



Michael Victor Ruggiero, CA
5545 Netherland Ave #3F
Bronx, New York 10471

September 22, 2022

Freres, Inc.
Tomas Machiavello
240 West 123 Street
New York, NY 10027

Dear Mr. Tomas Machiavello:

CONSULTING ARBORIST SERVICES – Tree Condition, Impacts, Appraisal Report

This report presents an analysis of potential impacts by proposed construction activity at 240 W 123rd St NY, NY on 1 White Mulberry tree in rear yard of the adjacent property located at 242 W 123rd St . NY, NY.

TREE BASIC DATA

Species: Morus alba Common Name: White (Common) Mulberry

Size: 17.5" DBH

Critical Root Zone : 17.5' radius - extends across construction area *into* 238 W 123rd parcel

Trunk Area: 227 in²

Canopy Limb Height: 5' from ground level

RELEVANT FIELD OBSERVATIONS

Tree's Location on Site – Tree Trunk is approximately 21" from shared property line. The limit of construction excavation for 240 W. 123 is this shared property line **Fig. 3,4.**

Canopy Lean - Inordinate, dangerous lean greater part of canopy- up to 90%- spans over neighboring parcels of 240 -23 w 123rd St. **Fig 1,2.**

Severe Structural Issues – Tree has severe structural problems, most noticeably with girdling branch (co-stem) that originates at ground level. **Fig 5.** While it may seem fanciful and even charming, it compromises stability of entire tree and would be considered a liability for 242 property owner.

Pronounced Deadwood - Severe, pronounced dieback throughout entire canopy. Preponderant evidence that canopy has been cut back repeatedly by neighboring properties to the east and south. **Fig. 6,7.**

TREE CONSTRUCTION IMPACTS

Excavation limit to shared property line would not *just severely encroach into tree's critical root zone but remove at least half of tree's entire root system.* Result would be death of the tree, which would happen somewhat quickly. Decline of the involved tree would be noticed immediately.



For purposes of compensation to neighbors for pending loss, we have calculated appraised value of the tree according to Trunk Formula Method by International Society of Arboriculture

TREE APPRAISED VALUE \$4,810.00

See worksheet in Report Appendix for specific steps and details.

Please advise of any questions you may have.

Yours truly,

A handwritten signature in black ink, reading "Michael V. Ruggiero", is displayed on a light-colored rectangular background.

