ISA Basic Tree Risk Assessment Form

Client _____ Date _____ Time _____

Address/Tree location _____ Tree no. _____ Sheet _____ of _____

Tree species _____ dbh _____ Height _____ Crown spread dia. _____

Assessor(s) _____ Time frame _____ Tools used _____

Target Assessment

Target number	Target description	Target zone			Occupancy rate 1–rare 2–occasional 3–frequent 4–constant	Practical to move target?	Restriction practical?
		Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.			
1							
2							
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 _____ **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal _____ % 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 _____ %
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 _____ % circ.
Previous branch failures ☐ _____ Similar branches present ☐
Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐
Conks ☐ Heartwood decay ☐ _____
Response growth _____

Main concern(s) _____

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) _____

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 | | | | | | | | | | | | Consequences | | | | Risk rating of part (from Matrix 2) |
| | | | | | | | Failure | | | | Impact | | | | Failure & Impact (from Matrix 1) | | | | | | | | |
							Improbable	Possible	Probable	Imminent	Very low	Low	Medium	High	Unlikely	Somewhat	Likely	Very likely	Negligible	Minor	Significant	Severe	
1																							
2																							
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
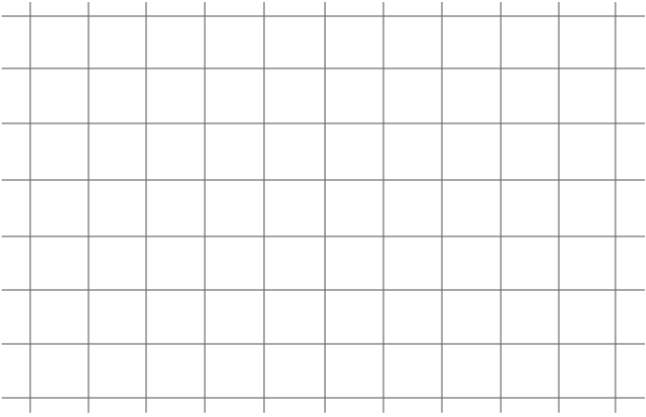
Matrix 2. Risk rating matrix.

| 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
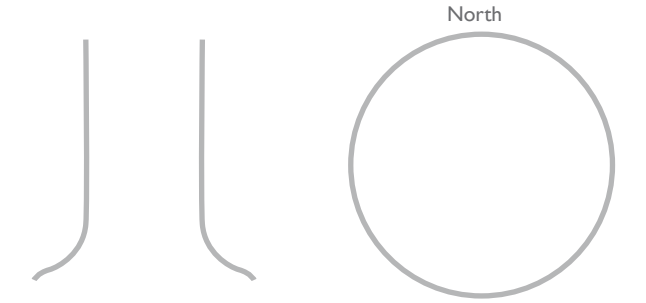
Notes, explanations, descriptions _____
_____
_____
_____

North

Mitigation options _____ **Residual risk** _____
_____ **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** _____

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

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

Conditions at Time of Removal – Sugar Maple Tree
Frank G. Nifong Memorial Park

Canopy Loss and Proximity to Maplewood Home

Significant Canopy Loss

Loss of Scaffolding Branches