

ARBORIST REPORT

Pertaining to:

605 Fernbank Rd.
Newmarket, Ontario L3X 3E4

Prepared for:

Denison Child Care Centre
605 Fernbank Rd.
Newmarket, Ontario L3X 3E4

Prepared by:



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Introduction

Bruce Tree Expert Company Ltd. was retained by Denison Child Care Centre in October 2019 to complete an Arborist Report and Tree Protection Plan for 605 Fernbank Rd., Newmarket. The report was requested relative to the construction of a new 1-storey building, parking, fire route, site servicing and pathways.

The purpose of this report is to:

- Establish species, size and condition of trees protected by the Town of Newmarket Tree Preservation, Protection, Replacement and Enhancement Policy.
- Provide a prescription for the protection of trees during the project.
- Provide a Tree Protection Plan showing the location of required tree protection measures, removals or injuries and required tree protection notes based on the site plan.

Key Items

A total of 74 trees were inventoried for this report. Of the inventoried trees, 71 are located on municipal property and are protected by the Town of Newmarket Tree Preservation policy (as per Public Tree Preservation Bylaw 2017-59); the remaining 3 trees are located within the right of way along Mulock Dr. and therefore fall under York Region's Street Tree and Forest Preservation Guidelines.

The proposed plans will affect the following trees:

Action	Ownership/Location	Tag Number	Total No. Trees
Remove	Municipal	201, 202, 213, 214, 215, 216, 217, 219	8
Injure	Municipal	203, 204, 205, 206, 208, 209, 218, 220, 221, 222, 223, 224, 225, 226, 268	15
	York Region right-of-way	272	1

The following arborist report has been revised to reflect the most current site plan proposal (Nov. 2020), as well as site servicing and grading plans (May 2020), as well as comments received from the Town of Newmarket Forestry review (Jul. 15, 2020). The Town's comments are specifically,

- i. That a Certified arborist must be present to oversee:
 - All root-sensitive excavation (items 18-28 of the Tree Protection Prescription).
 - Garage foundation demolition (item 21 of the Tree Protection Prescription)
 - Grading below drip lines (item 32 of the Tree Protection Prescription).
- ii. Watering as described in item 36 of the Tree Protection Prescription (could be automated).
- iii. Mulch is installed as per item 37 of the Tree Protection Prescription.

Method

1. The subject site was assessed on July 17, 2019 by Bruce Tree Expert Company Ltd. Trees 272 – 274 were assessed on May 13, 2020.
2. Photos were taken at the time and the most representative are attached as Appendix I.
3. The methods used to collect data and the information provided below comply with the Town of Newmarket Tree Preservation, Protection, Replacement and Enhancement Policy and with York Region's Street Tree and Forest Preservation Guidelines.
4. The Town of Newmarket, Planning Department requires that significant trees within 4.5 meters of the construction be reported upon. For this project, the Town requested that trees 20cm DBH or greater be reported on within municipal lands. York Region requires any trees within 10 meters of site disturbance be reported on.
5. Trunk diameter was measured using a calibrated diameter tape. The measurement was taken at 1.4 meters above ground level, generally referred to as the diameter at breast height (DBH).
6. Trees were assessed in consideration of overall health and structural integrity and assigned a condition rating ranging from good to fair to poor.
7. The tree inventory is attached as Appendix II.
8. Trees were tagged from 201-274 within numbered tags and the inventoried trees excluding Trees 267-271, which were missed by surveyed and added to the Tree Protection Plan by the arborist (field measured on site).
9. A Tree Protection Plan was created by Bruce Tree Expert Company Ltd. by adding tree protection comments to a site plan prepared by 4 Architecture Inc. dated May 27, 2020 and based on a survey prepared by Lloyd & Purcell dated September 2019. Reference was made to Site Servicing and Grading Plans prepared by Counterpoint Engineering Inc. dated Mar. 5 2020. The Tree Protection Plan was updated November 27, 2020 to reflect updated site plans (Nov. 19, 2020), relative to the location of the hydro vault. The Tree Protection Plan is attached as Appendix III.
10. Assumptions and Limiting Conditions applicable to this report are described in Appendix IV.

11. Appraised values for trees to be preserved were calculated using the CTLA Guide for Plant Appraisal 9th edition with reference to the Ontario Supplement and Tree Report Form. The Tree Report Form is attached as Appendix V.

Tree Inventory

See Appendix II.

Tree Protection Prescription

Pre-Construction

Tree Removal and Injury Approvals

1. The client is required to submit an application to the Town of Newmarket, Director of Planning for a permit to remove **8** Trees:

Tree #	DBH (cm)	
201	69	Fire route excavation will require trenching ~1 m from tree; water main excavation will require trenching ~4 m from tree. Tree exhibiting crown dieback, unlikely to withstand root damage.
202	20	Tree within footprint of garbage storage area.
213	41, 38, 27	Tree within footprint of excavation for new building.
214	46.5, 18	Tree within footprint of excavation for new building.
215	43, 33	Tree located 3 m from over dig excavation for building and in direct conflict with construction access.
216	40	Tree within footprint of new building.
217	58	Tree within footprint of excavation for new building and entrance.
219	42	Tree within footprint of fire route; approximately 2 m from water main excavation.

2. The following **15** municipal trees are proposed to be injured (work inside the drip line), subject to approval from the Town of Newmarket, Director of Planning.

Tree Number	Proposed Work
203-206, 208, 209	Over dig excavation for new building and site access.
218 and 220	Fire route installation, water main installation, sanitary sewer line installation, building entrance/walkway.
221, 222, 223	Removal of belowground portion of existing garage, installation of asphalt walkway from parking lot.
224, 225, 226, 268	Installation of asphalt walkways.

3. The following I York Region right-of-way tree is proposed to be injured (work inside the TPZ), subject to approval from York Region.

Tree Number	Proposed Work
272	Construction access route from Mulock Dr., replacement of existing culvert with drainage ditch.

