The City of Seattle
Landmarks Preservation Board
Mailing Address: PO Box 94649, Seattle WA 98124-4649
Street Address: 600 4th Avenue, 4th Floor

CERTIFICATE OF APPROVAL APPLICATION

The following information must be provided in order for the application to be complete, unless the Board staff indicates in writing that specific information is not necessary for a particular application, or the applicant makes a written request to submit an application for a preliminary design approval as set forth on page four of this application, and the staff agrees to accept the application.

Building/Property Name:	Queen Anne Boulevard
Building/Property Address:	
Landmark District: (if applicable):	
Applicant:	Nicholas Johnson, Out of Class (OOC) Arborist
Applicant's Address:	1600 S Dakota St. Seattle, WA 98108
Applicant's Phone:	206-684-4111
Applicant's Email:	Nich.johnson@seattle.gov
Property Owner's Name: (printed)	City of Seattle Parks and Recreation
Property Owner's Address:	100 Dexter Ave N, Seattle, WA 98109
Property Owner's Signature:	Nicholas Johnson

Note: *If the applicant for this certificate is not the building/property owner the application **must** be signed by the building/property owner in the space indicated, above, or accompanied with a signed letter from the building/property owner designating the applicant as the owner's representative.*

FEE INFORMATION

SMC 22.900G.010 requires that an application fee be charged for each review for a Certificate of Approval. The fee is determined by the dollar value of the proposed project:

Design Approval	
$0 - $1,500 of construction costs	$25.00
Each additional $5,000 of costs	$10.00
Maximum fee per review	$4,000.00*

* Except that the maximum fee for a Certificate of Approval for new construction projects shall be $20,000; except projects including housing financed, in whole or in part, by public funding; or projects that elect the MHA performance option according to Sections 23.58B.050 or 23.58C.050.

Estimate the construction costs, calculate the fee and make checks payable to the City of Seattle.

Total Project Cost related to project work included in application:	**$89,000.00**
Fee Submitted	**$205.00**

The Landmarks Preservation Board has been designated by the Seattle City Council to review and approve certificates for changes to landmark buildings. Controls on landmarks vary depending on whether they are individually designated or located in one of four landmark districts (Columbia City, Fort Lawton, Harvard-Belmont, and Sand Point Naval Air Station) under the jurisdiction of the Landmarks Preservation Board. To assure that your submission has considered all the impacts to the landmark, or landmark district, contact Board staff. The Board staff can provide applicants with design guidelines, historic preservation references and information on other applicable regulations through the City's Historic Preservation Division, 615-1786.

1. **Description**

Describe the proposed work and any changes it will make to the landmark building or property. All items must be included in this application. (Attach additional pages if necessary.)

Seattle Parks and Recreation (SPR) Urban Forestry Unit has identified twenty-four trees at eight areas that necessitate removal along Queen Anne Boulevard. The trees which were identified are creating hazards for park users, adjacent property owners, or passing vehicles in the right-of-way.

For this project there will be two applications for a Certificate of Approval. This is the first application and it is requesting approval to remove twenty-four trees and grind the stumps in seven areas along Queen Anne Boulevard. Please see the attached report, photos and basic tree risk assessment forms. The second application will request approval for planting new trees in the seven areas. At many of the tree removal areas decay organisms (e.g. fungi and mold) were identified that could infect the replacement trees if tree species listed on an approved planting list are used. It will take time to identify appropriate species that are resistant to the identified diseases and adhere to the landscape design intentions of Queen Anne Boulevard. SPR will be coordinating with the Friends of Seattle's Olmsted Parks, the Queen Anne community and others to select tree species.

The trees identified in the attached report create hazards for park users, adjacent property owners and passing vehicular traffic. A number of these trees need to be addressed immediately. In response to requests for inspection and recent tree failures, in mid-2020 an SPR arborist conducted a visual assessment of trees the along the boulevard. The trees recommended for removal are considered untenable to retain as they have become structurally unsound due to decay organisms. The assessments were conducted by ISA Certified Arborists/Qualified Tree Risk Assessors and reviewed by the SPR lead urban forester, a Board-Certified Master Arborist/Qualified Tree Risk Assessor.

Due to the nature of boulevards planted with monocultures, the trees along Queen Anne Boulevard are vulnerable to disease. Seven areas have been identified on the boulevard where communicable pathogens/insects exist and have the potential for high tree mortality.

Figure 1 – Tree Removal Areas

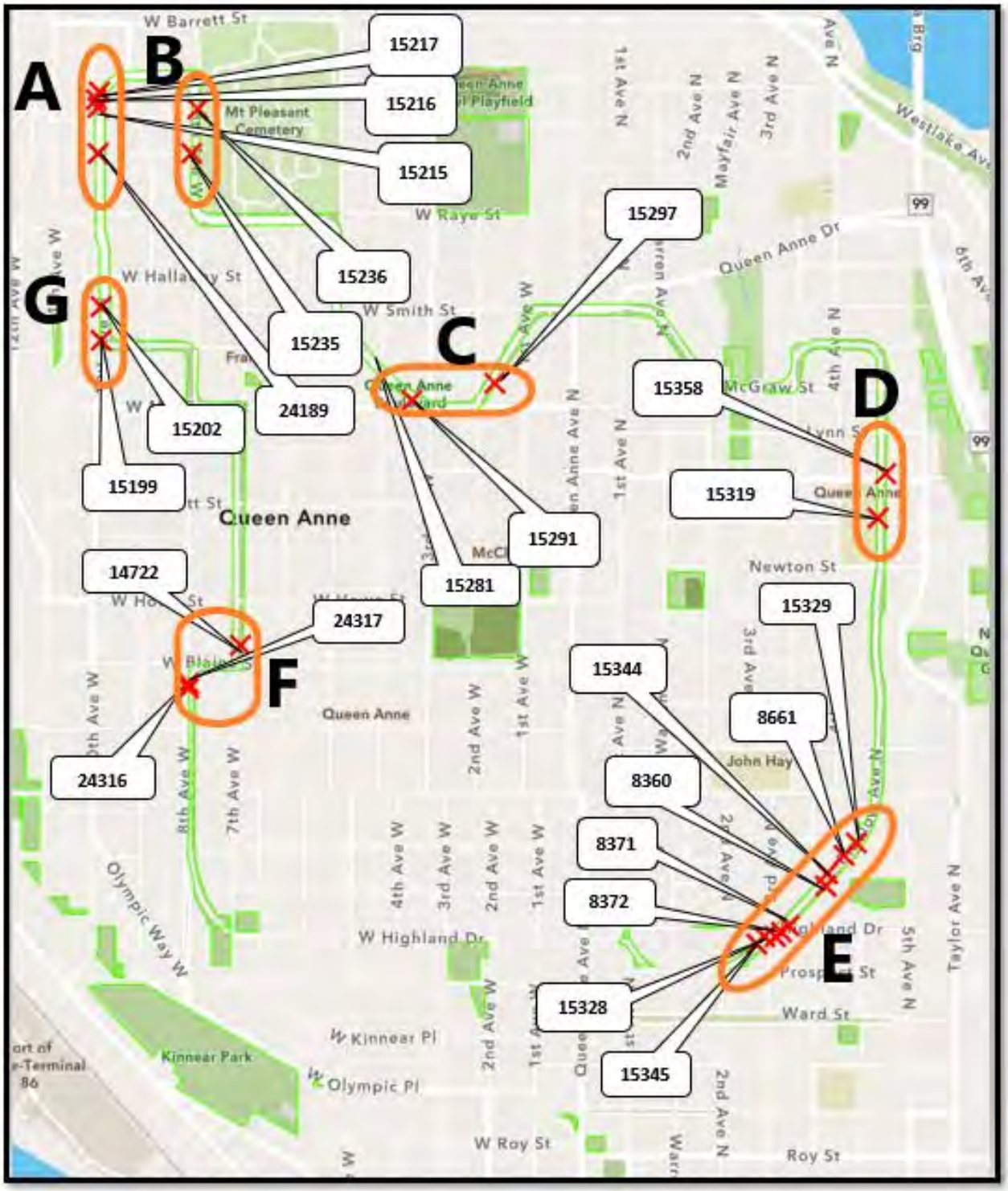


Table A – Tree Condition Assessment by Area

Tree ID	Area	Tree Location	Tree Species	Common Name	Condition Rating	DBH	Concern
15215	A	2821 10th Ave W	Betula Sp.	Birch	Very poor	19	Dying.
15216	A	2821 10th Ave W	Castanea mollissima	Chinese Chestnut	Very Poor	32	Structurally unsound. Dying. *Kretzschmaria deusta*, root decay
15217	A	2821 10th Ave W	Castanea mollissima	Chinese Chestnut	Very Poor	30	Structurally unsound. Dead. *Kretzchmaria duesta*, root decay
24189	A	2705 10th Ave W	*Betula papyrifera*	Paper Birch	Poor	12	Dying. Bronze Birch Borer.
15235	B	2701 8th Ave W	Betula Sp.	Birch	Dead	16	Rapid state of decline.
15236	B	2803 8th Ave W	Betula Sp.	Birch	Dead	16	Structurally compromised. Leaning into street.
15281	C	2418 4th Ave W	Acer platanoides	Sycamore Maple	Dead	32	Dying, failed, removed July 2020. *Cryptostroma Coracle*
15291	C	316 W McGraw Pl	Acer rubrum	Red Maple	Poor	14	Structurally compromised. *Kretzschmaria deusta*, root decay.
15297	C	2412 2nd Ave W	Acer pseudoplatanus	Sycamore Maple	Very Poor	22	Dying, effectively dead. Cryptostroma corticale.
15319	D	411 Boston St	Acer pseudoplatanus	Sycamore Maple	Very Poor	24	Structurally compromised. Dying. *Cryptostroma corticale*
15358	D	452 Boston St	Acer platanoides	Norway Maple	Very Poor	24	Dying. *Cryptostroma corticale*.
8360	E	1204 Bigelow Ave N	Castanea mollissima	Chinese Chestnut	Poor	45	Effectively dead. Structurally compromised. Kretzchmaria *duesta* root decay.
8371	E	309 Highland Drive	Castanea mollissima	Chinese Chestnut	Poor	50	Effectively dead.. Structurally compromised. *Kretzchmaria duesta*, root decay.

Tree ID	Area	Tree Location	Tree Species	Common Name	Condition Rating	DBH	Concern
8372	E	309 Highland Drive	Castanea mollissima	Chinese Chestnut	Very Poor	32	Dying. No longer functional.
8661	E	1249 Bigelow Ave N	Castanea mollissima	Chinese Chestnut	Poor	24	Structurally compromised. *Kretzschmaria deusta*, root decay.
15328	E	1133 Bigelow Ave N	Castanea mollissima	Chinese Chestnut	Very Poor	26	Effectively dead. Large dead branches pose street and sidewalk hazards..
15329	E	365 Lee St	Castanea mollissima	Chinese Chestnut	Very Poor	23	Structurally compromised. Dying effectively dead. Kretzschmaria deusta, root decay.
15344	E	1228 Bigelow Ave N	Castanea dentata	Chinese Chestnut	Very Poor	30	Structurally compromised. *Kretzchmaria duesta*, root decay.
15345	E	1133 Bigelow Ave N	Castanea mollissima	Chinese Chestnut	Poor		Effectively dead.
14722	F	1804 7th Ave W	*Acer pseudoplatanus*	Sycamore Maple	Dead	16	Dead. *Cryptostroma corticale*
24316	F	1627 8th Ave W	Chamaecyparis lawsoniana	Lawson's Cypress	Dead	18	Dead. *Phytophthora*.
24317	F	1629 8th Ave W	Chamaecyparis lawsoniana	Lawson's Cypress	Dead	14	Dead. *Phytophthora.*
15199	G	2507 10th Ave W	*Crataegus douglasii*	Black Hawthorn	Very Poor	14	Compromised structure
15202	G	2527 10TH Ave W	*Tilia cordata*	Little Leaf Linden		16	Cannot be pruned to provide adequate street clearance.

2. Four (4) sets of scale drawings with all dimensions shown of:

a. A site plan of existing conditions, showing adjacent streets and buildings and a site plan showing proposed changes; **N/A**

b. A floor plan showing the existing features and a floor plan showing the proposed new features or changes; **N/A**

c. Elevations and sections of both the proposed new features and the existing features; **N/A**

d. Construction details; **N/A**

e. A landscape plan showing existing features and plantings, and another landscape plan showing proposed site features and plantings. See Table A.

3. Photographs of any existing features that would be altered and photographs showing the context of those features such as the building facade where they are located. The photographs must clearly show these features; ***Polaroids, digital photos and/or color Xeroxes may not be accepted. Clear digital photos are accepted.***

4. One (1) sample of proposed colors, if the proposal includes new finishes or paint, and an elevation drawing or a photograph showing the location of proposed new finishes or paint. **N/A**

5. If the proposal includes new signage, awnings, or exterior lighting: **N/A**

a. Four (4) sets of scale drawings of proposed signage or awnings showing the overall dimensions, material, graphic designs, typeface, letter size and colors;

b. Four (4) sets of a plan, photograph, or elevation drawing showing the location of the proposed awning or sign;

c. Four (4) copies of details showing the proposed method of attaching the new awning, sign, or proposed exterior lighting;

d. One (1) sample of proposed sign colors or awning material and color;

e. The wattage and specifications of the proposed lighting, and a picture of the lighting fixture;

6. If the proposal includes demolition of a structure or object:

a. A statement of the reason(s) for demolition; **See attached arborist's report.**

b. A description of the replacement structure or object. **See attached arborist's report.**

7. If the proposal includes replacement, removal, or demolition of existing features, a survey of the existing conditions of the features being replaced, removed, or demolished.

Determination of Completeness

The staff shall determine whether an application is complete and shall notify the applicant in writing within twenty-eight (28) days of the application being filed whether the application is complete or that the application is incomplete and what additional information is required before the application will be complete. Within fourteen (14) days of receiving the additional information, the staff shall notify the applicant in writing whether the application is now complete or what additional information is necessary. An application shall be deemed to be complete if the staff does not notify the applicant in writing by the deadlines in this section that the application is incomplete. A determination that the application is complete is

not a determination that the application is vested.

The determination of completeness does not preclude the staff or the Board from requiring additional information during the review process if more information is needed to evaluate the application according to the standards in SMC 25.12 and in any rules adopted by the Board, or if the proposed work changes.

