Department of Transportation

Monroe County, New York

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July 14, 2026

THOMAS AVENUE IMPROVEMENTS PROJECT

TREE SURVEY REPORT

The Monroe County Department of Transportation (MCDOT), in coordination with its consultant, Colliers Engineering & Design, have developed a revised plan for improvements along Thomas Avenue in the Town of Irondequoit. The project includes removing the existing concrete gutters and adjacent asphalt to install new granite curbing and paved shoulders. Additional improvements include drainage system upgrades, a new asphalt top course for the travel lanes, a new upgraded traffic signal at the intersection of St. Paul Boulevard and Thomas Avenue, and new Town-owned sidewalks along the north/east side of Thomas Avenue. Tree removals were determined to be necessary to allow MCDOT and the Town to properly construct all elements of the project. However, MCDOT and Colliers have modified the design to preserve additional trees along Thomas Avenue.

The original design required the removal of approximately 23 trees and a row of saplings. Public feedback regarding the proposed removals raised concerns, prompting MCDOT to retain a certified arborist through the consultant to evaluate the health and structural integrity of the affected trees. The goal of this assessment was to determine the impacts that construction activities would have on the trees and proximity to which the activities could take place. This aided us in evaluating which trees could be preserved and which would require removal.

The area of greatest concern was between St. Paul Boulevard and Hollywood Crescent, where 12 tree removals were originally proposed. These removals were necessary to accommodate MCDOT's standard roadway layout, including 11-foot travel lanes and shoulders of at least 5 feet in width. In response to community concerns, MCDOT and the consultant developed a revised design that shifts the proposed roadway slightly to the north and moves the curb further away from the trees. While this modification results in narrower shoulders, it significantly reduces impacts to the existing tree canopy. Under the revised plan, three trees are now proposed for removal in this section: two due to their poor health and one at the request of the property owner.

Input from the West Irondequoit Central School District was critical in implementing this roadway shift, as a small easement would be required from the Seneca Elementary School property. MCDOT coordinated with the District Superintendent and the Board of Education on the proposed shift following the arborist's evaluation of the trees. Through this collaborative process, a design was developed that best meet the needs of all parties while preserving a majority of the trees between St. Paul Boulevard and Hollywood Crescent.

In total, 11 trees are now proposed for removal for various reasons. Trees located in front of 39 Thomas Avenue, 51 Thomas Avenue, 312 Thomas Avenue, and behind

494 Sagamore Drive, where the property intersects Thomas Avenue, (between 465 Thomas Avenue and 493 Thomas Avenue) have been identified as high-risk and require removal. In addition, three trees at 342 Thomas Avenue have also been designated as high-risk and are recommended for removal. An additional three trees at 342 Thomas Avenue have been classified as moderate-risk, with recommendations for corrective action or removal if corrective measures are not undertaken. Due to their proximity to the proposed sidewalk and the anticipated impacts to their root systems during construction, MCDOT has determined that these trees should also be removed. Although these trees currently present only a moderate risk, their condition is expected to deteriorate as a result of construction activities, installation of sidewalk and the passing of time. Removing them as part of the project will help prevent future safety concerns. Finally, one additional tree is proposed for removal at the request of the homeowner.

Monroe County recognizes the important role that trees play in enhancing both the environment and the character of a neighborhood. To help offset this loss of the tree removals, Monroe County will offer nursery stock replacement trees to property owners whose trees were removed in front of their property. Homeowners may select a replacement tree from Monroe County's approved tree list, and the tree will be planted as part of the project. These new trees planted on private property will become the future maintenance responsibility of the homeowner.

The following is the consultant's tree evaluation report, prepared by a certified arborist, and a separate link contains the updated project plan layout reflecting the revised design for Thomas Avenue. The project remains on schedule, with design anticipated to be completed in Fall 2026 and construction expected to begin in 2027.

If you have any questions or concerns regarding the revised plan, please contact me, Sam Giovino, using the information provided below.

Thank you for your time and consideration.

Sincerely,

Samuel Giovino

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Colliers Engineering & Design

UPDATED - Tree Risk Assessment

June 24, 2026

Thomas Avenue Improvement Project
Town of Irondequoit, Monroe County, New York

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Project No. 23003544A

1.0 Introduction

In accordance with our Scope of Services, Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT P.C. (CED) was contracted by Monroe County Department of Transportation (MCDOT) (Client) to conduct a Tree Survey for the *Thomas Avenue Improvement Project* (Project). The Area of Interest is approximately 5.7-acres of paved road along Thomas Avenue, in the Town of Irondequoit, Monroe County, New York (Study Area, Attachment A). The Study Area is located on and adjacent to Thomas Avenue. Thomas Avenue is currently proposed for expansion by several feet on both sides of the street.

A Tree Survey of the Study Area was performed on August 29, 2025, and May 7, 2026, by CED Scientist Jacob Erle. The intent of the Tree Survey was to conduct a risk assessment to ascertain which trees, if any, pose a high risk of failure and damage to nearby properties or the street where people and vehicles are frequently present.

2.0 Tree Risk Assessment

The following subsections discuss the assessment of trees and their associated characteristics within the Study Area. Eighteen (18) trees within the Study Area were assessed by CED on August 29, 2025. An additional three (3) trees and one (1) section of hedge trees were assessed on May 7, 2026. The Study Area is comprised of Thomas Ave running through the center with sidewalks and private properties on both sides of the street (Attachment C). The Study Area is surrounded by suburban residential properties and paved streets to the north, east, south, and west.

2.1 Methods

An *International Society of Arboriculture (ISA) Basic Tree Risk Assessment* was conducted on each of the selected trees within the Study Area to document existing conditions for the selected trees. Each tree was assessed using an ISA Basic Tree Risk Assessment data form (Attachment B). The data forms guided the evaluator to identify potential targets trees could strike in case of failure (either a fallen branch(es) or the entire tree), tree defects, and likelihood of failure.

Factors considered in the health of each tree included site distance from tree to nearby targets (e.g., street, house, power lines), site factors, overall tree health, load factors, diameter-at-breast-height (DBH), and Live Crown Ratio (LCR) which is the ratio of the height of the live crown to the height of the entire tree etc. Conditions and visible defects of different parts of the tree were also identified and considered in the risk assessment, including dead or decaying parts of the tree, poor growth form, cavities in the tree, buried root collar, damaged roots, etc. These factors were used to determine the amount of load expected on a given tree part, the part's likelihood of failure, and impact on potential targets. The conditions of concern that were identified were used to rate the overall risk the tree part poses to a given target, possible mitigation options for tree parts, and residual risk the tree poses after mitigation actions have been performed.

This procedure was used to determine the level of risk each tree carries (i.e., low, moderate, high, or extreme), what mitigation actions should be taken and when, and whether tree removal is considered necessary.

2.2 Results

Results of the Tree Risk Assessment are shown in Table 1 below.

Twenty-two (22) tree species were identified in the Study Area. The surveyed trees ranged in DBH from 13 – 74 inches, ranged in height from 30 – 100 feet, and LCR ranged from 25 – 80%.

Common conditions affecting the tree canopy were overextended branching over Thomas Avenue and private properties, unbalanced crowns, co-dominant stems, poor pruning cuts, branches growing on only one side of the tree, and branches with inclusion bark at the attachments to the trunk resulting in structural weakness. Power lines also were observed running through the canopies of several trees, which are a hazard. Common conditions affecting the trunk of the trees are as follows: inclusion bark discoloration, inclusion bark resulting in structural weakness at the joint, poor trunk taper, mushrooms indicating decay on the trunk, leaning trunk, and open cavities. Common conditions affecting roots include buried root collars, cut roots, roots growing under concrete sidewalks or paved streets and driveways, and decay or open cavities at the tree base.

Trees that had the dominant canopy stem removed, or were topped, to make room for power lines displayed a greater likelihood of failure. Some trees exhibited above average dieback in the tree canopy, epicormic shoots on the trunk, and a greater percentage of leaves exhibiting chlorosis or necrosis. These conditions displayed in the trees can indicate overall poor health.

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Table 1: Tree Risk Assessment Summary

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Approx. Height (ft)	Live Crown Ratios (LCR)	Overall Risk Rating	Overall Residual Risk	Tree Defects	Recommended Mitigation	Latitude[2]	Longitude[2]
1	21 Thomas Ave	*Quercus alba*	white oak	36	50	75%	MODERATE	LOW	Low hanging, overextended branches at poor attachment angles; minor decay in canopy; co-dominant canopy stems; buried root collar	Prune low hanging, over-extended branches; expose buried tree collar	43.230544	-77.599690
2	21 Thomas Ave	*Quercus alba*	white oak	42	80	60%	MODERATE	LOW	Low hanging, overextended branches at poor attachment angles; co-dominant canopy stems; poor taper; buried root collar	Prune low hanging, over-extended branches; expose buried tree collar; prune co-dominant stem	43.230767	-77.600022
3	39 Thomas Ave	*Quercus alba*	white oak	40	80	75%	HIGH	MODERATE	Low hanging, overextended branches; ~25% dieback; ~80% chlorosis seen in leaves; co-dominant canopy steam; leaning trunk; poor trunk taper; multiple small cavities in trunk	Remove tree; prune back dead branches; prune co-dominant leader	43.230930	-77.600234
4	51 Thomas Ave	*Quercus alba*	white oak	37	90	45%	MODERATE	LOW	Overextended branches at poor attachment angles; most branching to the SW side of tree; leaning trunk; codominant canopy stems; poor taper	Prune overextended branches	43.231145	-77.600558
5	51 Thomas Ave	*Quercus alba*	white oak	42	90	45%	MODERATE	LOW	Overextended branches with poor attachment angles; co-dominant canopy stems; most branches to the SW side of the tree, poor taper	Prune overextended branches, prune or remove co-dominant stems	43.231161	-77.600583

Table 1: Tree Risk Assessment Summary (continued)

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Approx. Height (ft)	LCR	Overall Risk Rating	Overall Residual Risk	Tree Defects	Recommended Mitigation	Latitude[2]	Longitude[2]
6	51 Thomas Ave	*Quercus alba*	white oak	48	100	60%	HIGH	MODERATE	Low hanging, overextended, and curling branches; some branches over street and private properties; co-dominant stems on trunk & in canopy; large mushrooms on trunk base indicate decay	Prune overextended and low hanging branches	43.231204	-77.600673
7	75 Thomas Ave	*Picea abies*	Norway spruce	28	80	38%	LOW	LOW	1 co-dominant canopy stem, excessive number of lower branches missing	Remove or prune co-dominant stem from canopy	43.231489	-77.601103
8	83 Thomas Ave	*Acer platanoides*	Norway maple	28	80	45%	MODERATE	LOW	Low hanging, overextended branches; co-dominant stems in canopy and trunk; discolored blotches on stems; leaning trunk	Remove or prune co-dominant stems; prune low-hanging, overextended branches	43.231660	-77.601369
9	91 Thomas Ave	*Quercus rubra*	northern red oak	74	100	70%	MODERATE	LOW	Overextended branches, co-dominant canopy stems, small cavities at tree base; leaning trunk (and corrected)	Prune dead, overextended, and low-hanging branches; remove or prune co-dominant stems	43.231600	-77.601261

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Table 1: Tree Risk Assessment Summary (continued)

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Approx. Height (ft)	LCR	Overall Risk Rating	Overall Residual Risk	Tree Defects	Recommended Mitigation	Latitude[2]	Longitude[2]
10	99 Thomas Ave	*Quercus alba*	white oak	48	100	40%	MODERATE	MODERATE	6+ large codominant canopy stems; overextended branches at poor attachment angles; poor trunk taper	Prune low-hanging, over extended branches; remove co-dominant canopy stems	43.231814	-77.601586
11	279 Thomas Ave	*Aesculus hippocastanum*	horse-chestnut	13	60	60%	MODERATE	MODERATE	1 co-dominant canopy stem, downward curving canopy branches at poor attachment angles; poor trunk taper	Prune curved canopy branches; remove co-dominant canopy stem	43.234274	-77.605184
12	312 Thomas Ave	*Acer × freemanii*	Freeman maple	23	45	45%	HIGH	HIGH	1 co-dominant stem weakly attached; multiple dead and broken branches, poor overall growth form; leaning trunk; cut roots	Remove tree; prune dead branches	43.234833	-77.605704
13	342 Thomas Ave	*Acer platanoides*	Norway maple	23	85	60%	MODERATE	MODERATE	Leader was topped and 3 co-dominant leaders are in its place and weakly attached; canopy interior is sparse; power lines running through canopy; middle leader has large, open cavity	Remove tree; Remove one of the co-dominant leaders; remove dead branches or branches with poor attachment to trunk	43.235343	-77.606500
14	342 Thomas Ave	*Ulmus americana*	American elm	13	60	30%	MODERATE	MODERATE	Codominant trunk; dead branch in canopy has higher potential of failure (2" diameter); epicormic sprouts near poor prune cut; leaves are small, necrotic, and many leaves are missing from tree; trunk is leaning and has poor taper	Prune dead, overextended canopy branch; remove co-dominant leader; expose root collar	43.235518	-77.606735

Table 1: Tree Risk Assessment Summary (continued)

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Approx. Height (ft)	LCR	Overall Risk Rating	Overall Residual Risk	Tree Defects	Recommended Mitigation	Latitude[2]	Longitude[2]
15	342 Thomas Ave	*Ulmus americana*	American elm	28	80	25%	HIGH	MODERATE	Overextended branch over Thomas Ave; co-dominant leader; cavity at trunk base suggests decay, previous failures in canopy observed; open cavities in upper canopy; trunk is leaning and has poor taper	Prune overextended canopy branch; prune or remove co-dominant leader; remove tree	43.235531	-77.606748
16	385 Thomas Ave	*Quercus alba*	white oak	42	100	65%	MODERATE	LOW	Overextended, low-hanging branches over properties and Thomas Ave; canopy has branches curving in multiple directions; trunk cavity; co-dominant canopy stems; poor trunk taper	Prune or remove one or two co-dominant stems; prune or remove overextended, low-hanging branches	43.235739	-77.607322
17	385 Thomas Ave	*Quercus alba*	white oak	43	100	60%	MODERATE	LOW	Overextended, low-hanging branches over properties and Thomas Ave; canopy has few branches on North side of tree; poor trunk taper; buried root collar	Prune or remove one or two co-dominant stems; prune or remove overextended, low-hanging branches	43.235809	-77.607429
18	494 Sagamore Dr	*Sassafras albidum*	sassafras	30	45	40%	HIGH	HIGH	Low hanging over extended branch causing tree to lean; multiple cavities in trunk and canopy; epicormic; leaning trunk; shoots around previous cut	Remove low-hanging, over extended branch; remove tree	43.237172	-77.609391

Table 1: Tree Risk Assessment Summary (continued)

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Approx. Height (ft)	LCR	Overall Risk Rating	Overall Residual Risk	Tree Defects	Recommended Mitigation	Latitude[2]	Longitude[2]
19	342 Thomas Ave	*Ulmus americana*	American elm	39	100	50	HIGH	LOW	Low-hanging branch extends across street overhead to 343 Thomas Ave on opposite side	Prune back or remove large, low-hanging, overextended branch; remove co-dominant canopy branches	43.235108	-77.606198
20	342 Thomas Ave	*Tilia cordata*	European linden	37	100	80	HIGH	LOW	Low-hanging branch extends across street; basal sprouts at tree base suggest tree is stressed; multiple branches are curved downward from trunk and have poor attachment angles	Prune or remove overextended, low-hanging branch; prune or remove curved branches	43.235346	-77.606474
21	342 Thomas Ave	*Acer rubrum*	Red maple	32	100	35	MODERATE	MODERATE	Lower LCR with significant canopy dieback. Multiple branches are curved downward from trunk and have poor attachment angles Roots are exposed and tree will decline further if roots are cut or removed.	Prune or remove dead or dying branches; stabilize exposed root system; remove tree	43.23551	-77.60677
22	434 Thomas Ave	*Taxus baccata*	European yew	3	30	85	LOW	LOW	Low hanging over extended branch causing trees to lean, buried root collars	Prune low hanging branches, encouraging trees to grow branches up instead of out; expose root collars	43.236377	-77.608155

Notes:
1. CED map designation.
2. Approximate tree location in North American Datum, 1983.