4. No site work shall take place that may result in the damaging or destroying of trees identified as significant trees on the Tree Protection Plan, prior to the approval by the Director of Planning or York Region.
5. If the Town of Newmarket approves the removal of trees, they are to be removed prior to any work on the site to prevent potential impacts to stability.

Tree Protection Zones

6. The following tree protection measures must be read in conjunction with the Tree Protection Plan, Appendix III. Both documents must be provided to the site supervisor prior to any work commencing on the site.
7. No disturbance is allowed within the drip line of protected trees without permission from the Town of Newmarket, Director of Planning or York Region. Disturbance includes soil compaction from foot traffic and construction materials, excavation, grade changes, or storage of materials.
8. The Town of Newmarket Tree Protection Detail requires protection to be installed either 2m from the trunk or to the drip line (whichever is greater).
9. York Region Tree Protection requires tree protection barriers to be installed at the Tree Protection Zone (TPZ). See the Tree Inventory for TPZ radius distances and the Tree Protection Plan for York Region Detail NHF- 400.

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10. Tree protection barriers are to be installed as shown on the Tree Protection Plan (Appendix III). On this site, recommended fencing for trees on municipal property includes temporary steel fencing and/or other rigid or substantial fencing such as plywood or wafer board that is secured in place, to the satisfaction of the Director of Planning, during the course of the construction project. On the York Region right of way, protective barriers are to be constructed of orange construction fencing on 2x4s to maintain site lines, as per Detail NHF – 400.
 11. Subsequent to Development Approval and prior to construction, verification of proper Tree Protection Barrier installation must be provided to the Planning Department by the Arborist in a minimum one-page report and supporting dated pictures.

Pruning

12. Trees 203, 206 and 208 may require pruning to accommodate the construction of the new building and for construction access. Tree 202 will require pruning to allow for 5-meter clearance above the fire route. This will require the removal of one 30 cm ø branch to the west.
13. All pruning is to be completed prior to construction to avoid branch tearing during construction. Pruning must be performed by a Certified arborist and according to good arboricultural practices.

Security Deposit

14. A security deposit may be held by the Town for each tree to be protected based on 20% of the value of all protected trees. The town shall hold securities for tree protection up to final assumption of all works, as contemplated by the subdivision agreement, or in the case of site plans, final inspection for the release of security deposits. Under special circumstances, securities may be held for up to three years after construction, subject to a condition of approval, a minor variance or consent application.

Construction Phase

15. It is the responsibility of the site supervisor to inspect the condition of the tree protection measures outlined on the plan and within this report each morning.

Root Sensitive Excavation and Grading Inside Drip Lines/ TPZs

16. Root sensitive excavation methods are required on this project where work is proposed inside the drip lines or Tree Protection Zones of trees that are to be preserved. The goal of root sensitive excavation is to determine the size and quantity of roots that may be

impacted by the proposed work, and to determine whether the tree is likely to with stand the root injury. Root sensitive excavation methods include excavation by hand, air spade, or low-pressure hydrovac (<400 psi). **Arborist supervision is required during this work to determine the likelihood of impacts to trees and to provide documentation to the Town of Newmarket.**

17. It is recommended that the following root-sensitive excavation methods be performed at the start of construction. In the event that additional tree removals are required or design modifications, this will allow time to accommodate these changes.

18. Root sensitive excavation methods are required for the following work:

Tree Number	Proposed Work
203-206, 208, 209	Over dig excavation for new building and site access.
218 and 220	Fire route installation, water main installation, sanitary sewer line installation, building entrance/walkway.
221, 222, 223	Removal of belowground portion of existing garage, installation of asphalt walkway from parking lot.
224, 225, 226, 268	Installation of asphalt walkways.

19. The perimeter of the over dig for the proposed 1-story building within the drip lines of Trees 203 - 206 and 208 must be excavated by hand, air spade or low-pressure hydrovac (< 400 psi) to a depth of 1 meter under arborist supervision, and prior to construction on the site.

20. The perimeter of the fire route, water main and sanitary line within the drip lines of Trees 218 and 220 must be excavated by hand, air spade or low-pressure hydrovac (< 400 psi) under arborist supervision and prior to construction. The depth of the root sensitive excavation for the site services must be conducted to a depth of 1 meter and at an offset of 1.25 meters from the lines; the depth of excavation for the fire route must be conducted to 0.6 meters, 0.3 meters from the perimeter of the fire route.

21. Demolition of the below-ground portions of the existing garage (unknown) inside the drip lines of Trees 221, 222, and 223 must be carried out by hand within the drip lines of these trees. If excavation to remove a footing is required, the perimeter of the footing must first be excavated by hand, air spade or low-pressure hydrovac (< 400 psi) to determine whether tree roots may be pruned. **Demolition of the belowground portions of the garage must be overseen by a Certified arborist.**

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22. The existing gravel walkways are proposed to be resurfaced with asphalt and connected to new pathways. This work is proposed within the drip lines of Trees 222, 223, 224, 225, 226, 227, 228 and 268. The perimeter of the walkways must be excavated by hand, air spade or low-pressure hydrovac (< 400 psi) under arborist supervision. The depth of the root sensitive excavation for the walkways must be conducted to a depth of 0.35 m. If significant roots are encountered, the walkways must accommodate the roots by reducing the bedding depth or grading.
 23. The perimeter of the construction access route from Mulock Dr., inside the 7.6 m TPZ of Tree 272 must be excavated by hand, air spade or low-pressure hydrovac (< 400 psi) prior to construction, under arborist supervision. The root-sensitive excavation is to be performed to a depth of 0.3m. The route is to be constructed as per the ESC Plan prepared by Counterpoint Engineering. Existing tree roots are to be accommodated in the design of this temporary access road. Due to the presence of an existing gravel driveway, the incidence of roots may be relatively low.
 24. The proposed culvert work inside the 7.6 m TPZ of Tree 272 must be carried out by hand inside the TPZ of this tree under arborist supervision. Any exposed tree roots must be maintained, undisturbed as they are supporting the tree at the edge of the ditch.
 25. Following completion of the construction project, the existing gravel driveway and construction access route are to be converted to soft ground surface and turf. Inside the TPZ of Tree 272, the driveway/access route may be removed using a small non-toothed bucket until the surrounding grade is met. There is to be no disturbance to bare soil. This must be performed under arborist supervision. If any roots are exposed before matching the surrounding grade, *no further excavation is permitted*. Any exposed roots must be immediately covered with 15 cm of topsoil. At no point is machinery permitted on bare soil or screenings. The compacted granular material may be scarified by hand, with sandy-loam topsoil added above.
 26. During the above root-sensitive excavations, if exposed roots are deemed not significant to the long-term health or stability of the tree, they may be cleanly pruned by the arborist.
 27. If significant roots are encountered, the proposed design or actions to trees may need to change to either preserve or remove these trees, subject to approval by the Town of Newmarket or York Region.
 28. It is to be noted that the likelihood of encountering significant roots adjacent to Trees 218 and 220 is high; however, the aim is to provide the opportunity to retain these trees on the landscape if possible. Due to the fire route and site servicing requirements (and goal to