Preliminary Design

An applicant may make a written request to submit an application for a Certificate of Approval for a preliminary design if the applicant waives in writing the deadline for a Board decision on the final design and any deadlines for decision on related permit application under review by the Department of Construction and Land Use. ***A written waiver must be included with this application.*** The staff may reject the request if it appears that approval of a preliminary design would not be an efficient use of staff or Board time and resources or would not further the goals and objectives of SMC 25.12 To be complete, an application for preliminary design must include the information listed above on page one of this application and in Section 1. Description, Section 2a.- 2c., Section 3, and Section 6. *A Certificate of Approval that is granted for a preliminary design shall be conditioned upon subsequent submittal and Board approval of the final design, including all of the information listed above in subsection B, prior to issuance of permits for work affecting the landmark.*

Arborist Report
Table of Contents

Arborist Report

Date: July 24, 2020
To: COS Landmarks Preservation Board
From: Nicholas Johnson, OOC Arborist
Subject: 2020 Queen Anne Boulevard Tree Removals

Queen Anne Boulevard Tree Removals

Summary

Seattle Parks and Recreation Urban Forestry has identified twenty-four trees that necessitate removal along Queen Anne Boulevard (QAB). The trees we have identified are all creating a hazard for park users or adjacent property owners. A number of these trees need to be addressed immediately.

In response to requests for inspection and recent tree failures, a Seattle Parks and Recreation arborist performed a drive through assessment of the boulevard. This assessment involved driving the loop and looking for obvious tree issues. When an obvious condition of concern was noticed, the arborist would stop and perform a more detailed inspection.

Only trees that are untenable to retain are being recommended for removal. The assessments were conducted by ISA Certified Arborists/ Qualified Tree Risk Assessors and reviewed by myself, a Board-Certified Master Arborist/ Qualified Tree Risk Assessor. The trees contained in this report are a liability and cannot be retained.

Introduction

Queen Anne Boulevard is a network of fifteen streets encircling Queen Anne. This boulevard extends for 3.7 miles and is heavily trafficked by automobiles, bicyclists and walkers. There are many residences along this boulevard as well as utilities and public transit lines.

Many of the trees along this road are mature and there is a lack of diversity in their age. Trees become more susceptible to environmental stress as they age and become larger. This is the point in their life where trees become less vigorous in their growth and typically will die or begin to retrench.

Our region has experienced repeated drought and warmer than normal temperatures. These conditions are extremely taxing for trees. Once trees have been subject to environmental stresses they become more susceptible to decay and insect attack. Due to the age of the trees and the environmental stressors being put on them it is not surprising to see large numbers of trees decline along the boulevard.

Large monocultures of trees lacking age diversity are failing due to environmental stress all over Seattle. If these environmental stresses persist we could be faced with the loss of many more trees.

To be successful in maintaining a heathy tree canopy we need to be intentional about how we plan for the future. We need greater diversity in tree age and species to limit the risk of mass tree casualty we are currently exposed to.

I believe that with thought and planning we can perpetuate the design intentions of this boulevard while creating a more resilient tree canopy.

Observation

The observations made of each tree are provided in the supporting materials. I personally have not inspected every tree listed in this report. Three arborists supported the creation of this application and I have spoken extensively with each of them about their observations. I am intimately familiar with the general tree issues along this boulevard.

Pests and diseases observed in trees:
The pests and diseases listed below are common in the Pacific Northwest. Our team of arborists have been trained in the field identification of these organisms and their mode of action. Although these pests/diseases have not been positively identified by a scientific laboratory, I am extremely confident in our ability to field identify these organisms.

One birch is being attacked by *Agrilus anxius*, an insect commonly called referred to as bronze birch borer. This insect's larvae, feed on the vascular tissue under tree bark. An infested birch will show dieback in the crown, increasing in severity as the infestation continues, often leading to death of the tree. Retaining host trees allows this pest opportunity to multiply and spread to new hosts. **Tree ID – 241895.**

Four trees have been identified as hosting *Cryptostroma corticale*. This is a fungus that causes disease in maples. The spores of this fungus can grow profusely under the bark of

affected trees and causes disease and death. The spores are allergenic and can cause debilitating pneumonitis in humans. Non-native maples seem to be most at risk of succumbing to this disease in hot weather. It likely that we will see more maples on the boulevard succumb to this disease. **Tree ID – 14722, 15281, 15297, 15358.**

Two trees have died from *Phytophthora,* a plant-damaging oomycete (water mold) that caused the sudden death of these trees. **Tree ID – 24316, 24317.**

Eight boulevard trees have observable signs of *Kretzschmaria deusta.* This is a fungus that causes soft rot and can cause sudden breakage in seemingly healthy trees. This fungus is often found in the roots and lower stem of trees but can also infect the upper canopy. **Tree ID – 15216, 15217, 8661, 15344, 8360, 8371, 15329.**

Two trees on Queen Anne Boulevard have partially failed into the road and have been subsequently struck by vehicles. These trees are too low over the road and cannot be pruned to correct this condition. The portions of the trees protruding into the road are the tree trunks. **Tree ID – 15202, 15215**.

Eighteen of the trees are either dead or in an advanced state of decline. **Tree ID – 24316, 24317, 14722, 24189, 15215, 15216, 15217, 2701, 15281, 15297, 15319, 15329, 8360, 8371, 8372, 15328, 15345, 15358.**

Discussion

Many of the trees have died or become structurally unsound due to decay organisms. The introduction of the decay organisms and their ability to proliferate is likely related to past years of drought and warmer than normal temperatures.

Many of the tree removal sites have decay organisms identified that could infect the replacement trees if we keep to the approved planting list. It will take time to identify appropriate species that are resistant to the diseases and adhere to the design intentions.

The issues and immediacy of the tree removals along Queen Anne Boulevard are not isolated to this one site. I have observed a staggering number of trees declining rapidly within the last few years. Some of the pathogenic issues along this boulevard have only begun to develop. I anticipate many more trees dying within the coming years.

It is shocking and difficult to see such a mature landscape decline so rapidly. It is also very difficult to manage. I am confident that we will be able to work effectively through these

challenges. We will need time to be thoughtful and deliberate about what trees will be planted, so we can avoid similar issues in the future.

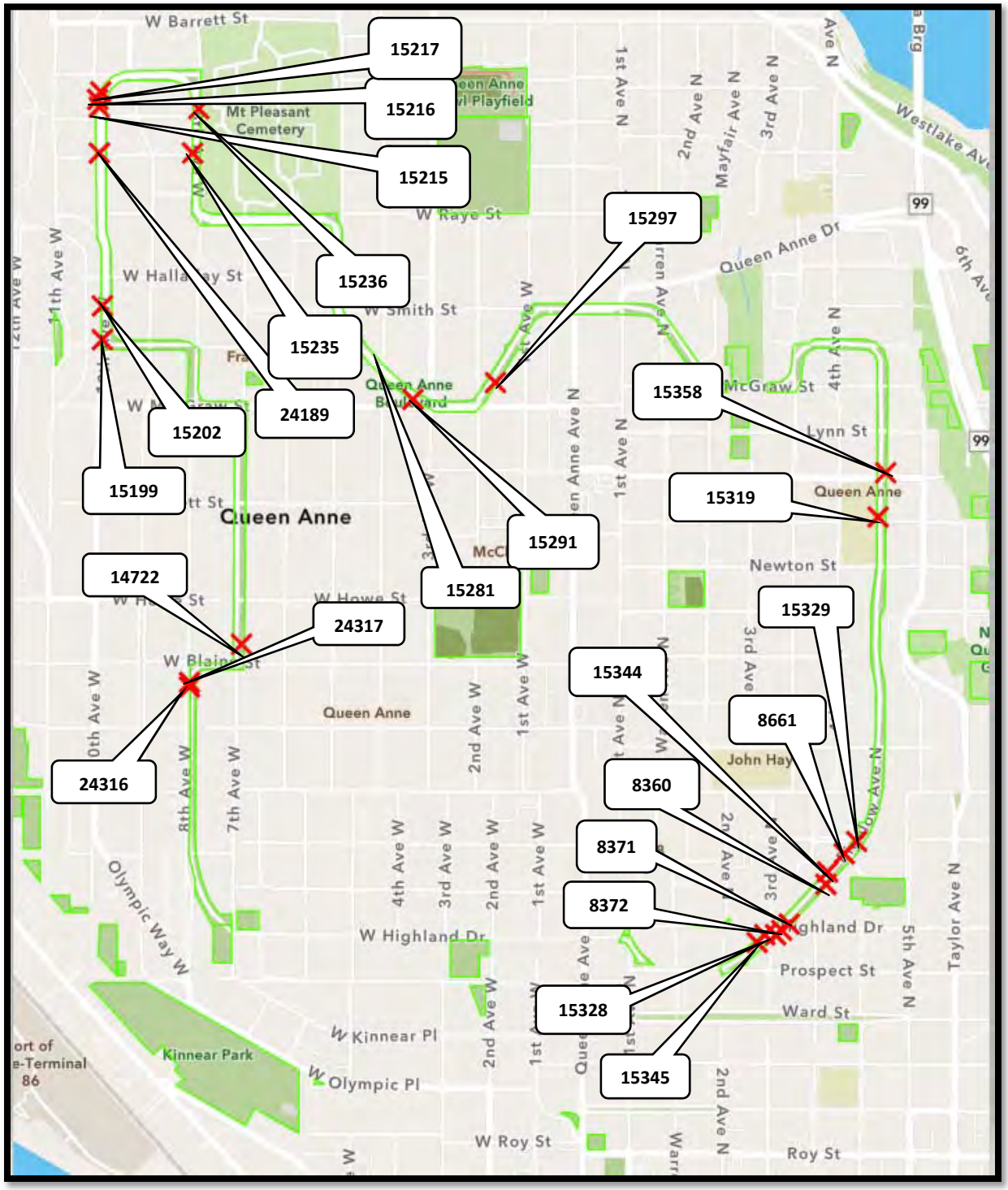
Conclusion

Due to the vulnerable nature of boulevards planted with monocultures and lacking age diversity, these trees are vulnerable to pests and disease. There are currently seven sections along the boulevard that I have observed having high potential for tree mortality or are subject currently to communicable pathogens/insects.

The trees we are proposing to remove are hazardous and many are dead. We have not been able to identify acceptable or practical remedies to retain the trees that are still alive. The trees contained in this *Certificate of Approval Application* require removal.

Nicholas Johnson
City of Seattle, Seattle Parks and Recreation Urban Forestry
ISA Board Certified Master Arborist PN-5662BM
ISA Certified Arborist Municipal Specialist
ISA Tree Risk Assessment Qualified
ASCA Tree and Plant Appraisal Qualified
Office: 206-684-4111 | Mobile: 206-418-8595

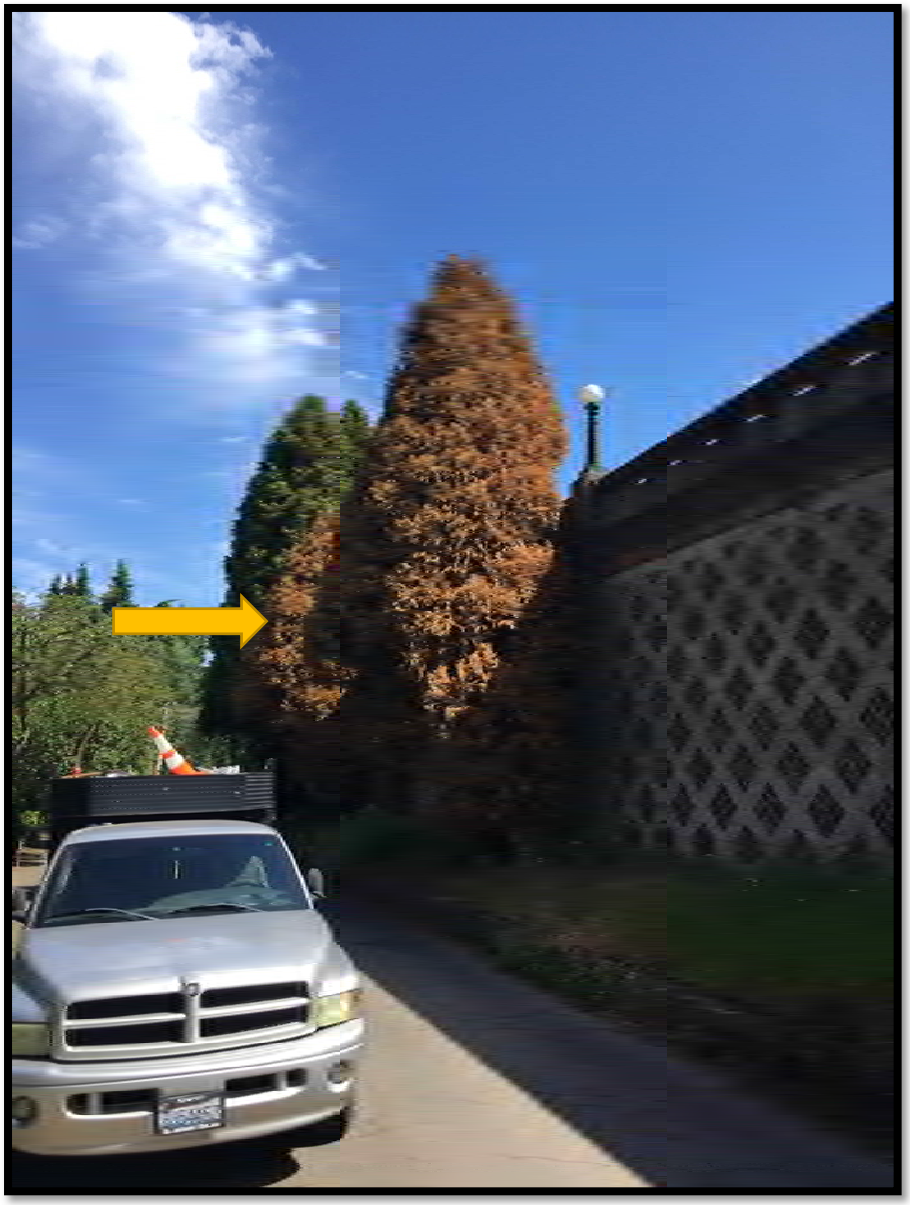
Queen Anne Site Map with Tree Inventory Number Callouts



TRE-24316: Lawson's Cypress

This tree is adjacent to 1627 8th Ave W, and is dead.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
24316	Queen Anne Boulevard	Chamaecyparis lawsoniana	Lawson's Cypress	Dead	18	Dead. *Phytophthora*.



ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 8/3/2020 — Time: 11:45am

Address/Tree location: Across from 1627 8th Ave W, Seattle,WA. 98109, next to wall on east side of street. — Tree no.: TRE-24316 — Sheet: 1 of 2

Tree species: Lawson's Cypress (Chamaecyparis lawsoniana) — dbh: 18" — Height: 35' — Crown spread dia.: 18'

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape, and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House		✓	✓	4	N	N
2	Parked cars		✓	✓	3	Y	Y
3	Road	✓	✓	✓	4	N	N
4	Sidewalk		✓	✓	4	N	N

Site Factors

History of failures _____ **Topography** Flat☐ Slope■ 5 % **Aspect** N

Site changes None☐ Grade change☐ Site clearing☐ Changed soil hydrology☐ Root cuts☐ Describe Wall and curb restrict root growth

Soil conditions Limited volume■ Saturated☐ Shallow☐ Compacted■ Pavement over roots■ 70 % Describe Wall, curb and road

Prevailing wind direction SW **Common weather** Strong winds■ Ice■ Snow■ Heavy rain■ Describe Seasonal drought

Tree Health and Species Profile

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

Pests Phytopthora **Abiotic** _____

Species failure profile Branches☐ Trunk■ Roots■ Describe Whole tree failure from cankers, internal decay, butt & root rot.

Load Factors

Wind exposure Protected■ Partial☐ Full☐ Wind funneling☐ Wall next to tree **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 Recent adjacent tree removals.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown■ LCR 0 %

Dead twigs/branches■ 100% 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) Tree is dead and all are its 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) Butt rot

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 rot

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

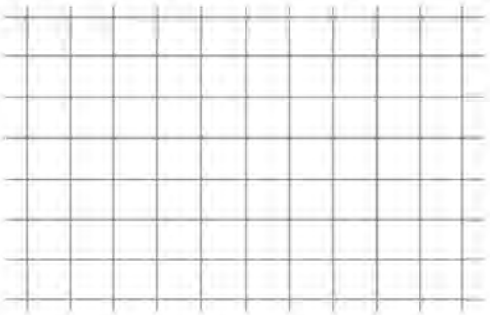
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Dead branches	6"	15'	1	N		●			●				●					●			Low
			6"	15'	2	N		●				●			●					●			Low
			6"	15'	3	N		●						●		●			●				Low
2	Trunk	Whole tree failure from butt rot and lack of roots.	18"	35'	1	N		●					●		●					●			Low
			18"	35'	2	N		●				●			●						●		Low
			18"	35'	3	N		●						●		●				●			Low
3	Roots	Whole tree failure from root rot and lack of roots.	18"	35'	1	N		●					●		●					●			Low
			18"	35'	2	N		●				●			●						●		Low
			18"	35'	3	N		●						●		●				●			Low
4																							

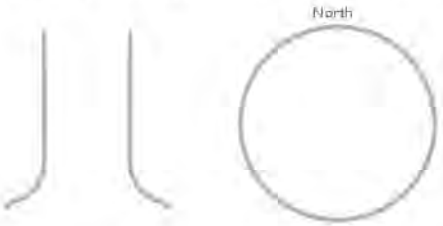
Matrix 1. Likelihood matrix.

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 dead with Phytopthora root rot and a very limiter root zone. Whole tree failure is eventually likely.

Mitigation options Remove — **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 No aerial inspection or root excavation.

TRE-24317: Lawson's Cypress

This tree is adjacent to 1629 8th Ave W, and is dead.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
24317	Queen Anne Boulevard	Chamaecyparis lawsoniana	Lawson's Cypress	Dead	14	Dead. *Phytophthora.*

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 8/3/2020 — Time: 12:45am

Address/Tree location: Across from 1629 8th Ave W, Seattle,WA. 98109, next to wall on east side of street. — Tree no.: TRE-24317 — Sheet: 1 of 2

Tree species: Lawson's Cypress (Chamaecyparis lawsoniana) — dbh: 14" — Height: 35' — Crown spread dia.: 18'

Assessor(s): Mark Malone — Time frame: 1Year — Tools used: Mallet, DBH tape, and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House		✓	✓	4	N	N
2	Parked cars		✓	✓	3	Y	Y
3	Road	✓	✓	✓	4	N	N
4	Sidewalk		✓	✓	4	N	N

Site Factors

History of failures _____ **Topography** Flat☐ Slope■ 5 % **Aspect** N

Site changes None☐ Grade change☐ Site clearing☐ Changed soil hydrology☐ Root cuts☐ Describe Wall and curb restrict root growth

Soil conditions Limited volume■ Saturated☐ Shallow☐ Compacted■ Pavement over roots■ 70 % Describe Wall, curb and road

Prevailing wind direction SW **Common weather** Strong winds■ Ice■ Snow■ Heavy rain■ Describe Seasonal drought

Tree Health and Species Profile

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

Pests Phytopthora **Abiotic** _____

Species failure profile Branches☐ Trunk■ Roots■ Describe Whole tree failure from cankers, internal decay, butt & root rot.

Load Factors

Wind exposure Protected■ Partial☐ Full☐ Wind funneling☐ Wall next to tree **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 Recent adjacent tree removals.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown■ LCR 0 %

Dead twigs/branches■ 100% 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) Tree is dead and all are its 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) Butt rot

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 rot

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

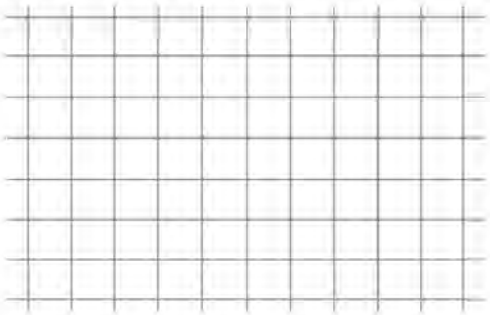
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Dead branches	5"	15'	1	N		●			●				●					●			Low
			5"	15'	2	N		●				●			●					●			Low
			5"	15'	3	N		●						●		●			●				Low
2	Trunk	Whole tree failure from butt rot and lack of roots.	14"	35'	1	N		●					●		●					●			Low
			14"	35'	2	N		●				●			●						●		Low
			14"	35'	3	N		●						●		●				●			Low
3	Roots	Whole tree failure from root rot and lack of roots.	14"	35'	1	N		●					●		●					●			Low
			14"	35'	2	N		●				●			●						●		Low
			14"	35'	3	N		●						●		●				●			Low
4																							

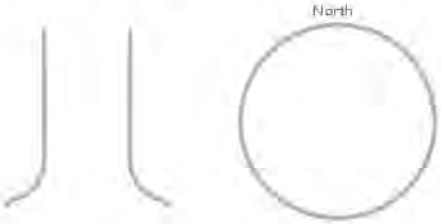
Matrix 1. Likelihood matrix.

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 dead with Phytopthora root rot and a very limiter root zone. Whole tree failure is eventually likely.

Mitigation options Remove — **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 No aerial inspection or root excavation.

TRE-14722: Sycamore Maple

This tree adjacent to 1804 7th AVE W 98119 and is dead.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
14722	Queen Anne Boulevard	*Acer pseudoplatanus*	Sycamore Maple	Dead	16	Dead. *Cryptostroma corticale*

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 8/4/2020 | Time: 3pm

Address/Tree location: Adjacent to 1804 7th Ave W, Seattle, WA 98109 | Tree no.: TRE-14722 | Sheet: 1 of 2

Tree species: Sycamore Maple (Acer pseudoplatanus) | dbh: 16" | Height: 25' | Crown spread dia.: 22'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS

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	House		✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	Y	Y
3	Road	✓	✓	✓	4	N	N
4	Sidewalk	✓	✓	✓	4	N	N

Site Factors

History of failures NA | **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 ■ 60 % Describe ____

Prevailing wind direction SW | **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal drought

Tree Health and Species Profile

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

Pests Sooty bark disease | **Abiotic** ____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe Internal decay as a result of improper pruning and damage to surface roots

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 No more leaves

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 0 %

Dead twigs/branches ☐ 10C% overall Max. dia. 8"

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) Dead stems and branches from sooty bark disease.

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) Bark falling off exposing sooty bark spores to the wind

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) Dead roots can lead to whole tree failure.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

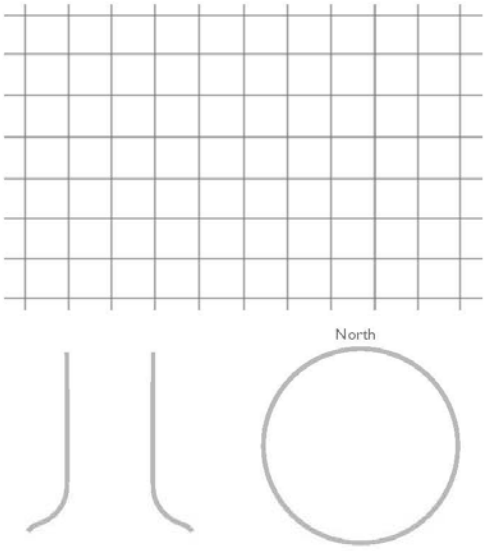
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Multiple dead stems and branches	6"	18'	1	N		●				●			●					●			Low
			4"	10'	2	N		●					●		●					●			Low
			4"	15'	3	N		●					●		●					●			Low
2	Trunk	Dead trunk exposing sooty bark to become airborne and spread	16"	25'	1	N		●				●			●						●		Low
			16"	15'	2	N		●					●		●						●		Low
			16"	20'	3	N		●					●		●					●			Low
3	Roots	Whole tree failure from lack of living roots	16"	25'	1	N		●				●			●						●		Low
			16"	15'	2	N		●					●		●						●		Low
			16"	20'	3	N		●					●		●					●			Low
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 dead with medium sized dead stems and branches. Bark is falling off exposing sooty bark spores to the wind which can spread it to other trees.

Mitigation options Remove **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 No root excavation was performed.

TRE-15199: Black Hawthorn

The hawthorn tree adjacent to 2507 10th AVE W 98119 is hazardous. The tree's supporting structure (trunk) has failed and is being held together by a ratchet strap.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15199	Queen Anne Boulevard	*Crataegus douglasii*	Black Hawthorn	Very Poor	14	Compromised structure

TRE-15199: Black Hawthorn

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 7/23/2020 | Time: 8am

Address/Tree location: 2507 10th Ave W. Seattle,WA. 98119 | Tree no.: TRE-15199 | Sheet: 1 of 2

Tree species: Hawthorne (Crataegus douglasii) | dbh: 14" | Height: 20' | Crown spread dia.: 30'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target within 1x Ht.	Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Metro lines	✓			4	N	N
2	Road	✓			3	N	N
3	Sidewalk	✓			2	N	N
4							

Site Factors

History of failures Main stem has a split down the middle and is strapped together. **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 ■ 60 % Describe Road and sidewalk

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe ____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 70 % Chlorotic ____% Necrotic ____%

Pests Fras present possible carpenter ants **Abiotic** ____

Species failure profile Branches ☐ Trunk ■ Roots ☐ Describe Likely when decay is present

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 Split down main trunk, held together with a strap installed by homeowner.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 80 %

Dead twigs/branches ■ 10 % 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 ■ In trunk Lightning damage ☐

Codominant ■ Between 2 main stems 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) The internal decay in the trunk runs down from the 2 codominate stems and is held together with a strap. If the strap is removed the tree will likely fail. Fras and decay present at the base of the tree. Canopy looks suprisingly healthy.

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 20 % circ. Depth 3" Poor taper ☐

Lean 20 ° Corrected? Yes

Response growth Very little around crack and decay.

Main concern(s) Whole tree failure from basal decay.

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

Likelihood of failure

Improbable ☐ Possible ☐ Probable ■ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ■ Depth NA 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) Fair amounts of roots covered with asphalt. Decay likely extends down into roots.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Page 1 of 2

Risk Categorization

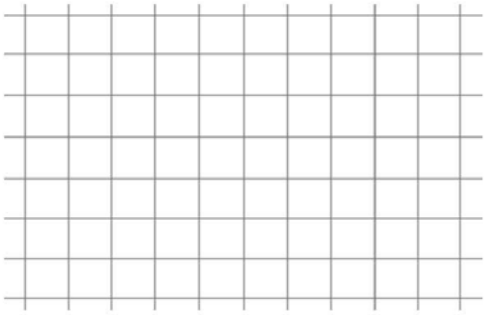
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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 and stems	Possibility of dead limbs failing.	6"	4'	1	N			●					●			●					●	High
			6"	20'	2	N			●				●			●					●		Moderat
			6"	20'	3	N			●			●			●					●			Low
2	Trunk	Internal decay and crack in trunk lead to whole tree failure	14"	4'	1	N			●					●			●					●	High
			14"	20'	2	N			●				●			●					●		Moderat
			14"	20'	3	N			●			●			●					●			Low
3	Roots	Decayed roots leading to whole tree failure	14"	4'	1	N			●					●			●					●	High
			14"	20'	2	N			●				●			●					●		Moderat
			14"	20'	3	N			●			●			●					●			Low
4																							

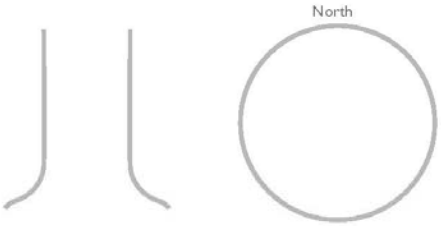
Matrix 1. Likelihood matrix.

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 will fail and hit metro lines, road or sidewalk, if the strap is removed or breaks. Strap is girdling the tree, there is extensive basal decay and likely decay in the roots.

Mitigation options Remove **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

TRE-15202: Little Leaf Linden

This tree is adjacent to 2527 10TH AVE W 98119. At some point this tree partially failed into the road and stabilized. The main stem is leaning into the road at such a low angle that vehicles are being damaged by it. It cannot be pruned to provide adequate clearance.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15202	Queen Anne Boulevard	*Tilia cordata*	Little Leaf Linden		16	Cannot be pruned for adequate street clearance.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 8/5/2020 | Time: 10am

Address/Tree location: Adjacent to 2527 10th Ave W,Seattle,WA.,98109 | Tree no.: TRE-15202 | Sheet: 1 of 2

Tree species: Little Leaf Linden (Tilia cordata) | dbh: 16" | Height: 40' | Crown spread dia.: 36'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet,DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Metro wires	✓	✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	Y	Y
3	Road	✓	✓	✓	4	N	N
4							

Site Factors

History of failures Upper trunk leans into road and has been damaged by trucks **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 ■ 60 % Describe ____

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal drought

Tree Health and Species Profile

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

Pests ____ **Abiotic** ____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Internal decay, 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** ☐ ____

Recent or planned change in load factors ____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 90 %

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) Possible branch failure unto high voltage metro wires

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 25 ° Corrected? Somewhat

Response growth ____

Main concern(s) Damage to upper trunk from truck, if future impacts occur, whole tree failure into lines possible.