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3.0 Recommendations

Any construction work done around these trees should be performed outside of the critical root zone (CRZ), which is the minimum distance from the tree trunk to the roots crucial for the tree's survival and stability. The CRZ varies for each tree based on the tree's DBH, species-specific tolerance in response to disturbance (i.e., low, moderate, or high) and soil quality. The CRZ of each species was determined using a Critical Root Zone Calculator[1] (Table 2). A physical protection barrier should be installed around the tree at a distance equal to or greater than its CRZ. In cases where the CRZ threshold cannot be met due to limited space, no more than 25% percent of the roots surrounding the tree should be impacted.

Results obtained from the Tree Risk Assessment indicate the assessed trees are at various health levels. Additionally, these trees are found on the street sides, which makes them more susceptible to whole tree failure as the result of shallow, compacted soils. Some trees are performing well and require continued pruning and routinely scheduled maintenance work. Some trees are satisfactory now, but some of their parts pose a higher level of risk and should be addressed soon. Some trees are in poor health and should be removed soon, as they pose a high level of risk.

3.1 Low-Risk Trees

Two (2) trees assessed are in fairly good health and should be scheduled for maintenance within the next one to two years: Tree ID No's 7, and 22. These trees have multiple co-dominant stems, either in the canopy or the main trunk, as well as over-extended branches. The overextended branches and codominant branches and leaders should either be pruned or removed. Root collars should be uncovered at the base of the tree. These trees currently pose a low-risk rating and a low residual risk. The trees are stable now, but poor angles of attachment increase the likelihood of failure, especially during extreme weather conditions.

3.2 Moderate-Risk Trees

Thirteen (13) trees assessed are in acceptable condition currently but will need corrective action sooner: Tree ID No's 1, 2, 4, 5, 8, 9, 10, 11,13, 14, 16, 17 and 21.

Tree ID No. 1 is a white oak tree and poses a risk to Thomas Avenue, Sagamore Dr., one (1) private property, a utility pole, and power lines located immediately adjacent to and within the area of the tree. Many branches are over-extended over Thomas Avenue and Sagamore Dr. and are at poor angles of attachment to the trunk. The trunk has a poor taper, with multiple codominant leaders, and the root collar is buried. CED's recommendation is to expose the buried root collar and prune the overextended branches of the tree to reduce the overall load on the tree. At least one of the codominant leaders should either be pruned or removed. Tree removal is also a possible option for this tree. However, if the appropriate mitigation is performed the tree will eventually pose an overall low residual risk.

[1] Virginia Tree Care. 2025. Critical Root Zone Calculator. Available from: https://virginiatreecare.com/critical-root-zone-calculator/. Accessed 9/24/25.

Tree ID No. 2 is a white oak tree and poses a risk to Thomas Avenue and two (2) private properties. Many branches are over-extended over Thomas Avenue at poor angles of attachment to the trunk. The trunk has a poor taper, with multiple codominant leaders, and the root collar is buried. CED's recommendation is to expose the buried root collar and prune the overextended branches of the tree to reduce the overall load on the tree. At least one of the codominant leaders should also be either pruned or removed. Tree removal is also a possible option for this tree. However, if the appropriate mitigation is performed the tree will eventually pose an overall low residual risk.

Tree ID No. 4 is a white oak tree and poses a risk to Thomas Avenue and (2) private properties. The crown of the tree is unbalanced, and many branches are over-extended over Thomas Avenue at poor angles of attachment to the trunk. Most of the branching is on only the southwestern side of the tree. The trunk has a poor taper and is leaning towards both private properties. CED's recommendation is to prune the branches of the tree to reduce the overall load on the tree. Tree removal is also a possible option for this tree. However, if the appropriate mitigation is performed the tree will eventually pose an overall low residual risk.

Tree ID No. 5 is a white oak tree and poses a risk to Thomas Avenue and two (2) private properties. The crown of the tree is unbalanced, and many branches are over-extended over Thomas Avenue at poor angles of attachment to the trunk. Most of the branches are on only the southern side of the tree and many are almost overlapping with Tree ID No. 4. The trunk has a poor taper and is leaning towards both private properties. CED's recommendation is to prune the branches of the tree to reduce the overall load on the tree. At least one of the codominant leaders should also be either pruned or removed. Tree removal is also a possible option for this tree. However, if the appropriate mitigation is performed the tree will eventually pose an overall low residual risk.

Tree ID No. 8 is a Norway maple and poses a risk to Thomas Avenue and two (2) private properties. The crown of the tree is unbalanced and has low-hanging, overextended branches growing towards Thomas Avenue and one of the private properties. The tree trunk has two codominant leaders and inclusion bark. The codominant stems have poor attachment angles and exhibit potential signs of decay, with discoloration present along the stems. CED's recommendation is to remove the smallest codominant leading stem to reduce the load on the tree. The low-hanging, overextended tree branches should also be pruned to reduce the overall load on the tree. This tree should be regularly monitored for signs of increased decay. If the appropriate mitigation is not completed in the next two to three years, tree decay may increase, as will the likelihood of failure. If no mitigation is performed on the tree, removing the tree may be the most viable option.

Tree ID No. 9 is a northern red oak tree and poses a risk to Thomas Avenue and three (3) private properties. Many branches are over-extended over Thomas Avenue at poor angles of attachment to the trunk. The canopy has multiple codominant leaders, and there is a cavity near the base of the tree. CED's recommendation is to prune the dead, overextended, and low-hanging branches of the tree to reduce the overall load on the tree. At least one of the codominant leaders should also be either pruned or removed. The tree's base should be monitored regularly for signs of increased decay. Tree removal is also a possible option for this tree. However, if the appropriate mitigation is performed the tree will eventually pose an overall low residual risk.

Tree ID No. 10 is a white oak tree and poses a risk to Thomas Avenue and three (3) private properties. Many branches are over-extended over Thomas Avenue at poor angles of attachments. The canopy has multiple codominant leaders, and the trunk has a poor taper. CED's recommendation is to prune or remove at least one of the codominant leaders and prune or remove the overextended, low-hanging branches of the tree. However, even if all mitigation recommendations are performed, the tree will still pose an overall moderate residual risk.

Tree ID No. 11 is a horse-chestnut tree and poses a risk to Thomas Avenue and two (2) private properties. Many branches have poor angles of attachment to the trunk and are curving downward. The canopy has a codominant leader, and the trunk has a poor taper. CED's recommendation is to prune or remove the codominant leader, as well as the downward curving branches. However, even if all mitigation recommendations are performed, the tree will still pose an overall moderate residual risk.

Tree ID No. 13 is a Norway maple and poses a risk to Thomas Avenue, three (3) private properties, and power lines that are present through the crown of the tree. The crown of the tree is unbalanced with dead bark present, and the interior part sparse. The tree has three codominant leaders, and a large cavity present in the central leader. The roots show evidence of being cut approximately 3 feet from the base of the tree trunk. The remainder of the roots are buried. CED's recommendation is to prune one or two of the codominant leaders. However, even if corrective action is taken in the next year the tree will continue to pose a moderate level of risk. If no mitigation is performed on the tree within the next three to four years, and no significant increase in tree vigor is visible within two to three years, removing the tree may be the most viable option.

Tree ID No. 14 is an American elm and poses a risk to Thomas Avenue and two (2) private properties. The crown of the tree is unbalanced and has many overextended branches, at weak attachment angles, over Thomas Avenue. Evidence of previous flush cuts, dieback, and branch failures were also observed in the crown. The tree has a codominant leader, and cracks were observed in the trunk with signs of discoloration. The tree's leaves are also scarce, necrotic in places, and stunted in size, which would suggest the tree is in poor health. There was also a large cavity observed at the base of the tree. CED recommends immediate corrective action by pruning back dead canopy branches and pruning or removing the codominant leader. If the dead branches in the canopy are pruned and not removed the tree will still pose a moderate residual risk. If the dead branches in the canopy are removed the tree will pose a low residual risk. If no mitigation is performed for the tree within the next three years, the likelihood of failure is predicted to increase, and tree removal may be the most viable option.

Tree ID No. 16 is a white oak tree and poses a risk to Thomas Avenue and one (1) private property. Many branches are over-extended over Thomas Avenue and the private property at poor angles of attachment to the trunk. The tree canopy has multiple, co-dominant stems curving in multiple directions. The trunk has a cavity and poor taper, with multiple codominant leaders. CED's recommendation is to prune the overextended branches of the tree to reduce the overall load on the tree. At least one of the codominant canopy stems should also be either pruned or removed. Tree removal is also a possible option for this tree. However, if the appropriate mitigation is performed the tree will eventually pose an overall low residual risk.

Tree ID No. 17 is a white oak tree and poses a risk to Thomas Avenue and two (2) private properties. Many branches are over-extended over Thomas Avenue and the private property at poor angles of attachment to the trunk. The tree's crown is unbalanced, with little or no branching to the North. The trunk has a cavity and poor taper, with multiple codominant leaders. CED's recommendation is to prune the overextended branches of the tree to reduce the overall load on the tree. At least one of the codominant canopy stems should also be either pruned or removed. Tree removal is also a possible option for this tree. However, if the appropriate mitigation is performed the tree will eventually pose an overall low residual risk.

Tree ID No. 21 is a red maple and poses a risk to Thomas Avenue and three (3) private properties. The tree is also adjacent to Trees No.'s 14 and 15. The tree appears to have relatively low vigor, with a LCR of only 35% and approximately 40% of the crown's branches are either dead or dying. Many of the branches are curved downwards and have poor attachment angles to the trunk. The tree's trunk has inclusion bark, with sealed cavities where branches have been removed. The tree's roots are visible and extend for at least 5' past the trunk base. Tree decay will accelerate if the roots are damaged during construction work. CED recommends removing dead or poorly attached branches and stabilizing the root system by loosening compacted soil. However, even if pruning and root stabilization are applied the tree will still pose a moderate residual risk. If there is no significant improvement in the tree's vigor within the next two to three years, and no corrective action can be taken within the next three years, the tree's likelihood of failure will increase. In which case, tree removal may be recommended.

3.3 High-Risk Trees

Seven (7) trees assessed are recommended to be removed within the next year: Tree ID No's 3, 6, 12, 15, 18, 19, and 20.

Tree ID No. 3 is a white oak tree and poses a risk to Thomas Avenue, two (2) private properties, and adjacent trees. At least 25% of the crown showed dieback, and 80% of the leaves present within the crown displayed chlorosis, which suggests poor tree health. This can be the result of various factors, including nutrient deficiencies, imbalances in the soil pH, or environmental stressors. CED recommends the tree should be pruned to remove the dead branches from the canopy. However, this mitigation option still poses a moderate level of residual risk. If no mitigation is performed on the tree within the next four years, and no significant increase in tree vigor is visible within four years, removing the tree may be the most viable option.

Tree ID No. 6 is a white oak tree and poses a risk to Thomas Avenue and two (2) private properties. The crown of the tree is unbalanced with overextended branches over Thomas Avenue, some low-hanging branches are curling, and there is a low hanging branch directly above the driveway of one of the private properties. Many branches in the canopy show poor attachment angles. The trunk has inclusion bark and a poor taper. There are large mushrooms and multiple cavities at the tree base and tree roots, which indicate decay is present. There is possible stem girdling present on the side of the tree based adjacent to the sidewalk. Even if pruning is performed within the next year to reduce the load on the tree, the tree will still pose a moderate residual risk. Due to this, CED's

recommendation is to remove the tree. If no corrective action is taken, the entire tree is expected to fail in four years.

Tree ID No. 12 is a Freeman maple and poses a risk to Thomas Avenue, and the electric line and utility pole on the east side of the street. Overall, this tree has a sickly appearance; at least one-half of the branches on the tree are either dead or broken. Multiple cavities are present on branches in the canopy, also. The trunk is leaning at an angle of 5 - 10º, is partially corrected, and has a poor taper. The roots have also been cut approximately 3 feet from the tree trunk, which weakens the base making the tree more prone to failure. Even if pruning branches is performed, the leaning trunk still poses a higher level of residual risk to the surrounding targets. Due to this, CED's recommendation is to remove the tree. If no corrective action is taken, the entire tree is expected to fail in three years.

Tree ID No. 15 is an American elm and poses a risk to Thomas Avenue and one (1) private property. The tree is also located adjacent to Tree ID No. 14. The crown is unbalanced and has branches overextending over the street and private property. At least two other codominant leaders were observed in the canopy. Many branches were curved in multiple directions. Open cavities are present in the crown and the trunk. The tree's leaves are also scarce, necrotic in places, and stunted in size, which would suggest the tree is in poor health. CED recommends removing over-extended, poorly attached branches and the co-dominant stems. If the codominant leaders cannot be either pruned or removed, the tree will continue to pose a moderate residual risk. If no corrective action can be taken within the next four years the tree's likelihood of failure will increase and tree removal may be the most viable option.

Tree ID No. 18 is a sassafras and poses a risk to Thomas Avenue and two (2) private properties. The tree has been topped, and the branches in the canopy are low-hanging or overextended and are attached at poor angles. Additionally, at least one-third of the branches in the canopy are dead, and large cavities are present on branches. The trunk is discolored in places, missing bark in places, and several large, open cavities are present on the trunk. Some of the roots are covered by the asphalt path behind the gutter. The roots have also been cut in places approximately 2" from the tree trunk, which weakens the base making the tree more prone to failure. Even if pruning branches is performed, the leaning trunk still poses a higher level of residual risk to the surrounding targets. Due to this, CED's recommendation is to remove the tree. If no corrective action is taken, the entire tree is expected to fail in three years.

Tree ID No. 19 is an American elm and poses a risk to Thomas Avenue and three (3) private properties. The tree's crown is unbalanced, and one large, low-hanging branch extends over the entire road to 343 Thomas Avenue on the opposite side of the street. This branch poses the highest risk to surrounding targets and CED recommends either pruning or removing the branch promptly. If the branch is treated appropriately the tree will pose a low residual risk. However, if no corrective action can be taken within the next four years the tree's likelihood of failure will increase and tree removal may be the most viable option.

Tree ID No. 20 is a European linden and poses a risk to Thomas Avenue and two (2) private properties. The tree's crown is unbalanced, with many branches curving downward at poor

attachment angles. One large, low-hanging branch extends over the majority of the road's width. This branch poses the highest risk to surrounding targets and CED recommends either pruning or removing the branch promptly. If the branch is treated appropriately the tree will pose a low residual risk. However, if no corrective action can be taken within the next four years the tree's likelihood of failure will increase and tree removal may be the most viable option.

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Table 2: Tree Critical Root Zone

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Tolerance to Disturbance	Critical Root Zone (ft)	Overall Risk Rating	Overall Residual Risk	Latitude[2]	Longitude[2]
1	21 Thomas Ave	*Quercus alba*	white oak	36	L	81	M	L	43.230544	-77.599690
2	21 Thomas Ave	*Quercus alba*	white oak	42	L	95	M	L	43.230767	-77.600022
3	39 Thomas Ave	*Quercus alba*	white oak	40	L	90	H	M	43.230930	-77.600234
4	51 Thomas Ave	*Quercus alba*	white oak	37	L	84	M	L	43.231145	-77.600558
5	51 Thomas Ave	*Quercus alba*	white oak	42	L	95	M	L	43.231161	-77.600583
6	51 Thomas Ave	*Quercus alba*	white oak	48	L	108	H	M	43.231204	-77.600673
7	75 Thomas Ave	*Picea abies*	Norway spruce	28	H	34	L	L	43.231489	-77.601103
8	83 Thomas Ave	*Acer platanoides*	Norway maple	28	H	42	M	L	43.231660	-77.601369
9	91 Thomas Ave	*Quercus rubra*	northern red oak	74	L	167	M	L	43.231600	-77.601261

Table 2: Tree Critical Root Zone (cont.)

