

## Arborist Report

Subject:  
Douglas Fir Assessment

Prepared for:  
Rooney Partners  
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Prepared by:  
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Site:  
7010 NE 181st street  
Kenmore, WA 98028  
Parcel #0114100590

Site visit time/date:  
4-15-2024

Attachments:  
• Site Map  
• Tree Photos  
• Risk Assessment form

Summary:  
• The subject Fir was found to be at high risk of failure.  
• The subject Fir was found to be causing damage to adjacent private property.  
• Removal is recommended in a timely manner.

Methodology:  
• The subject tree was assessed using the ISA basic risk assessment method, for a 6 month timeframe, using basic hand tools, considering typical PNW weather with occasional high winds, heavy rains, snow and ice.

Table of Trees

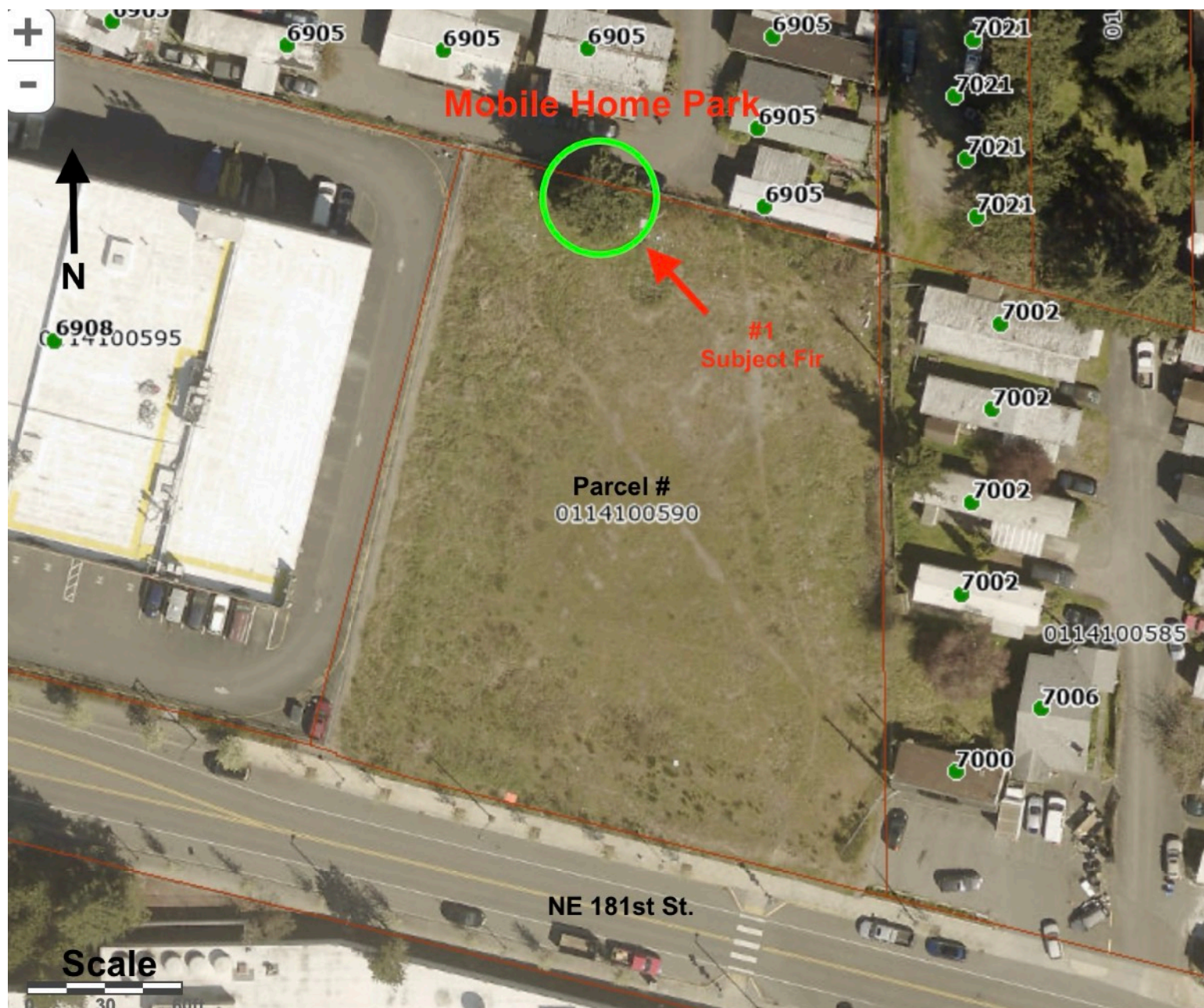
Tree#	Common name	Latin Name	DSH	CSD	HT	Condition	Risk	Action
1	Douglas Fir	Pseudotsuga menziesii	27"	28'	65'	Co-dominate @20' with included bark and trunk deformity @inclusion	High	Remove and replace