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) Limited root space with heavy lean towards metro wires

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

Likelihood of failure

Improbable ☐ Possible ☐ Probable ■ Imminent ☐

Risk Categorization

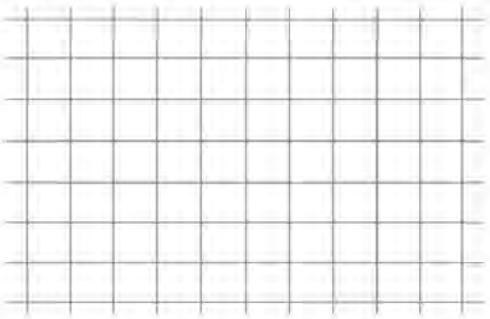
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Limb failure over metro wires	5"	16'	1	N		●						●		●						●	Moderat
			5"	15'	2	N		●					●		●						●		Low
			5"	20'	3	N		●					●		●					●			Low
2	Trunk	Trucks impacting trunk leaning into road.	16"	7'	1	N			●					●		●						●	Moderat
			16"	15'	2	N			●				●		●						●		Low
			16"	20'	3	N			●				●		●					●			Low
3	Roots	Small root space with heavy lean towards metro wires	16"	7'	1	N		●						●		●						●	Moderat
			16"	15'	2	N		●					●		●						●		Low
			16"	20'	3	N		●					●		●					●			Low
4																							

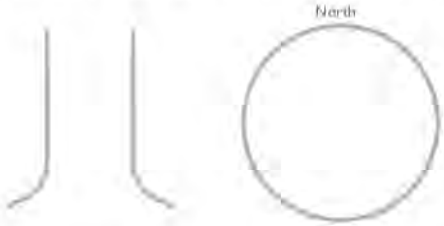
Matrix 1. Likelihood matrix.

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 has previous impacts from vehicles on trunk, future impacts could potentially cause whole tree failure into high voltage lines. Currently unable to prune due to proximity to metro wires, proper clearance would result in tree removal because of trunks close proximity.

Mitigation options Remove **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 No aerial inspection or root excavation.

TRE-24189: Paper Birch

This birch is adjacent 2705 10TH AVE W 98119. The top half of this tree is dead. We have every reason to suspect that this tree is infested with *Agrilus anxius,* bronze birch borer. I expect the entirety of the tree to be dead within the next two years.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
24189	Queen Anne Boulevard	*Betula papyrifera*	Paper Birch	Poor	12	Dying. Bronze Birch Borer.

ISA Basic Tree Risk Assessment Form

Client Seattle Landmarks Preservation Board Date 8/5/2020 Time 10:45am

Address/Tree location Adjacent to 2705 10th Ave W, Seattle,WA.,98109 Tree no. TRE-24189 Sheet 1 of 2

Tree species Paper Birch (Betula papyrifera) dbh 12" Height 30' Crown spread dia. 22'

Assessor(s) Mark Malone Time frame 1 Year Tools used Mallet,DBH tape,and GPS

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	Metro line	✓	✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	Y	Y
3	Road	✓	✓	✓	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 ■ 70 % Describe _____

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal drought

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 40 % Chlorotic 10 % Necrotic 50 %

Pests Bronze birch borer **Abiotic** _____

Species failure profile Branches ■ Trunk ■ Roots ☐ Describe Crown failure due to bronze birch borer, and trunk failure from internal decay.

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 Dead top from bronze birch borer and there is a large crack up the trunk.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 50 %

Dead twigs/branches ☐ 50 % overall Max. dia. 4"

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) Top half of tree is dead from bronze birch borer.

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) There are is large crack running up the 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) _____

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

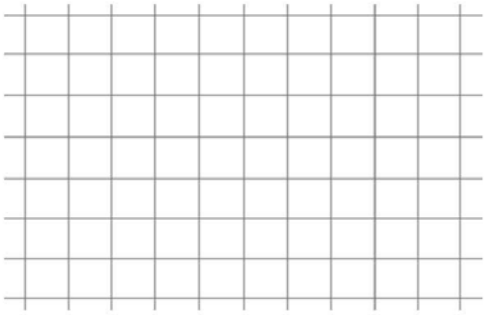
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Dead top	4"	15'	1	N			●				●			●						●	Moderat
			4"	30'	2	N			●			●			●						●		Low
			4"	30'	3	N			●			●			●					●			Low
2	Trunk	Crack in trunk	12"	12'	1	N		●					●			●						●	Moderat
			12"	30'	2	N		●				●			●						●		Low
			12"	30'	3	N		●				●			●					●			Low
3	Roots	Very small root zone.	12"	30'	1	N		●					●			●						●	Moderat
			12"	30'	2	N		●				●			●						●		Low
			12"	30'	3	N		●				●			●					●			Low
4																							

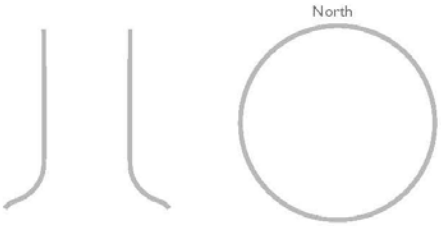
Matrix 1. Likelihood matrix.

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 This tree has a dead top near metro due to an infestation of Bonze Birch Borer, that will continue to kill the further. Large crack on trunk suggests internal decay is likely.

Mitigation options Remove. **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 No aerial inspection or root pruning.

TRE-15215: Chinese Chestnut

This tree is due south of 2821 10TH AVE W 98119. This tree is dead and structurally compromised.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15215	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Dead	47	Structurally unsound Dead.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 7/20/2020 | Time: 9:50am

Address/Tree location: 2821 10th Ave W. Seattle WA. 98119. West side of street in right of way. | Tree no.: TRE-15215 | Sheet: 1 of 2

Tree species: Chinese Chestnut (Castanea mollissima) | dbh: 47" | Height: 40' | Crown spread dia.: 45'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target within 1x Ht.	Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Bus stop	✓			2	N	Y
2	Bus	✓			3	Y	Y
3	Metro wires	✓			4	N	N
4	Right of way (road and sidewalk)	✓			3	N	N

Site Factors

History of failures NA | **Topography** Flat☐ Slope■ 5 % | **Aspect** N

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

Soil conditions Limited volume■ Saturated☐ Shallow☐ Compacted■ Pavement over roots■ 55 % Describe Road and sidewalk

Prevailing wind direction SW | **Common weather** Strong winds■ Ice■ Snow■ Heavy rain■ Describe Draught

Tree Health and Species Profile

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

Pests NA | **Abiotic** Years of draught

Species failure profile Branches☐ Trunk☐ Roots■ Describe prone to Phytophthora root rot

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 Removal

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 0 %

Dead twigs/branches ■ 10C% 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 ■ Sounds hollow

Response growth

Main concern(s) Tree is dead and next to high voltage lines, and there is a bus stop that is frequently occupied with a bus that uses it as break stop. Bus stop present with frequently used road traffic and occasional pedestrian traffic on sidewalk.

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) Internal decay is present

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 2"

Root plate lifting ☐ Soil weakness ☐

Response growth Bulging root flair

Main concern(s) Roots restricted by road and sidewalk

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

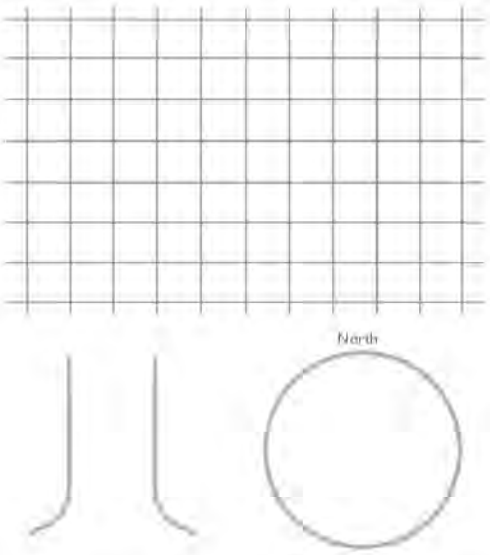
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Trunk	Internal decay	40'	15'	1	N		●					●		●						●		Low
			40'	4'	2	N		●				●			●						●		Low
			40'	12'	3	N		●						●		●						●	Moderat
2	Roots	Internal decay, lack of roots	NA	15'	1	N		●					●		●						●		Low
			NA	4'	2	N		●				●			●						●		Low
			NA	12'	3	N		●						●		●						●	Moderat
3	Branches	Multiple large dead branches	18"	12'	1	N		●					●		●						●		Low
			19"	4'	2	N		●					●		●						●		Low
			19"	12'	3	N		●						●		●						●	Moderat
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 This tree is located on a major arterial with frequent traffic, including a bus stop that is frequently used by bus drivers taking their breaks. There are occasional pedestrians on the sidewalk and at the bus top. High voltage metro lines are located directly under multiple dead branches.

Mitigation options Recommend removing dead tree. **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** None

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

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

TRE-15216: Chinese Chestnut

This tree is due south of 2821 10TH AVE W 98119. For all intents and purposes, this tree is dead. This Chestnut has an aggressive root decay organism that has dissolved its supporting structure.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15216	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Very Poor	32	Structurally unsound. Dying. *Kretzschmaria deusta*, root decay

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 7/22/2020 — Time: 1:30pm

Address/Tree location: 2821 10th Ave W., Seattle WA. 98119 West side of street in the right of way — Tree no.: TRE-15216 — Sheet: 1 of 2

Tree species: Chinese Chestnut (Castanea mollissima) — dbh: 32" — Height: 30' — Crown spread dia.: 42

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target within 1x Ht.	Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Bus stop	✓			2	N	Y
2	Bus	✓			3	Y	Y
3	Metro wires	✓			4	N	N
4	Right of way (road and sidewalk)	✓			3	N	N

Site Factors

History of failures NA — **Topography** Flat ☐ Slope ■ 5 % — **Aspect** N

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

Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ■ Pavement over roots ■ 55 % Describe Road and sidewalk

Prevailing wind direction SW — **Common weather** Strong winds ■ Ice ☐ Snow ■ Heavy rain ■ Describe Draught

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ — **Foliage** None (seasonal) ☐ None (dead) ☐ Normal ____% Chlorotic 30 % Necrotic 70 %

Pests — **Abiotic**

Species failure profile Branches ☐ Trunk ☐ Roots ■ Describe Phytopthora root rot

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 Removal

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 30 %

Dead twigs/branches ■ 70 % overall Max. dia. 9"

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 ■ Multiple unions — 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) Tree is 70% dead and next to high voltage lines,and a bus stop that has frequent use by bus drivers taking breaks. Bus stop present with frequent traffic on road and occasional pedestrian traffic on sidewalk.

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) Internal decay is present

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 2"

Root plate lifting ☐ Soil weakness ☐

Response growth Bulging root flair

Main concern(s) Roots restricted by sidewalk and road. Root decay is likely present.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

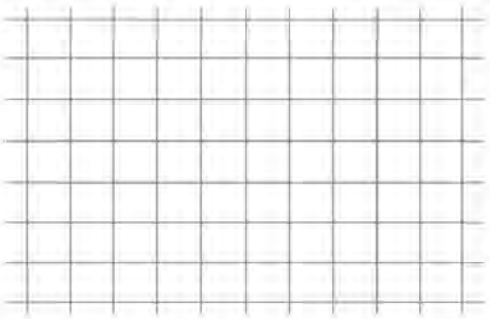
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Multiple dead branches	8"	10'	1	N		●					●		●						●		Low
			6"	11'	2	N		●				●			●						●		Low
			9"	10'	3	N		●						●		●						●	Moderat
2	Trunk	Internal decay	32"	8'	1	N		●					●		●						●		Low
			32"	4'	2	N		●				●			●						●		Low
			32"	12'	3	N		●					●			●						●	Moderat
3	Roots	Internal decay, lack of roots.	NA	8'	1	N		●					●		●						●		Low
			NA	4'	2	N		●				●			●						●		Low
			NA	12'	3	N		●						●		●						●	Moderat
4																							

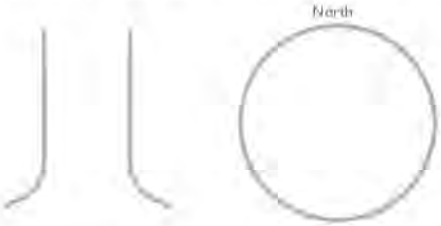
Matrix 1. Likelihood matrix.

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 This tree is located on a major arterial with frequent traffic, including a bus stop that is frequently used by bus drivers taking their breaks. There are occasional pedestrians on the sidewalk and at the bus top. High voltage metro lines are located directly under multiple dead branches.

Mitigation options Recommend removing dead tree. **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** None

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

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

RE-15217: Chinese Chestnut

This tree is adjacent to 2821 10TH AVE W 98119. For all intents and purposes, this tree is dead. This Chestnut has an aggressive root decay organism that has dissolved its supporting structure.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15217	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Very Poor	30	Structurally unsound. Dying. *Kretzchmaria duesta*, root decay

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 7/22/2020 | Time: 2:30pm

Address/Tree location: 2821 10th Ave W., Seattle WA. 98119 West side of street in the right of way | Tree no.: TRE-15217 | Sheet: 1 of 2

Tree species: Chinese Chestnut (Castanea mollissima) | dbh: 30" | Height: 30' | Crown spread dia.: 28'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Metro wires	✓			2	N	N
2	Road	✓			3	N	N
3	Sidewalk	✓			4	N	N
4							

Site Factors

History of failures NA | **Topography** Flat☐ Slope■ 5 % **Aspect** N

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

Soil conditions Limited volume☐ Saturated☐ Shallow☐ Compacted■ Pavement over roots■ 55 % Describe Road and sidewalk

Prevailing wind direction SW **Common weather** Strong winds■ Ice☐ Snow■ Heavy rain■ Describe Draught

Tree Health and Species Profile

Vigor Low■ Normal☐ High☐ **Foliage** None (seasonal)☐ None (dead)☐ Normal ____% Chlorotic 35 % Necrotic 65 %

Pests **Abiotic**

Species failure profile Branches☐ Trunk☐ Roots■ Describe Phytopthora root rot

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 Removal

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 35 %

Dead twigs/branches ■ 65 % overall Max. dia. 9"

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 ■ Multiple unions 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) Tree is 65% dead and next to high voltage lines,and a bus stop that has frequent use by bus drivers taking breaks. Bus stop present with frequent traffic on road and occasional pedestrian traffic on sidewalk.