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Tolerance to Disturbance	Critical Root Zone (ft)	Overall Risk Rating	Overall Residual Risk	Latitude[2]	Longitude[2]
10	99 Thomas Ave	*Quercus alba*	white oak	48	L	108	M	M	43.231814	-77.601586
11	279 Thomas Ave	*Aesculus hippocastanum*	horse-chestnut	13	M	20	M	L	43.234274	-77.605184
12	312 Thomas Ave	*Acer × freemanii*	Freeman maple	23	H	N/A	H	H	43.234833	-77.605704
13	342 Thomas Ave	*Acer platanoides*	Norway maple	23	H	35	M	M	43.235343	-77.606500
14	342 Thomas Ave	*Ulmus americana*	American elm	13	H	16	M	M	43.235518	-77.606735
15	342 Thomas Ave	*Ulmus americana*	American elm	28	H	34	H	M	43.235531	-77.606748
16	385 Thomas Ave	*Quercus alba*	white oak	42	L	95	M	L	43.235739	-77.607322
17	385 Thomas Ave	*Quercus alba*	white oak	43	L	97	M	L	43.235809	-77.607429
18	494 Sagamore Dr	*Sassafras albidum*	sassafras	30	H	N/A	H	H	43.237172	-77.609391

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Table 2: Tree Critical Root Zone (cont.)

Tree ID #[1]	Approx. Address	Scientific Name	Common Name	DBH (in)	Tolerance to Disturbance	Critical Root Zone (ft)	Overall Risk Rating	Overall Residual Risk	Latitude[2]	Longitude[2]
19	342 Thomas Ave	*Ulmus americana*	American elm	39	M	59	H	L	43.235108	-77.606198
20	342 Thomas Ave	*Tilia cordata*	European linden	37	M	83	H	L	43.235245	-77.606198
21	342 Thomas Ave	*Acer rubrum*	Red maple	32	M	48	M	M	43.235455	-77.606658
22	434 Thomas Ave	*Taxus baccata*	European yew	3	L	5	L	L	43.236489	-77.608167

Notes:

1. CED map designation.
2. Approximate tree location.in North American Datum, 1983.

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4.0 Conclusions

This report documents the conditions of selected trees within the Study Area associated with proposed project work for Thomas Avenue in the Town of Irondequoit to assess tree health and identify trees that pose a high risk to targets and should be removed.

Twenty-two (22) trees total were assessed along Thomas Ave. Two (2) trees were considered low-risk at the time of the Assessment, Tree ID No's 7 and 22. These trees pose acceptable risks to the surrounding targets, and maintenance should be scheduled for these trees in the next one to two years.

Thirteen (13) trees were considered moderate risk at the time of the Assessment, and corrective action could be taken immediately: Tree ID No's 1, 2, 4, 5, 8, 9, 10, 11, 13, 14, 16, 17 and 21. Removal may be warranted if improvements aren't observed on these trees post-mitigation. These trees have multiple co-dominant canopy stems and overextended branches. Additionally, all of these trees possess at least one other characteristic indicating they may be more prone to failing, either at a part of the tree or the entire tree: most of the canopy branching is on one side of the tree, large mushrooms at the base indicating decay, discolored blotches on stems indicating decay, topping of the dominant leader, necrosis on majority of leaves, epicormic branching in response to poorly cut branches, previous branch failures observed in the canopy. In many cases the trees' overall residual risk ratings may be reduced by following CED's recommendations for mitigation. However, these trees should be monitored regularly for indicators of decay. In some cases, if no mitigation actions can be taken and no significant improvement in tree vigor is visible within the next two to four years, tree removal may be a more suitable option.

The remaining seven (7) trees exhibit obvious, significant signs of decay and are considered high-risk: Tree ID No's 3, 6, 12, 15, and 18, 19, and 20. These trees pose a high level of risk to surrounding targets. In many cases the trees' overall residual ratings may be reduced by following CED's recommendations for mitigation. However, if no corrective actions are taken and no significant increase in tree vigor is observed within the next one to two years the tree should be scheduled for removal.

Construction activities are recommended to work outside the CRZ for each tree, when possible. All trees assessed need scheduled maintenance in the short term, at varying degrees, and further discussions with qualified tree experts are warranted.

If you have any questions or require additional information, contact me by phone at 607-621-7136 or email at jacob.erle@collierseng.com.

Jacob Erle

Jacob Erle
Natural Resources Scientist | Environmental Services

Enclosed:

- Attachment A: Figures
  - Figure 1. Study Area Location Map
  - Figure 2. Aerial Imagery Map
  - Figure 3.0 – 3.3 Tree Risk Assessment Map
- Attachment B: ISA Basic Tree Risk Assessment Forms
- Attachment C: Representative Photographs

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Attachment A | Figures

Monroe County Thomas Avenue Improvement Project

STUDY AREA LOCATION MAP

Fig. 1

2,000 Feet

N

Town of Irondequoit, Monroe County, New York

Monroe County Thomas Avenue Improvement Project

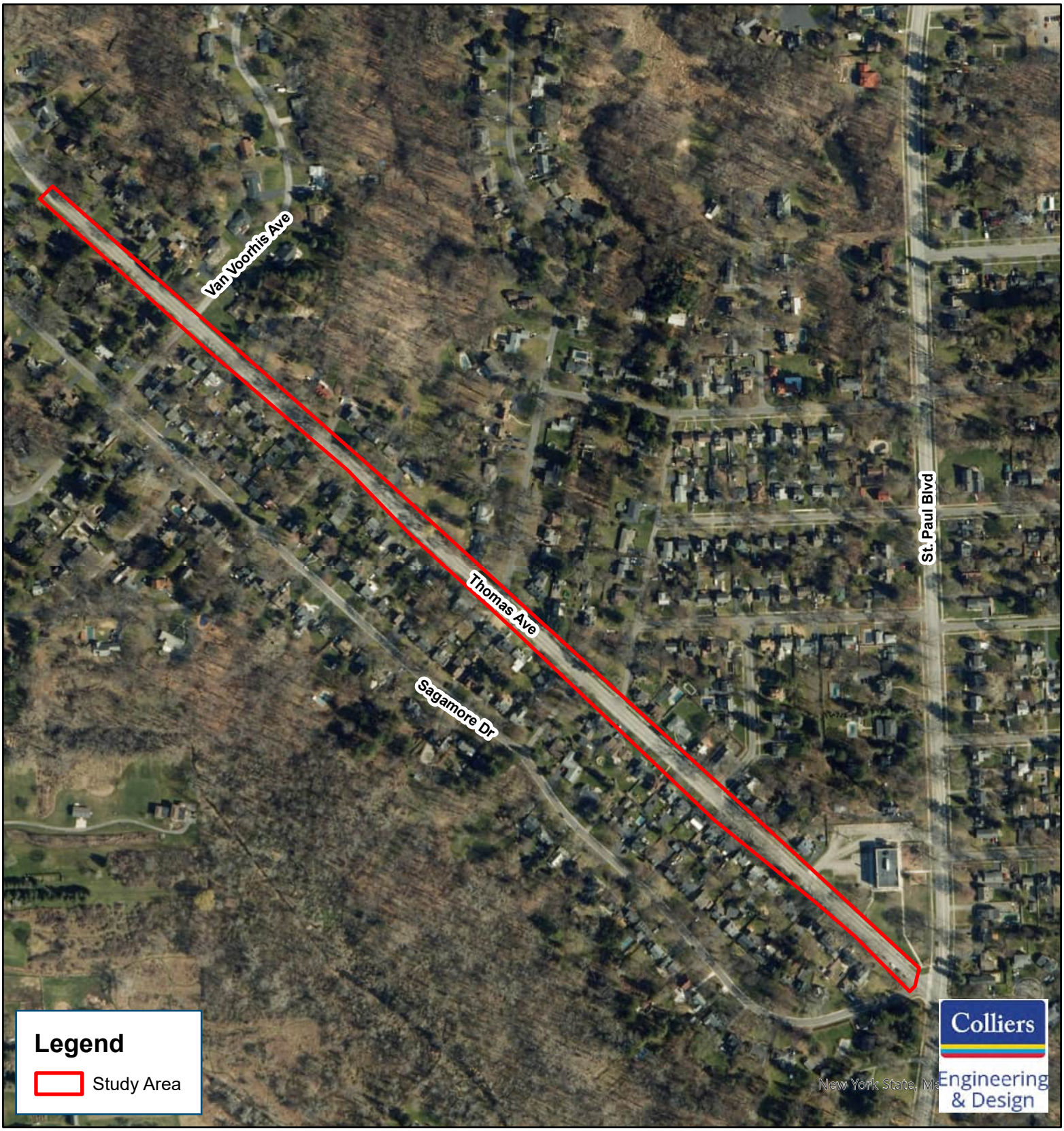
AERIAL IMAGERY MAP

Fig. 2

500 Feet

N

Town of Irondequoit, Monroe County, New York



Monroe County
Thomas Avenue
Improvement Project

TREE RISK ASSESSMENT MAP

Fig. 3.0

500 Feet

N

Town of Irondequoit, Monroe County, New York

Monroe County
Thomas Avenue
Improvement Project

TREE RISK ASSESSMENT MAP

Fig. 3.1

100 Feet

N

Town of Irondequoit, Monroe County, New York

Monroe County Thomas Avenue Improvement Project

TREE RISK ASSESSMENT MAP

Fig. 3.2

100 Feet

N

Town of Irondequoit, Monroe County, New York

Monroe County
Thomas Avenue
Improvement Project

TREE RISK ASSESSMENT MAP

Fig. 3.3

100 Feet

N

Town of Irondequoit, Monroe County, New York

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Attachment B | ISA Basic Tree Risk Assessment Forms

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/2025 Time 1130

Address/Tree location 21 Thomas Ave Tree no. 1 Sheet 1 of 22

Tree species Quercus alba dbh 36" Height 50' Crown spread dia. 60'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave, street and sidewalk	✔	✔	✔	3	N	N
2	21 Thomas Ave, house			✔	4	N	N
3	Electric poles and lines located adjacent to and within tree	✔	✔	✔	4	N	N
4	Sagamore Dr, street and sidewalk	✔	✔	✔	3	N	N

Site Factors

History of failures **Topography** Flat ☒ Slope ☐ 0 % **Aspect**

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ >30 % Describe Thomas Ave, Sagamore Dr

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 95 % Chlorotic 0 % Necrotic <1 %

Pests **Abiotic**

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ **Relative crown size** Small ☐ Medium ☐ Large ☒

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☑ Moss in tree center

Recent or planned change in load factors

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 75 %

Dead twigs/branches ☐ ____% overall Max. dia. ____

Broken/Hangers Number ____ Max. dia. ____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other

Cracks ☐ Lightning damage ☐

Codominant ■ 3 or 4 others Included bark ■

Weak attachments ■ Cavity/Nest hole ____% circ.

Previous branch failures ☐ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐

Response growth

Main concern(s) Low hanging, over-extended branches that have poor angles of attachment. Minor decay seen where pruning occurred and poorly mended

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ■ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole ____% circ. Depth ____ Poor taper ☐

Lean ____° Corrected?

Response growth

Main concern(s) Burl on main trunk

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ■ Depth____ Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ ____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk ____

Root plate lifting ☐ Soil weakness ☐

Response growth

Main concern(s) Root collar not visible above ground at all

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

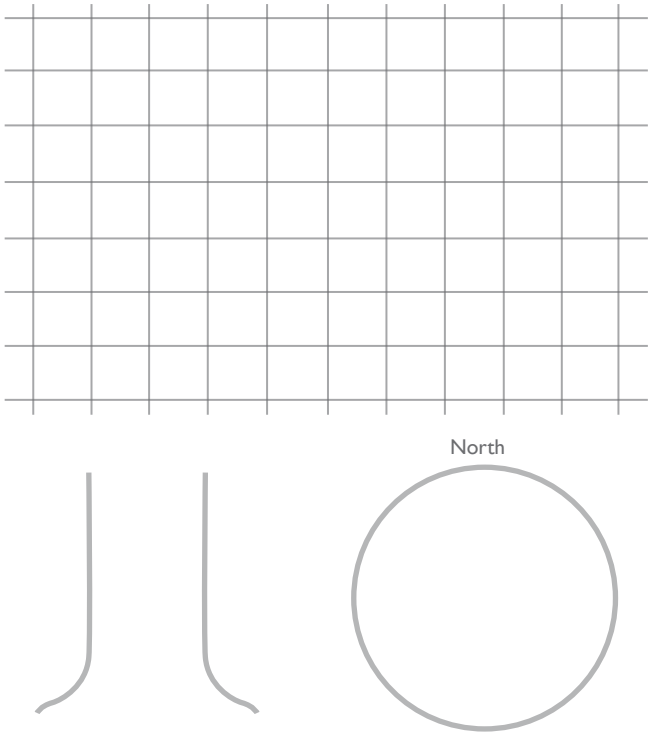
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Low, over extended branches over Thomas Ave street	12"	12'	1	N/A		●						●		●						●	M
			12"	12'	3	N/A		●						●		●				●			L
			12"	20'	1	N/A		●						●		●				●			L
2	Branches	Low, over extended branches over Sagamore Dr	12"	12'	4	N/A		●						●		●				●			L
			12"	30'	4	N/A		●						●		●				●			L
3	Branches	Low, over extended branches over 21 Thomas Ave	12"	20'	3	N/A		●						●		●						●	M
4	Roots	No root collar visible	36"	-	1-4	N/A		●			●				●					●			L

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Multiple, low hanging branches at poor angles of attachment in lower crown

Mitigation options Prune low hanging, over extended branches — **Residual risk** Low

Expose root collar — **Residual risk** Low

Residual risk

Residual risk

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ☐ 4 ■

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ☐ Final ■ Preliminary **Advanced assessment needed** ☐ No ■ Yes-Type/Reason resistance drilling

Inspection limitations ☐ None ☐ Visibility ☐ Access ☐ Vines ■ Root collar buried Describe

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/2025 Time 1215

Address/Tree location 21 Thomas Ave Tree no. 2 Sheet 2 of 22

Tree species Quercus alba dbh 42" Height 80' Crown spread dia. 35'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave, street and sidewalk	✔	✔	✔	3	N	N
2	21 Thomas Ave, house	✔	✔	✔	4	N	N
3	21 Thomas Ave, trampoline	✔	✔	✔	2	Y	N
4	31 Thomas Ave, house	✔	✔	✔	4	N	N

Site Factors

History of failures _____ **Topography** Flat ☒ Slope ☐ 0 % **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ >25 % Describe Thomas Ave

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 95 % Chlorotic 0 % Necrotic 5 %

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ☒

Crown density Sparse ☐ Normal ☐ Dense ■ **Interior branches** Few ☐ Normal ☐ Dense ■ **Vines/Mistletoe/Moss** ☑ Moss in tree center

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 60 %

Dead twigs/branches ■ 5 % overall Max. dia. 1"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 3 or 4 others Included bark ■

Weak attachments ■ _____ Cavity/Nest hole ____ % circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Low hanging, over-extended branches that have poor angles of attachment. Poor previous pruning with visible decay in cuts

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean _____° Corrected? _____

Response growth _____

Main concern(s) _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ■ Depth _____ Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____ % circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Root collar not visible above ground

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

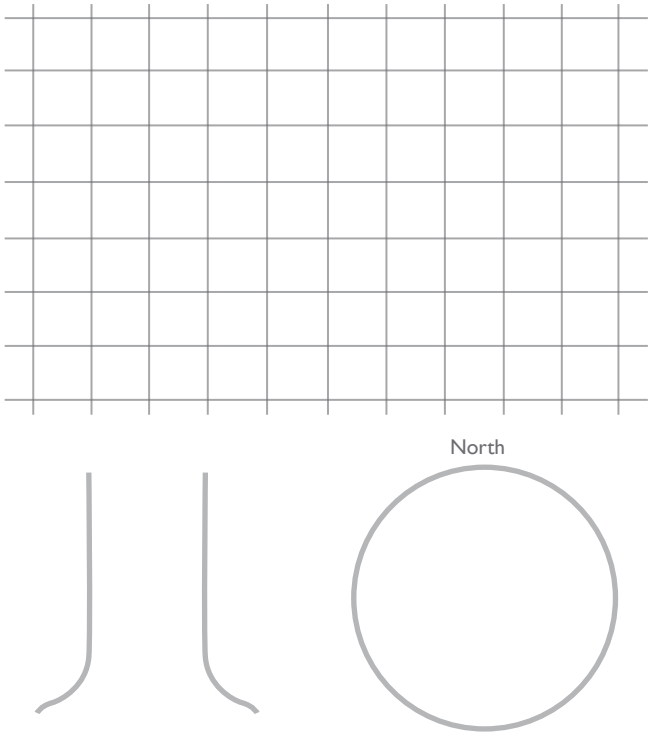
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Low, over extended branches over Thomas Ave street	10"	18'	1	N/A		●						●		●					●		M
			14"	18'	2	N/A		●						●		●						●	M
			24"	20'	1	N/A		●						●		●					●		M
2	Canopy	Codominant stems	30"	40'	1 - 4	N/A		●						●		●						●	M
															●	●	●	●					
3	Roots	No root collar	12"	20'	1-4	N/A	●							●	●							●	L
4																							

