



# Basic Tree Risk Assessment Form

Client \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Address/Tree location \_\_\_\_\_ Tree no. \_\_\_\_\_ Sheet \_\_\_\_\_ of \_\_\_\_\_  
 Tree species \_\_\_\_\_ dbh \_\_\_\_\_ Height \_\_\_\_\_ Crown spread dia. \_\_\_\_\_  
 Assessor(s) \_\_\_\_\_ Tools used \_\_\_\_\_ Time frame \_\_\_\_\_

## Target Assessment

| Target number | Target description | Target protection | Target zone             |                       |                         | Occupancy rate<br>1 – rare<br>2 – occasional<br>3 – frequent<br>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/Biotic** \_\_\_\_\_ **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 expected 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 \_\_\_\_\_  
 \_\_\_\_\_ Condition(s) of concern \_\_\_\_\_  
 Part Size \_\_\_\_\_ Fall Distance \_\_\_\_\_  
**Load on defect** N/A  Minor  Moderate  Significant   
**Likelihood of failure** Improbable  Possible  Probable  Imminent   
 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 \_\_\_\_\_

### — 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 \_\_\_\_\_  
 Condition(s) of concern \_\_\_\_\_  
 Part Size \_\_\_\_\_ Fall Distance \_\_\_\_\_  
**Load on defect** N/A  Minor  Moderate  Significant   
**Likelihood of failure** Improbable  Possible  Probable  Imminent

### — Roots and Root Collar —

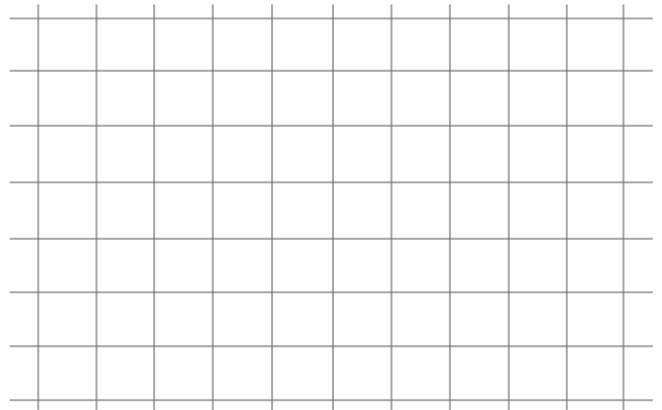
Collar buried/Not visible  Depth \_\_\_\_\_ Stem girdling   
 Dead  Decay  Conks/Mushrooms   
 Ooze  Cavity  \_\_\_\_\_ % circ.  
 Cracks  Cut/Damaged roots  Distance from trunk \_\_\_\_\_  
 Root plate lifting  Soil weakness   
 Response growth \_\_\_\_\_  
 Condition(s) of concern \_\_\_\_\_  
 Part Size \_\_\_\_\_ Fall Distance \_\_\_\_\_  
**Load on defect** N/A  Minor  Moderate  Significant   
**Likelihood of failure** Improbable  Possible  Probable  Imminent

**Risk Categorization**

| Target<br><i>(Target number or description)</i> | Tree part | Condition(s)<br>of concern | Likelihood |          |          |          |          |     |        |      |  |          |        | Consequences |       |             |        | Risk rating<br><i>(from Matrix 2)</i> |             |  |  |
|---|-----------|----------------------------|------------|----------|----------|----------|----------|-----|--------|------|--|----------|--------|--------------|-------|-------------|--------|---------------------------------------|-------------|--|--|
|   |           |                            | Failure    |          |          |          | Impact   |     |        |      | Failure & Impact<br><i>(from Matrix 1)</i> |          |        | Negligible   | Minor | Significant | Severe |                                       |             |  |  |
|   |           |                            | Improbable | Possible | Probable | Imminent | Very low | Low | Medium | High | Unlikely                                   | Somewhat | Likely |              |       |             |        |                                       | Very likely |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |
|   |           |                            |            |          |          |          |          |     |        |      |  |          |        |              |       |             |        |                                       |             |  |  |

Matrix 1. Likelihood matrix.

| Likelihood of Failure | Likelihood of Impact |                 |                 |                 |
|-----------------------|----------------------|-----------------|-----------------|-----------------|
|                       | 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**

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**Mitigation options**

1. \_\_\_\_\_ Residual risk \_\_\_\_\_

2. \_\_\_\_\_ Residual risk \_\_\_\_\_

3. \_\_\_\_\_ Residual risk \_\_\_\_\_

4. \_\_\_\_\_ Residual risk \_\_\_\_\_

**Overall tree risk rating**      Low    Moderate    High    Extreme

**Overall residual risk**    None    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 \_\_\_\_\_