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) Internal decay is present

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 2"

Root plate lifting ☐ Soil weakness ☐

Response growth Bulging root flair

Main concern(s) Roots restricted by sidewalk and road. Root decay is likely present.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

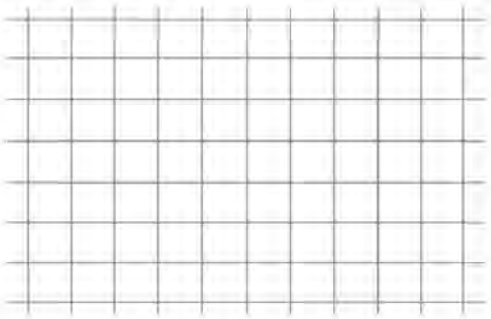
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Failure: Possible	Failure: Probable	Failure: Imminent	Impact: Very low	Impact: Low	Impact: Medium	Impact: High	Failure & Impact (from Matrix 1): Unlikely	Somewhat	Likely	Very likely	Consequences: Negligible	Minor	Significant	Severe	Risk rating of part (from Matrix 2)
1	Branches	Multiple dead branches	8"	10'	1	N		●						●		●						●	Moderat
			6"	20"	2	N		●				●			●						●		Low
			5"	16'	3	N		●					●		●						●		Low
2	Trunk	Internal decay	30"	10'	1	N		●						●		●						●	Moderat
			30"	20'	2	N		●				●			●						●		Low
			30"	20'	3	N		●					●		●						●		Low
3	Roots	Internal decay, lack of roots.	NA	10'	1	N		●						●		●						●	Moderat
			NA	20'	2	N		●				●			●						●		Low
			NA	20'	3	N		●					●		●						●		Low
4																							

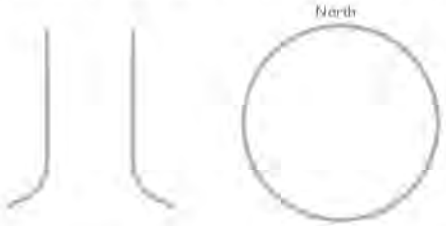
Matrix 1. Likelihood matrix.

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 This tree is located on a major arterial with frequent traffic, including a bus stop that is frequently used by bus drivers taking their breaks. There are occasional pedestrians on the sidewalk and at the bus top. High voltage metro lines are located directly under multiple dead branches.

Mitigation options Recommend removing dead tree. **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** None

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

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

TRE-15236: Birch

This tree is across the street from 2803 8th Ave W. Its structure has been severely compromised. There is extensive decay at the base and it is leaning so far into the road vehicles have hit it.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15236	Queen Anne Boulevard	Betula Sp.	Birch	Dead	16	Structurally compromised

TRE-15236: Birch

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 7/23/2020 | Time: 1 pm

Address/Tree location: 2701 8th Ave W. Seattle, WA. 98119 West side of road in the right of way. | Tree no.: TRE-15236 | Sheet: 1 of 2

Tree species: Birch (Betula nigra) | dbh: 16" | Height: 40' | Crown spread dia.: 40'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target within 1x Ht.	Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Metro wires	✓			4	N	N
2	Road	✓			4	N	N
3	Parked cars across street	✓			2	Y	Y
4							

Site Factors

History of failures NA | **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 ■ 40 % Describe: road

Prevailing wind direction SW | **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe: _____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ | **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 85 % Chlorotic ____% Necrotic 15 %

Pests _____ | **Abiotic** _____

Species failure profile Branches ☐ Trunk ■ Roots ☐ Describe: Trunk failure due to internal decay

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 85 %

Dead twigs/branches ☐ 85 % 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 ■ Multiple unions Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

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

Conks ☐ Heartwood decay ■ Likely

Response growth _____

Main concern(s): Major limb failure which would make probable impact with metro wires. Frequent traffic on road could be impacted.

Load on defect N/A ☐ Minor ☐ Moderate ■ Significant ☐ Strong lean towards wires

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 35 ° Corrected? Somewhat

Response growth _____

Main concern(s): Trunk failure from internal decay

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): Possible decay extending from basal decay roots is likely

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

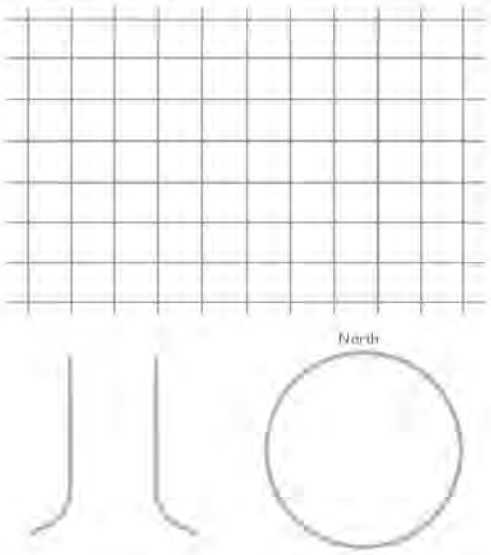
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Stem failure from internal decay and multiple stem unions in 1 spot	6"	2'	1	N		●						●		●						●	Moderat
			6"	40'	2	N		●						●		●				●			Low
			6"	35'	3	N		●					●		●						●		Low
2	Trunk	Whole tree failure from internal decay	16"	2'	1	N		●						●		●						●	Moderat
			16"	40'	2	N		●						●		●				●			Low
			16"	35'	3	N		●					●		●						●		Low
3	Roots	Dead or decayed roots damaged by sidewalk construction	16"	2'	1	N		●						●		●						●	Moderat
			16"	40'	2	N		●						●		●				●			Low
			16"	20'	3	N		●					●		●						●		Low
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 has a very strong lean towards metro wires and road with extensive basal decay from injury prior. Poor pruning cuts for line clearance likely weakened trees defenses and increased likelihood for pathogen entry.

Mitigation options Removal **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 No aerial inspection was done

TRE-15235: Birch

This tree is adjacent to 2701 8th Ave W. This tree is in a rapid state of decline.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15215	Queen Anne Boulevard	Betula Sp.	Birch	Very poor	19	Dying.

ISA Basic Tree Risk Assessment Form

Client Seattle Landmarks Preservation Board Date 7/23/2020 Time 10am

Address/Tree location 2701 8th Ave W. Seattle, WA. 98119 West side of road in the right of way. Tree no. TRE-15235 Sheet 1 of 2

Tree species Birch (Betula nigra) dbh 19" Height 40' Crown spread dia. 40'

Assessor(s) Mark Malone Time frame 1 Year Tools used Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Metro wires	✓			4	N	N
2	Communication lines	✓			4	N	N
3	Road	✓			3	N	N
4	Sidewalk	✓			2	N	N

Site Factors

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

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

Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ■ Pavement over roots ■ 60 % Describe Sidewalk and road

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

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 15 % Chlorotic ____% Necrotic ____%

Pests _____ **Abiotic** _____

Species failure profile Branches ☐ Trunk ■ Roots ☐ Describe Trunk failure due to internal decay

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 Removal, possible previous damage to roots from new sidewalk.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 15 %

Dead twigs/branches ☐ 85 % overall Max. dia. 9"

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 ■ Multiple unions Cavity/Nest hole ____% circ.

Previous branch failures ☐ _____ Similar branches present ☐

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

Conks ☐ Heartwood decay ■ Likely

Response growth _____

Main concern(s) Major limb failure which would make probable impact with metro wires. Frequent traffic on road could be impacted as well as communication lines and pedestrians on sidewalk.

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 25 ° Corrected? Somewhat

Response growth _____

Main concern(s) Trunk failure from internal decay

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) Possible damage to roots from newly installed sidewalk.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

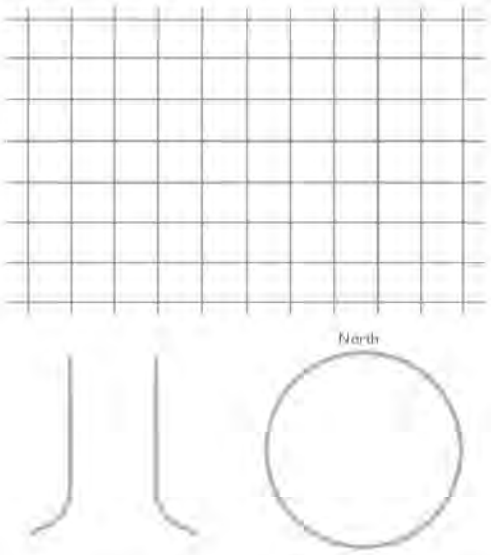
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Stem failure from internal decay and multiple stem unions in 1 spot	6"	2'	1	N		●						●		●						●	Moderat
			6"	6"	2	N		●						●		●				●			Low
			6"	20'	3	N		●					●		●						●		Low
2	Trunk	Whole tree failure from internal decay	19"	2'	1	N		●						●		●						●	Moderat
			19"	6"	2	N		●						●		●				●			Low
			19"	20'	3	N		●					●		●						●		Low
3	Roots	Dead or decayed roots damaged by sidewalk construction	19"	2'	1	N		●						●		●						●	Moderat
			19"	6"	2	N		●						●		●				●			Low
			19"	20'	3	N		●					●		●						●		Low
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 has been mostly dead for a number of years, which means decay organisms have done extensive damage so far. Poor pruning cuts for line clearance likely weakened trees defenses and increased likelihood for pathogen entry.

Mitigation options Removal **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 No aerial inspection was done

TRE-15281: Sugar Maple - Removed

This tree was adjacent to 2418 4th Ave W and has been removed. The tree was dying and recently failed, impacting the adjacent property. An Emergency Certificate of Approval was issued for this tree.

Tree ID	Park Name	Tree Species	Common Name	Condition	DBH	Concern
15281	Queen Anne Boulevard	Acer platanoides	Sycamore Maple	Dead	32	Dying *Cryptostroma Coracle*

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 7/24/2020 | Time: 8 am

Address/Tree location: 2418 4th Ave W., Seattle WA. 98119. On the NE side of the rightof way. | Tree no.: TRE-15281 | Sheet: 1 of 2

Tree species: Norway maple (Acer platanoides) | dbh: 32" | Height: 70' | Crown spread dia.: 40'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House	✓			4	N	N
2	Parked cars		✓		3	Y	Y
3	Road	✓			4	N	N
4	Sidewalk	✓	✓		4	N	N

Site Factors

History of failures There have been 2 recorded branch failures recently, 1 damaged propr **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■ 60 % Describe Sidewalk and road

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

Tree Health and Species Profile

Vigor Low■ Normal☐ High☐ **Foliage** None (seasonal)☐ None (dead)☐ Normal 35 % Chlorotic 15 % Necrotic 50 %

Pests _____ **Abiotic** _____

Species failure profile Branches■ Trunk☐ Roots☐ Describe Codominate branches 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 _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 50 %

Dead twigs/branches■ 50 % overall Max. dia. 17"

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■ 2 Similar branches present■

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

Conks ☐ Heartwood decay■ Likely

Response growth _____

Main concern(s) Sooty bark disease and Kretzschmaria deusta are present and have likely contributed to multiple dead branches and internal 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) Failure from internal decay

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) Whole tree failure from possible decayed roots.

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

Likelihood of failure

Improbable ☐ Possible■ Probable ☐ Imminent ☐

Risk Categorization

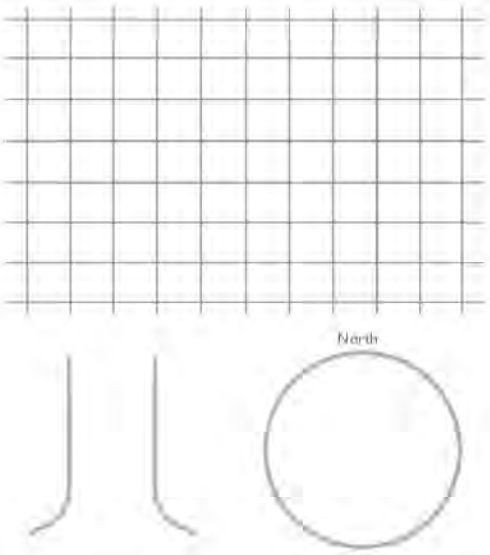
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Failure: Possible	Failure: Probable	Failure: Imminent	Impact: Very low	Impact: Low	Impact: Medium	Impact: High	Failure & Impact (from Matrix 1): Unlikely	Somewhat	Likely	Very likely	Consequences: Negligible	Minor	Significant	Severe	Risk rating of part (from Matrix 2)
1	Branches	Multiple dead branches	8"	50'	1	N		●						●		●						●	Moderat
			9"	50'	2	N		●						●		●					●		Moderat
			9"	50'	3	N		●					●		●					●			Low
2	Trunk	Internal decay	32"	70'	1	N		●					●		●							●	Low
			32"	70'	2	N		●					●			●					●		Low
			32"	70'	3	N		●						●	●					●			Low
3	Roots	Decayed roots	32"	70'	1	N		●					●		●							●	Low
			32"	70'	2	N		●					●		●						●		Low
			32"	70'	3	N		●						●	●					●			Low
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 Precautions will be needed to protect workers and the public from spore dispersal of sooty bark disease during tree removal. Respirators required and surfactants should be sprayed tree parts during removal.

Mitigation options Removal **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 _____

The City of Seattle

Landmarks Preservation Board

Mailing Address: PO Box 94649, Seattle WA 98124-4649
Street Address: 600 4th Avenue, 4th Floor

EMERGENCY CERTIFICATE OF APPROVAL **LPB 276/20**

Queen Anne Boulevard

I hereby issue an Emergency Certificate of Approval for the proposed removal of the street tree (ID #15281) on Queen Anne Boulevard in the proximity of 2418 4th Avenue W, as per the attached submittal. As represented by the arborist's assessment, the tree has exhibited structural failures, and will likely continue to degrade due to the two fungi that are present; *Cryptostroma corticale and Kretzschmaria deusta.* We also understand, that the former type poses a series health issue. This proposed alteration does adversely affect the special features or characteristics of the boulevard as specified in the Report on Designation (LPB 123/79), however, Seattle Parks and Recreation has demonstrated the need for this tree's removal.

This approval is conditioned upon the planting of a replacement tree in this location. The species of this street tree is not yet specified, and is expected to be different than the existing tree, to promote future health and longevity. The proposed species will be reviewed and approved by the Landmarks Preservation Board before the work is undertaken.

This Certificate is issued in accordance with the *Secretary of Interior's Standards for Rehabilitation* as adopted by the Landmarks Preservation Board for use in reviewing changes to Queen Anne Boulevard, and as per SMC 25.12. This does not waive the owner's obligation with regard to other permits and plans.