#### Observations:

- The subject fir was found to grow directly on the north property line of a vacant lot.
- Chain link fencing noted directly @ trunk on N.
- Mobile home park (target #1) noted as neighbor to N with 4 manufactured homes within 1X height.
- Critical root zone within lot noted as covered in English Ivy.
- Soil within vacant lot noted as compacted and barren outside of drip line.
- Asphalt drive within CRZ on N, >40%. Lifting of asphalt noted as >1" within marked walkway, within mobile home park. Frequent usage of marked walkway noted while on site.
- English ivy noted as having been into crown >75% but dead and grilled at base some time in the past.
- Past crown infestation of Ivy has led to overextended limbs throughout crown.
- Trunk/Crown noted as co-dominate at 20'. Co-dominate form is severely "V'd" with 2-3' of included bark between stems.
- Severe bulging of trunk at co-dominate with indenting of SE stem noted beneath inclusion.
- NW stem noted as phototropic to N, towards targets.
- Bulging of trunk noted on NW side @3' with large adjacent bark fissures.
- Excess sap ooze on trunk @' opposite of bulge with red/brown granules (frass) noted within sap.

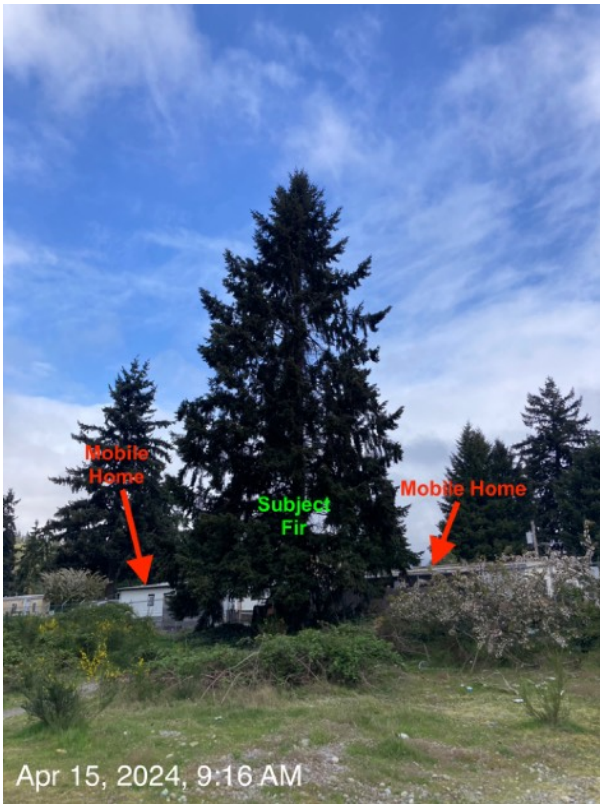
#### Conclusions/Recommendations:

- The subject Fir is not of exceptional size as defined in KMC 18.57.015
- Due to severe inclusion of co-dominate stems, with associated trunk deformities, it is my professional opinion that the subject Fir has a probable likelihood of failure within the specified timeframe.
- When considering near proximity of manufactured homes, which offer little to no protection against impact for the occupants, likelihood of impact was found to be high with potential for severe consequences.
- While mitigation by cabling, thinning and reduction of crown, above co-dominate, may temporarily decrease risk, maintenance would be ongoing and residual risk would remain moderate.
- When considering ongoing damage to asphalt walk/drive, on adjacent private property, by roots growing under asphalt, along with frequent usage of walk where damage has occurred, it is my professional opinion that cutting of roots to repair asphalt will significantly increase risk of whole tree failure.
- It is my professional opinion that any patching of asphalt to eliminate tripping hazards will only be a temporary solution and root pruning or grade changes will be required to mitigate long term if tree were to be retained.
- Due to proximity of chain link fence and tree growing location, interference with the fence will be inevitable, within a 10yr timeframe, and likely cause conflict with the adjacent parcel.
- When considering all factors, including high risk rating, damage to asphalt and high levels of maintenance required for retention, it is my professional opinion that removal and replacement with a more site appropriate species is the more appropriate long term mitigation action.
- Mitigation is recommended in a timely manner.
- Permitting required for removal along with canopy/lot coverage calculations for required tree canopy density and replacement tree calculations.