Michael V. Ruggiero, ISA Certified Arborist NY-5409A

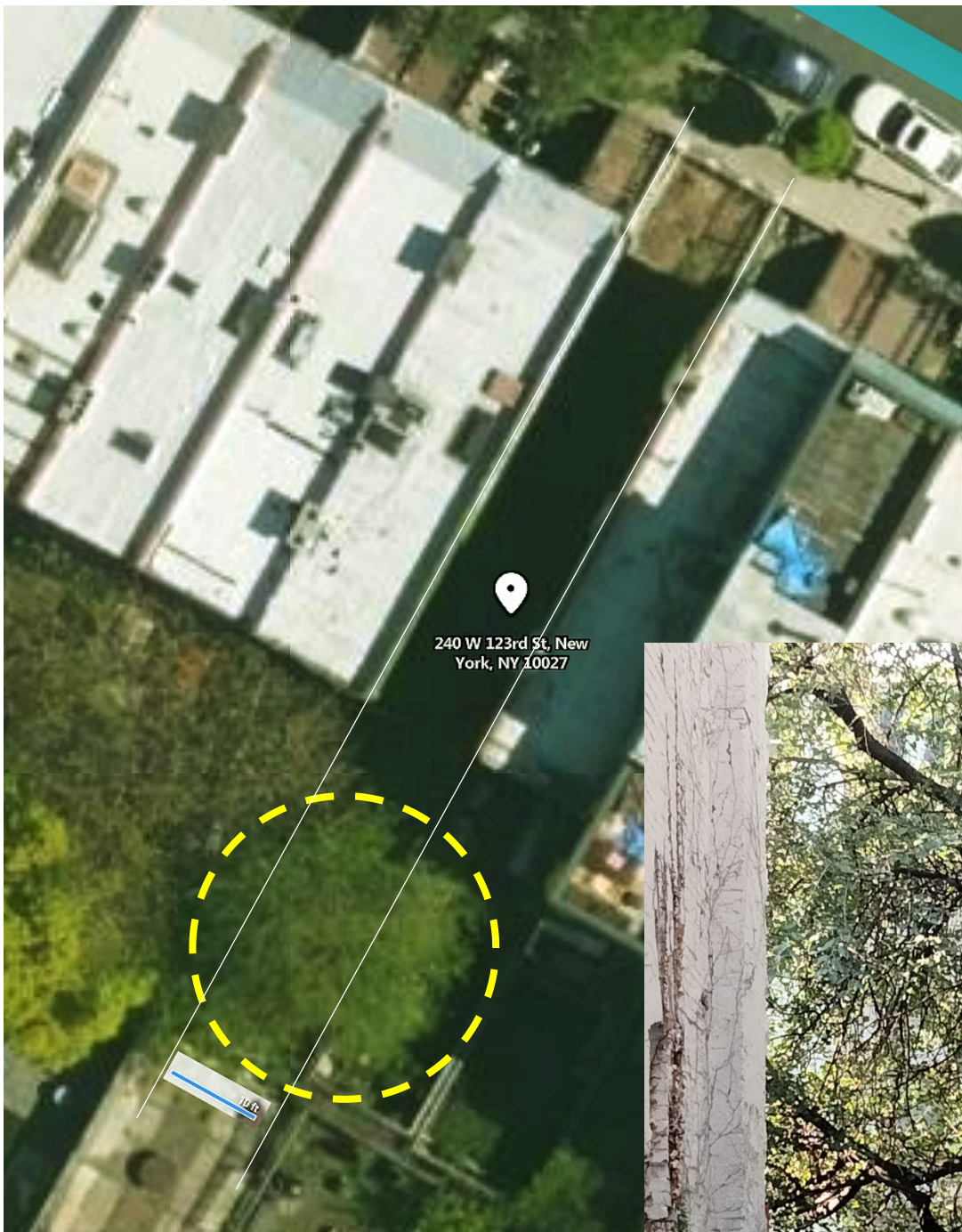


Figure 1



Figure 2



Figure 3



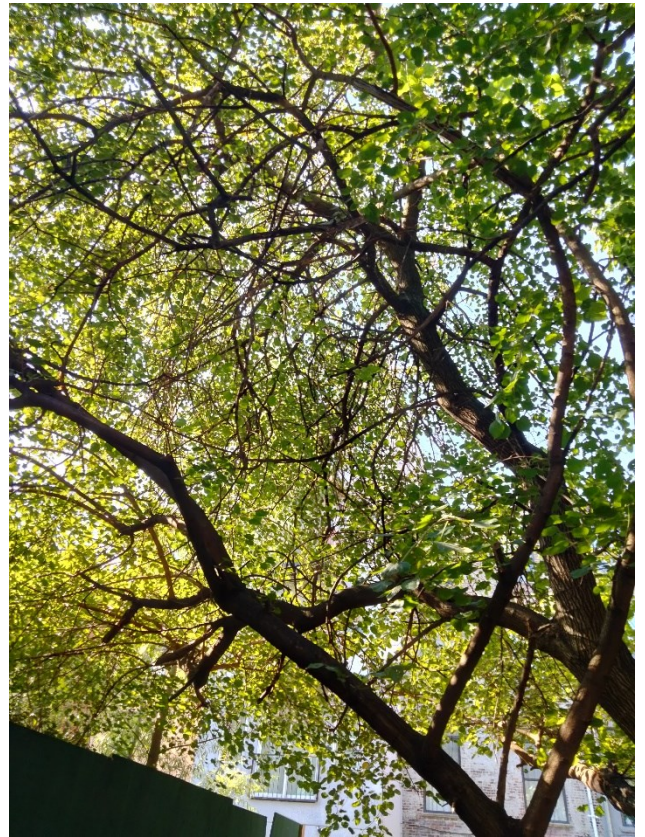
Figure 4

Figure 5



Figure 6

Figure 7



Trunk Formula Method

Case # _____ Property 240-242 W 123rd St NY NY Date 9/22/22

Appraiser MV Ruggiero ISA NY-5409A

Field Observations

1. **Species** White Mulberry
2. **Condition** 50 % Poor
3. **Trunk Circumference** _____ in/cm **Diameter** 17.5 in/cm
4. **Location %** = [**Site** 90 % + **Contribution** 90 % + **Placement** 90 %]
 $\div 3 =$ _____ %