Issued: July 28, 2020

Jordan Kiel, Chair

Erin Doherty

By: Erin Doherty
Landmarks Preservation Board Coordinator

Administered by The Historic Preservation Program
The Seattle Department of Neighborhoods
"Printed on Recycled Paper"

cc Kathleen Conner, Seattle Parks & Recreation
Nathan Torgelson, SDCI
Katrina Nygaard, SDCI
File

NOTICE TO APPLICANT:

Work must occur exactly according to approved plans and specifications. ANY revisions, omissions and/or additions to plans and specifications must be reviewed and approved by the Landmarks Preservation Board prior to implementation.

APPEAL PROCEDURE:

In accordance with SMC 25.12.740, any interested person may appeal to the Hearing Examiner the decision of the Board to grant, deny or attach conditions to a certificate of approval by serving written notice of appeal upon the Board and filing such notice and a copy of the Board's decision with the Hearing Examiner (Office of the Hearing Examiner, 700 5th Avenue, Suite 4000, Seattle, Washington 98104) within fourteen (14) days after such grant, denial or conditional grant. The written appeal must clearly state the appellant's objections to the decision, and must be accompanied by an $85.00 filing fee. The written appeal and filing fee must reach the Office of the Hearing Examiner prior to 5:00 p.m. on the last day of the appeal period.

TRE-15291: Red Maple

This tree is adjacent to 316 W McGraw Place. It has an aggressive root decay organism, extensive basal and stem decay it is structurally unsound.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15291	Queen Anne Boulevard	Acer rubrum	Red Maple	Poor	14	Structurally compromised. *Kretzschmaria deusta*, root decay.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 7/23/2020 — Time: 2:15pm

Address/Tree location: 316 W McGraw Pl. Seattle, WA. 98119 SE side of road in the right of way. — Tree no.: TRE-15291 — Sheet: 1 of 2

Tree species: Red Maple (Acer rubrum) — dbh: 14" — Height: 35' — Crown spread dia.: 35'

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape and GPS

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	Power lines		✓		4	Y	Y
2	Parked cars	✓	✓	✓	2	Y	Y
3	Road	✓			3	N	N
4	Sidewalk	✓			2	N	N

Site Factors

History of failures there are 3 wounds from possible previous failures or poor pruning — **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 ■ 70 % Describe Sidewalk and road

Prevailing wind direction SW — **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe ____

Tree Health and Species Profile

Vigor Low ☐ Normal ■ High ☐ — **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 70 % Chlorotic 10 % Necrotic 20 %

Pests ____ — **Abiotic** ____

Species failure profile Branches ■ Trunk ■ Roots ☐ Describe Codominant branches w/ included bark.Poor pruning resulting in internal decay.

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 70 %

Dead twigs/branches ☐ 20 % overall — Max. dia. 5"

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 ■ Multiple unions — Cavity/Nest hole 45 % circ.

Previous branch failures ■ 3 — Similar branches present ☐

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

Conks ☐ — Heartwood decay ■ Likely

Response growth ____

Main concern(s) Major limb failure at weak union with 3 decay cavities. Frequent traffic on road could be impacted as well as parked cars and pedestrians on sidewalk.

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 45 % circ. — Depth 6" — Poor taper ☐

Lean 5 ° — Corrected? Yes

Response growth ____

Main concern(s) Trunk failure from internal decay

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 ■ 20 % circ.

Cracks ☐ — Cut/Damaged roots ☐ — Distance from trunk ____

Root plate lifting ☐ — Soil weakness ☐

Response growth ____

Main concern(s) Possible decayed roots from the presence of cavity at base of tree

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

Likelihood of failure

Improbable ☐ — Possible ■ — Probable ☐ — Imminent ☐

Risk Categorization

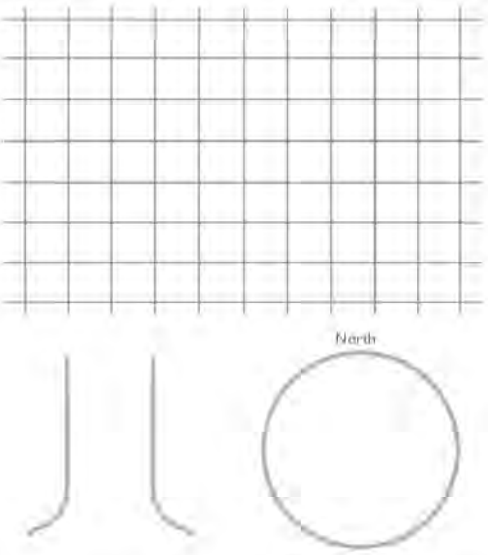
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Multiple large dead branches and stems.	12"	35'	1	N		●				●			●							●	Low
			12"	35'	2	N		●				●			●						●		Low
			12"	35'	3	N		●						●			●			●			Moderat
2	Trunk	Whole tree failure from internal decay	14"	70'	1	N		●				●			●							●	Low
			14"	70'	2	N		●				●			●					●			Low
			14"	70'	3	N		●						●			●			●			Moderat
3	Roots	Dead or decayed roots	14"	70'	1	N		●				●			●							●	Low
			14"	70'	2	N		●				●			●					●			Low
			14"	70'	3	N		●						●			●			●			Moderat
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 has large decay cavities close to each other with codominant stems and likely decay. Failure in wind event will likely cause damage given fall distance and size of limbs.Tree has lean towards lines and would have severe consequences should root or whole tree failure occur.

Mitigation options Removal **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 No aerial inspection or root excavation was done.

TRE-15297: Sycamore Maple

This tree is adjacent to 2412 2nd AVE W, it is in a severe state of decline, it is effectively dead.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15297	Queen Anne Boulevard	Acer pseudoplatanus	Sycamore Maple	Very Poor	22	Dying. Cryptostroma corticale.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 7/27/2020 — Time: 8 am

Address/Tree location: 2412 2ND AVE W SEATTLE, WA, 98119 — Tree no.: TRE-15297 — Sheet: 1 of 2

Tree species: Sycamore Maple (Acer pseudoplatanus) — dbh: 22" — Height: 45' — Crown spread dia.: 40"

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape and GPS

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	House	✓	✓	✓	4	N	N
2	Parked cars	✓	✓	✓	2	N	N
3	Road	✓	✓	✓	3	N	N
4	Sidewalk	✓	✓	✓	2	N	N

Site Factors

History of failures NA — **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 ■ 60 % Describe Sidewalk and road

Prevailing wind direction SW — **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal draught

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ — **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 40 % Chlorotic 15 % Necrotic 45 %

Pests Sooty bark disease — **Abiotic** ____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Internal decay especially as a result of improper pruning and 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 ☐ ____% 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 ■ Multiple unions — Cavity/Nest hole ____% circ.

Previous branch failures ■ Likely — Similar branches present ■

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

Conks ☐ — Heartwood decay ☐ ____

Response growth ____

Main concern(s): Large dead stems and branches over house, parked cars, road and sidewalk.

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) Eventual root failure from dead root system

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

Likelihood of failure

Improbable ☐ — Possible ■ — Probable ☐ — Imminent ☐

Risk Categorization

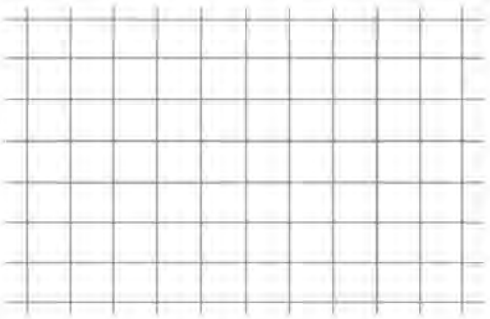
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Large dead stems and branches	8"	40'	1	N		●						●		●						●	Moderat
			6"	40'	2	N		●					●		●						●		Moderat
			9"	40'	3	N		●						●		●				●			Low
2	Trunk	Bark falling off exposing sooty bark spores	22"	45'	1	N		●					●		●							●	Low
			22"	45'	2	N		●					●		●						●		Low
			22"	45'	3	N		●						●		●				●			Low
3	Roots	Dead roots	22"	45'	1	N		●					●		●							●	Low
			22"	45'	2	N		●					●		●						●		Low
			22"	45'	3	N		●						●		●				●			Low
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 Precautions must be taken during removal to reduce the spread of sooty bark and to protect the workers and public from inhaling the spores which cause respiratory issues.

Mitigation options Remove using respiratory protection and spray with surfactant to reduce spread of spores. **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 _____

TRE-15319: Sycamore Maple

This tree is adjacent to 411 Boston St. It is in a severe state of decline and is structurally unsound due to large decay pockets where topping cuts were made for line clearance.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15319	Queen Anne Boulevard	Acer pseudoplatanus	Sycamore Maple	Very Poor	24	Structurally compromised. Dying. *Cryptostroma corticale*

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 7/27/2020 — Time: 2:30pm

Address/Tree location: 411 BOSTON ST, SEATTLE,WA 98109 — Tree no.: TRE-15319 — Sheet: 1 of 2

Tree species: Sycamore Maple (Acer pseudoplatanus) — dbh: 24" — Height: 20' — Crown spread dia.: 35'

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape and GPS

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	School	✓	✓	✓	4	N	N
2	Sidewalk with school bus loading zone	✓	✓	✓	3	Y	Y
3	Parked cars	✓	✓	✓	3	Y	Y
4	Road	✓	✓	✓	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: Root pruning for pipe installation

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

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe: Seasonal draught

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 25 % Chlorotic 15 % Necrotic 60 %

Pests Sooty bark disaease and possible Hypoxylon canker **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 was topped for line clearance. roots cut for pipe install.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 25 %

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 ■ Multiple unions 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): Large dead stems and branches in front of school with high pedestrian traffic.

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): Shedding bark that will leave sooty barked exposed to become airborne and spread

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): Dead or dying roots.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

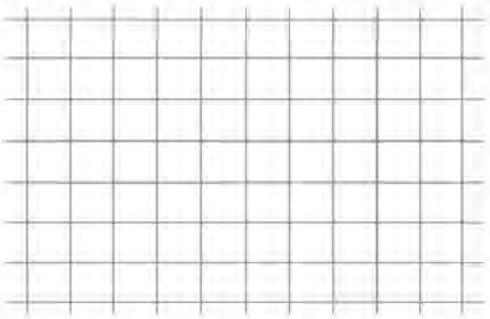
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Branches	Dead limbs and branches over sidewalk with school nearby	7"	4'	1	N		●						●		●						●		Moderat
			6"	14'	2	N		●						●		●						●		Moderat
			5"	12'	3	N		●				●			●					●				Low
2	Trunk	Shedding bark that is falling off exposing spore to become airborne	24"	4'	1	N		●						●		●						●		Moderat
			24"	14'	2	N		●						●		●						●		Moderat
			24"	12'	3	N		●				●			●					●				Low
3	Roots	Possible dead or dying roots	24"	4'	1	N		●						●		●						●		Moderat
			24"	14'	2	N		●						●		●						●		Moderat
			24"	12'	3	N		●				●			●					●				Low
4																								

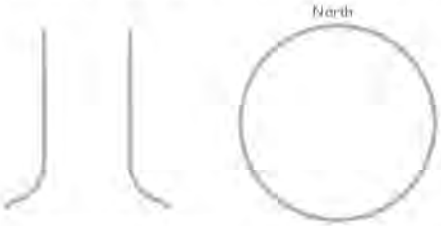
Matrix 1. Likelihood matrix.

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 Precautions must be taken during removal to reduce the spread of sooty bark and to protect the workers and public from inhaling the spores which cause respiratory issues.

Mitigation options Remove using respiratory protection and spray with surfactant to reduce spread of spores. **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 _____

TRE-15329: Chinese Chestnut

This tree is adjacent to 365 Lee St, it is in a severe state of decline, there is basal decay, significant tip die back, low vigor, stem suckers indicating internal decay, pruning cuts not healing. This tree is effectively dead.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15329	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Very Poor	23	Structurally compromised. Dying. Kretzschmaria deusta, root decay.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 7/31/2020 | Time: 9am

Address/Tree location: Adjacent to 365 Lee St., Seattle WA 98109 | Tree no.: TRE- 15329 | Sheet: 1 of 2

Tree species: American Chestnut (Castanea denttata) | dbh: 23" | Height: 50' | Crown spread dia.: 24'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape, and GPS.

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House		✓	✓	4	N	N
2	Low voltage and communication lines		✓	✓	4	N	N
3	Parked cars	✓	✓	✓	3	Y	Y
4	Road	✓	✓	✓	2	N	N

Site Factors

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

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

Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ■ Pavement over roots ■ 65 % Describe Sidewalk and road

Prevailing wind direction SW | **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal draught.

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ | **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 45 % Chlorotic 15 % Necrotic 40 %

Pests Kretzchmaria duesta (brittle cinder) | **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Sudden branch drop

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 Line clearance work performed with poorly made cuts which are slow to compartmentalize.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ LCR 45 %

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 Suckers and pruning cuts not healing

Main concern(s) Tree has basal decay and is in a state of decline with multiple sucker sprouts and low vigor. There is tip die back and multiple dead branches previously removed. Poor compartmentalization of previous pruning 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 Suckers up the entire trunk

Main concern(s) Failure from internal decay Kretzchmaria duesta present.

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 5"

Root plate lifting ☐ Soil weakness ☐

Response growth Basal suckers present.

Main concern(s) Poor compartmentalization of damaged roots. Kretzchmaria duesta present.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

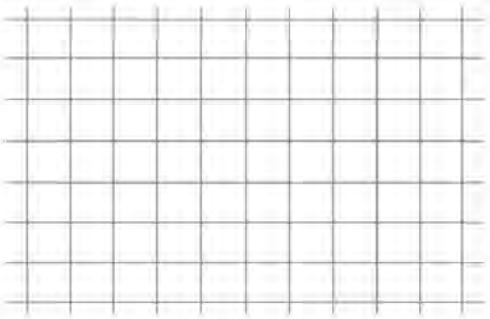
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Tip die back and dead branches	8"	40'	1	N		●					●		●						●		Low
			9"	18'	2	N		●						●		●					●		Moderat
			4"	35'	3	N		●					●		●						●		Low
2	Trunk	Internal decay	23"	50'	1	N		●					●		●						●		Low
			23"	50'	2	N		●						●		●					●		Moderat
			23"	50'	3	N		●					●		●						●		Low
3	Roots	Dead or decaying roots	23"	50'	1	N		●					●		●						●		Low
			23"	50'	2	N		●						●		●					●		Moderat
			23"	50'	3	N		●					●		●						●		Low
4																					●		
																					●		
																					●		

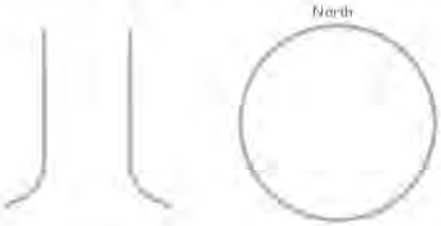
Matrix 1. Likelihood matrix.