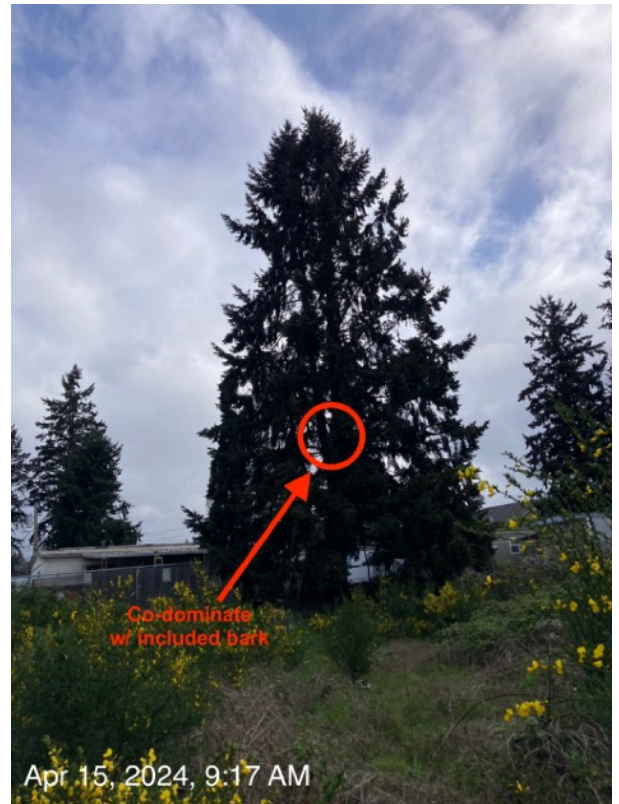


Site Map





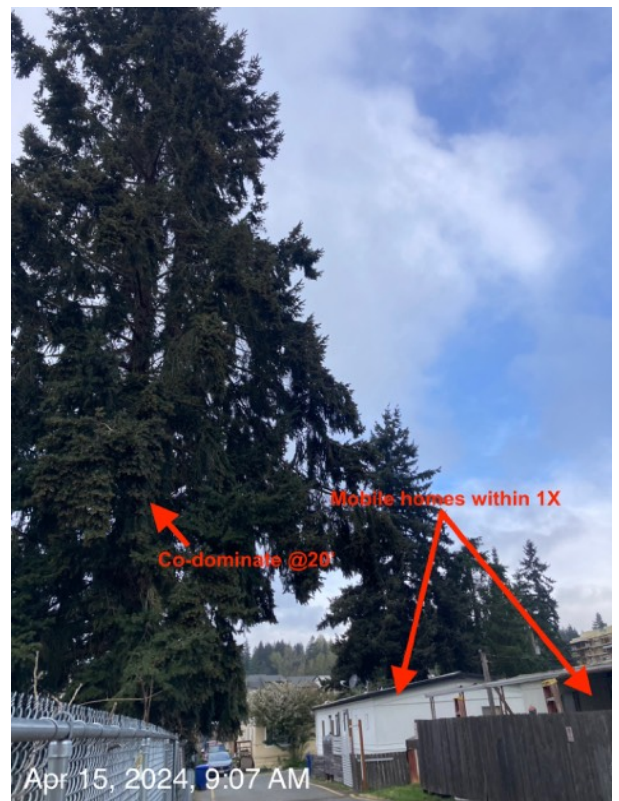
The subject Fir is open grown, in a vacant lot, and is within 1X height of a mobile home park.



The subject fir was found to be co-dominate @20'.



45' of crown has grown above co-dominate point. Manufactured homes noted as within 1X of tree part above flaw.



Manufactured homes within 1X offer little to no protection to occupants of homes if impact were to occur.





Point of attachment of co-dominant stems was found to be poor with a V'd crotch and 2-3' of included bark. Severe bulging noted at crotch.



Trunk on left in photo noted as indented above point of attachment with poor trunk taper.



Bulging of trunk at base and rapid adjacent response growth indicative of past wound and potential heartwood decay.



Lifting of asphalt walk from root growth on adjacent private property noted as  $>1"$  and non ADA compliant as well as a tripping hazard for frequent occupants. Mitigation by root pruning will increase risk of whole tree failure.





Apr 15, 2024, 9:12 AM

Excessive sap ooze on trunk. Presence of radish flakes in sap, also known as frass or the waste product of boring insects such as Pine Mountain Beetle, was noted.



