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Meeker Oak Risk Assessment Information

To: Marc Lavack <MLavack@ci.tumwater.wa.us>

Kevin McFarland_Olympia Regional Airport_Advanced Tree Assessment Proposal_06.27.2023.pdf
(321.45 KB)

Marc,

As a follow-up to our phone conversation related to the Meeker Oak risk assessment I present the following summary information.

Oregon white oak

66" dia., 125' height, Live Crown Ration (LCR) 35%, Condition: Fair

Issue: recent scaffold branch (16"-18" dia.) failure on the north side of tree at approximately 50' above grade. Ocular assessment indicates that there is white rot at the upper area of the failure area where the scaffold was connected to the main stem. The branch failed due to the decay present and also the poor branch union which had a large inclusion (crotch angle) or seam. The risk assessment is not complete but it is my opinion that the tree does not pose a extreme or high risk at the moment but there is a need for further assessment work to provide a complete risk assessment.

I sounded the main stem at the north and northeast sides approximately 4' from grade. The sounding indicated a cavity, rot and/or decay present. I excavated around the base of the tree in particular the north side and found an opening/cavity within the stem. Further examination with a probe revealed that there is moisture and decayed wood present within that side of the stem. I cored the tree to determine the thickness of the main stem around the suspected cavity or the extent of the decay. I took a core sample at 3' above the cavity opening and found 5" of solid or healthy wood before intercepting dead/decayed wood tissue. The second core sample was taken at the north side of the main stem at 3' above grade. I found 4" of healthy wood before intercepting dead/decayed wood tissue.

Targets: Building/hanger, drive, parking areas, state highway and power lines. My final report will have the target distances but this provides a good list.

Considering the species of tree which can be structurally sound or not prone to failure if the main stem is compromised (somewhat) the existence of a decay column or cavity within the base up through the main stem may not be a total reason to condemn the tree.

As I have mentioned I recommend having a climbing arborist inspect the recent scaffold branch failure location and any other suspicious areas within the canopy. The aerial assessment will be conducted

tomorrow, June 29th and I will be present. In addition to the aerial inspection I am recommending that sonic tomography be applied as well. I contacted a consulting company based in Seattle (Tree Solutions Inc.) to receive a quote for services related to the tomography assessment. This type of assessment will provide a more clear picture and understanding of the extent of the decay within the base of this tree. I have copied a brief description of what is sonic tomography? Sonic tomographs **detect decay and cavities in standing trees by measuring the velocity of sound waves in wood.** Differences in the velocity can help determine areas of healthy wood and areas of damaged wood that have less elasticity and density than healthy wood.

I have attached their quote for the service.

Please contact me if you should have any questions.

Thank you,
Kevin McFarland, SUF