

# Tree Risk Management Methodology:

Tree risk management methodology created and endorsed by The International Society of Arboriculture was designed to provide a systematic process for assessing tree risk. Within this methodology the trees' likelihood of failure is assessed in relation to its likelihood of impacting a target within its fall zone (see likelihood matrix below). This likelihood rating is then measured against the consequence of the failure impacting a target to finally calculate a risk rating (see risk matrix below). This target-based approach is a powerful tool when prioritizing tree inspections in the urban environment, especially for inspectors responsible for large tree populations where visiting every tree is impossible. However, as the likelihood of failure is subjective, the risk assessment can be easily manipulated by the inspecting arborist to calculate risk ratings which supports his or her proclivities regarding tree management.

*Matrix 1. Likelihood matrix.*

<b>Likelihood of Failure</b>	<b>Likelihood of Impact</b>			
	<b>Very low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>Imminent</b>	Unlikely	Somewhat likely	Likely	Very likely
<b>Probable</b>	Unlikely	Unlikely	Somewhat likely	Likely
<b>Possible</b>	Unlikely	Unlikely	Unlikely	Somewhat likely
<b>Improbable</b>	Unlikely	Unlikely	Unlikely	Unlikely

*Matrix 2. Risk rating matrix.*

<b>Likelihood of Failure &amp; Impact</b>	<b>Consequences of Failure</b>			
	<b>Negligible</b>	<b>Minor</b>	<b>Significant</b>	<b>Severe</b>
<b>Very likely</b>	Low	Moderate	High	Extreme
<b>Likely</b>	Low	Moderate	High	High
<b>Somewhat likely</b>	Low	Low	Moderate	Moderate
<b>Unlikely</b>	Low	Low	Low	Low

(Source: ISA 2018)