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Multiple, low hanging branches at poor angles of attachment in lower crown; black locust shoots growing at tree base

Mitigation options

Prune low hanging, over extended branches	**Residual risk**	Low
Expose root collar	**Residual risk**	Low
Prune co-dominant stem	**Residual risk**	Low
	Residual risk	

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ☐ 4 ■

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ☐Final ■Preliminary **Advanced assessment needed** ☐No ■Yes-Type/Reason resistance drilling

Inspection limitations ☐None ☐Visibility ☐Access ☐Vines ■Root collar buried Describe

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/2025 Time 1245

Address/Tree location 39 Thomas Ave Tree no. 3 Sheet 3 of 22

Tree species Quercus alba dbh 40" Height 80' Crown spread dia. 35'

Assessor(s) JCE Time frame 4 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave, street and sidewalk	✔	✔	✔	3	N	N
2	31 Thomas Ave, house	✔	✔	✔	4	N	N
3	39 Thomas Ave, house	✔	✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ☐ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ >30 % Describe Thomas Ave, driveway

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 10 % Chlorotic 80 % Necrotic 5 %

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ☐ Dense ■ **Interior branches** Few ☐ Normal ☐ Dense ■ **Vines/Mistletoe/Moss** ☐ Moss in tree center

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 75 %

Dead twigs/branches ■ 25 % overall Max. dia. 6"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ _____ Included bark ■

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Low branches over properties. Significant dieback in canopy, chlorosis observed in majority of live leaves

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ■ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole 5 % circ. Depth 6" Poor taper ☐

Lean 2 ° Corrected? Yes

Response growth _____

Main concern(s) leaning trunk; burrowing holes

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) _____

Load on defect N/A ■ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

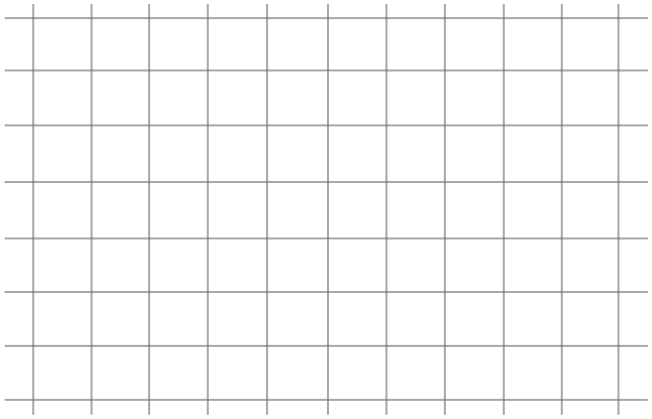
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Crown	Significant dieback in canopy	20"	40'	1-3	N/A	○	○	◉	○	○	○	○	◉	○	○	◉	○	○	○	○	◉	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Branches	Most leaves on branches show signs of chlorosis	16"	40'	1-3	N/A	○	○	◉	○	○	○	○	◉	○	○	◉	○	○	○	○	◉	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Codominant stems, included bark	20"	20'	1-3	N/A	○	○	◉	○	○	○	○	◉	○	○	◉	○	○	○	○	◉	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

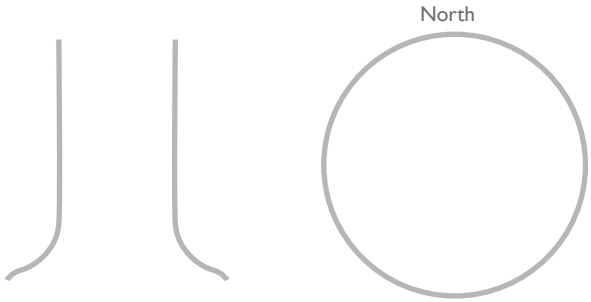
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions black locust stems growing at tree base

Mitigation options Prune back dead branches — **Residual risk** Moderate

Remove tree — **Residual risk** None

Prune co-dominant leader — **Residual risk** Moderate

Residual risk

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ■ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/2025 Time 1310

Address/Tree location 51 Thomas Ave Tree no. 4 Sheet 4 of 22

Tree species Quercus alba dbh 37" Height 90' Crown spread dia. 50'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, electric lines and utility pole	✔	✔	✔	4	N	N
2	51 Thomas Ave - house	✔	✔	✔	4	N	N
3	39 Thomas Ave - house		✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 50 % Describe Sidewalks, paved roads

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 95 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ☐ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☐ Moss along trunk

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 45 %

Dead twigs/branches ■ 5 % overall Max. dia. 6"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 1 or 2 others Included bark ☐

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Poor branch attachment

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ■ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean 5 ° Corrected? Somewhat

Response growth Trunk leaning, most branching to the SW

Main concern(s) Leaning SW towards homes

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Moss on roots

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

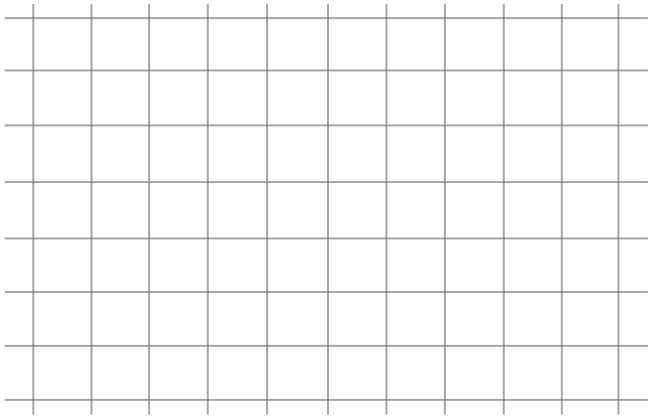
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Crown	Codominant stems with poor angles of attachment growing toward houses	20"	30'	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
			20"	30'	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
			20'	30'	2-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
2	Trunk	Leaning at approximately 5 degrees SSW	37"	90'	1-3	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Poor taper	37"	40'	1-3	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

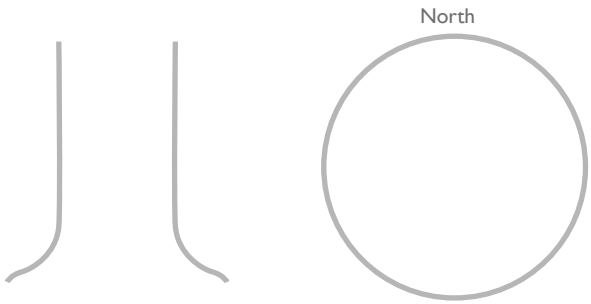
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Prune overextended branches **Residual risk** Low

Residual risk _____

Residual risk _____

Residual risk _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ☐ 4 ■

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1-2 years

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1330

Address/Tree location 51 Thomas Ave Tree no. 5 Sheet 5 of 22

Tree species Quercus alba dbh 42" Height 90' Crown spread dia. 50'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, electric lines and utility pole	✔	✔	✔	4	N	N
2	51 Thomas Ave - house	✔	✔	✔	4	N	N
3	39 Thomas Ave - house		✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ 50 % Describe Sidewalks, paved roads

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ☐ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☐ Moss on trunk & stems

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 45 %

Dead twigs/branches ■ 15 % overall Max. dia. 6"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 3 or 4 others Included bark ■

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ■ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Overextended branches to the North towards Thomas Ave, very few branches on the northern side of the tree

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ■ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ■ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean _____° Corrected? _____

Response growth _____

Main concern(s) _____

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 12" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Roots are covered by pavement and concrete

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

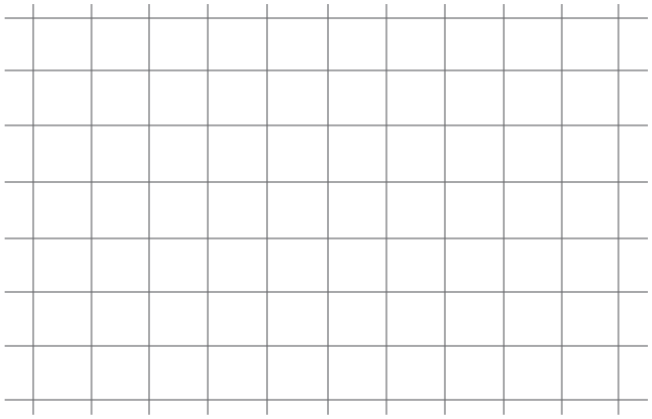
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Crown	Overextended branching	12"	90'	1	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
			12"	90	2	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Branches	Dieback	6"	70'	1	N/A	○	○	●	○	○	○	●	○	○	●	○	○	○	○	●	○	M
			6"	35'	2	N/A	○	○	●	○	○	○	●	○	○	●	○	○	○	○	●	○	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Codominant stems with included bark and poor angles of attachment	30"	40'	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

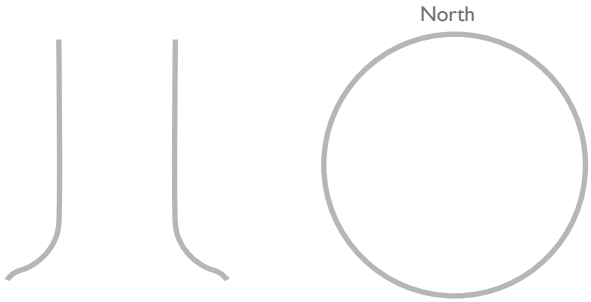
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Prune overextended branches — **Residual risk** Low

Prune co-dominant stem — **Residual risk** Low

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ■ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1405

Address/Tree location 51 Thomas Ave Tree no. 6 Sheet 6 of 22

Tree species Quercus alba dbh 48" Height 100' Crown spread dia. 40'

Assessor(s) JCE Time frame 4 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street vehicles, sidewalk; target area extends to Tree no. 4	✔	✔	✔	3	N	N
2	51 Thomas Ave, house	✔	✔	✔	4	N	N
3	67 Thomas Ave, house	✔	✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 50 % Describe Sidewalks, paved roads

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 90 % Chlorotic _____% Necrotic 10 %

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☐ Moss, vines on trunk

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 60 %

Dead twigs/branches ■ 5 % overall Max. dia. 2"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 2 or 3 others Included bark ■

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Overextended branching towards Thomas Ave. Low hanging branch over driveway of 67 Thomas Ave. Several branches are low-hanging and curling. Poor attachment among codominant stems in canopy

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ☐ Probable ■ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ■

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean 2 ° Corrected? Yes

Response growth _____

Main concern(s) poor taper

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 12" Stem girdling ■

Dead ☐ Decay ■ Conks/Mushrooms ■

Ooze ☐ Cavity ■ 5 % circ.

Cracks ■ Cut/Damaged roots ■ Distance from trunk 6"

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Large mushrooms at base; possible stem girdling adjacent to sidewalk

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

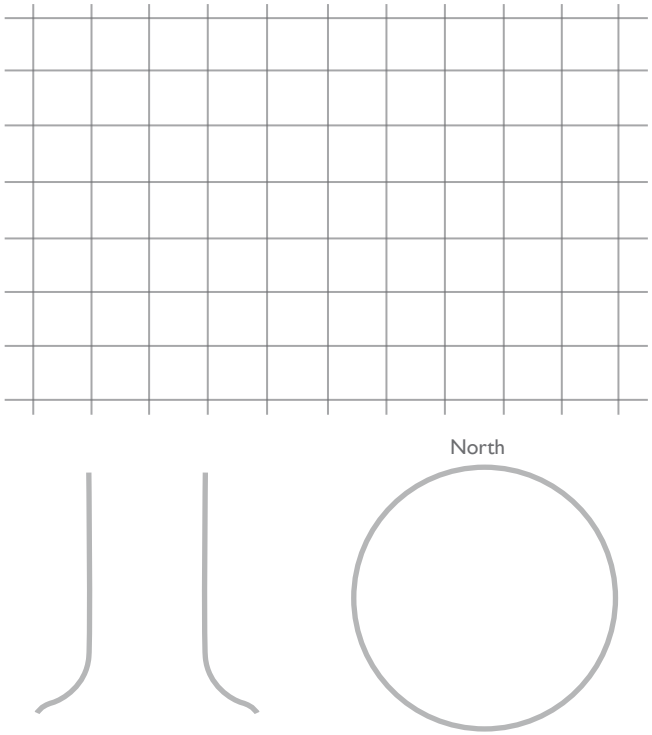
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Over-extended, low hanging branches	10"	20'	1	N/A	○	○	◉	○	○	○	○	◉	○	○	◉	○	○	○	◉	○	H
			10"	25'	3	N/A	○	○	◉	○	○	○	○	◉	○	○	◉	○	○	○	◉	○	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Trunk	Decay present, included bark	48"	100'	1-3	N/A	○	◉	○	○	○	○	○	◉	○	◉	○	○	○	○	○	◉	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Roots	Large mushrooms at base, stem girdling, cavities. and root damage	48"	100'	1-3	N/A	○	◉	○	○	○	○	○	◉	○	◉	○	○	○	○	○	◉	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Trunk is leaning towards 67 Thomas Ave slightly, and many low hanging branches are growing towards 67 Thomas Ave, also, increasing potential risk. Pruning should be performed ASAP

Mitigation options Prune overextended and low hanging branches — **Residual risk** Moderate

Residual risk _____

Residual risk _____

Residual risk _____

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐ — **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐ — **Recommended inspection interval** 1 year

Data ☐Final ■Preliminary **Advanced assessment needed** ☐No ■Yes-Type/Reason Resistance drilling/tomography to assess decay at base

Inspection limitations ☐None ☐Visibility ☐Access ☐Vines ☐Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1425

Address/Tree location 75 Thomas Ave Tree no. 7 Sheet 7 of 22

Tree species Picea abies dbh 28" Height 80' Crown spread dia. 13'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave, street and sidewalk	✔	✔	✔	3	N	N
2	75 Thomas Ave, house	✔	✔	✔	4	N	N
3	83 Thomas Ave, house	✔	✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ 50 % Describe Sidewalks, paved roads

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ■ Medium ☐ Large ☐

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☐ _____

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 38 %

Dead twigs/branches ■ 1 % overall Max. dia. 1"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ☐

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 1 small branch on northeast side Included bark ☐

Weak attachments ☐ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Codominant branch

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ■

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean _____° Corrected? _____

Response growth _____

Main concern(s) Excessive cutting of lower branches; black discoloration of trunk in places

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) _____

Load on defect N/A ■ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

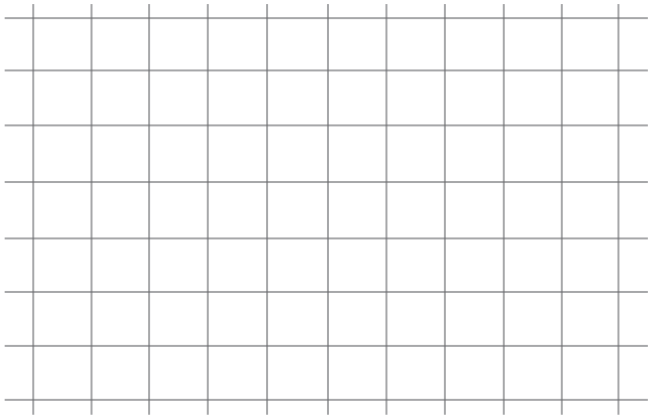
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branch	Small codominant branch in canopy	6"	35'	1-3	N/A	○	●	○	○	○	●	○	○	●	○	○	○	○	○	●	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Trunk	Poor taper makes tree more susceptible to impacts from wind	28"	80'	1-3	N/A	○	●	○	○	○	●	○	○	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

