

October 19, 2022

BuckmanLegal, PLLC Attn: Steve Buckman 4530 Wisconsin Avenue NW, Suite 300

Washington, DC 20016

RCA, BCMA

Russell E Carlson

114 Grand Canyon Court Bear, DE 19701 Subject: H2 DesignBuild LLC; Assessment of Heritage Trees

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RCA #354 American Society of Consulting Arborists Dear Mr. Buchman:

As requested by Harvey Yancey of H2 Design Build (H2), I visited the site at D Street SE and 54th St SE on Saturday, October 15, 2022. The purpose of the visit was to inspect 2 large white oaks that had died and been cited by DC Urban Forestry Division (UFD). A second site at 2440 Shannon Place SE had two large elm trees, also cited. I did not visit that site because both trees had been removed and the stumps routed below ground level.

Urban Forestry claims that the trees were poisoned with herbicide at both sites.

Urban Forestry produced a report on their investigation of the trees. The following are my comments on their report.

White oaks, T46 and T39

- The investigation of the cause of death of the oak trees was cursory and targeted at one theory that they then set out to prove.
- The claim of presence of herbicide (Tordon, containing a combination of 2,4-D and Picloram herbicides) is not disputed, based the results of the laboratory findings.
- Urban Forestry decided to use spade bits (drills) to collect wood shavings for lab analysis. They drilled 1-inch diameter holes directly on top of the existing holes they found in the oaks which they said were "the size of a penny." The larger holes destroyed the evidence of the smaller holes in which they claimed herbicide was applied.
- The destruction of the original holes precludes any efforts to determine the sequence of events and any determination of when the original holes were drilled.



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- The UFD report surmised that a tree injection system (Arborjet was specifically mentioned) may have been used. However, this system uses much smaller holes than those found in the oaks. A 3/8-inch drill bit is the largest used for the Arborjet system. No other system uses drill bits of ¾ inches, the size of a penny, or any bit size even close to that.
- *Armillaria* root disease (oak root rot or shoe-string root rot) was present in both oaks I examined, and had destroyed the inner bark around most of the circumference of both trees. This disease can move quickly when an infected tree is weakened by environmental or biologic factors, such as the recent periodic hot and dry summers in the Washington, D.C. area.
- Urban Forestry made no mention of the dead white oak less than 35 feet to the north of Tree T39 on the west side of the property. This tree had large dead limbs showing in aerial imagery for several years prior to this investigation, and the tree is now dead. The symptoms of decline of that tree are typical of *Armillaria* infection. With intertwining and grafting of their root systems, an infection of this tree could easily spread to the other nearby tree and cause its demise. I also noted a sassafras near tree T39 that was dead and had evidence of *Armillaria* at the base. A high level of spore inoculum from existing infected trees can also readily spread to other distressed trees nearby. There was no consideration by UFD of any other possible causes of the decline of these oaks.
- Tree T39 near the northwest corner of the property has an open cavity at ground level on the south side. When probed, this cavity is about 42 inches across the inside of the tree. The diameter at 4.5 feet above the ground was measured to be 42.6 inches (with ivy vines on the trunk). This means the probed part of the cavity at ground level was as wide as the main trunk and comprised nearly all of the base. I also noted a sulfur-shelf fungus (*Laetiporus sulfureus*) mushroom growing on the trunk about 8 to 10 feet above the ground. This is a clear sign of extensive internal decay. Without further testing, it is my opinion that this tree should be considered a hazardous tree if the property will be developed at any level.

Elms at Shannon Place

Two American elm trees had declined and died between 2019 and early 2022.
Based only on supposition and conjecture, UFD personnel suspected these trees were also poisoned.



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- The bases of the conjecture are that old drilled holes were found near the base, and both properties had recently been purchased by H2.
- The holes shown in only two photographs and taken from a distance shown small holes that appear to have been grown closed by tissue growth. These holes appear to be constant with an injection device such the Arborjet mentioned by UFD.
- Dutch elm disease is still a prevalent disease throughout most of the United States, although there are fewer elms left to be infected. An untreated tree or one that had not been treated in several years would be susceptible to the disease.
- These elm trees likely had been injected in prior years with prophylactic treatments to prevent Dutch elm disease. Injection holes that have closed can still be seen for many years after the treatment. The only evidence on these trees is a visual observation and two photographs from at least 12 feet away, outside a chain link fence.
- Chemical testing of these trees showed low levels of three herbicides: 2,4-D, Picloram, and Triclopyr. The third chemical, Triclopyr, was not found in the oak trees. The low levels of these herbicides suggest that the chemicals were below destructive levels, and that they may have been absorbed through the roots from applications nearby. Because of the cost of the injection equipment and the risk of contamination, it is difficult to believe that any commercial arborist company would risk introducing herbicide into an injection system.
- No testing was done to determine whether Dutch elm disease was present in these trees. Genetic testing for the disease can be done on viable samples for a long time after death of the tree.
- The UFC report does not indicate the suspected timing of elm tree death or of the alleged herbicide injections.
- In my professional opinion, the evidence presented for the death of the elms is incomplete, circumstantial, and not convincing.