retain the existing wood barn), moving the location of these features within the limits of the leased area is restricted.

29. All other trees are to be protected as outlined in the Tree Protection Plan, Appendix III.
30. At no point is machinery to drive on bare soil within the drip lines of protected trees.
31. During construction, if any tree roots are exposed or disturbed *outside* the tree protection barriers, care is to be taken to minimize their disturbance. If roots must be removed outside the TPZ, they must be cleanly pruned. Tearing roots hinders wound closure and can increase risk of disease and root rot.
32. Grading is required between the fire route and Trees 218 and 220. The grade is to be raised by approximately 20-30 cm below the drip lines of the trees to accommodate the higher elevation of the fire route. All grading below the drip lines of these trees must be carried out by hand. Machinery must not be driven inside tree protection barriers. **This grading must be overseen by a Certified Arborist.**

Post-Construction and Maintenance

33. Trees 203-206, 208, 209, 218, 220-228, and 272 are to be monitored following construction for any indications of stress. Stress as a result of the construction may not be apparent for some years following the disturbance and may make the tree more susceptible to other stresses (water stress, insects, disease). If the condition of the trees declines, the most appropriate method to address the issue is to be carried out.
34. If any municipal trees that are to be protected (as shown on the approved Tree Protection Plan) are damaged or destroyed due to construction, compensation based on the appraised value or replanting based on 2x the “aggregate inch replacement” method, may be requested by the Town’s Planning Department.
35. If any York Region trees that are to be protected (as shown on the approved Tree Protection Plan) are damaged or destroyed due to construction, compensation based on York Region’s Guidelines is as follows: *Number of replacement trees = DBH of tree to be removed / Replacement Tree Calliper size * Condition rating*
36. It is strongly recommended that Trees 203-206, 208, 209, 218, 220-228, and 272 be thoroughly watered once per week, from spring to fall, for the following two years after completion of the work on the site. Root disturbance diminishes the stored energy reserves of trees and site, impacts the tree’s ability to absorb water and elements, and can increase

chance of disease. Watering will help the trees cope with any stress that the work may have caused.

37. A 7-10cm layer of mulch may be placed below the drip lines and at least 30 centimeters away from the trunks of the above trees. The treatment is intended to mitigate the effects of construction and promote tree health and vitality. Additional mitigation measures such as soil amendment, aeration, radial trenching may be required depending on the condition of the trees following the completion of the project and/or upon release of any securities.
38. Securities held for the appraised value of the protected trees under normal circumstances¹ may be released at the request of the client and after the final inspection for the release of securities by the Planning Department.

Compensation

39. The Town of Newmarket requires that removed trees be replaced based on the “Aggregate Inch Replacement” method. Trees 201, 202, 213, 214, 215, 216, 217 and 219 have a cumulative DBH of 475.5cm.
40. As compensation for the removals, the client proposes to plant on the site as per the Landscape Plans prepared by INSITE Landscape Architects Inc. (60mm calliper for deciduous and 2m height for conifers). Refer to the landscape plans for quantities, species and planting locations.
41. Due to space limitations, the client requests to pay cash in lieu of replanting the remaining trees.

¹ Under special circumstances, securities may be held for up to three years following construction as agreed to prior to works commencing as a condition of approval, a minor variance or a consent application.

If there are any questions with respect to BTEC File #: 7047-0002, please do not hesitate to contact Bruce Tree at 416 252-8769.



Jennifer Gagné, M.F.C., I.S.A. Certified Arborist ON-1993A



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Appendices

Attached

Appendix I – Photographs



Photo 1. Trees 219, 201, 221, 222 and 226 (left to right).



Photo 2. Trees 203-209.



Photo 3. Trees 210 and 211 (removed by City 2020).



Photo 4. Trees 213-215 (left to right, looking east).



Photo 5. Trees 213-217.



Photo 5. Trees 218, 220, 223 and 224.



Photo 7. Trees 268-271.



Photo 8. Trees 272 (May 2020, before leaf-out).



Photo 9. Trees 273 and 274 (May 2020, before leaf-out).

Appendix II – Tree Inventory
Attached

Appendix II

Inventory date: Jul. 17 2019

Chart Details:

Tree #: Inventoried trees were assigned an identification number and tagged with metal number-punched tags.

Species: Includes the botanical name and common name of each tree.

DBH: Diameter in cm measured at 1.4 meters from the ground (diameter at breast height).

Crown Radius/TPZ: Drip line radius from stem to farthest branch in meters. For York Region trees, TPZ is provided based on definition of the Tree Protection Zone.

Condition Rating: Overall condition rating from good to fair to poor based on overall health and structure. A "<" indicates less than and ">" indicates greater than. York Region condition classification is provided in parentheses for Trees 272-274.

Observations: Specific observations from the visual assessment that have informed the condition rating and action.

Location: Private subject site; private adjacent; municipal, or York Region.

Appraised Value: For municipal trees to be retained, appraised value is provided based on CTLA plant appraisal trunk formula method.