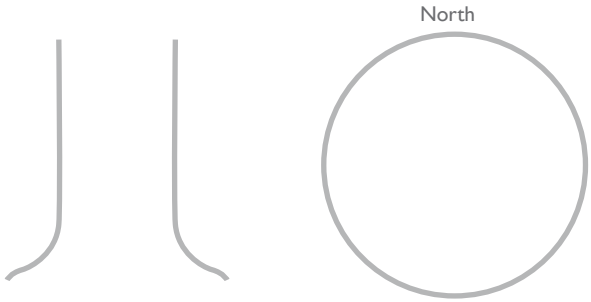
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions Sap ooze from trunk is normal for this tree however more time should pass before additional pruning is performed to allow tree to recover

Mitigation options Remove or prune codominant stem from canopy **Residual risk** Low

Residual risk _____

Residual risk _____

Residual risk _____

Overall tree risk rating Low ■ Moderate ☐ High ☐ Extreme ☐ **Work priority** 1 ■ 2 ☐ 3 ☐ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1445

Address/Tree location 83 Thomas Ave Tree no. 8 Sheet 8 of 22

Tree species Acer platanoides dbh 28" Height 80' Crown spread dia. 30'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare, 2–occasional, 3–frequent, 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk	✔	✔	✔	3	N	N
2	83 Thomas Ave - house	✔	✔	✔	4	N	N
3	91 Thomas Ave - house	✔	✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 25-50 % Describe Street, sidewalks, driveway

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 99 % Chlorotic _____% Necrotic 1 %

Pests _____ **Abiotic** _____

Species failure profile Branches ■ Trunk ■ Roots ■ Describe Codominant leaders, internal decay resulting from poor pruning & root damage

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ■ Large ☐

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐ Moss on co-dom stems

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 45 %

Dead twigs/branches ■ 1 % overall Max. dia. 1"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ _____ Included bark ■

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Over-extended, low-hanging branches growing towards 83 Thomas Ave and main street, too

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ■ Abnormal bark texture/color ■

Codominant stems ■ Included bark ■ Cracks ■

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean 5 ° Corrected? No

Response growth _____

Main concern(s) 2 other codominant stems with poor angles of attachment; discolored blotches on stems

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ■

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 12" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Roots buried under concrete, pavement

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

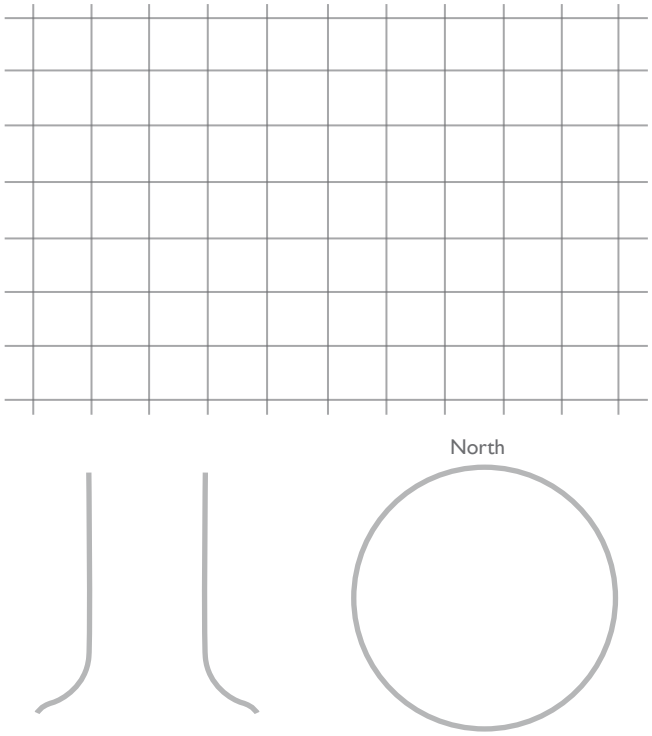
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Low hanging, overextended branches	8"	25'	2,3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Trunk	Codominant stems poorly attached with signs of decay	12"	10'	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
			12"	10'	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Tar spots present on nearly all leaves, covering ~10% of leaf surface on average. This is normal for this tree species and isn't considered harmful to its overall health.

Mitigation options Remove or prune codominant stems — **Residual risk** Low

Prune low-hanging, overextended branches — **Residual risk** Low

Residual risk _____

Residual risk _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ■ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1505

Address/Tree location 91 Thomas Ave Tree no. 9 Sheet 9 of 22

Tree species Quercus rubra dbh 74" Height 100' Crown spread dia. 60'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk, power lines on opposite side of street	✔	✔	✔	3	N	N
2	91 Thomas Ave, house	✔	✔	✔	4	N	N
3	83 Thomas Ave, house	✔	✔	✔	4	N	N
4	99 Thomas Ave, house	✔	✔	✔	4	N	N

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 50 % Describe Sidewalks, street, driveway

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ■ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☐ Moss on trunk

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 70 %

Dead twigs/branches ■ 1 % overall Max. dia. 6"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other Removal

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 4 or 5 Included bark ■

Weak attachments ■ low over driveway Cavity/Nest hole 50 % circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Low, overextended branches over driveway and Thomas Ave

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ■ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean 5 ° Corrected? Yes

Response growth _____

Main concern(s) Discoloration observed in ridges, furrows of trunk

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 40" Stem girdling ☐

Dead ☐ Decay ■ Conks/Mushrooms ☐

Ooze ☐ Cavity ■ 10 % circ.

Cracks ☐ Cut/Damaged roots ■ Distance from trunk 15'

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Cavity at tree base

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

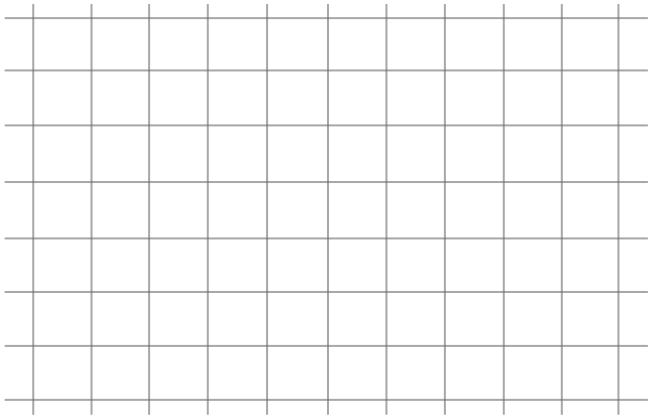
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branch	Low, overextended branches over driveway	12"	30'	2	N/A		●						●		●					●		M
2	Branch	Dead branch in canopy	6"	50'	1	N/A		●						●		●					●		L
3	Canopy	Co-dominant stems at poor attachment angles	18"	30'	1-4	N/A		●					●		●							●	L
			18"	30'	1-4	N/A																	
4	Roots	Cavity at tree base	6"	100'	1-4	N/A		●					●		●							●	L

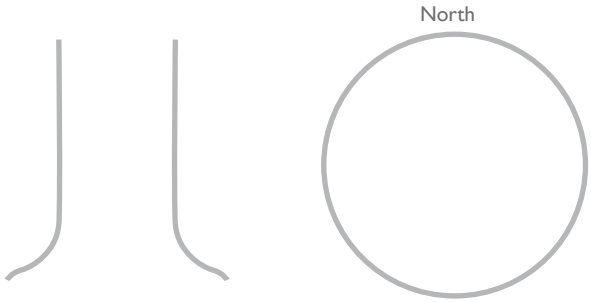
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Prune dead, overextended, and low-hanging branches — **Residual risk** Low

Remove or prune co-dominant stems — **Residual risk** Low

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ■ 2 ☐ 3 ☐ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1605

Address/Tree location 99 Thomas Ave Tree no. 10 Sheet 10 of 22

Tree species Quercus alba dbh 48" Height 100' Crown spread dia. 45'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk, street light on opposite side of street	✔	✔	✔	3	N	N
2	99 Thomas Ave - house	✔	✔	✔	4	N	N
3	91 Thomas Ave - house	✔	✔	✔	4	N	N
4	111 Thomas Ave - house	✔	✔	✔	4	N	N

Site Factors

History of failures _____ **Topography** Flat ☒ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 50 % Describe _____

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ☒

Crown density Sparse ☐ Normal ☐ Dense ■ **Interior branches** Few ☐ Normal ☐ Dense ■ **Vines/Mistletoe/Moss** ☑ Moss on trunk

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 40 %

Dead twigs/branches ■ 1 % overall Max. dia. 1"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other Removal

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 7 or 8 Included bark ■

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Overextended, low-hanging branches across Thomas Ave and driveways

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean _____° Corrected? _____

Response growth _____

Main concern(s) Poor trunk taper

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 8" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

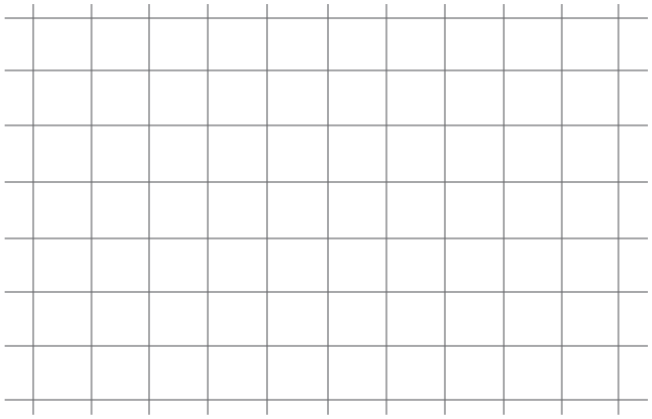
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Overextended, low-hanging	12"	25'	2	Prune	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Canopy	Co-dominant stems	16"	60'	1-4	Remove	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Poor taper	48"	100'	1-4	Remove	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

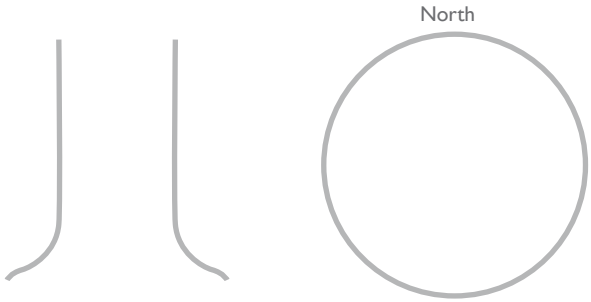
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Prune low-hanging, overextended branches — **Residual risk** Moderate

Remove co-dominant canopy stems — **Residual risk** Low

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1625

Address/Tree location 279 Thomas Ave Tree no. 11 Sheet 11 of 22

Tree species Aesculus hippocastanum dbh 13" Height 60' Crown spread dia. 15'

Assessor(s) JCE Time frame 4 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk	✔	✔	✔	3	N	N
2	279 Thomas Ave - house	✔	✔	✔	4	N	N
3	273 Thomas Ave - house	✔	✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 50 % Describe sidewalk, driveway

Prevailing wind direction _____ **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe brance failure as the result of poor attachment angles

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ■ Large ☐

Crown density Sparse ☐ Normal ☐ Dense ■ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐ _____

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 60 %

Dead twigs/branches ☐ ____% overall Max. dia. _____

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ☐

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 1 _____ Included bark ☐

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth Cuts have healed well

Main concern(s) Downward curving branches

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ■ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean _____° Corrected? _____

Response growth _____

Main concern(s) Missing tree bark at base indicates possible decay; poor taper

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Roots buried under concrete

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

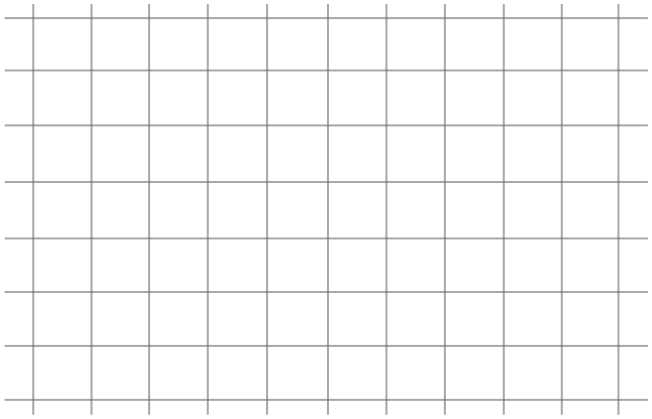
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Downward curving branching in canopy	10"	30'	1,2	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
			10"	30'	3	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	●	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Trunk	possible decay at base	13"	60'	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Poor taper	13"	60'	1-3	N/A	●	○	○	○	○	○	○	●	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

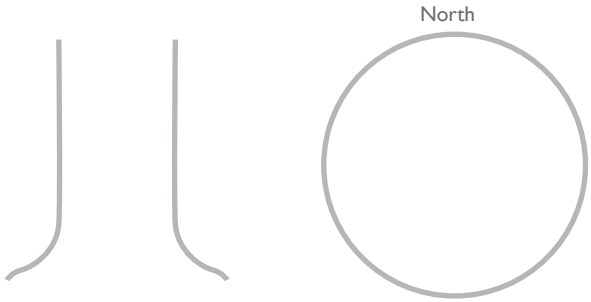
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Prune curved canopy branches — **Residual risk** Moderate

Remove co-dominant canopy stem — **Residual risk** Moderate

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ■ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐ **Recommended inspection interval** 1-2 years

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1640

Address/Tree location 312 Thomas Ave Tree no. 12 Sheet 12 of 22

Tree species Acer × freemanii dbh 23" Height 45' Crown spread dia. 10'

Assessor(s) JCE Time frame 3 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk	✔	✔	✔	3	N	N
2	Electric line and utility pole on east side of Thomas Ave	✔	✔	✔	4	N	N
3							
4							

Site Factors

History of failures **Topography** Flat ■ Slope ☐ % **Aspect**

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ % Describe

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 95 % Chlorotic 5 % Necrotic % **Pests** **Abiotic**

Species failure profile Branches ■ Trunk ■ Roots ■ Describe Codominant leaders, internal decay resulting from poor pruning & root damage

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ **Relative crown size** Small ■ Medium ☐ Large ☐

Crown density Sparse ■ Normal ☐ Dense ☐ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐

Recent or planned change in load factors

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 45 %

Dead twigs/branches ☐ 60 % overall Max. dia. 18"

Broken/Hangers Number 2 Max. dia. 8"

Over-extended branches ☐

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other

Cracks ☐ Lightning damage ☐

Codominant ■ 1 Included bark ■

Weak attachments ■ Cavity/Nest hole 50 % circ.

Previous branch failures ☐ Similar branches present ☐

Dead/Missing bark ■ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐

Response growth

Main concern(s) Multiple broken, dead branches with power lines running through the canopy

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ■

Likelihood of failure Improbable ☐ Possible ☐ Probable ■ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole % circ. Depth Poor taper ■

Lean 10 ° Corrected? Partially

Response growth

Main concern(s) Leaning trunk

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ % circ.

