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Mr. Harvey Chen

Discussion of findings and processes regarding the trees on King County parcel 1924059317

In response to city comments on your project we offer the following information.

Tree #510 a 36.5" DBH Douglas Fir (Pseudotsuga menziesii). Special attention was afforded this tree as it needs to be removed to position the proposed building as designed and is an exceptional tree as defined by city regulations. At first glance the tree appears to be in good condition. Good color foliage and no obvious deadwood. However, the tree has Butt Swell and this drew extra attention. Butt swell is a symptom of an internal weakness as the tree adds tissue to itself to overcome the weakness. Using a 27" long Haglof increment Bore, 2 sample were pulled from the tree. One on the East side and the other on the West side. Full length core samples could not be obtained as the tree has a cavity and decayed wood. The sample from the west side was 7" long with the tissue at the end of the core discolored and crumbling. Even while adding extra force to the borer it would not advance deeper and the tissue if any were in place it was not firm enough to let the bore grip and dig into the tree. The core on the east side of the tree was 11" long. The first 2.5" was sound wood (wood without defect), after this the tissue dried out and became discolored, then finally turned brown and crumbled. Again, the bore was unable to grip the remaining tissue and bore deeper. The International Society of Arboriculture standard for minimum sound wood is 30%. Averaging the 2 cores to a length of 4.75" puts the sound wood percentage of this tree at 12.32. One more measurement of the diameter was taken above the butt swell at 6' the diameter at this height is 31" for a 4.5" difference in a foot-foot and a half travel up the trunk. In my opinion that is drastic. Further inspection using an air spade to a depth of 18" revealed that the "root flair" had been buried more then a foot deep and close to 15-6" deep. This in my opinion is a contributing factor that allows me to recommend removal and replacement of this tree. Our team's speculation is that the neighbors when their home was being build piled fill around the tree from their much lower and level back yard.

Trees 511 & 512 Exceptional Douglas Firs on neighboring property. The proposed building foundation is with the dripline of the trees. Air Spade work was done 8' from the trees to a depth of 18' from tree 510 to a point outside of the dripline to the west. No roots were found connected to these trees. It is my opinion that tree protection fencing be positioned at the trench formed and the tree will flourish after construction.

Tree # 518 A 2 trunk 30" DBH Big Leaf Maple has one trunk completely dead and removal is planned.

Tree # 519 a Exceptional 36" DBH Big Leaf Maple is in advanced decline, dead scaffolds and several undermined. It appears that the tree had grown on a nursery log or stump and that has now rotted away. There are gaping holes under the trunk.

Tree # 556 A 36" DBH Big Leaf Maple (Acer macrophyllum) has 7 dead scaffold branches and epicormic sprouts on the stump. Given the amount of dead wood in the tree and this species susceptibility to decay, I recommended that this tree be removed and replaced if needed.

Trees #601-3 Are dead decaying stubs standing on the slope to the north. The slope is so steep here that if these tree fall hitting the homes below them is inevitable. If they do not hit directly, pieces rolling down the slope is probable given the degree of the incline. Getting these trees cut to ground and left in place is recommended.

Respectfully Submitted,

Neal Baker
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Member AREA & SOCA