# ISA Basic Tree Risk Assessment Form

Client Roadway Partners Date 4-15-2024 Time 9 AM  
 Address/Tree location 701D NE 181st St Kenmore WA 98028 (0114)00590 Tree no. 1 Sheet 1 of 1  
 Tree species Douglas Fir (Pseudotsuga munziesii) dbh 27" Height 65' Crown spread dia. 28'  
 Assessor(s) Chris Berg PN1839A Time frame 6 months Tools used Basic hand tools

## Target Assessment

Target number	Target description	Target zone			Occupancy rate 1 - rare 2 - occasional 3 - frequent 4 - constant	Practical to move target?	Restriction practical?
		Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.			
1	<u>Mobile homes to N.</u>		<u>X</u>		<u>4</u>	<u>N</u>	<u>N</u>
2							
3							
4							

## Site Factors

History of failures No whole tree failure on site Topography Flat ☒ Slope ☐ % Aspect —  
 Site changes None ☒ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe —  
 Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ☒ Pavement over roots ☒ 50% Describe Asphalt Drive on N.  
 Prevailing wind direction SW Common weather Strong winds ☒ Ice ☐ Snow ☐ Heavy rain ☒ Describe Typical PNW/occasional high winds

## Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ☒ Foliage None (seasonal) ☐ None (dead) ☐ Normal 100% Chlorotic —% Necrotic —%  
 Pests Frass in pitch @ base of unknown Pest Abiotic —  
 Species failure profile Branches ☒ Trunk ☒ Roots ☒ Describe overextended / co-dom. / when limited.

## 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 ☒ English Ivy  
 Recent or planned change in load factors Planned limb to S.

## Tree Defects and Conditions Affecting the Likelihood of Failure

### — Crown and Branches —

Unbalanced crown ☒ LCR 100%  
 Dead twigs/branches ☒ 1% 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 ☒ @ 20' Included bark ☒  
 Weak attachments ☒ Cavity/Nest hole —% circ.  
 Previous branch failures ☒ Stubs present Similar branches present ☒  
 Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐  
 Conks ☐ Heartwood decay ☐  
 Response growth Mod.  
 Main concern(s) co-dom @ 20'

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒  
 Likelihood of failure Improbable ☐ Possible ☐ Probable ☒ Imminent ☐

### — Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☒  
 Codominant stems ☒ Included bark ☒ Cracks ☐  
 Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☒  
 Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐  
 Cavity/Nest hole —% circ. Depth — Poor taper ☐  
 Lean 5° Corrected? no  
 Response growth Mod.  
 Main concern(s) Trunk deformity @ co-dom w/ inclusion. Basal sap ooze

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 Mod.  
 Main concern(s) Limited roots from Asphalt on N.

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒  
 Likelihood of failure Improbable ☐ Possible ☒ Probable ☐ Imminent ☐



## Risk Categorization

Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood												Consequences				Risk rating of part (from Matrix 2)
							Failure				Impact				Failure & Impact (from Matrix 1)				Negligible	Minor	Significant	Severe	
							Improbable	Possible	Probable	Imminent	Very low	Low	Medium	High	Unlikely	Somewhat	Likely	Very likely					
1	Crown	Co-domin @ 20'	45	65	1	none	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High
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2	Trunk	Trunk deformity @ Co-domin	45	65	1	none	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High
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3	Roots	Limited on N.	65	65	1	none	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	mod
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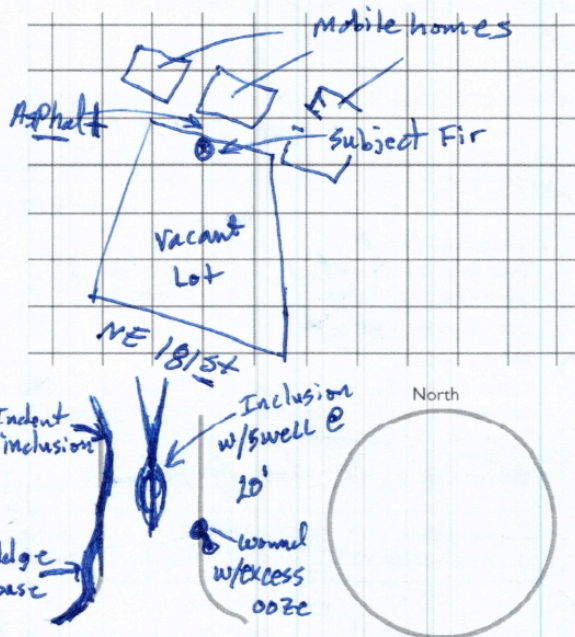
Matrix 1. Likelihood matrix.

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 Mobile homes offer little to no protection to occupants VS. Fir Failure



Mitigation options Retain & monitor Residual risk High  
Cable Co-dominant stems, thin? reduce crown Residual risk Med.  
Remove & Replace Residual risk Low  
 Residual risk \_\_\_\_\_

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

Work priority 1 ☒ 2 ☐ 3 ☐ 4 ☐

Overall residual risk Low ☒ Moderate ☒ High ☐ Extreme ☐

Recommended inspection interval 6 months

Data ☒ Final ☐ Preliminary Advanced assessment needed ☒ No ☐ Yes-Type/Reason \_\_\_\_\_

Inspection limitations ☒ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe \_\_\_\_\_