Cracks ☐ Cut/Damaged roots ■ Distance from trunk 3'

Root plate lifting ☐ Soil weakness ☐

Response growth

Main concern(s) Cut roots

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

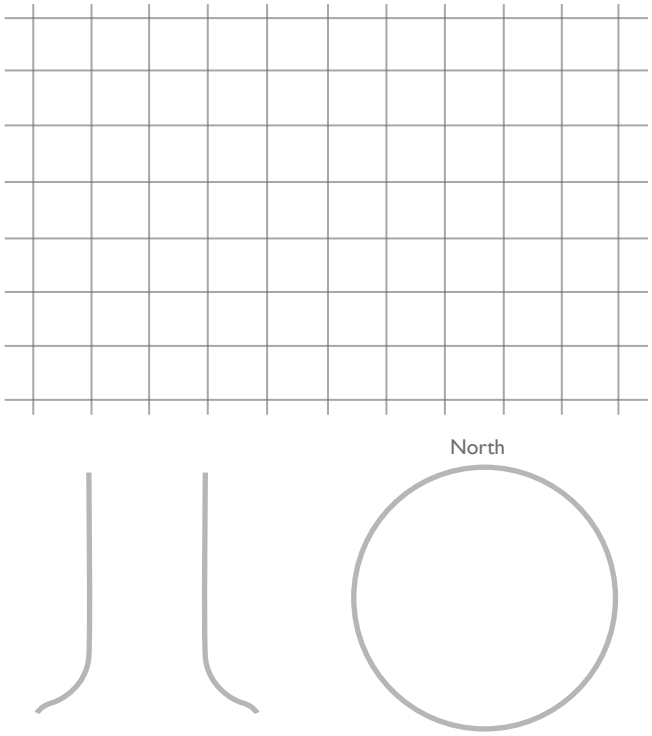
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Canopy	Unbalanced with multiple dead and broken branches	18"	25'	1,2	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	○	●	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Trunk	Leaning	23"	45'	1,2	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	○	●	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Roots	Cut	3"	0'	1,2	N/A	●	○	○	○	●	○	○	○	●	○	○	○	○	○	●	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Tree is looking sickly and should be removed soon from area before serious event occurs

Mitigation options Remove tree — **Residual risk** None

Prune dead branches — **Residual risk** High

Residual risk _____

Residual risk _____

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐ **Work priority** 1 ■ 2 ☐ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ☐ High ■ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1700

Address/Tree location 342 Thomas Ave Tree no. 13 Sheet 13 of 22

Tree species Acer platanoides dbh 23" Height 85' Crown spread dia. 25'

Assessor(s) JCE Time frame 3-4 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk, power lines running through tree canopy	✔	✔	✔	3	N	N
2	342 Thomas Ave - house	✔	✔	✔	4	N	N
3	349 Thomas Ave - house			✔	4	N	N
4	343 Thomas Ave - house			✔	4	N	N

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ☐ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 25 % Describe Street, sidewalk

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 50 % Chlorotic 50 % Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ■ Trunk ■ Roots ■ Describe Codominant leaders, internal decay resulting from poor pruning & root damage

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ■ Large ☐

Crown density Sparse ■ Normal ☐ Dense ☐ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐ Ivy on trunk

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 40 %

Dead twigs/branches ☐ ____% overall Max. dia. _____

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ☐

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ☐ _____ Included bark ☐

Weak attachments ■ _____ Cavity/Nest hole 50 % circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ■ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Interior of tree is wide open

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ☐ Probable ■ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ■ Included bark ■ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean _____° Corrected? _____

Response growth _____

Main concern(s) 3 co-dominant stems. Middle stem has large, open cavity with power lines through canopy

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure

Improbable ☐ Possible ☐ Probable ■ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 4" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ■ Distance from trunk 3'

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Roots largely covered up

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

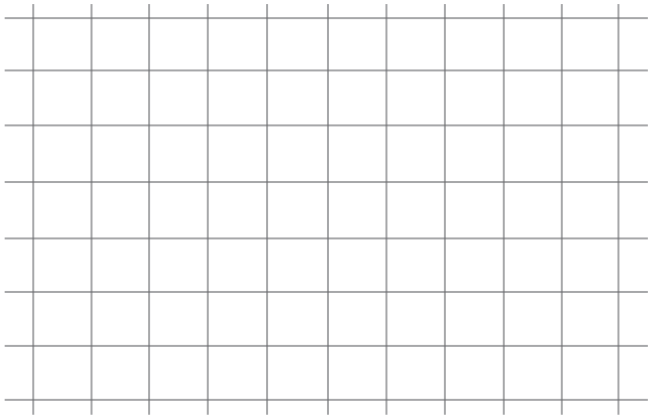
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Canopy	Sparse interior canopy	14"	85'	1,2	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
			16"	85'	3,4	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	●	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Trunk	Multiple co-dominant stems	14"	15'	1,2	N/A	○	●	○	○	○	○	○	●	○	○	○	○	○	○	○	●	M
			16"	15'	3,4	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	●	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Large open cavity in middle leader	14"	15'	1,2	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
			14"	15'	3,4	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	●	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4	Roots	roots have been cut 3' from trunk and likely covered by concrete	3"	0	1-4	N/A	●	○	○	○	●	○	○	○	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

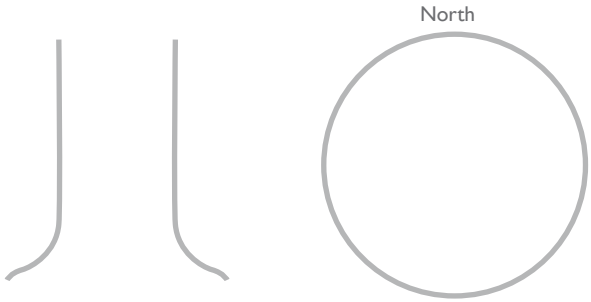
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options

Remove one of the co-dominant leaders	**Residual risk**	Moderate
Remove tree	**Residual risk**	None
Remove dead branches, or branches with poor attachment to trunk	**Residual risk**	Moderate
	Residual risk	

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1715

Address/Tree location 342 Thomas Ave Tree no. 14 Sheet 14 of 22

Tree species Ulmus americana dbh 13" Height 60' Crown spread dia. 15'

Assessor(s) JCE Time frame 3 Years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk, power lines	✔	✔	✔	3	N	N
2	342 Thomas Ave - house			✔	4	N	N
3	361 Thomas Ave - house			✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 25 % Describe Street

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 5 % Chlorotic _____% Necrotic 95 %

Pests Dutch elm disease fungus **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Poor branch attachment angles

Load Factors

Wind exposure Protected ☐ Partial ☐ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ☐

Crown density Sparse ■ Normal ☐ Dense ☐ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐ _____

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 30 %

Dead twigs/branches ■ 5 % overall Max. dia. 2"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ☐

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ☐ _____ Included bark ☐

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth Poor resprouting near flush cut

Main concern(s) Potential for dead branch in canopy to fail

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure Improbable ☐ Possible ☐ Probable ■ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ■ Included bark ■ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean _____° Corrected? _____

Response growth _____

Main concern(s) Co-dominant stems

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ■

Likelihood of failure

Improbable ☐ Possible ☐ Probable ■ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ■ Depth _____ Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Base covered by barberry shrub

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

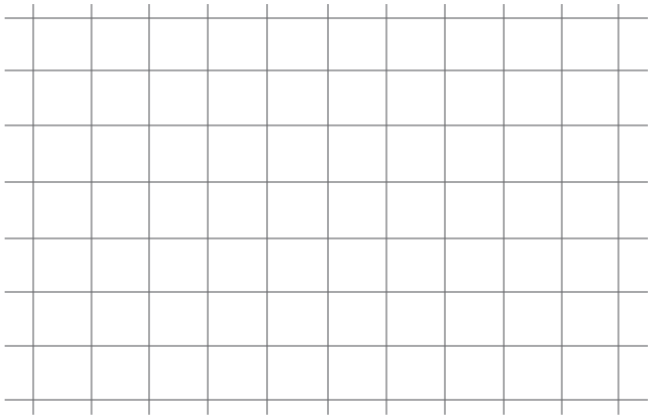
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Canopy	Dead branch may fail	1"	20'	1	N/A			●					●			●			●			L
			1"	20'	2,3	N/A			●			●			●					●			L
2	Trunk	Co-dominant leader	8"	60'	1	N/A		●						●		●						●	M
			8"	60'	2,3	N/A		●					●		●							●	L
3	Roots	Covered	13"	60'	1			●			●				●							●	L
			13"	60'	2,3			●			●				●							●	L
4																							

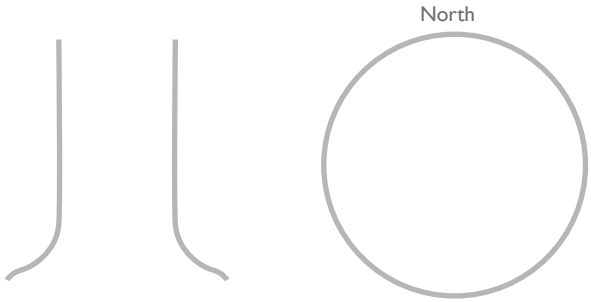
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions Necrosis occurs on less than 5% of leaf surface, on average

Mitigation options

Prune dead, overextended canopy branch — **Residual risk** Moderate

Remove co-dominant leader — **Residual risk** Low

Expose roots — **Residual risk** Moderate

Residual risk

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐

Work priority 1 ■ 2 ☐ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐

Recommended inspection interval 1 year

Data ☐Final ■Preliminary **Advanced assessment needed** ☐No ■Yes-Type/Reason Resistance drilling/tomography

Inspection limitations ☐None ☐Visibility ☐Access ☐Vines ■Root collar buried Describe Roots not visible

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1730

Address/Tree location 342 Thomas Ave Tree no. 15 Sheet 15 of 22

Tree species Ulmus americana dbh 28" Height 80' Crown spread dia. 25'

Assessor(s) JCE Time frame 4 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk, power lines	✔	✔	✔	3	N	N
2	342 Thomas Ave - house			✔	4	N	N
3	361 Thomas Ave - house			✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 25 % Describe Street

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 95 % Chlorotic _____% Necrotic 5 %

Pests Dutch elm disease fungus **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Poor branch attachment angles

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ☐

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐ _____

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 25 %

Dead twigs/branches ☐ 10 % overall Max. dia. 3"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ _____ Included bark ☐

Weak attachments ■ _____ Cavity/Nest hole 50 % circ.

Previous branch failures ■ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth shoots where branches have either broken off or cut

Main concern(s) Over-extended branches over Thomas Ave; open cavities in upper branches suggests decay

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ☐ Probable ■ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ■ Included bark ☐ Cracks ■

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean _____° Corrected? _____

Response growth _____

Main concern(s) Co-dominant leader

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ■ 5 % circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Base covered by barberry shrub
Cavity at tree base

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

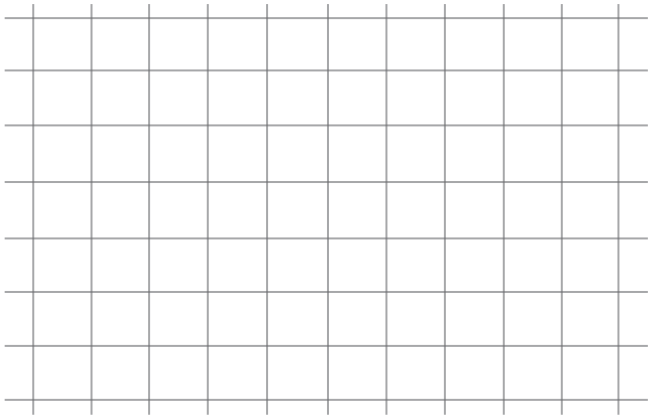
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Canopy	Dieback in canopy	1"	80"	1	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	●	○	○	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Branches	Over-extended over Thomas Ave.	2"	80'	1	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	○	●	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Co-dominant leader	14"	80'	1	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
			14"	80'	2,3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4	Roots	Cavity at tree base	6"	0	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	●	○	○	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

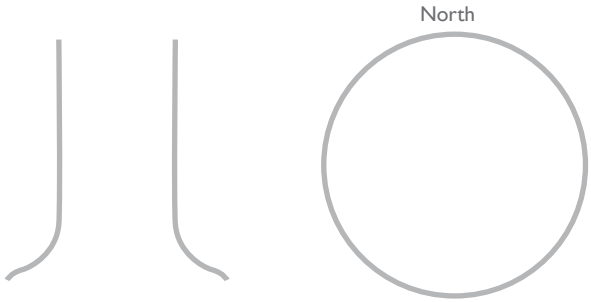
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions Necrosis occurs on less than 5% of leaf surface, on average

Mitigation options Prune overextended canopy branch — **Residual risk** Moderate

Remove or prune co-dominant leader — **Residual risk** Low

Remove tree — **Residual risk** None

Residual risk _____

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1740

Address/Tree location 385 Thomas Ave Tree no. 16 Sheet 16 of 22

Tree species Quercus alba dbh 42" Height 100' Crown spread dia. 35'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - Street, sidewalk, powerline	✔	✔	✔	3	N	N
2	385 Thomas Ave - house	✔	✔	✔	4	N	N
3							
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ 50 % Describe Driveway, sidewalk

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ■ Trunk ■ Roots ■ Describe Codominant leaders, internal decay resulting from poor pruning & root damage

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ☐ Dense ■ **Interior branches** Few ☐ Normal ☐ Dense ■ **Vines/Mistletoe/Moss** ☐ _____

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 65 %

Dead twigs/branches ■ 1 % overall Max. dia. 1"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 2 others Included bark ■

Weak attachments ■ _____ Cavity/Nest hole 90 % circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Low-hanging, over-extended branches over street and house. Branches are curved in multiple directions.

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole 90 % circ. Depth 8" Poor taper ■

Lean _____° Corrected? _____

Response growth _____

Main concern(s) Cavity in trunk

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 2" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Roots under paved road, sidewalk, drive-way

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

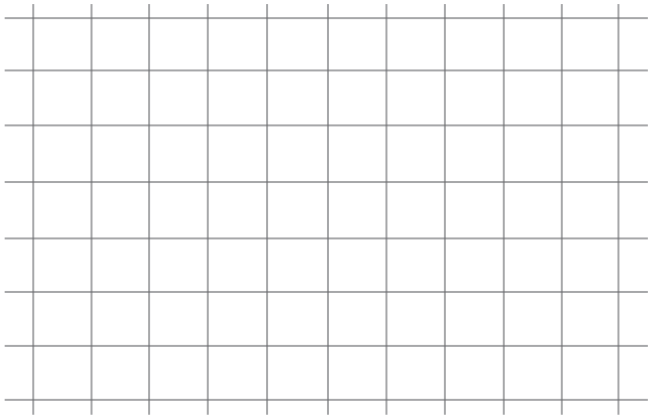
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Low-hanging, over extended, curved	6"	40'	1	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
			6"	70'	2	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Canopy	Co-dominant stems	12"	65'	1-2	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	large cavity	8"	100'	1-2	N/A	●	○	○	○	○	○	○	●	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

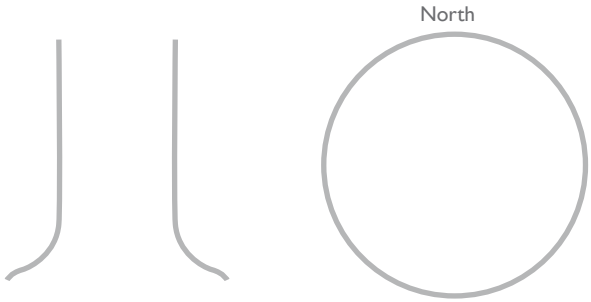
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Prune or remove overextended, low-hanging branches — **Residual risk** Low

Prune or remove one or two co-dominant stems — **Residual risk** Low

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1755

Address/Tree location 385 Thomas Ave Tree no. 17 Sheet 17 of 22

Tree species Quercus alba dbh 43" Height 100' Crown spread dia. 40'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk	✔	✔	✔	3	N	N
2	385 Thomas Ave - house	✔	✔	✔	4	N	N
3	389 Thomas Ave - house	✔	✔	✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 50 % Describe sidewalk, driveway

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 98 % Chlorotic 1 % Necrotic 1 %

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☐ Moss on trunk

Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 60 %

Dead twigs/branches ■ 5 % overall Max. dia. 1"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 1-2 others Included bark ■

Weak attachments ■ _____ Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Over-extended branches towards Thomas Ave (street) and 385 Thomas Ave. Majority of branching towards the South. Little to no branching towards the North.