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 This tree has been reduced previously and has not recovered well from previous pruning cuts. The presence of Kretzchmaria duesta, suggests internal stem and root decay is likely. Tree is structuarally comprimised and slowly dying.The presence of sucker shoots and sprouts indicated excessive stress.

Mitigation options Removal. **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 No aerial inspection or root excavation performed

TRE-15358: Norway Maple

This tree is adjacent to 452 Boston St, it is in a severe state of decline.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15358	Queen Anne Boulevard	Acer platanoides	Norway Maple	Very Poor	24	Dying. *Cryptostroma corticale*.

ISA Basic Tree Risk Assessment Form

Client Seattle Landmarks Preservation Board Date 7/27/2020 Time 12pm

Address/Tree location 452 BOSTON ST. ,SEATTLE, WA 98109, Corner of Bigelow NE side of right of way. Tree no. TRE-15358 Sheet 1 of 2

Tree species Norway Maple (Acer platanoides) dbh 24" Height 40' Crown spread dia. 30'

Assessor(s) Mark Malone Time frame 1 Year Tools used Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House	✓	✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	N	N
3	Road	✓	✓	✓	4	N	N
4	Communication lines	✓	✓	✓	4	N	N

Site Factors

History of failures Some small hangers present **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 ■ 60 % Describe Road and sidewalk

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal draught

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 25 % Chlorotic 10 % Necrotic 65 %

Pests Sooty bark disease **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 Internal decay especially as a result of improper pruning and root damage.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 35 %

Dead twigs/branches ■ 65 % overall Max. dia. 9"

Broken/Hangers Number 2 Max. dia. 2"

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 10 % circ.

Previous branch failures ■ _____ Similar branches present ■

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

Conks ☐ Heartwood decay ☐ _____

Response growth _____

Main concern(s) Large dead stems and branches and small hangers

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) Bark falling off exposing sooty bark spores

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) Dead or dying roots.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

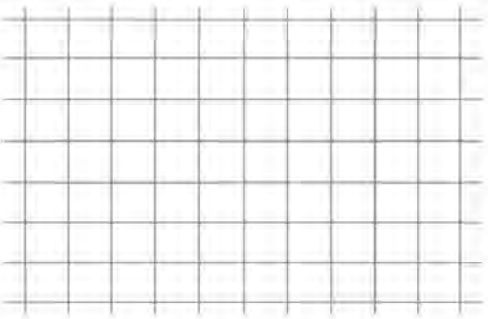
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat likely	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	Large dead stems and branches	6"	15'	1	N		●					●		●						●		Low
			8"	18'	2	N		●					●		●						●		Low
			9"	3'	3	N		●				●			●					●			Low
2	Trunk	Bark falling off exposing sooty bark spores	24"	15'	1	N		●					●		●						●		Low
			24"	18'	2	N		●					●		●						●		Low
			24"	3'	3	N		●				●			●					●			Low
3	Roots	Dead roots	24"	15'	1	N		●					●		●						●		Low
			24"	18'	2	N		●					●		●						●		Low
			24"	3'	3	N		●				●			●					●			Low
4																							

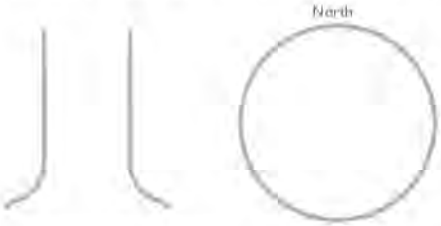
Matrix 1. Likelihood matrix.

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 Precautions must be taken during removal to reduce the spread of sooty bark and to protect the workers and public from inhaling the spores which cause respiratory issues.

Mitigation options Remove using respiratory protection and spray with surfactant to reduce spread of spores. **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 _____

TRE-8661: Chinese Chestnut

This tree is adjacent to 1249 Bigelow Ave N. This tree has an aggressive root decay organism, it is structurally compromised and is a hazard.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
8661	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Poor	24	Structurally compromised. *Kretzschmaria deusta,* root decay.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 7/31/2020 — Time: 3pm

Address/Tree location: Adjacent to 1249 Bigelow Ave N. in the right of way on the west side of the street. — Tree no.: TRE-8661 — Sheet: 1 of 2

Tree species: American Chestnut (Castanea dentata) — dbh: 24" — Height: 40' — Crown spread dia.: 22'

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape and GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House		✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	N	N
3	Road	✓	✓	✓	4	N	N
4	Sidewalk	✓	✓	✓	4	N	N

Site Factors

History of failures NA — **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 ■ 66 % Describe Sidewalk and road

Prevailing wind direction SW — **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal draught

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ — **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 35 % Chlorotic 15 % Necrotic 50 %

Pests Kretzchmaria duesta present — **Abiotic** ____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Rarely fails, cankers, sudden branch drop.

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 Heavily pruned with poor compartmentalization and excessive suckers and sprouting

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ■ — LCR 35 %

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 10 % circ.

Previous branch failures ☐ ____ — Similar branches present ☐

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

Conks ☐ — Heartwood decay ■ ____

Response growth ____

Main concern(s) Kretzchmaria duesta present, significant tip die back with numberous suckers and spouts.

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 Multiple suckers and shoots.

Main concern(s) Possible internal decay from Kretzchmaria duesta

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 Basal shoots present

Main concern(s) Decayed roots from Kretzchmaria duesta.

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

Likelihood of failure

Improbable ☐ — Possible ■ — Probable ☐ — Imminent ☐

Risk Categorization

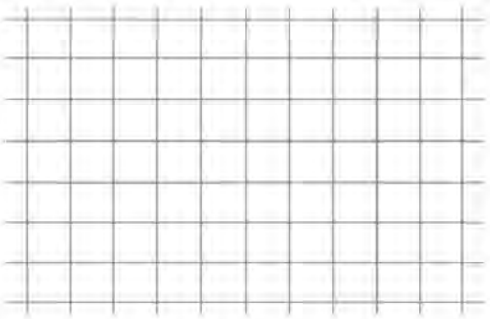
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Braches	Multiple dead and dying stems and branches.	7"	40'	1	N		●					●		●						●		Low
			9"	12'	2	N		●					●		●						●		Low
			9"	15'	3	N		●					●		●					●			Low
2	Trunk	Internal decay.	24"	40'	1	N		●					●		●						●		Low
			24"	12'	2	N		●					●		●						●		Low
			24"	15'	3	N		●					●		●					●			Low
3	Roots	Decaying roots	24"	40'	1	N																	Low
			24"	12'	2	N																	Low
			24"	15'	3	N																	Low
4																							

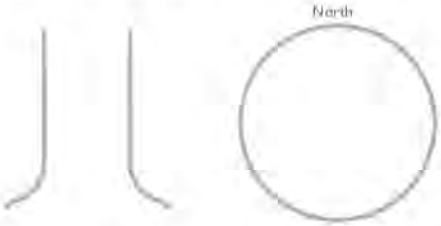
Matrix 1. Likelihood matrix.

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 This tree is in a state of decline, with low vigor and poorly compartmentalizing previous pruning cuts. Tip die back and multiple suckers and shoots indicate this tree is dying.

Mitigation options Removal **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 _____

TRE-15344: Chinese Chestnut

This tree is adjacent to 1228 Bigelow Ave N, and is in a severe state of decline. There is basal decay, significant tip die back, low vigor, stem suckers indicating internal decay, pruning cuts are not healing.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15344	Queen Anne Boulevard	Castanea dentata	Chinese Chestnut	Very Poor	30	Structurally compromised. *Kretzchmaria duesta*, root decay.

TRE-15344: Chinese Chestnut

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 8/3/2020 | Time: 9:30am

Address/Tree location: Adjacent to 1228 Bigelow Ave N, Seattle, WA. 98109 | Tree no.: TRE-15344 | Sheet: 1 of 2

Tree species: American Chestnut (Castanea dentata) | dbh: 30" | Height: 75' | Crown spread dia.: 50'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS.

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House	✓	✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	Y	Y
3	Road	✓	✓	✓	4	N	N
4							

Site Factors

History of failures NA | **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 ■ 45 % Describe Road

Prevailing wind direction SW | **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal draught

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ | **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 40 % Chlorotic _____% Necrotic _____%

Pests Kretzchmaria duesta | **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Cankers and sudden branch drop

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 Previous removal of deadwood from tip die back.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR _____%

Dead twigs/branches ■ 25 % overall Max. dia. 5"

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 Multiple stem and basal suckers

Main concern(s) Tip die back, low vigor, stem suckers indicating internal 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 5 ° Corrected? yes

Response growth _____

Main concern(s) Kretzchmaria duesta with basal decay and a large crack on the south side of the 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) basal decay and possible decayed roots.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

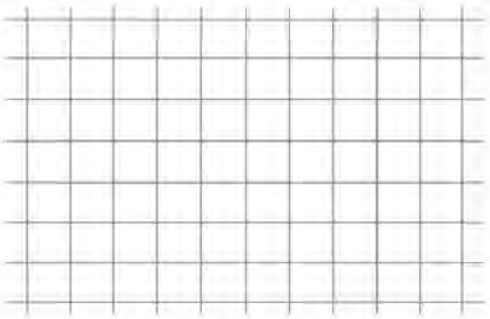
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Branches	Large stems and branches with internal decay	6"	20'	1	N		●					●		●						●		Low
			7"	40'	2	N		●					●		●						●		Low
			7"	40'	3	N		●					●		●					●			Low
2	Trunk	Basal decay and crack in main stem, possible internal decay.	30"	75'	1	N		●					●		●							●	Low
			30"	75'	2	N		●					●		●							●	Low
			30"	75'	3	N		●						●		●				●			Moderat
3	Roots	Dead or dying roots	30"	75'	1	N		●				●			●							●	Low
			30"	75'	2	N		●					●		●							●	Low
			30"	75'	3	N		●						●		●				●			Moderat
4																							

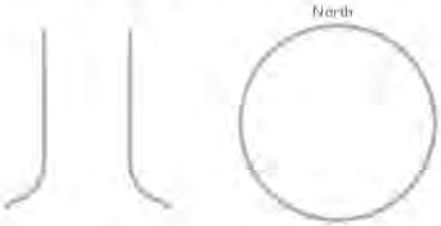
Matrix 1. Likelihood matrix.

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 The tree is in decline, indicated by the basal decay, tip die back, large crack in stem, stem and basal suckers, and sap oozing.

Mitigation options Removal **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 No aerial inspection or root excavation.

TRE-8360: Chinese Chestnut

This tree is adjacent to 1204 Bigelow Ave N and is dead.

Tree ID	Park Name	Tree Species	Tree Common Name	Condition Rating	DBH	Concern
8360	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Poor	45	Dying. Structurally compromised. Kretzchmaria *duesta* root decay.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 8/3/2020 — Time: 11:45 pm

Address/Tree location: Adjacent to 1204 Bigelow Ave N, Seattle, WA.98108 on corner with Highland Dr. — Tree no.: TRE-8360 — Sheet: 1 of 2

Tree species: American Chestnut (Castane dentata) — dbh: 45" — Height: 80' — Crown spread dia.: 55'

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape and GPS.

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target zone: Target within 1x Ht.	Target zone: Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	Power lines		✓	✓	4	N	N
2	House			✓	4	N	N
3	Parked cars		✓	✓	3	Y	Y
4	Road	✓	✓	✓	4	N	N

Site Factors

History of failures Large stem failure on south side. **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 ■ 60 % Describe _____

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal draught

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 20 % Chlorotic 30 % Necrotic 50 %

Pests Kretzchmaria duesta **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Sudden limb drop.

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 20 %

Dead twigs/branches ■ 65 % overall Max. dia. 7"

Broken/Hangers Number 2 Max. dia. 2"

Over-extended branches ■

Pruning history

Crown cleaned ☐ Thinned ☐ Raised ■

Reduced ■ Topped ■ Lion-tailed ☐

Flush cuts ☐ Other Tip die back removed

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) Multiple large dead stems and branches over frequently used intersection. Dead branches possibly failing and hitting parked or moving cars, or pedestrians.

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 Basal shoots present

Main concern(s) Kretzchmaria duesta

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 Excessive suckers and shoots.

Main concern(s) Kretzchmaria duesta

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

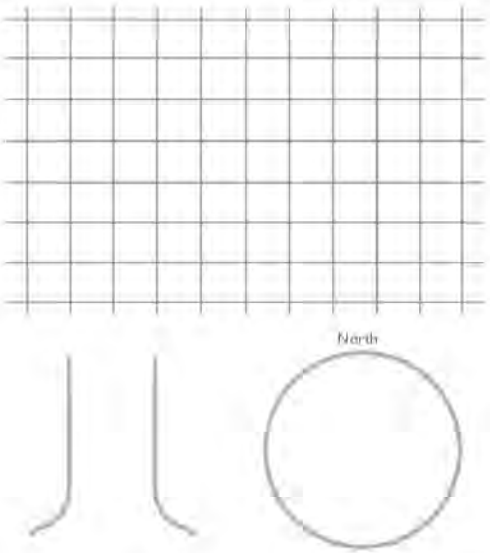
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Failure: Possible	Failure: Probable	Failure: Imminent	Impact: Very low	Impact: Low	Impact: Medium	Impact: High	Failure & Impact (from Matrix 1): Unlikely	Somewhat	Likely	Very likely	Consequences: Negligible	Minor	Significant	Severe	Risk rating of part (from Matrix 2)
1	Branches	Large dead or dying stems and branches.	4"	45'	1	N		●				●			●						●		Low
			7"	75'	2	N		●				●			●						●		Low
			4"	45'	3	N		●					●		●						●		Low
2	Trunk		45"	80'	1	N		●					●		●						●		Low
			45"	80'	2	N		●				●			●						●		Low
			45"	80'	3	N		●					●		●						●		Low
3	Roots		45"	80'	1	N		●					●		●						●		Low
			45"	80'	2	N		●				●			●						●		Low
			45"	80'	3	N		●					●		●						●		Low
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 in advanced decline. Multiple dead branches and stems with suckers. Kretzchmaria duesta present with pruning cuts and wounds with poor compartmentalization.

Mitigation options Remove **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 No aerial inspection or root excavation.