Action: Protect, injure or remove recommendations based on the site plans, and other actions to be taken.

Replacement (cm): Municipal trees proposed for removal require replacement based on cumulative DBH.

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
201	black walnut (<i>Juglans nigra</i>)	69	9	Fair < Poor	Moderate branch dieback from ends of branches; sparse crown; very minor trunk lean.	-	Municipal	Remove due to conflict with proposed fire route and water main.	69
202	black walnut (<i>Juglans nigra</i>)	20	4	Fair > Poor	Single, straight trunk; pruning wounds on trunk with poor wound wood development; top of leader dead.	-	Municipal	Remove due to conflict with proposed fire route and garbage storage.	20
203	Scots pine (<i>Pinus sylvestris</i>)	40	5	Poor	Less than 5% live crown.	\$4,990	Municipal	Injure due to proposed building, over dig and access	
204	Scots pine (<i>Pinus sylvestris</i>)	37	4	Good	Single, straight stem; fair crown structure; good health.	\$8,500	Municipal	Injure due to proposed building, over dig and access	

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
205	Scots pine (<i>Pinus sylvestris</i>)	31 & 27	4	Good	Codominant at approx. 1m with wide union; fair crown structure; good health.	\$10,500	Municipal	Injure due to proposed building, over dig and access	
206	black walnut (<i>Juglans nigra</i>)	75	6	Good	Good structure; spreading canopy; good health.	\$50,400	Municipal	Injure due to proposed building, over dig and access	
207	Scots pine (<i>Pinus sylvestris</i>)	24	3	Fair > Poor	Minor trunk bend, growing under Tree 208; asymmetrical crown; fair health.	\$2,340	Municipal	Protect	
208	black walnut (<i>Juglans nigra</i>)	70	7	Good	Good structure; spreading canopy; good health.	\$43,900	Municipal	Injure due to proposed building, over dig and access	
209	Scots pine (<i>Pinus sylvestris</i>)	40	4	Fair	Single, straight trunk with bend in upper leader; fair crown structure; fair health.	\$7,900	Municipal	Injure due to proposed building site access	
210	Scots pine (<i>Pinus sylvestris</i>)	Removed 2020 by City of Vaughan							
211	Scots pine (<i>Pinus sylvestris</i>)	Removed 2020 by City of Vaughan							
212	Scots pine (<i>Pinus sylvestris</i>)	36	3	Good	Extensive grape vine mid-way up stem; single, straight trunk; somewhat asymmetrical; fair crown structure; good health.	\$6,700	Municipal	Protect	
213	black locust (<i>Robinia pseudoacacia</i>)	41, 38, 27	5	Good	Stems joined near ground, not diverging; good crown structure; good health.	-	Municipal	Remove due to proposed building, over dig and access	106
214	black locust (<i>Robinia pseudoacacia</i>)	46.5 & 18	5	Good < Fair	Stems joined near ground; larger stem codominant at approx. 4 m with included bark, upright branches; fair crown structure; good health.	-	Municipal	Remove due to proposed building, over dig and access	64.5

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
215	black locust (<i>Robinia pseudoacacia</i>)	43 & 33	4.5	Good < Fair	Stems codominant near ground with included bark; limited lower branching; good health.	-	Municipal	Remove due to proposed building, over dig and access	76
216	black walnut (<i>Juglans nigra</i>)	40	6	Good	Good structure; good health.	-	Municipal	Remove due to proposed building, over dig and access	40
217	black walnut (<i>Juglans nigra</i>)	58	7	Good < Fair	Codominant stems at approx. 3.5 m with start of included bark; codominant branch above main union with cavity at the union; spreading crown; good health.	-	Municipal	Remove due to proposed building, over dig and access	58
218	black walnut (<i>Juglans nigra</i>)	44	6	Good < Fair	Small cavity to north at pruning wound; somewhat asymmetrical crown; good health.	\$16,000	Municipal	Injure due to proposed fire route, sanitary sewer line, grading and rest area.	
219	black walnut (<i>Juglans nigra</i>)	42	5	Fair > Poor	Single, straight trunk; moderate branch dieback from branch ends; somewhat sparse.	-	Municipal	Remove due to proposed fire route	42
220	black walnut (<i>Juglans nigra</i>)	84	10	Fair	Single, straight stem; spreading crown; moderate branch dieback from ends; some small diameter cavities at pruning wounds.	\$51,100	Municipal	Injure due to proposed fire route, water main and grading.	
221	black walnut (<i>Juglans nigra</i>)	50	6	Fair	Single, straight stem; cohort with adjacent trees; minor dieback from branch ends; somewhat sparse.	\$18,100	Municipal	Injure due to garage demolition.	
222	black walnut (<i>Juglans nigra</i>)	54	9	Good < Fair	Single, straight stem; codominant in upper crown with branches diverging; somewhat sparse canopy.	\$22,600	Municipal	Injure due to garage demolition and walkway.	
223	white cedar (<i>Thuja occidentalis</i>)	26 & 13	4	Fair	Two stems rubbing; exposed roots to the west near base, dead; fair health.	\$3,600	Municipal	Injure due to proposed walkway	

