	--	Yes	--	--	1	2	2	0.75	2	--	--	--	--
121	3111 Woodbury Rd.	Green ash	<i>Fraxinus pennsylvanica</i>	Low	Good	--	No	--	Remove	4	22	5	0.5	19	--	--	--	--
122	3111 Woodbury Rd.	European buckthorn	<i>Rhamnus cathartica</i>	Low	Fair	--	No	--	Remove	6.8	18	8.5	0.85	27	--	--	--	--
123	3111 Woodbury Rd.	Cherry plum	<i>Prunus cerasifera</i>	Low	Poor	--	No	--	Remove	11	14	13.75	1.375	26	--	--	--	--
124	3111 Woodbury Rd.	American elm	<i>Ulmus americana</i>	Low	Fair	--	No	--	Remove	1.22	5	1.525	0.61	10	--	--	--	--
125	3111 Woodbury Rd.	Green ash	<i>Fraxinus pennsylvanica</i>	Low	Good	--	No	--	Remove	1	10	1.25	0.25	6	--	--	--	--
126	3111 Woodbury Rd.	Washington hawthorn	<i>Crataegus phaenopyrum</i>	Low	Good	--	No	--	Remove	2.2	15	2.75	0.275	13	--	--	--	--
127	3076 Woodbury Rd.	European buckthorn	<i>Rhamnus cathartica</i>	Medium	Fair	--	No	--	Remove	9.71	14	12.1375	2.4275	18	--	--	--	--
128	3111 Woodbury Rd.	Amur honeysuckle	<i>Lonicera maackii</i>	Medium	Fair	--	No	--	Remove	1.22	14	2.44	0.7625	30	--	--	--	--
129	3111 Woodbury Rd.	Japanese tree lilac	<i>Syringa reticulata</i>	Low	Excellent	--	No	--	--	1.6	8	3.2	0.4	5	--	--	--	--
130	3111 Woodbury Rd.	Crabapple	<i>species</i>	Low	Fair	--	No	--	--	8.34	8	10.425	2.085	22	--	--	--	--
131	3076 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Excellent	Deadwood	No	--	--	6	20	7.5	1.5	15	--	--	--	--
132	3076 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Excellent	Deadwood	No	--	--	6	19	7.5	1.5	14	--	--	--	--
133	3076 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Excellent	Deadwood	No	--	--	6.22	19	7.775	1.555	14	--	--	--	--
134	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	7	21	8.75	1.75	15	--	--	--	--
135	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Excellent	Deadwood	No	--	--	6	20	7.5	1.5	13	--	--	--	--
136	15400 S. Woodland Rd.	Colorado spruce	<i>Picea pungens</i>	Low	Fair	--	No	--	--	20	57	25	2.5	31	--	--	--	--
137	15400 South Woodland Rd.	Crabapple	<i>species</i>	Low	Fair	--	No	--	--	12.8	15	16	1.6	34	--	--	--	--
138	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	21	61	26.25	2.625	42	--	--	--	--
139	15400 South Woodland Rd.	Blackhaw viburnum	<i>Viburnum prunifolium</i>	Low	Fair	--	No	--	--	9	11	9	1.125	19	--	--	--	--
140	15400 South Woodland Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	1.84	5	3.68	0.23	6	--	--	--	--
141	15400 S. Woodland Rd.	European buckthorn	<i>Rhamnus cathartica</i>	Low	Good	--	No	--	Remove	5	8	5	0.625	13	--	--	--	--
142	15400 South Woodland Rd.	Crabapple	<i>species</i>	Low	Fair	Deadwood, Structure Prune	No	--	--	6	14	7.5	0.75	20	--	--	--	--

**Table 1
Tree Assessment Summary
Woodbury and Onaway Schools
Shaker Heights, OH**

Tree Id	Address	Common Name	Scientific Name	Priority	Condition	Tree Work-Pruning	Monitor	Tree Work-PHC	Tree Work-Other	DBH	Tree Height (Ft. Est.)	TPZ	CRZ	Crown Spread (Ft)	Overall Risk Rating	Mitigation Options	Residual Risk	Final/Preliminary
143	15400 South Woodland Rd.	Crabapple	<i>species</i>	Low	Fair	Deadwood, Structure Prune	No	--	--	6	13	7.5	0.75	17	--	--	--	--
144	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	7	24	8.75	0.875	16	--	--	--	--
145	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	--	No	--	--	7	26	8.75	0.25	20	--	--	--	--
146	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	6	28	7.5	0.75	20	--	--	--	--
147	15400 South Woodland Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.55	10	3.1875	0.31875	15	--	--	--	--
148	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	6	31	7.5	0.75	19	--	--	--	--
149	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	6	26	7.5	0.75	22	--	--	--	--
150	15400 South Woodland Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	5	21	6.25	0.625	18	--	--	--	--
151	3046 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Fair	--	No	--	--	3.84	8	4.8	0.48	9	--	--	--	--
152	3046 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	6	21	7.5	0.75	18	--	--	--	--
153	3046 Woodbury Rd.	Norway spruce	<i>Picea abies</i>	Low	Good	Deadwood	No	--	--	12	45	15	1.5	38	--	--	--	--
154	3111 Woodbury Rd.	Sweetbay magnolia	<i>Magnolia virginiana</i>	Low	Excellent	--	No	--	--	2.45	8	4.9	1.225	5	--	--	--	--
155	3111 Woodbury Rd.	Crabapple	<i>species</i>	Low	Excellent	--	No	--	--	1	8	2	0.5	4	--	--	--	--
156	3111 Woodbury Rd.	Crabapple	<i>species</i>	Low	Excellent	--	No	--	--	1	8	2	0.5	4	--	--	--	--
157	3111 Woodbury Rd.	Crabapple	<i>species</i>	Low	Excellent	--	No	--	--	1	8	2	0.5	5	--	--	--	--
158	3111 Woodbury Rd.	River birch	<i>Betula nigra</i>	Low	Excellent	--	No	--	--	1	4	2	0.5	3	--	--	--	--
159	3111 Woodbury Rd.	River birch	<i>Betula nigra</i>	Low	Excellent	--	No	--	--	1	4	2	0.5	3	--	--	--	--
160	3111 Woodbury Rd.	River birch	<i>Betula nigra</i>	Low	Excellent	--	No	--	--	1	4	2	0.5	3	--	--	--	--
161	3111 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.45	8	4.9	1.8375	6	--	--	--	--
162	3111 Woodbury Rd.	Autumn Brilliance serviceberry	<i>Amelanchier x grandiflora</i>	Low	Good	--	No	--	--	2.45	12	3.0625	1.225	7	--	--	--	--
163	3111 Woodbury Rd.	Crabapple	<i>species</i>	Low	Fair	--	Yes	--	--	7.43	25	9.2875	1.8575	30	--	--	--	--

Notes:

TPZ = Tree Protection Zone
CRZ = Critical Root Zone

-- = Not Applicable
DBH = Diameter at Breast Height