TRE-8371: Chinese Chestnut

This tree is adjacent to 309 Highland Drive and is effectively dead.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
8371	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Poor	50	Dying. Structurally compromised. *Kretzchmaria duesta*, root decay.

ISA Basic Tree Risk Assessment Form

Client Seattle Landmarks Preservation Board Date 8/3/2020 Time 2:15pm

Address/Tree location Adjacent to 309 Highland Dr., Seattle WA. 98109. West side of street in right of way. Tree no. TRE-8371 Sheet 1 of 2

Tree species American Chestnut (Castanea dentata) dbh 50" Height 40' Crown spread dia. 20'

Assessor(s) Mark Malone Time frame 1 Year Tools used Mallet, DBH tape, and GPS.

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	House	✓	✓	✓	4	N	N
2	Power lines and communication lines		✓	✓	4	N	N
3	Parked cars	✓	✓	✓	3	Y	Y
4	Road	✓	✓	✓	4	N	N

Site Factors

History of failures NA **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 ■ 65 % Describe Road and sidewalk

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe Seasonal drought.

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 20 % Chlorotic 10 % Necrotic 70 %

Pests Kretzchmaria duesta **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe Sudden limb drop.

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 Retrenchment pruning on 7/29/16

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 20 %

Dead twigs/branches ■ 80 % overall Max. dia. 20"

Broken/Hangers Number 3 Max. dia. 3"

Over-extended branches ☐

Pruning history

Crown cleaned ■ Thinned ■ Raised ☐

Reduced ■ Topped ■ Lion-tailed ☐

Flush cuts ☐ Other _____

Cracks ☐ _____ Lightning damage ☐

Codominant ■ Chained together stems Included bark ■

Weak attachments ■ 3 unions Cavity/Nest hole ____% circ.

Previous branch failures ■ _____ Similar branches present ■

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

Conks ☐ Heartwood decay ■ _____

Response growth Multiple suckers and shoots

Main concern(s) Tip die back from Kretzchmaria duesta and drought stress. Multiple large dead branches with some over high voltage.

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 Multiple basal and stem suckers

Main concern(s) Internal decay and poor stem union structure.

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 2'

Root plate lifting ☐ Soil weakness ☐

Response growth Basal suckers

Main concern(s) Possible dead or dying roots.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

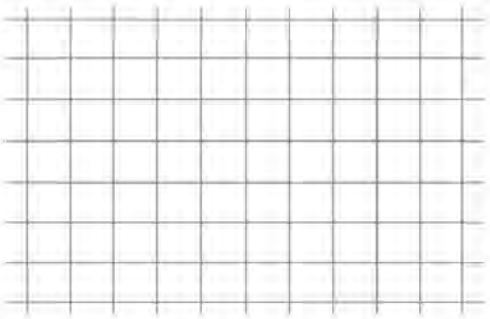
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Branches and stems	Multiple large dead stems and branches	20"	40'	1	N		●				●			●							●	Low
			20"	20'	2	N		●						●		●						●	Moderat
			9"	25'	3	N		●					●		●						●		Low
2	Trunk	Poor stem union structure with previous codom crack, chain install.	50"	40'	1	N		●				●			●							●	Low
			50"	20'	2	N		●						●		●						●	Moderat
			50"	40'	3	N		●					●		●						●		Low
3	Roots	Dead or decaying roots	50"	40'	1	N		●				●			●							●	Low
			50"	20'	2	N		●						●		●						●	Moderat
			50"	40'	3	N		●					●		●						●		Low
4																							

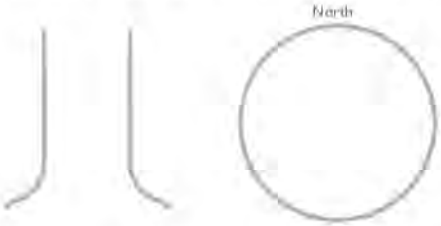
Matrix 1. Likelihood matrix.

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 in severe decline, with crack between 2 large stems held together with a chain. Severe tip die back with excessive basal, stem and branch suckers.

Mitigation options Remove **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 No aerial inspection or root excavation.

TRE-8372: Chinese Chestnut

This tree is adjacent to 309 Highland Drive. Dead branches were removed from this tree and it is no longer functional. The remainder of the tree detracts from the aesthetic of the boulevard.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
8372	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Very Poor	32	Dying.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board — Date: 8/4/2020 — Time: 9:45am

Address/Tree location: Adjacent to 309 Highland Dr., Seattle,WA. 98109 — Tree no.: TRE-8372 — Sheet: 1 of 2

Tree species: American Chestnut (Castanea dentata) — dbh: 32" — Height: 20' — Crown spread dia.: 8'

Assessor(s): Mark Malone — Time frame: 1 Year — Tools used: Mallet, DBH tape and GPS.

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	Power pole	✓	✓	✓	4	N	N
2	House		✓	✓	4	N	N
3	Deodar cedar	✓	✓	✓	4	N	N
4	Parked cars	✓	✓	✓	2	Y	Y

Site Factors

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

Site changes None ☐ Grade change ☐ Site clearing ☐ Changed soil hydrology ■ Root cuts ■ Describe: Gravel sidewalk installed

Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ■ Pavement over roots ■ 60 % Describe: Road and sidewalk

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe: Seasonal draught

Tree Health and Species Profile

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

Pests Kretzchmaria duesta **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe: Sudden limb drop.

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 Drastic reduction of canopy. Just a trunk and 2 stems remain.

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR 10 %

Dead twigs/branches ■ 90 % overall Max. dia. NA

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): Tree is dead

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: Basal suckers

Main concern(s): Internal decay

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 8"

Root plate lifting ☐ Soil weakness ☐

Response growth: Sucker shoots at base.

Main concern(s): Dead or decaying roots

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

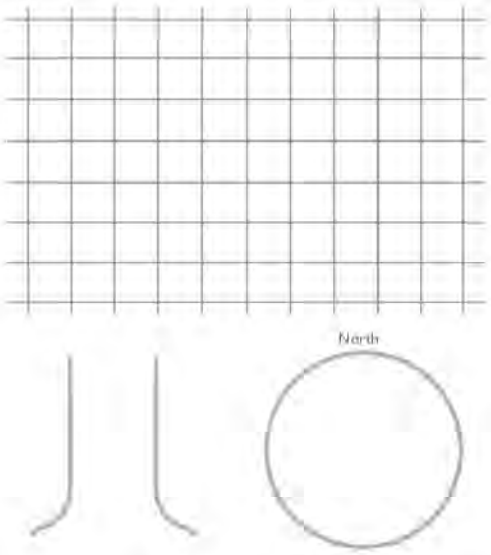
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	Likelihood: Impact: High	Likelihood: Failure & Impact (from Matrix 1): Unlikely	Likelihood: Failure & Impact (from Matrix 1): Somewhat likely	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	Dead branch	8"	5'	1	N		●					●			●					●		Moderat
			8"	20'	2	N		●			●				●						●		Low
			8"	20'	3	N		●				●			●						●		Low
2	Trunk	Internal decay	32"	20'	1	N		●					●			●					●		Moderat
			32"	20'	2	N		●			●				●						●		Low
			32"	20'	3	N		●				●			●						●		Low
3	Roots	Dead or decayed roots	32"	20'	1	N		●					●			●					●		Moderat
			32"	20'	2	N		●			●				●						●		Low
			32"	20'	3	N		●				●			●						●		Low
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 dead

Mitigation options Remove **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 No root excavation performed.

TRE-15328: Chinese Chestnut

This tree is adjacent to 1133 Bigelow Ave N and effectively dead. The large dead branches pose a hazard to the street and sidewalk.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15328	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Very Poor	26	Dying.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 8/5/2020 | Time: 2pm

Address/Tree location: Adjacent to 1133 Bigelow Ave. N. Seattle WA. 98109 | Tree no.: TRE-15328 | Sheet: 1 of 2

Tree species: American Chestnut (Castanea dentata) | dbh: 26" | Height: 75' | Crown spread dia.: 50'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape and GPS

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	House		✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	Y	Y
3	Road	✓	✓	✓	4	N	N
4	Sidewalk	✓	✓	✓	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: New sidewalk

Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ■ Pavement over roots ■ 50 % Describe: Sidewalk and road

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe: Seasonal drought

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 15 % Chlorotic 10 % Necrotic 75 %

Pests Kretzchmaria duesta **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe: Sudden branch drop

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 15 %

Dead twigs/branches ☐ 70 % overall Max. dia. 18"

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: Multiple suckers and shoots

Main concern(s): Large dead stems and 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: Multiple suckers

Main concern(s): Internal decay.

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 18"

Root plate lifting ☐ Soil weakness ☐

Response growth: Basal suckers and sprouts

Main concern(s): Dead or decayed roots.

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

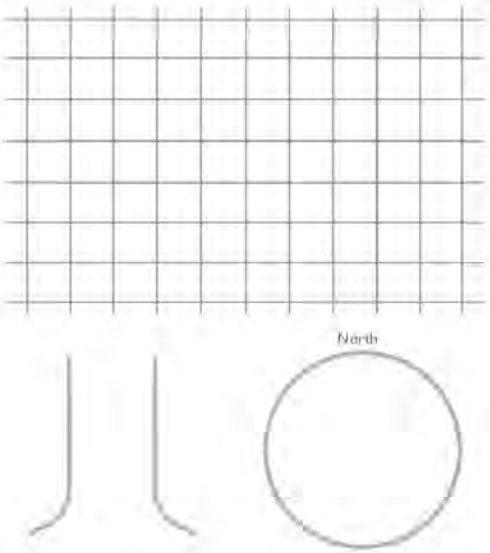
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Branches	Large dead stems and branches	16"	25'	1	N		●					●		●						●		Low
			18"	25'	2	N		●				●			●						●		Low
			18"	30'	3	N		●						●		●				●			Low
2	Trunk	Internal decay, multiple stem unions	26"	30'	1	N		●					●		●							●	Low
			26"	45'	2	N		●					●		●						●		Low
			26"	50'	3	N		●				●			●					●			Low
3	Roots	Dead or decaying roots	26"	30'	1	N		●					●		●							●	Low
			26"	45'	2	N		●					●		●						●		Low
			26"	50'	3	N		●				●			●					●			Low
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 Most of the upper canopy is dead. There are multiple suckers and sprouts indicating internal decay. Kretzchmaria duesta is present. Poor compartmentalization from previous retrenchment.

Mitigation options Remove. **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 No aerial inspection or root excavation.

TRE-15345: Chinese Chestnut

This tree is adjacent to 1133 Bigelow Ave N and is effectively dead.

Tree ID	Park Name	Tree Species	Common Name	Condition Rating	DBH	Concern
15345	Queen Anne Boulevard	Castanea mollissima	Chinese Chestnut	Poor		Dying/Dead.

ISA Basic Tree Risk Assessment Form

Client: Seattle Landmarks Preservation Board | Date: 8/4/2020 | Time: 10:30am

Address/Tree location: Adjacent to 1133 Bigelow Ave N, west side of street in the right of way. | Tree no.: TRE-15345 | Sheet: 1 of 2

Tree species: American Chestnut (Castanea dentata) | dbh: 45" | Height: 50' | Crown spread dia.: 40'

Assessor(s): Mark Malone | Time frame: 1 Year | Tools used: Mallet, DBH tape, GPS

Target Assessment

Target number	Target description	Target zone: Target within drip line	Target within 1x Ht.	Target within 1.5x Ht.	Occupancy rate (1=rare, 2=occasional, 3=frequent, 4=constant)	Practical to move target?	Restriction practical?
1	House		✓	✓	4	N	N
2	Parked cars	✓	✓	✓	3	Y	Y
3	Road	✓	✓	✓	4	N	N
4	Sidewalk	✓	✓	✓	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: Gravel on right of way

Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ■ Pavement over roots ■ 65 % Describe: Sidewalk, driveway and road

Prevailing wind direction SW **Common weather** Strong winds ■ Ice ■ Snow ■ Heavy rain ■ Describe: Seasonal drought

Tree Health and Species Profile

Vigor Low ■ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal 20 % Chlorotic 10 % Necrotic 70 %

Pests Kretzchmaria duesta **Abiotic** _____

Species failure profile Branches ■ Trunk ☐ Roots ☐ Describe: Sudden limb drop

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 20 %

Dead twigs/branches ■ 80 % overall Max. dia. 20"

Broken/Hangers Number 2 Max. dia. 4"

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: Multiple suckers throughout

Main concern(s): Multiple large dead and decaying stems and 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: Suckers

Main concern(s): Tree is dead, internal decay is likely.

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: Suckers

Main concern(s): Tree is dead with dead or decaying roots

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

Likelihood of failure

Improbable ☐ Possible ■ Probable ☐ Imminent ☐

Risk Categorization

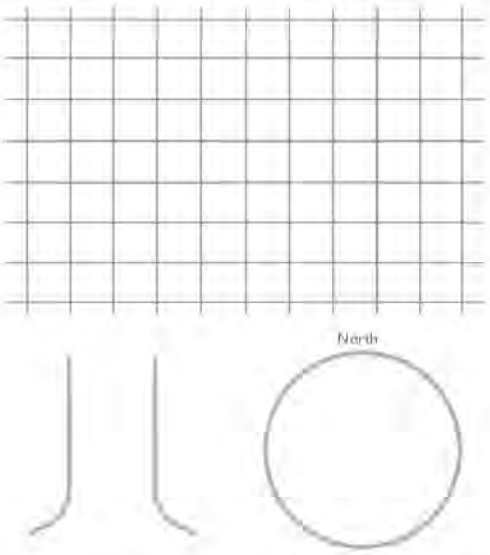
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood: Failure: Improbable	Likelihood: Failure: Possible	Likelihood: Failure: Probable	Likelihood: Failure: Imminent	Likelihood: Impact: Very low	Likelihood: Impact: Low	Likelihood: Impact: Medium	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	Branches	Large dead stems and branches	4"	40'	1	N		●						●		●					●		Moderat
			14"	40'	2	N		●					●		●						●		Low
			14"	40'	3	N		●						●		●				●			Low
2	Trunk	Internal decay	45"	40'	1	N		●					●		●							●	Low
			45"	40	2	N		●					●		●							●	Low
			45"	40'	3	N		●						●		●				●			Low
3	Roots	Dead or decaying roots	45"	50'	1	N		●					●		●							●	Low
			45"	50'	2	N		●					●		●							●	Low
			45"	50	3	N		●						●		●				●			Low
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 This tree is in advanced decline with multiple large dead stems and branches. Internal trunk, stem and root decay is likely. Multiple shoots and suckers indicate the tree is extremely stressed and not likely to recover.

Mitigation options Removal. **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 No aerial inspection or root excavation.