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
224	white cedar (<i>Thuja occidentalis</i>)	21.5 & 15	4	Fair	Codominant at 60 cm; minor trunk lean east; fair health.	\$2,910	Municipal	Injure due to proposed walkway	
225	black walnut (<i>Juglans nigra</i>)	80	9	Good > Fair	Single, straight stem; 40 cm and 30 cm diameter pruning wounds to north with good wound wood; old tearout on east limb with good wound wood; spreading crown; good health.	\$49,600	Municipal	Injure due to proposed walkway	
226	black walnut (<i>Juglans nigra</i>)	58	8	Fair > Poor	Single, straight stem; moderate to extensive branch tip dieback; sparse canopy; multiple pruning wounds with good wound wood.	\$19,100	Municipal	Injure due to garage demolition and walkway.	
227	sugar maple (<i>Acer saccharum</i>)	28	4	Poor	Cavity into main trunk where leader has been removed; codominant leaders formed from lateral branches; good health.	\$5,100	Municipal	Protect	
228	yew (<i>Taxus sp.</i>)	23	3	Good > Fair	Seam on trunk to north with sap emanating; asymmetrical due to proximity to building; good health.	\$3,630	Municipal	Protect	
229	white cedar (<i>Thuja occidentalis</i>)	24	3	Fair	Fair structure; somewhat sparse interior due to shading; good health.	\$2,440	Municipal	Protect	
230	sugar maple (<i>Acer saccharum</i>)	40	7	Fair	Good trunk structure; fair crown structure; somewhat asymmetrical due to Tree 231; good health.	\$12,300	Municipal	Protect	
231	sugar maple (<i>Acer saccharum</i>)	67	12	Fair > Poor	Limited flare to west, likely a girdling root; 10 cm and 20 cm diameter dead branches to west and 5 cm and 10 cm dead branches to north; moderate branch tip dieback; sparse crown.	\$27,300	Municipal	Protect	

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
232	sugar maple (<i>Acer saccharum</i>)	31	2.5	Poor	Extensive dieback; tree in decline.	\$3,750	Municipal	Protect	
233	black walnut (<i>Juglans nigra</i>)	56 & 44	10	Good > Fair	Codominant stems with start of included bark; spreading crown; old tear out on east stem 1/3 circumference with good wound wood; on minor lean to south.	\$42,700	Municipal	Protect	
234	white spruce (<i>Picea glauca</i>)	49	4.5	Poor	Good structure; very sparse crown; 25% live crown.	\$5,900	Municipal	Protect	
235	white spruce (<i>Picea glauca</i>)	29.5	4	Poor	Good structure; very sparse crown; 25% live crown.	beyond scope	Municipal	Protect	
236	black walnut (<i>Juglans nigra</i>)	58	8	Good	Good structure; spreading crown; good health.	\$26,100	Municipal	Protect	
237	black walnut (<i>Juglans nigra</i>)	57	8	Fair	Single, straight trunk spreading crown; limited interior branching; minor dead wood; one 10 cm diameter dead branch.	beyond scope	Municipal	Protect	
238	Norway spruce (<i>Picea abies</i>)	63	5.5	Fair	Single, straight stem; good crown structure; Virginia creeper on stem; somewhat sparse; branching to ground.	beyond scope	Municipal	Protect	
239	black walnut (<i>Juglans nigra</i>)	46	7	Good	Good structure; good health.	beyond scope	Municipal	Protect	
240	black walnut (<i>Juglans nigra</i>)	38	7	Fair	Single, straight trunk; asymmetrical crown; cohort with adjacent trees; good health.	beyond scope	Municipal	Protect	
241	black walnut (<i>Juglans nigra</i>)	42	4.5	Fair	Growing under Tree 239; asymmetrical crown; good health.	beyond scope	Municipal	Protect	

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
242	Norway spruce (<i>Picea abies</i>)	58	5	Good > Fair	Single, straight trunk; good crown structure; branching to near ground; lower crown sparse due to shading; good health.	beyond scope	Municipal	Protect	
243	white spruce (<i>Picea glauca</i>)	24	4	Fair < Poor	Very sparse crown; outcompeted; 40% live crown.	beyond scope	Municipal	Protect	
244	white spruce (<i>Picea glauca</i>)	38	4.5	Fair > Poor	Live crown only at top, lower branches dead; 40% live crown.	beyond scope	Municipal	Protect	
245	white spruce (<i>Picea glauca</i>)	31.5	4	Poor	Very sparse crown; 10% live crown.	beyond scope	Municipal	Protect	
246	white pine (<i>Pinus strobus</i>)	38	5	Poor	Very sparse crown; 10% live crown.	beyond scope	Municipal	Protect	
247	white spruce (<i>Picea glauca</i>)	31	3.5	Poor	Very sparse crown; 25% live crown; dieback from branch tips; in decline.	beyond scope	Municipal	Protect	
248	black walnut (<i>Juglans nigra</i>)	20	4	Good	Good structure; good health.	beyond scope	Municipal	Protect	
249	bur oak (<i>Quercus macrocarpa</i>)	32	5	Fair < Poor	Single, straight trunk; extensive branch dieback.	beyond scope	Municipal	Protect	
250	black walnut (<i>Juglans nigra</i>)	32	5	Fair	Codominant stems at approx. 3.5 m with included bark; fair structure; good health.	beyond scope	Municipal	Protect	
251	black walnut (<i>Juglans nigra</i>)	47	8	Good	Good structure; good health; approx. 30 cm of soil added to east side of trunk.	beyond scope	Municipal	Protect	
252	black walnut (<i>Juglans nigra</i>)	75 & 46	13	Good	Codominant stems at approx. 1 m with included bark; spreading crown; low branching; good health.	beyond scope	Municipal	Protect	
253	black walnut (<i>Juglans nigra</i>)	64	11	Good	Good structure; moderate small diameter dead wood in crown up to 5 cm diameter.	beyond scope	Municipal	Protect	