General Comments

 Urban Forestry provided inconsistent and circumstantial evidence, and disregarded relevant explanations for the death of the trees. They focused strictly on one issue rather than objectively considering alternative explanations.



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- The elm trees in particular were incorporated into the citation based on incomplete investigation and analysis, and ignored Mr. Zimar's¹ comments on Dutch elm disease as the probable cause of their death. No testing was done to determine whether Dutch elm disease was present in the tree.
- Nowhere in the UFD report are dates or timelines provided for when the herbicide applications might have been made to either the oaks or the elms.
- No evidence is provided as to who might have made the herbicide applications on the oaks. Urban Forestry made the assumption that it was done under the auspices of H2 Design Build, although there is no direct evidence of such.

Urban Forestry made decisions of cause that were not fully justified, unilaterally determined culpability without a thorough investigation, then imposed fines amounting to tens of thousands of dollars without adequate proof. They ignored that one of the oaks was a clear and present danger to the property, and should have been removed regardless of any other condition. On both sites they completely disregarded the presence of other factors that could also explain the decline of the trees.

Sincerely,

Russell E. Carlson, RCA, BCMA

Tree Tech Consulting

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Enclosures: Photographs

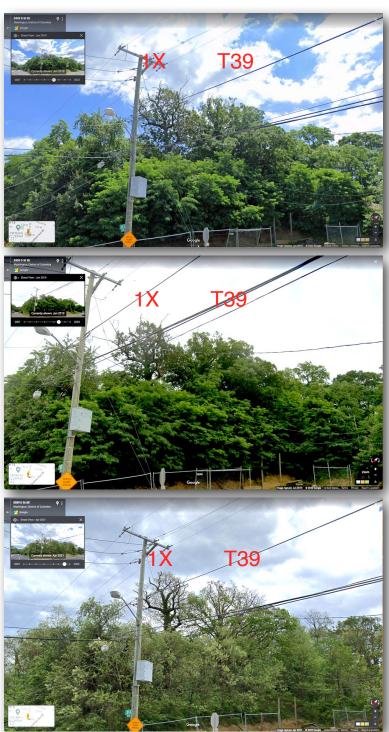
Cc: Chris Miller, H2 Design Build



¹ Mr. Don Zimar is an International Society of Arboriculture Certified Arborist, ISA Tree Risk Assessment Qualified, and an American Society of Consulting Arborists Registered Consulting Arborist



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Figures 1, 2, and 3: These images were captured by Google Street View cameras, in June 2018, June 2019, and April 2021, respectively. The images were taken from the west side of the intersection at D Street and 54th Street. The tree on the left is marked as 1X for reference only in this report. Tree 1X was in decline for many years, with large dead branches seen in these images. Aerial images dating to 2012 show dead branches in that tree.

As early as June 2018 (Fig. 1) decline can be seen in the top of T39. There are a few dead branches and thinning of foliage in the upper crown. In Figure 2, June 2019, the thinning appears to be increasing and spreading lower into the crown. By April 2021, the entire crown is involved and in decline.

These images show that the early stages of decline were apparent long before the the time of any herbicide application is claimed.

Images captured from Google Street View, dates listed above.



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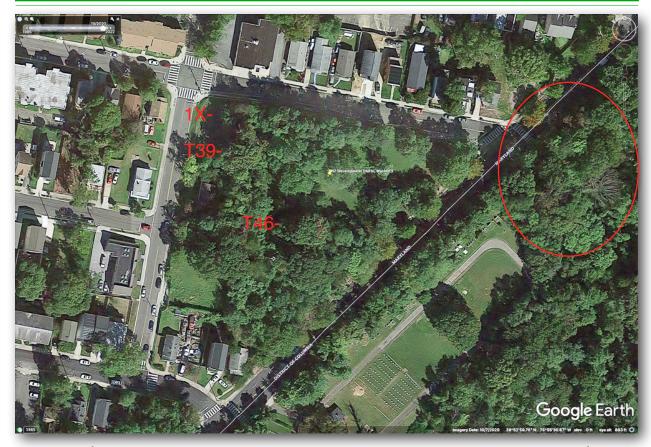


Figure 4: This aerial view was captured in October 2020. Tree T39 can be seen with signs of decline in the upper crown. Tree T46, the other white oak listed in the UFD report, is showing a large dead limb on the east side of the crown. This is before any suggestion of hole-drilling or herbicide treatment. The pattern of decline and limb death is also not consistent with any herbicide treatment to the base or roots of the tree, as that would produce widespread symptoms of decline. A root infection that is invading quickly, such as a virulent attack by *Armillaria*, could produce a local response in the crown such as seen here.

Also note that other trees across Southern Avenue SE are declining or dead (red ellipse). To find a few large old trees in decline is not unusual.

Image captured from Google Earth, October 2020.