Superior NW Enterprises

July 7, 2022

Project: Pre-construction assessment for lot development at XXXX 79th Avenue SE, Mercer Island, WA. Parcel number 3206000050.

Contact: Eric Henyey – Stuart Silk Architects
2400 N 45th Street, Suite 200, Seattle, WA 98103
Phone – 206 728 9500 Email – Eric@stuartsilk.com

Objectives: Addendum to Superior NW report dated May 26, 2021. Document the placement of the root system of the #10 Douglas Fir after airspading.

A trench 12-14" deep and 6" wide was created using an airspade on July 6 and 7, 2022 as shown in Figure 1. The trench started 28' ENE of the base of the tree, curved to within 12', and ended 28' N of the tree. It followed the proposed curve of the drive shown in Figure 2. The soil in the area of the of the trench was found to be densely compacted to the point that simple stones could not be loosened by hand and the point of a pick had to be used to break the soil matrix for the first 6" of depth. Any roots exposed that were near 1" caliper were marked with orange tagging paint. Starting at the east end of the trench there was a ¾", a ½", a ½", and a 2.5" caliper root in the first 5' of length (Figure 3). A ½", 2", 3", 1.5", and ¾" follow within the next 9' (Figure 4). At the north end there is a 3" and a 1" caliper that probably belong to the #7 tree rather than the #10 based on the distance they are removed from it (Figure 5). The two larger roots in the trench closest to the subject fir are barely sub-surface and are big enough around that they might be off the ends of the structural set.

The concentration of feeder roots was far less than was expected in the area. It is probable that the compaction made it difficult for the tree to penetrate the area. It most likely adapted by taking advantage of soils with better moisture and nutrient concentrations especially in the area around the storm drain and the low spot to its east.

Setting the driveway as shown in the plan set should not present an insurmountable detrimental impact to the tree. However, it is highly advised that the tree receive a deep root feed which will both provide a nutrient boost and decompaction around the tree. The sod, ivy, and all other debris have to be removed from within the preserved portion of the tree's CRZ. A layer of arbormulch 8-10" deep must be laid throughout the cleared space around the tree. Rehabilitating the area under the #10 fir should result in a net positive for the tree year over year.

Anthony Moran
ISA Certified Arborist
PN-5847A

Figure 1. Looking WSW at the airspade treated region and the orange strips indicating where significant roots crossed through.

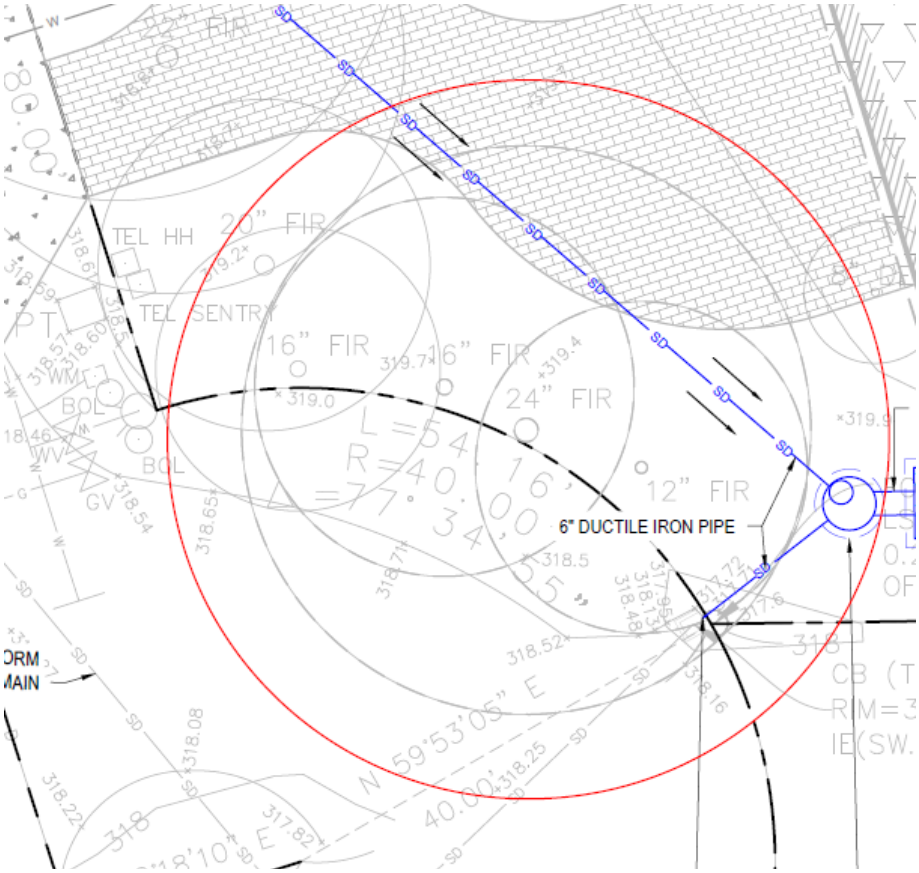

Figure 2. Excerpt from the plan set showing the proposed changes within Critical Root Zone of the #10 fir (red circle)

13110 NE 177th Place #304 * Woodinville, WA 98072 * 206 930 5724
Anthony@SuperiorNW.com

Figure 3. East end of the trench.

Figure 4. First three roots in the center set.

13110 NE 177th Place #304 * Woodinville, WA 98072 * 206 930 5724
Anthony@SuperiorNW.com

Figure 4. Last two roots in the center set of roots.

Figure 5. Roots at the north end of the trench.

13110 NE 177th Place #304 * Woodinville, WA 98072 * 206 930 5724
Anthony@SuperiorNW.com