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
254	black walnut (<i>Juglans nigra</i>)	52	9	Good	Single, straight trunk; somewhat asymmetrical due to Tree 253; minor branch dieback in upper crown.	beyond scope	Municipal	Protect	
255	black walnut (<i>Juglans nigra</i>)	28 & 20	6	Fair	Codominant from near ground; on slope; codominant branches on larger stem; 10 cm diameter branch failed; good health.	beyond scope	Municipal	Protect	
256	white cedar (<i>Thuja occidentalis</i>)	31, 26, 23	5.5	Fair	Six stems in total, joined near ground; low branching; top somewhat sparse; good health.	beyond scope	Municipal	Protect	
257	Austrian pine (<i>Pinus nigra</i>)	31	2.5	Poor	Codominant mid trunk with poor aspect ratio and included bark; extensive Virginia creeper mid-way on trunk; sparse crown.	beyond scope	Municipal	Protect	
258	white spruce (<i>Picea glauca</i>)	41	4.5	Good	Single, straight stem; good structure; fair health; Virginia creeper in crown.	beyond scope	Municipal	Protect	
259	tamarack (<i>Larix laricina</i>)	29	3.5	Good < Fair	Single, straight trunk; good crown structure; grape vine in crown; minor dead wood from branch tips.	beyond scope	Municipal	Protect	
260	black locust (<i>Robinia pseudoacacia</i>)	41, 33, 26	6	Good	Narrow angle between stems, stems upright, not diverging; good structure; good health.	beyond scope	Municipal	Protect	
261	black locust (<i>Robinia pseudoacacia</i>)	22	4	Good	Poor flare to west; good crown structure; good health.	beyond scope	Municipal	Protect	
262	basswood (<i>Tilia americana</i>)	23.5, 20, 16	5	Good	Five stems in total from ground level; good health.	beyond scope	Municipal	Protect	

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
263	sugar maple (<i>Acer saccharum</i>)	32.5	5	Poor	Leader dead; crown dieback with lower limbs forming crown; in decline.	beyond scope	Municipal	Protect	
264	American elm (<i>Ulmus americana</i>)	22	4	Good	Good structure; good health.	beyond scope	Municipal	Protect	
265	black locust (<i>Robinia pseudoacacia</i>)	26, 25, 20	6	Good > Fair	Three stems joined from ground, somewhat diverging; good crown structure; good health.	beyond scope	Municipal	Protect	
266	black locust (<i>Robinia pseudoacacia</i>)	22.5	4	Good	Single, straight trunk; somewhat asymmetrical crown ; good health.	beyond scope	Municipal	Protect	
267	white spruce (<i>Picea glauca</i>)	21	3	Fair	Extensive Virginia creeper in crown; lower crown dead.	beyond scope	Municipal	Protect	
268	black walnut (<i>Juglans nigra</i>)	44	6	Fair < Poor	Single, straight trunk; branch dieback from ends to north; top dead; small cavity in trunk at pruning wound; old small diameter pruning wounds with good wound wood and recent 5 & 10 cm diameter pruning wounds with poor wound wood.	\$7,200	Municipal	Injure due to proposed walkway	
269	black walnut (<i>Juglans nigra</i>)	47	5	Fair > Poor	Bend mid-trunk; moderated dieback at branch ends.	\$10,300	Municipal	Protect	
270	black walnut (<i>Juglans nigra</i>)	44	5	Fair < Poor	Single, straight trunk; codominant branches mid-trunk; longitudinal wound on south stem, almost length of stem; dieback from top.	\$9,000	Municipal	Protect	
271	black walnut (<i>Juglans nigra</i>)	52	7	Good	Single, straight trunk; good crown structure; spreading canopy; minor dead wood.	\$25,600	Municipal	Protect	

Tree #	Species	DBH	Crown Radius /TPZ	Condition Rating	Observations	Appraised Value	Location	Action	Replacement (cm)
272	black walnut (<i>Juglans nigra</i>)	76	7.6	Fair > Poor (York Region Rating: Satisfactory > Potential trouble)	40 cm ø old pruning wound to east at approx. 1 m mark; diverging main limbs with a fair union; 30 cm ø cavity to north with start of decay into trunk, just above union; 20 cm ø cavity below union with inner wood exposed; extensive grape vine in crown.	-	York Region Right of Way	Injure due to construction access road and culvert work	
273	black locust (<i>Robinia pseudoacacia</i>)	10, 8, 5	2.4	Fair > Poor (York Region Rating: Satisfactory > Potential trouble)	3 suckers emanating from cut stump; cohort with adjacent tree; good health.	-	York Region Right of Way	Protect	
274	black locust (<i>Robinia pseudoacacia</i>)	12	2.4	Fair > Poor (York Region Rating: Satisfactory > Potential trouble)	Acute bend in trunk at base, self-correcting; good health.	-	York Region Right of Way	Protect	

Appendix III - Tree Protection Plan
Attached

Tree Inventory, truncated

Tree #: Invented trees were assigned an identification number and tagged with metal number-punched tags.
 Species: Includes the botanical name and common name of each tree.
 DBH: Diameter in cm measured at 1.4
 Crown Radius/TPZ: Drip line radius from stem to farthest branch in meters. For York Region trees, TPZ is provided based on York Region's Tree Protection Zone formula.
 Location: Private subject site; private adjacent; municipal; or York Region.
 Action: Protect, injure or remove recommendations based on the site plans, and other

