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November 11, 2020

To: Dan Herriman, President
Herriman & Associates

From: Dr. Dave Roberts *Dr. David L. Roberts*

RE: Turnberry Village Tree Health Report

Introduction:

I was asked to visit and examine the health of the trees at Turnberry Village Condominium in Ann Arbor Michigan. I visited Turnberry Village on October 20, 2020 and walked the site for approximately 1 ½ hours. Please accept this document as my report regarding the health of the trees at Turnberry Village. I'll present a discussion under various headings of the various issues I witnessed according to tree species and/or topic of interest. I'll also include recommendations of any problems I observed. At the end of the document, I'll present a general discussion and submit recommendations for replacement/alternative trees species according to Dan Herriman's request.

Right Tree, Right Place: The buildings are largely designed with an alcove between two wings. The most common species of trees originally planted by the landscape architects are Magnolia and Serviceberry (Photos 1 & 2, respectively). These two species are generally appropriate for these locations because they have limited growing space, and larger trees would cause problems in these alcoves. At several locations however, I encountered tree species which are probably not ideal for these alcove locations (Photos 3 & 4). Photo 3

Photo 1

Photo 2

shows a Siberian Elm (behind a Magnolia, near unit 3112), and Photo 4 shows a maple (right of small serviceberry; maple lost leaves in fall, near Unit 3089). Perhaps these trees were planted or they may have been “volunteer” (weed) trees and allowed to continue to grow. I want to caution about large trees in these smaller, confined spaces. Large trees may quickly outgrow their allotted space, may shade out other trees and plantings, may cause upheaval of the sidewalks and may cause problems with the building foundations and drainage systems.

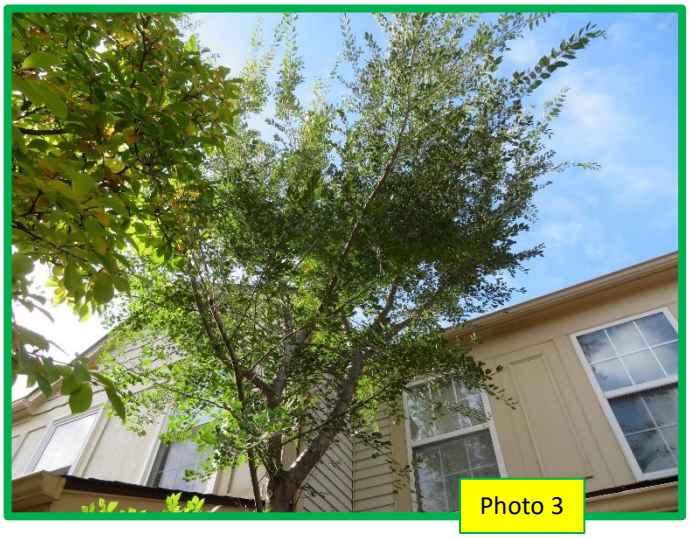

Photo 3

Photo 4

Magnolia Scale: Many of the Magnolia trees exhibit infestations of Magnolia scale. This insect attacks the branches of the tree, literally sucking the nutritious sap out of the tree. The excrement release by the scale insects coat the branches and foliage creating a sticky “honey dew”. Because the honey dew has nutritional components as well, a black sooty mold colonizes the honey dew creating a black coating on any surface the honey dew is found (Photos 5 and 6). The adult scale is barely visible in Photo 5 as rounded” blobs” on the branches. The black sooty mold can be seen covering the branches and leaves in Photos 5 & 6. It is advisable to control the scale insect for two reasons: 1) The scale may eventually cause branch dieback, and 2) the honey dew and sooty mold will contaminate sidewalks, decks, automobiles, outdoor furniture and about any other surface the insect excrement falls upon. The timing for treatment is typically in late August and early September when treatments can be applied by a professional arborist or landscaper.


Photo 5

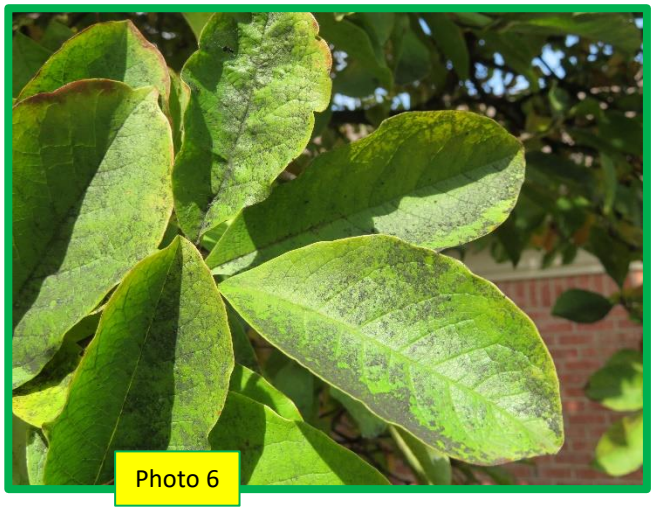
Photo 6

Crabapple Scab: This fungal disease was prevalent on most crabapple trees throughout Turnberry Condominium. The fungus attacks the newly emerging foliage in the early spring and continues repeated attacks throughout the spring and summer (Photo 7 shows “Scab lesions” on the foliage). On susceptible crabapple “varieties”, defoliation usually begins in July and by August and September, certain trees may become sparse with foliage or even bare (Photo 8). It is important to note that this disease, despite its seeming severity, is not lethal to these trees. Whether residents want to control the disease to maintain foliage on trees