Regional Plant Appraisal Committee and/or Appraiser-Developed or -Modified Information

5. **Species rating** _____ % 70 %
6. **Replacement Tree Size (diameter)** 3.5" in/cm
 (Trunk Area) 11 in²/cm² TA_R 600
7. **Replacement Tree Cost** \$ _____
 (see Regional Information to use **Cost** selected)
8. **Installation Cost** \$ 2,400
9. **Installed Tree Cost (#7 + #8)** \$ 3,000
10. **Unit Tree Cost** \$ 55 per in²/cm²
 (see Regional Information to use **Cost** selected)

Calculations by Appraiser using Field and Regional Information

11. Appraised Trunk Area:

$$\left. \begin{array}{l} (TA_A \text{ or } ATA_A; \text{ use Tables 4.4-4.7}) \\ \text{or } c^2 \text{ (#3)} \text{ _____ } \times 0.08 \\ \text{or } d^2 \text{ (#3)} \text{ _____ } \times 0.785 \end{array} \right\} = \underline{227} \text{ in}^2/\text{cm}^2$$

12. **Appraised Tree Trunk Increase (TA_{INCR})** =
 TA_A or ATA_A 227 in²/cm² (#11) - TA_R 3.5 in²/cm² (#6) = 223 in²/cm²

13. **Basic Tree Cost** = TA_{INCR} (#12) 223 in²/cm² × **Unit Tree Cost** (#10) \$ 55
 per in²/cm² + **Installed Tree Cost** (#9) \$ 3,000 = \$ 15,265

14. **Appraised Value** = **Basic Tree Cost** (#13) \$ 15,265 × **Species rating**
 (#5) 70 % × **Condition** (#2) 50 % × **Location** (#4) 90 % = \$ 4,808

15. If the **Appraised Value** is \$5,000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10.

16. **Appraised Value** = (#14) \$ \$4,810

Calculation worksheet for Trunk Formula Method.

From *Council of Tree and Landscape Appraisers' (CTLA) Guide for Plant Appraisal, 9th edition*



Supplement to Landscape Appraisal of Tree Species in Indiana
Species Ratings (Alphabetical by Botanical Name)

<i>Magnolia virginiana</i> (sweetbay magnolia)	80-90
<i>Magnolia virginiana</i> (sweetbay magnolia)	70-80
<i>Malus</i> sp. (crabapple)	40-50
<i>Malus</i> sp. (crabapple, improved cultivars)	60-70
<i>Malus pumila</i> (apple)	50-60
<i>Metasequoia glyptostroboides</i> (dawn redwood)	80-90
<i>Morus alba</i> (white mulberry, male)	30-40
<i>Morus alba</i> (white mulberry, female)	10-20
<i>Morus rubra</i> (red mulberry)	30-40
<i>Nyssa sylvatica</i> (blackgum)	80-90
<i>Ostrya carpinifolia</i> (European hophornbeam)	70-80
<i>Ostrya virginiana</i> (hophornbeam)	80-90
<i>Oxydendrum arboreum</i> (sourwood)	60-70
<i>Parrotia persica</i> (Persian parrotia)	70-80
<i>Paulownia tomentosa</i> (royal paulownia, princess tree)	10-20
<i>Phellodendron amurense</i> (Amur cork tree)	10-20
<i>Picea abies</i> (Norway spruce)	80-90
<i>Picea glauca</i> (white spruce)	70-80
<i>Picea omorika</i> (Serbian spruce)	70-80
<i>Picea orientalis</i> (oriental spruce)	80-90
<i>Picea pungens</i> (Colorado spruce)	40-50
<i>Picea pungens</i> var. <i>glauca</i> (blue Colorado spruce)	40-50
<i>Pinus banksiana</i> (jack pine)	40-50
<i>Pinus bungeana</i> (lacebark pine)	80-90
<i>Pinus cembra</i> (Swiss stone pine)	70-80
<i>Pinus densiflora</i> (Japanese red pine)	70-80
<i>Pinus koraiensis</i> (Korean pine)	70-80
<i>Pinus nigra</i> (Austrian pine)	20-30
<i>Pinus parviflora</i> (Japanese white pine)	70-80
<i>Pinus ponderosa</i> (ponderosa pine)	40-50
<i>Pinus resinosa</i> (red pine)	50-60
<i>Pinus strobus</i> (eastern white pine)	60-70
<i>Pinus sylvestris</i> (Scots pine, scotch pine)	30-40
<i>Pinus virginiana</i> (Virginia pine)	60-70

Table 1. Condition Rating for Landscape Trees

This table is a general representation to assist in formula values. The tree condition ratings described below encompass factors of a tree's health, form, and above- and below-ground structure. Each tree can have any combination of the following health or structural issues, as well as others not mentioned. The expression of symptoms and signs is subjective. The appraiser should consider individual tree species characteristics and use existing circumstances as a reasonable scale to determine a tree's condition.