Tree #	Species	DBH	Crown Radius / TPZ	Location	Action
201	black walnut (Juglans nigra)	69	9	Municipal	Remove due to conflict with proposed fire route, water main.
202	black walnut (Juglans nigra)	20	4	Municipal	Remove due to conflict with proposed fire route and garbage storage.
203	Scots pine (Pinus sylvestris)	40	5	Municipal	Injure due to proposed building, over dig and access.
204	Scots pine (Pinus sylvestris)	37	4	Municipal	Injure due to proposed building, over dig and access.
205	Scots pine (Pinus sylvestris)	31 & 27	4	Municipal	Injure due to proposed building, over dig and access.
206	black walnut (Juglans nigra)	75	6	Municipal	Injure due to proposed building, over dig and access.
207	Scots pine (Pinus sylvestris)	24	3	Municipal	Protect
208	black walnut (Juglans nigra)	70	7	Municipal	Injure due to proposed building, over dig and access.
209	Scots pine (Pinus sylvestris)	40	4	Municipal	Injure due to proposed building site access.
210	Scots pine (Pinus sylvestris)			Removed 2020 by City of Vaughan	
211	Scots pine (Pinus sylvestris)			Removed 2020 by City of Vaughan	
212	Scots pine (Pinus sylvestris)	36	3	Municipal	Protect
213	black locust (Robinia pseudoacacia)	41, 38, 27	5	Municipal	Remove due to proposed building, over dig and access.
214	black locust (Robinia pseudoacacia)	46.5 & 18	5	Municipal	Remove due to proposed building, over dig and access.
215	black locust (Robinia pseudoacacia)	43 & 33	4.5	Municipal	Remove due to proposed building, over dig and access.
216	black walnut (Juglans nigra)	40	6	Municipal	Remove due to proposed building, over dig and access.
217	black walnut (Juglans nigra)	58	7	Municipal	Remove due to proposed building, over dig and access.
218	black walnut (Juglans nigra)	44	6	Municipal	Injure due to proposed fire route, sanitary sewer line, grading and rest area.
219	black walnut (Juglans nigra)	42	5	Municipal	Remove due to proposed fire route.
220	black walnut (Juglans nigra)	84	10	Municipal	Injure due to proposed fire route, water main and grading.
221	black walnut (Juglans nigra)	50	6	Municipal	Injure due to garage demolition and walkway.
222	black walnut (Juglans nigra)	54	9	Municipal	Injure due to garage demolition and walkway.
223	white cedar (Thuja occidentalis)	26 & 13	4	Municipal	Injure due to proposed walkway.
224	white cedar (Thuja occidentalis)	21.5 & 15	4	Municipal	Injure due to proposed walkway.
225	black walnut (Juglans nigra)	80	9	Municipal	Injure due to proposed walkway.
226	black walnut (Juglans nigra)	58	8	Municipal	Injure due to garage demolition and walkway.
227	sugar maple (Acer saccharum)	28	4	Municipal	Protect
228	yew (Taxus sp.)	23	3	Municipal	Protect
229	white cedar (Thuja occidentalis)	24	3	Municipal	Protect
230	sugar maple (Acer saccharum)	40	7	Municipal	Protect
231	sugar maple (Acer saccharum)	67	12	Municipal	Protect
232	sugar maple (Acer saccharum)	31	2.5	Municipal	Protect
233	black walnut (Juglans nigra)	56 & 44	10	Municipal	Protect
234	white spruce (Picea glauca)	49	4.5	Municipal	Protect
235	white spruce (Picea glauca)	29.5	4	Municipal	Protect
236	black walnut (Juglans nigra)	58	8	Municipal	Protect
237	black walnut (Juglans nigra)	57	8	Municipal	Protect
238	Norway spruce (Picea abies)	63	5.5	Municipal	Protect
239	black walnut (Juglans nigra)	46	7	Municipal	Protect
240	black walnut (Juglans nigra)	38	7	Municipal	Protect
241	black walnut (Juglans nigra)	42	4.5	Municipal	Protect
242	Norway spruce (Picea abies)	58	5	Municipal	Protect
243	white spruce (Picea glauca)	24	4	Municipal	Protect
244	white spruce (Picea glauca)	38	4.5	Municipal	Protect
245	white spruce (Picea glauca)	31.5	4	Municipal	Protect
246	white pine (Pinus strobus)	38	5	Municipal	Protect
247	white spruce (Picea glauca)	31	3.5	Municipal	Protect
248	black walnut (Juglans nigra)	20	4	Municipal	Protect
249	bur oak (Quercus macrocarpa)	32	5	Municipal	Protect
250	black walnut (Juglans nigra)	32	5	Municipal	Protect
251	black walnut (Juglans nigra)	47	8	Municipal	Protect
252	black walnut (Juglans nigra)	75 & 46	13	Municipal	Protect
253	black walnut (Juglans nigra)	64	11	Municipal	Protect
254	black walnut (Juglans nigra)	52	9	Municipal	Protect
255	black walnut (Juglans nigra)	28 & 20	6	Municipal	Protect
256	white cedar (Thuja occidentalis)	31, 26, 23	5.5	Municipal	Protect

Tree Protection Notes (TPN)

TPN 1. Root Sensitive Excavation

1.1 Root sensitive excavation methods under arborist supervision must be used where indicated on this site plan. Additional details including the depth of the root sensitive excavations are provided in the arborist report. A summary of root sensitive excavation is as follows:

Tree Number	Proposed Work
203-206, 208, 209	Over dig excavation for new building and site access.
218 and 220	Fire route installation, water main installation, sanitary sewer line installation, building entrance walkway.
221, 222, 223	Removal of below-ground portion of existing garage, installation of asphalt walkway from parking lot.
224, 225, 226, 268	Installation of asphalt walkways.
272	Construction access route from Mulock Dr., replacement of existing culvert with drainage ditch.

1.2 If roots are deemed insignificant to long-term health or stability of the tree, they may be cleanly pruned by the arborist.

1.3 If significant roots are encountered, the plan may need to change to protect or remove these trees, subject to review by the Town of Newmarket and York Region.

1.4 Root sensitive excavation pertaining to the new building construction, fire route, and construction access are to be performed prior to the start of construction.

TPN 2. Pruning

2.1 Trees 203, 206 and 208 may require pruning to accommodate the construction of the new building and for construction access. Tree 220 will require pruning for the 5 m clearance required above the fire route.

2.2 All pruning must be completed prior to construction to avoid branch tearing during construction.

2.3 Pruning must be performed by a Certified arborist and according to good arboricultural practices.

TPN 3. Tree protection barriers

3.1 Tree protection barriers must be installed as shown on this plan. Barriers located within the York Region right of way (T# 272, 273, and 274) must be constructed as per Detail NHF-400 and NHF-401, constructed of snow fencing on a 2X4 frame. All other tree protection barriers are to be constructed as per the Town of Newmarket Detail.

3.2 Construction access, disturbance, or staging is not permitted inside of tree protection barriers. At no point is machinery to drive on bare soil within the drip lines of protected trees.

3.3 It is the responsibility of the site supervisor to ensure tree protection barriers are maintained in good condition. Failure to comply with approved tree protection measures may result in penalties. A review of the installed barriers by the Town prior to the start and at the completion of work on the site is required.

TPN 4. Grading inside Drip Lines

4.1 Any grading required inside of the drip lines of trees (T# 218, 220) must be carried out by hand under the supervision of a Certified arborist. Due to the height and slope of the fire route, raising the grade (between 10-20 cm) is proposed between the east side of the fire route and below the drip lines of these trees.