Photo 7


Photo 8

throughout the warm season is a judgement call. Generally, treatments of trees with fungicides beginning in the spring at budbreak and repeating every 10-14 days for 3 or 4 treatments may provide reasonable control, depending on weather conditions that year. It is also important to note some of the varieties of crabapples that were planted in Turnberry landscapes exhibited resistance to the disease (Photo 9).

Photo 9

Norway Maple: This species of tree is planted throughout Turnberry Condominium (Photo 10). The tree contracts a disease known as Tar Spot (Photo 11), which may cause premature defoliation in some years (Photo 10, note abundant leaves on the lawn). I generally don't recommend treating for Tar Spot because like "Scab" on crabapple, it is not lethal….and is primarily a cosmetic problem. Furthermore, the disease can be difficult to control especially regarding timing of the treatments in the early spring. I raise the issue of Norway Maple in this report because its population is abundant if not excessive at Turnberry and is now considered "invasive" according to many experts. I would not necessarily recommend eliminating this species, but I would advise not establishing any further specimens and recommend using other species when needed.

Photo 10

Photo 11

Spruce Decline: When Turnberry was constructed several decades ago, Colorado Blue Spruce was a highly desired and recommended species of tree. In the last two decades or so, new issues have developed on Colorado Blue Spruce that are leading to its decline in many landscapes around Michigan and the greater Midwest (Photos 12 & 13, note dead branches, sparse foliage and reddish brown needles). ***Phomopsis*** Canker and ***Rhizosphaera*** needle cast are two prominent diseases at Turnberry (among others on this tree species) that is leading to a gradual decline. If desired to try to stave off further decline with hopes of prolonging the lives of these trees at Turnberry, mixtures of fungicides applied several times beginning in the early spring (mid to late April) and continuing through late May can possibly help maintain these trees in their current state with some potential for slight recovery. I would also advise no further planting of this species in the landscape at Turnberry. For replacements, I'd recommend other conifers. White Fir, a.k.a. Concolor Fir makes a nice replacement; it also exhibits the bluish color many people associate with the Colorado Blue Spruce species.

Photo 12

Photo 13

Pin Oak Iron Chlorosis: Pin Oaks are susceptible to a physiological disorder known as "Iron Chlorosis". A too high soil pH makes iron unavailable to the tree-typical symptom development includes yellow foliage, and in extreme cases, branch dieback. The oak in Photos 14 & 15 exhibits early symptoms of iron chlorosis, but the problem is not serious. I suggest Turnberry oaks be monitored and adjustments be made when necessary.

Photo 14

Photo 15

Girdling Roots: Some of the trees at Turnberry Condominium exhibited “girdling roots”. “Girdling Roots” can girdle other roots or the trunk of trees, inhibiting water and nutrient movement to the upper branches, Girdling roots may result from improper planting techniques when trees were installed decades ago. Girdling roots may also develop when excessive mulch is deposited; thick, deep mulch stimulates root development into the mulch and as roots grow, they encircle the tree. It appears to me that excess mulch was applied years ago at Turnberry and the practice was discontinued. Girdling roots can cause dieback and decline in trees. Girdling roots can be surgically removed when they are small and young. Not much can be done at this time at Turnberry because the Girdling roots are too large and embedded. I would advise letting nature takes its course; new plantings at Turnberry should be mindful of the potential for Girdling Roots and avoid them.

Photo 16

Crowding: When the landscape at Turnberry was established decades ago, the plantings were small and spaced to provide maximum aesthetic value at that time. Over the ensuring years, some of the plantings have outgrown their sites and some reside in very crowded conditions (Photo 17). I, personally and professionally, am not particularly concerned. Some professionals would strongly recommend that some trees be removed so others can grow better-that is certainly an option for those who are striving for “perfection” according to some professional standards. Another option is to simply let them grow and “fight it out” as nature often does.

Photo 17

Weed Trees: There are several examples of "Weed Trees" at Turnberry Condominium; I recommend these weed trees be addressed. Photo 18 shows a white mulberry emerging from a spruce tree. The mulberry is generally considered undesirable and, in this instance, will interfere with the growth of the spruce. Several buckthorns as shown in Photo 19 are growing along the west side of the Common Area. I do not know if these were planted or if they simply grew from seed deposited by birds. Buckthorn is considered "Invasive", displacing native and other more desirable plants; the berries will be disseminated throughout Turnberry Condominium and nearby communities, and will continue the "invasion". Some communities invest significantly in their budget to eradicate this plant. My recommendation would be to consult with Condominium owners near these plants before removal so that conflicts are not encountered.