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ■

Lean _____° Corrected? _____

Response growth _____

Main concern(s) Moss on trunk, poor taper

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ■ Depth _____ Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Buried root collar

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

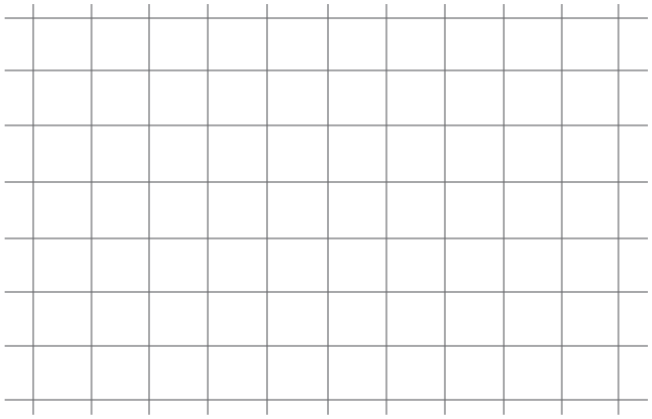
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Over-extended	8"	60'	1	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
			8"	60'	2-3	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	●	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Canopy	Co-dominant stems	12"	60'	1-3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Poor taper	43"	100'	1-3	N/A	●	○	○	○	○	○	○	●	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4	Roots	Buried root collar	43'	100'	1-3	N/A	●	○	○	○	○	○	○	●	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

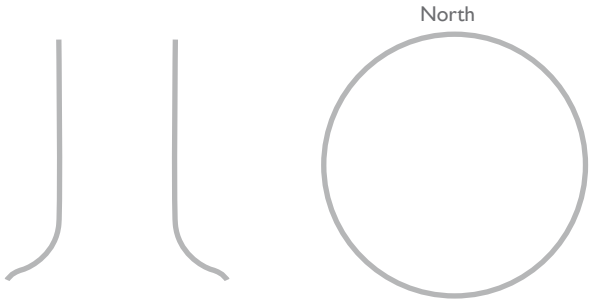
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Prune or remove overextended, low-hanging branches — **Residual risk** Low

Prune or remove one or two of the co-dominant leaders — **Residual risk** Low

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ☐ Final ■ Preliminary **Advanced assessment needed** ☐ No ■ Yes-Type/Reason resistance drilling

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ■ Root collar buried Describe roots were not visible

Basic Tree Risk Assessment Form

Client MCDOT Date 8/29/25 Time 1815

Address/Tree location 494 Sagamore Dr Tree no. 18 Sheet 18 of 22

Tree species Sassafras albidum dbh 30" Height 45' Crown spread dia. 20'

Assessor(s) JCE Time frame 3 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street, sidewalk, power lines	✔	✔	✔	3	N	N
2	494 Sagamore Dr - house			✔	4	N	N
3	493 Sagamore Dr - house			✔	4	N	N
4							

Site Factors

History of failures _____ **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ■ 25 % Describe street, sidewalk

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ■ Medium ☐ Large ☐

Crown density Sparse ■ Normal ☐ Dense ☐ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐ _____

Recent or planned change in load factors Dominant leader topped for power line

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 40 %

Dead twigs/branches ■ 35 % overall Max. dia. 1"

Broken/Hangers Number 1 Max. dia. 30"

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ☐ Topped ■ Lion-tailed ☐

Flush cuts ☐ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ Co-dominant replaced topped leader Included bark ☐

Weak attachments ■ _____ Cavity/Nest hole 65 % circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ■ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth Epicormic shoots

Main concern(s) Low-hanging, over-extended branches to street and sidewalk at poor angle of attachment. Large cavities on branches

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ■ _____

Likelihood of failure Improbable ☐ Possible ☐ Probable ■ Imminent ☐ _____

— Trunk —

Dead/Missing bark ■ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ■ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole 50 % circ. Depth 6" Poor taper ■

Lean 5 ° Corrected? No

Response growth _____

Main concern(s) Cavities in trunk, bark missing in several places

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ☐ Probable ■ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 3" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ■ Distance from trunk 2"

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Roots covered by sidewalk

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

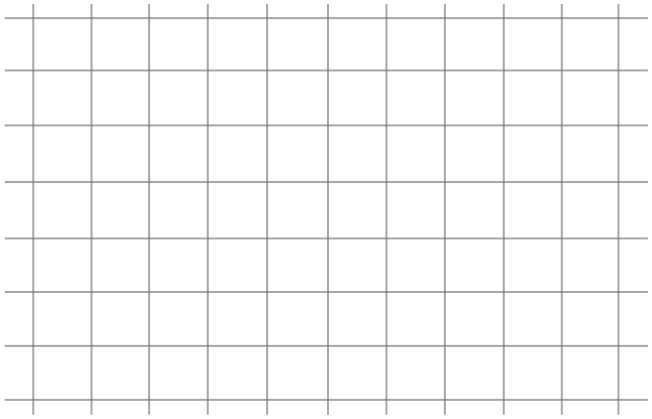
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Overextended, poor angle of attachment	12"	20'	1	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	●	○	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Branches	Multiple large cavities	4"	20'	1	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	●	○	H
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Leaning trunk	30"	45'	1	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	○	●	H
			30"	45'	2	N/A	○	○	●	○	○	○	●	○	○	●	○	○	○	○	○	●	M
			30"	45'	3	N/A	○	○	●	○	○	○	●	○	○	●	○	○	○	○	○	●	M
4	Trunk	Multiple large cavities	4"	45'	1	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	○	●	H
			4"	45'	2	N/A	○	○	●	○	○	○	●	○	○	●	○	○	○	○	○	●	M
			4"	45'	3	N/A	○	○	●	○	○	○	●	○	○	●	○	○	○	○	○	●	M

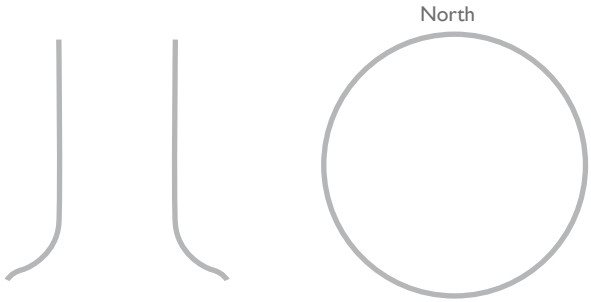
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions _____

Mitigation options Remove low-hanging, over extended branch — **Residual risk** High

Remove tree — **Residual risk** None

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ☐ High ■ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 5/7/26 Time 1040

Address/Tree location 342 Thomas Ave Tree no. 19 Sheet 19 of 22

Tree species Ulmus americana dbh 39" Height 100' Crown spread dia. 80'

Assessor(s) JCE Time frame 4 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street vehicles, sidewalk, and utility lines	✔	✔	✔	3	N	N
2	328 Thomas Ave, house			✔	4	N	N
3	342 Thomas Ave, house		✔	✔	4	N	N
4	343 Thomas Ave, house			✔	4		

Site Factors

History of failures N/A **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ _____% Describe _____

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** Dutch elm disease can be fatal

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Poor branch attachment

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ■

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☑ Moss present

Recent or planned change in load factors N/A

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 50 %

Dead twigs/branches ☐ ____% overall Max. dia. _____

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ 1 Included bark ☐

Weak attachments ■ Poor angles Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth Epicormic branching observed

Main concern(s) Low branch extends over Thomas Ave above 343 Thomas Ave on opposite side of street

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ■ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean 5 ° Corrected? Yes

Response growth No

Main concern(s) co-dominant stem; discoloration observed on trunk which may indicate bacterial wetwood

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) _____

Load on defect N/A ■ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

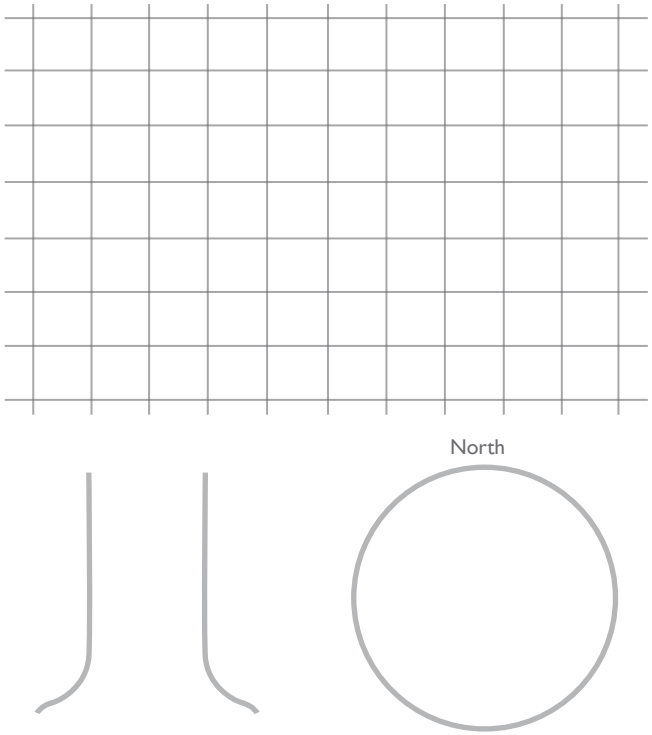
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Over-extended, low branch across street to opposite side	19"	25'	1	N/A	○	○	●	○	○	○	○	●	○	○	●	○	○	○	○	●	H
			19"	25'	2	N/A	○	○	●	○	○	●	○	○	●	○	○	○	○	●	○	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Canopy	Co-dominant branching	20"	40'	1-3	N/A	○	●	○	○	○	○	●	○	●	○	○	○	○	○	○	●	L
			3"	5-30'	2	Branches	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Discoloration	39"	0'	1-3	N/A	○	●	○	○	○	●	○	○	●	○	○	○	○	○	○	●	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Discoloration is not likely a serious issue. However, if sudden branch dieback or rapid leaf wilting is seen it may be a symptom of Dutch Elm Disease, which would require immediate intervention.

Mitigation options Prune or remove overextended, low-hanging branch — **Residual risk** Low

Remove co-dominant canopy branches — **Residual risk** Low

_____ — **Residual risk** _____

_____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 5/7/26 Time 0950

Address/Tree location 342 Thomas Ave Tree no. 20 Sheet 20 of 22

Tree species Tilia cordata dbh 37" Height 100' Crown spread dia. 30'

Assessor(s) JCE Time frame 4 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street vehicles, sidewalk, and utility lines	✔	✔	✔	3	N	N
2	342 Thomas Ave, house		✔	✔	4	N	N
3	343 Thomas Ave, house			✔	4	N	N
4							

Site Factors

History of failures N/A **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ _____% Describe _____

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests Webworm **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Poor branch attachment

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☑ Large ☐

Crown density Sparse ☐ Normal ■ Dense ☐ **Interior branches** Few ☐ Normal ■ Dense ☐ **Vines/Mistletoe/Moss** ☑ Moss present

Recent or planned change in load factors N/A

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 80 %

Dead twigs/branches ■ 3 % overall Max. dia. <1"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ☐ _____ Included bark ☐

Weak attachments ■ Curved branches Cavity/Nest hole ____% circ.

Previous branch failures ■ _____ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ■ Sapwood damage/decay ■

Conks ☐ Heartwood decay ☐ _____

Response growth Curved branching

Main concern(s) Large, low-hanging overextended branch reaches over Thomas Ave could fail and hit passersby along Target 1. Orange discoloration and moss on same branch

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ _____

Likelihood of failure Improbable ☐ Possible ■ Probable ☐ Imminent ☐ _____

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ■ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ■ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean 5 ° Corrected? No

Response growth Basal sprouters

Main concern(s) co-dominant stem; discoloration observed on trunk which may indicate bacterial wetwood

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ■ Depth _____ Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) _____

Load on defect N/A ■ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

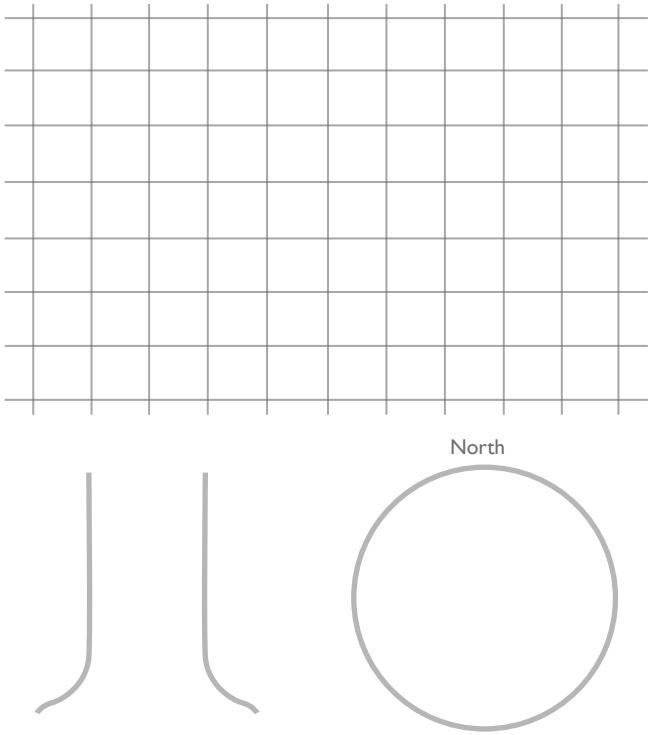
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Over-extended, low branch across street to opposite side	15"	25'	1	N/A	○	○	◉	○	○	○	○	◉	○	○	◉	○	○	○	○	◉	H
			15"	25'	2	N/A	○	○	◉	○	○	◉	○	○	◉	○	○	○	○	○	○	◉	L
			15"	25'	3	N/A	○	○	◉	○	○	◉	○	○	◉	○	○	○	○	○	○	◉	L
2	Canopy	Curved branches	6"	25'	1-3	Branches	○	◉	○	○	○	○	○	◉	○	◉	○	○	○	○	◉	○	M
			3"	60'	1-3	Branches	○	◉	○	○	○	○	○	◉	○	◉	○	○	○	○	◉	○	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Discoloration	37"	0'	1-3	N/A	○	◉	○	○	○	◉	○	○	◉	○	○	○	○	○	○	◉	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4	Roots	Buried root collar	37"	0'	1-3	N/A	◉	○	○	○	◉	○	○	○	◉	○	○	○	◉	○	○	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Discoloration is not likely a serious issue. However, if sudden branch dieback or rapid leaf wilting becomes visible, itmay be a symptom of decay, which would require immediate intervention.

Mitigation options Prune or remove overextended, low-hanging branch — **Residual risk** Low

Prune or remove curved branches — **Residual risk** Low

Residual risk

Residual risk

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ☐Final ■Preliminary **Advanced assessment needed** ☐No ■Yes-Type/Reason resistance drilling

Inspection limitations ☐None ☐Visibility ☐Access ☐Vines ■Root collar buried Describe roots not visible

Basic Tree Risk Assessment Form

Client MCDOT Date 5/7/26 Time 1100

Address/Tree location 342 Thomas Ave Tree no. 21 Sheet 21 of 22

Tree species Acer rubrum dbh 32" Height 100' Crown spread dia. 30'

Assessor(s) JCE Time frame 3 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street vehicles, sidewalk, and utility lines	✔	✔	✔	3	N	N
2	342 Thomas Ave, house	✔	✔	✔	4	N	N
3	349 Thomas Ave, house		✔	✔	4	N	N
4	361 Thomas Ave, house			✔	4	N	N

Site Factors

History of failures N/A **Topography** Flat ■ Slope ☐ _____% **Aspect** _____

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ _____% Describe _____

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 100 % Chlorotic _____% Necrotic _____%

Pests _____ **Abiotic** _____

Species failure profile Branches ■ Trunk ■ Roots ☐ Describe Co-dominant leaders with included bark

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ■ Medium ☐ Large ☐

Crown density Sparse ■ Normal ☐ Dense ☐ **Interior branches** Few ■ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☑ _____

Recent or planned change in load factors N/A

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 35 %

Dead twigs/branches ■ 40 % overall Max. dia. 6"

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ■ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ■ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ _____ Included bark ☐

Weak attachments ■ Curved branches Cavity/Nest hole ____% circ.

Previous branch failures ■ _____ Similar branches present ☐

Dead/Missing bark ■ Cankers/Galls/Burls ■ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Branches have poor angles of attachment. Significant crown dieback observered.

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure Improbable ☐ Possible ☐ Probable ■ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ■

Codominant stems ☐ Included bark ■ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ■ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐

Lean _____° Corrected? No

Response growth Cankers are sealed

Main concern(s) Included bark, moss along trunk, black line visible at first crown joint juncture

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth 6" Stem girdling ☐

Dead ☐ Decay ■ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ _____% circ.