Condition Rating	Tree Structure	Tree Health	Tree Form	Formula Values
Excellent	Consider root condition/formation, trunk condition, and branch assembly and arrangement.	Consider crown indicators — including vigor, density, leaf size, quality, and stem shoot extensions.	Consider the general shape and overall form.	
Excellent	Root plate undisturbed and clear of any obstructions. Trunk flare has normal development. No visible trunk defects or cavities. Branch spacing/structure and attachments are free of any defects.	Perfect specimen with excellent form and vigor, along with a well-balanced crown. Trunk is sound and solid. No apparent pest problems. Normal to exceeding shoot length on new growth. Normal leaf size and color. Exceptional life expectancy for the species.	Ideal tree for that species, including shape and canopy symmetry, health, and density. Outstanding function on the site or location.	1.0-.90
Good	Root plate appears normal, with only minor damage. Possible signs of root dysfunction around trunk flare. Minor trunk defects from previous injury, with good closure and less than 25% of bark section missing. Good branch habit; minor dieback with some signs of previous pruning. Co-dominant stem formation may be present, requiring minor corrections.	Imperfect canopy density in 10% or less of the tree. Lacks natural symmetry. Less than half the normal growth rate and minor deficiency in leaf development. Few pest issues or damage, and controllable if present. Normal branch and stem development with healthy growth. Typical life expectancy for the species.	Nearly ideal tree for that species, including shape and canopy symmetry, health, and density. Functions well on the site or location.	.90-.75
Fair	Root plate reveals previous damage or disturbance. Dysfunctional roots may be visible around the main stem. Evidence of trunk damage or cavities, with decay or defects present and less than 30% of bark sections missing on trunk. Co-dominant stems are present. Branching habit and attachments indicate poor pruning or damage, which requires moderate corrections.	Crown decline and dieback up to 30% of the canopy. Poor overall symmetry. Leaf size smaller and color somewhat chlorotic. Shoot extensions indicate some stunting and stressed growing conditions. Obvious signs of pest problems contribute to a lesser condition. Some decay areas found in the main stem and branches. Below-average life expectancy for the species.	Acceptable tree for that species. Tree shape and symmetry are adequate, with some substantial asymmetry in shape and canopy form. May have considerable concerns for its use and function on the site or location.	.75-.50
Poor	Root plate disturbance and defects indicate major damage, with girdling roots around the trunk flare. Trunk reveals more than 50% of bark section missing. Branch structure has poor attachments, with several structurally important branches dead or broken. <u>Canopy reveals signs of damage or previous topping or lion-tailing, with major corrective action required.</u>	<u>Lacking a full crown, with more than 50%</u> decline and dieback that especially affects larger branches. Stunting obvious, with little evidence of growth on smaller stems. Leaf size and color reveals overall stress in the plant. Insect or disease infestation may be severe. Extensive decay or hollow characteristics. Low life expectancy for the species.	Poor tree for that species. Highly irregular canopy shape and undesirable form make it unattractive and dysfunctional on the site or location.	.50-.30
Very Poor	Severe damage within the root plate and root collar exhibits major defects that could lead to tree death or failure. A majority of the bark or trunk is affected, either decayed or missing. Branching is extremely poor or severely topped, with severe dieback in canopy. Little or no opportunity for mitigation of any tree parts.	More than 70% of the canopy is in severe decline or dead. Canopy density is extremely low, with chlorotic and necrotic tissue dominating the canopy. Severe decay in the trunk and major branches. Root plate damage with a majority of roots damaged, diseased or missing. Very low life expectancy for the species.	Disagreeable tree for that species, with highly diminished function and aesthetic appeal on the site or location.	.30-.10
Dead				.10 or less

Nov. 2019

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