Photo 18

Photo 19

New Plantings: During my visit to Turnberry Condominium. I noticed several new plantings (Photo 20). Many of these new plantings were not doing well; some of the trees had died (Photo 21). All new plantings

Photo 20

(and many older trees) exhibited evidence of lawn mower and weed trimmer injury (Photo 22). It is prudent that when new trees are installed, they need to be nurtured for several years until they become established and can thrive on their own. Also, because the lawn is growing right up to the trunks of all trees in the lawn areas, it might be advisable to install a ***thin***(!) layer mulch ring around their trunks to help keep mower and weed trimmer damage to a minimum.

Photo 21

Photo 22

Summary:

It is my understanding that Turnberry Condominium has not devoted consistent resources to the care of trees over the years. In my opinion, overall, the tree health appears reasonably acceptable given these inconsistent minimal inputs. Many of the trees are doing quite well. To maintain and enhance the tree health at Turnberry Condominium, I have prioritized the issues (below) I witnessed during my visit on October 20, 2020. I would advise a yearly budget be established for the care and maintenance of trees and for the installation of new plantings. For example, Photo 23 shows a lovely landscape area with ornamental grasses, shrubs, and annuals near the entry to Turnberry Condominium. The crabapple, which is susceptible to the fungal disease, “Scab”, will appear fairly healthy during the spring and early summer but will somewhat spoil the landscape appearance here when defoliation from the disease occurs beginning in July. Treatments can be applied to control scab (or not); it is a matter of aesthetic desire. Regardless, for tree replacements, disease resistant varieties should be installed. A list of some possible tree species is also supplied below. Because for example, too many Norway Maples were originally planted at Turnberry and because this tree is now considered “invasive”, it would be wise to established other species in new plantings. Diversity is the key to avoiding serious, extensive trees issues.

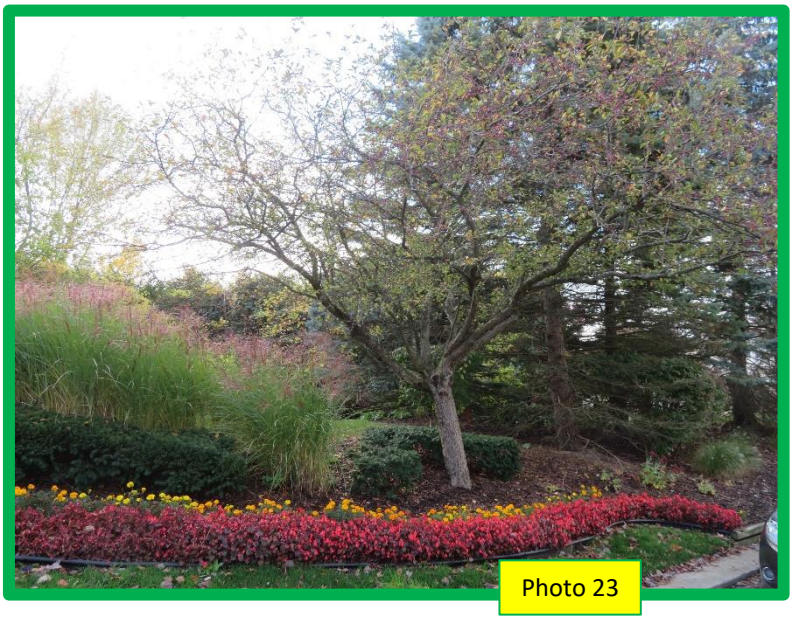

Photo 23

High Priority Issues (My Opinion): Magnolia Scale, Shallow Mulch Rings Around Trees in Lawn Areas/Minimize Mower & Weed Trimmer Damage, Crabapple Scab (?), Removal of Weed Trees (including those in Alcoves(?)), New Plantings of Disease Resistant Trees Species and Varieties, Girdling Roots on Young Trees, Proper Care and Maintenance of New Tree Plantings, Treatments for Spruce Decline(?),

Medium Priority Issues (My Opinion): Crabapple Scab(?), Treatments for Spruce Decline(?)/Remove Severely Affected Spruce Trees,

Low Priority Issues (My Opinion): Pin Oak Iron Chlorosis, Crowded Trees, Established Girdling Roots on Large Trees, Tar Spot on Norway Maple,

Some Recommended Alternative Tree Species*

Conifer/Evergreen	Deciduous
Norway Spruce	Sugar Maple
Serbian Spruce	Tulip Poplar
Concolor Fir	Hackberry
White Pine	Catalpa
White Spruce	Honey Locust
Black Spruce	Various Oaks
Green Giant Arb	Red Maple Varieties
Taxus/Yew	Ornamental Fruit Trees (except Pear)

***Note:** there are many other options; these are just a few.