Cracks ☐ Cut/Damaged roots ■ Distance from trunk 5' 4"

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Main concern(s) Roots visible, extend well past trunk base. Decay will accelerate if roots are damaged or removed

Load on defect N/A ■ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

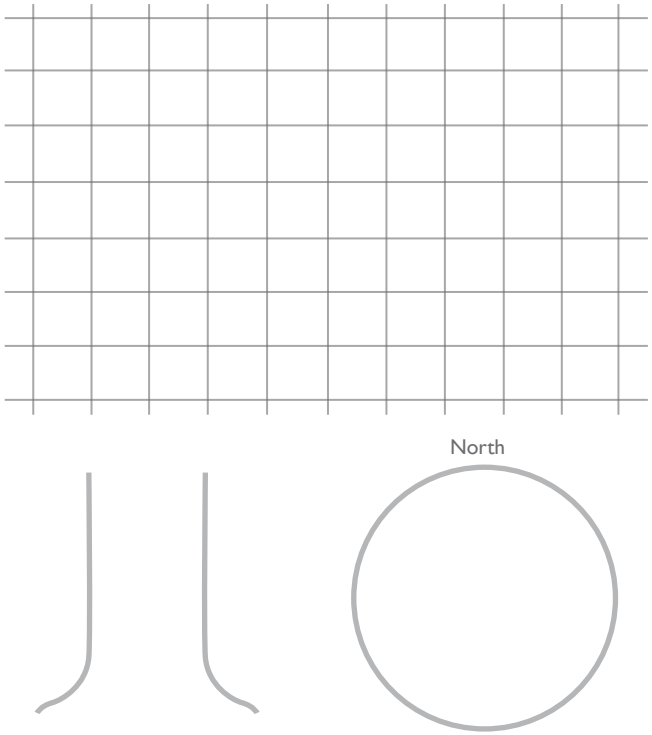
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Significant dieback with poor attachment angles	6"	65'	3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
			6"	75'	3	N/A	○	●	○	○	○	○	○	●	○	●	○	○	○	○	●	○	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
2	Roots	Exposed root system	2"	0'	1-3	N/A	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	L
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
3	Trunk	Included bark	32"	60'	1-3	N/A	○	●	○	○	○	○	●	○	○	●	○	○	○	○	○	●	M
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
4							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions Lower LCR with canopy dieback observed on nearly half of canopy branches. Roots are exposed and are susceptible to mechanical impacts. Tree does not appear to be very healthy. Should assess tree again in a month or two to observe canopy in full leaf out.

Mitigation options

Prune or remove dead and dying branches	**Residual risk** Moderate
Stabilize exposed root system	**Residual risk** Moderate
Remove tree	**Residual risk** None
	Residual risk

Overall tree risk rating Low ☐ Moderate ■ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ■ 3 ☐ 4 ☐

Overall residual risk Low ☐ Moderate ■ High ☐ Extreme ☐ **Recommended inspection interval** 3 months

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ■ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client MCDOT Date 5/7/26 Time 0915

Address/Tree location 434 Thomas Ave Tree no. 22 Sheet 22 of 22

Tree species Taxus baccata dbh 3" Height 30' Crown spread dia. 20'

Assessor(s) JCE Time frame 5 years Tools used

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	Thomas Ave - street vehicles, sidewalk	✔	✔	✔	3	N	N
2	Utility Lines		✔	✔	4	N	N
3	434 Thomas Ave, house			✔	4	N	N
4							

Site Factors

History of failures N/A **Topography** Flat ☐ Slope ☒ 2 % **Aspect**

Site changes None ■ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe

Soil conditions Limited volume ■ Saturated ☐ Shallow ■ Compacted ■ Pavement over roots ☐ % Describe Brick sidewalk at N edge

Prevailing wind direction W **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ■ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 99 % Chlorotic % Necrotic <1 %

Pests black vine weevil **Abiotic** needle blight

Species failure profile Branches ☐ Trunk ☐ Roots ■ Describe Root rot in water-logged soils

Load Factors

Wind exposure Protected ☐ Partial ■ Full ☐ Wind funneling ☐ **Relative crown size** Small ☐ Medium ☒ Large ☐

Crown density Sparse ☐ Normal ☐ Dense ■ **Interior branches** Few ☐ Normal ☐ Dense ■ **Vines/Mistletoe/Moss** ☐ N/A

Recent or planned change in load factors N/A

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 85 %

Dead twigs/branches ■ 1 % overall Max. dia. 1"

Broken/Hangers Number Max. dia.

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ☐

Reduced ■ Topped ☐ Lion-tailed ☐

Flush cuts ☐ Other

Cracks ☐ Lightning damage ☐

Codominant ■ Multiple Included bark ☐

Weak attachments ■ Cavity/Nest hole % circ.

Previous branch failures ☐ Similar branches present ☐

Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Conks ☐ Heartwood decay ☐

Response growth

Main concern(s) Hedge trees all have low-hanging, overextended branching towards Thomas Ave.

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure Improbable ■ Possible ☐ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ■ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole % circ. Depth Poor taper ☐

Lean 3 ° Corrected? No

Response growth No

Main concern(s) co-dominant stems among hedge trees

Load on defect N/A ☐ Minor ■ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ■ Depth Stem girdling ■

Dead ☐ Decay ■ Conks/Mushrooms ■

Ooze ☐ Cavity ■ 5 % circ.

Cracks ■ Cut/Damaged roots ■ Distance from trunk 6"

Root plate lifting ☐ Soil weakness ☐

Response growth

Main concern(s) Roots are all buried completely

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure

Improbable ■ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

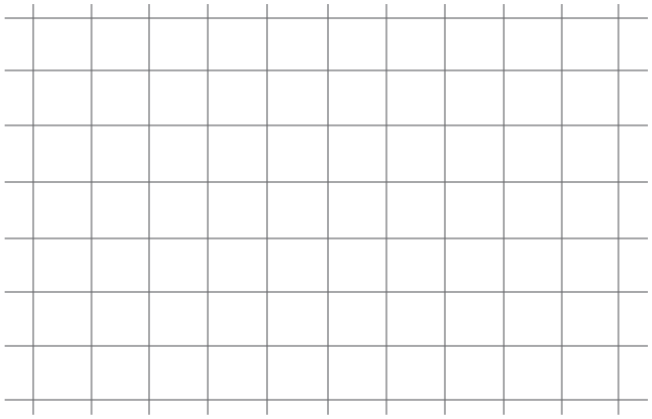
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat	Likelihood: Failure & Impact (from Matrix 1): Likely	Likelihood: Failure & Impact (from Matrix 1): Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating of part (from Matrix 2)
1	Branches	Over-extended, low hanging branches	1"	5-30'	1-2	Branches	●					●			●						●		L
							●					●			●						●		L
2	Trunk	Co-dominant stems	3"	5-30'	1	Branches	●					●			●					●			L
			3"	5-30'	2	Branches	●						●		●					●			L
3	Roots	Buried root collar	3"	0'	1-3	N/A	●				●				●					●			L
4																							

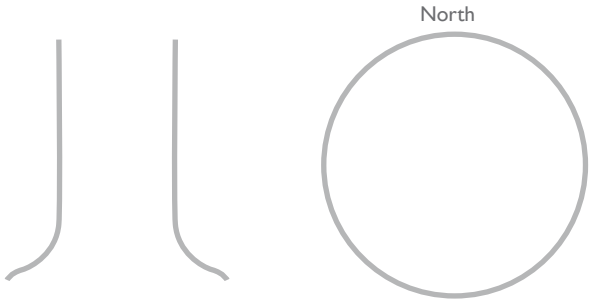
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions Yew hedge trees are low-risk, but pruning should be applied promptly to low-hanging, overextended branches

Mitigation options Prune low hanging branches, encouraging trees to grow branches up instead of out — **Residual risk** Low

Expose root collars — **Residual risk** Low

Residual risk

Residual risk

Overall tree risk rating Low ■ Moderate ☐ High ☐ Extreme ☐ **Work priority** 1 ☐ 2 ☐ 3 ■ 4 ☐

Overall residual risk Low ■ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** 1 year

Data ☐ Final ■ Preliminary **Advanced assessment needed** ☐ No ■ Yes-Type/Reason resistance drilling

Inspection limitations ☐ None ☐ Visibility ☐ Access ☐ Vines ■ Root collar buried Describe roots not visible

Colliers
Engineering
& Design

Attachment C | Representative Photographs

Photo 1: Tree ID No. 1, white oak (36" DBH). View facing east.

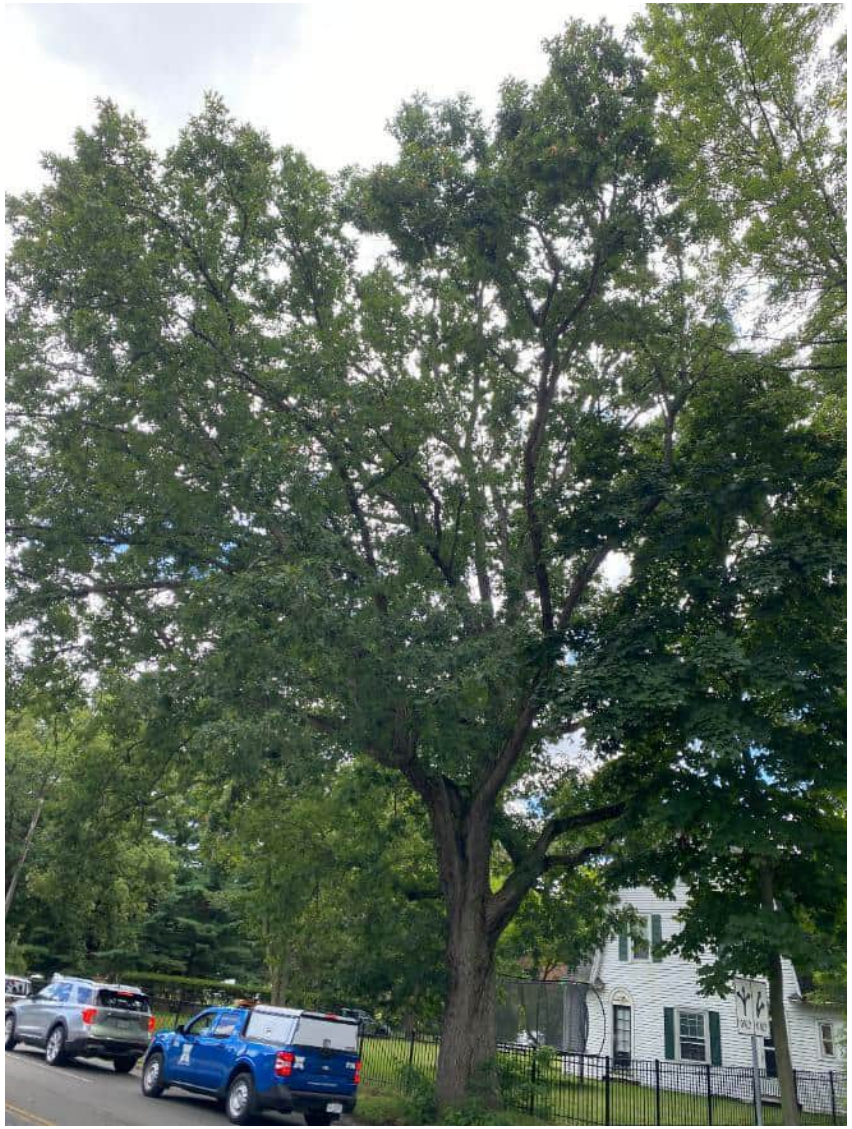


Photo 2: Tree ID No. 2, white oak (42" DBH). View facing south.

Photo 3: Tree ID No. 3, white oak (40" DBH). View facing west.

Photo 4: Tree ID No. 4, white oak (37" DBH). View facing southwest.

Photo 5: Tree ID No. 5, white oak (42" DBH). View facing southwest.

Photo 6: Tree ID No. 6, white oak (48" DBH). View facing southwest.

Photo 7: Tree ID No. 7, Norway spruce (28" DBH). View facing west.

Photo 8: Tree ID No. 8, Norway maple (28" DBH). View facing southwest.

Photo 9: Tree ID No. 9, northern red oak (74" DBH). View facing southeast.

Photo 10: Tree ID No. 10, white oak (48" DBH). View facing south.

Photo 11: Tree ID No. 11, horse-chestnut (13" DBH). View facing southeast.

Photo 12: Tree ID No. 12, Freeman maple (23" DBH). View facing northeast.

Photo 13: Tree ID No. 13, Norway maple (32" DBH). View facing northeast.

Photo 14: Tree ID No. 14, American elm (13" DBH). View facing east.

Photo 15: Tree ID No. 15, American elm (28" DBH). View facing east.

Photo 16: Tree ID No. 16, white oak (42" DBH). View facing south.

Photo 17: Tree ID No. 17, white oak (43" DBH). View facing south.

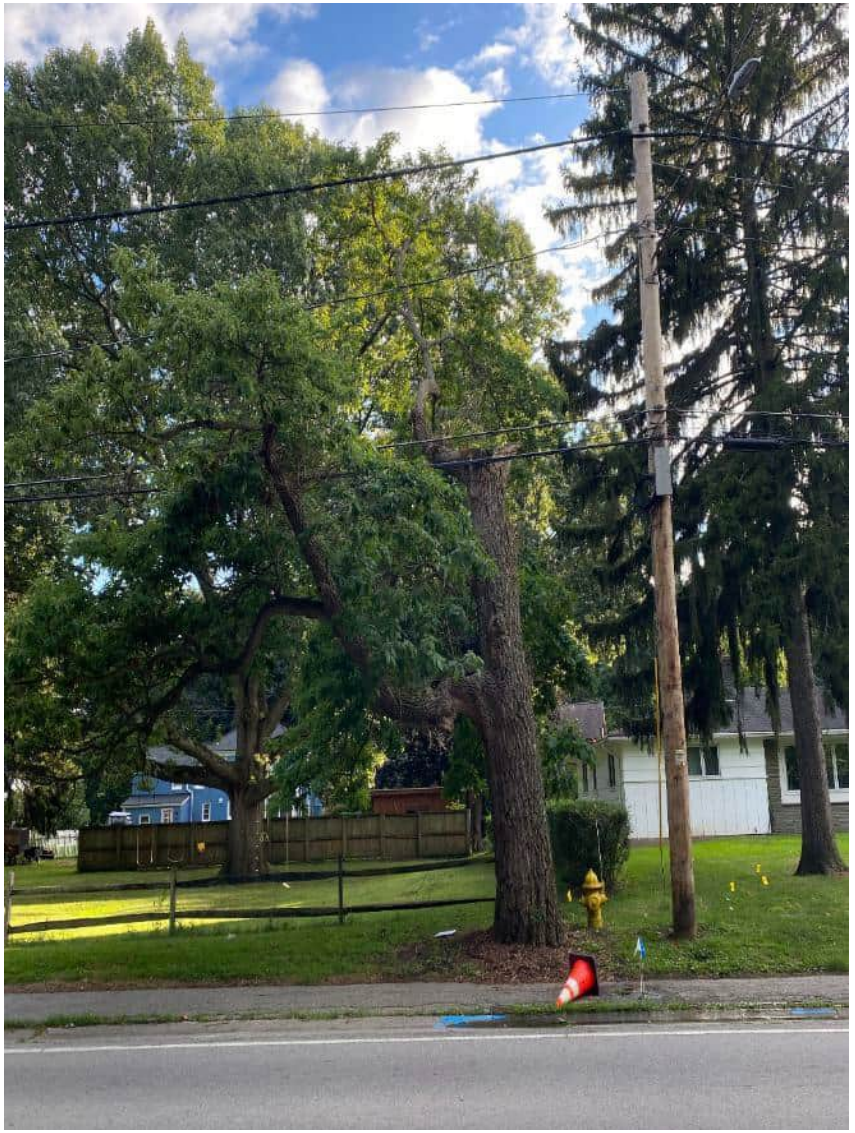


Photo 18: Tree ID No. 18, sassafras (30" DBH). View facing southwest.

Photo 19: Tree ID No. 19, American elm (39" DBH). View facing northeast.

Photo 20: Tree ID No. 20, European linden (37" DBH). View facing southeast.

Photo 21: Tree ID No. 21, red maple (32" DBH). View facing northeast.

Photo 22: Tree ID No. 22, European yew (3" DBH). View facing northwest.

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