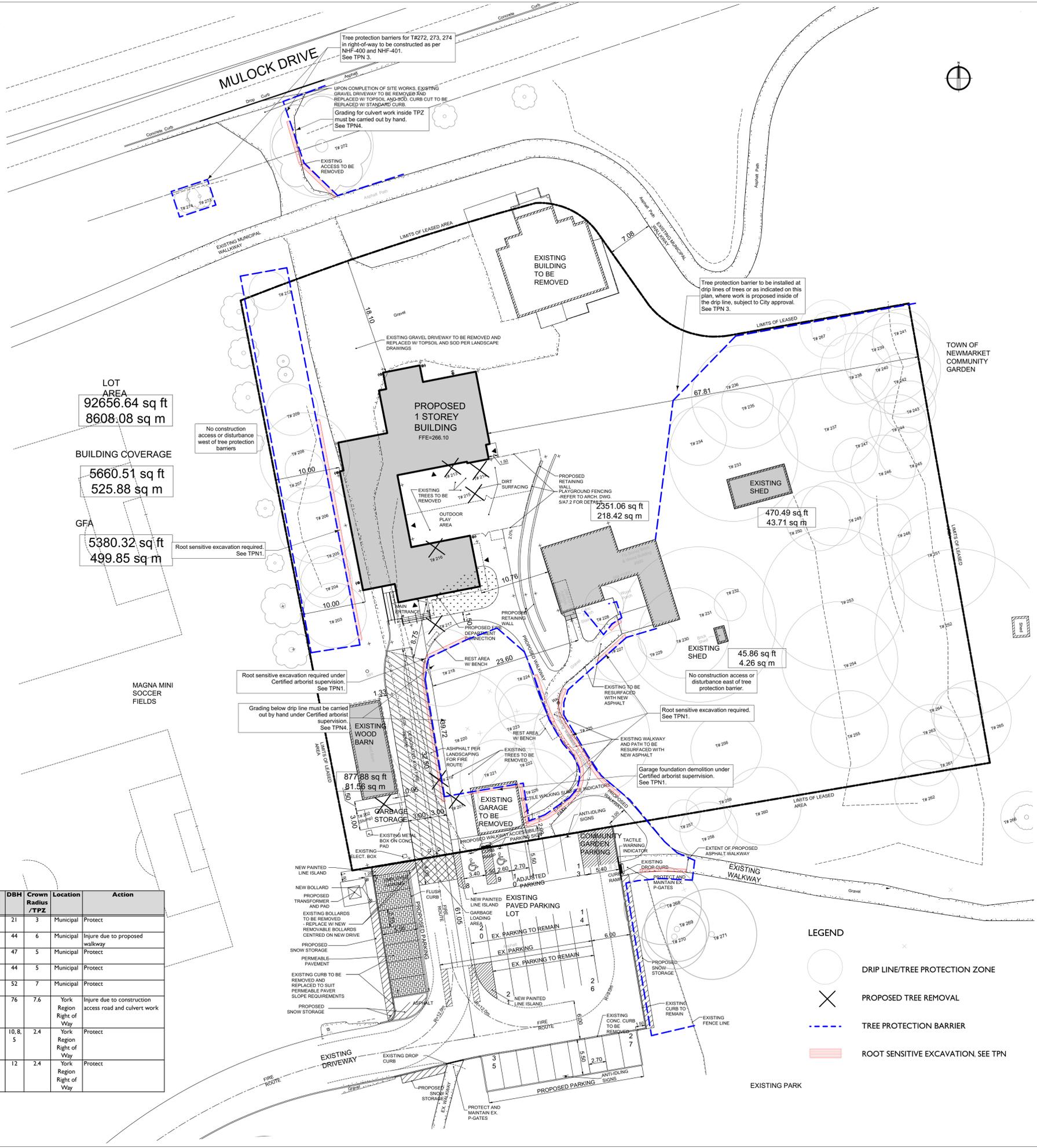
4.2 The culvert work inside the TPZ of #272 must be carried out by hand under arborist supervision. Tree roots are to be accommodated during this work to avoid compromising the stability of the tree.

TPN 5. Tree Monitoring and Maintenance

5.1 Tree monitoring and maintenance are required on this site. Refer to the Arborist Report for details, including weekly watering (may be automated) and installation of wood chip mulch.

Tree #	Species	DBH	Crown Radius / TPZ	Location	Action
257	Austrian pine (Pinus nigra)	31	2.5	Municipal	Protect
258	white spruce (Picea glauca)	41	4.5	Municipal	Protect
259	tamarack (Larix laricina)	29	3.5	Municipal	Protect
260	black locust (Robinia pseudoacacia)	41, 33, 26	6	Municipal	Protect
261	black locust (Robinia pseudoacacia)	22	4	Municipal	Protect
262	basswood (Tilia americana)	23.5, 20, 16	5	Municipal	Protect
263	sugar maple (Acer saccharum)	32.5	5	Municipal	Protect
264	American elm (Ulmus americana)	22	4	Municipal	Protect
265	black locust (Robinia pseudoacacia)	26, 25, 20	6	Municipal	Protect
266	black locust (Robinia pseudoacacia)	22.5	4	Municipal	Protect

Tree #	Species	DBH	Crown Radius / TPZ	Location	Action
267	white spruce (Picea glauca)	21	3	Municipal	Protect
268	black walnut (Juglans nigra)	44	6	Municipal	Injure due to proposed walkway
269	black walnut (Juglans nigra)	47	5	Municipal	Protect
270	black walnut (Juglans nigra)	44	5	Municipal	Protect
271	black walnut (Juglans nigra)	52	7	Municipal	Protect
272	black walnut (Juglans nigra)	76	7.6	York Region Right of Way	Injure due to construction access road and culvert work
273	black locust (Robinia pseudoacacia)	10.8, 5	2.4	York Region Right of Way	Protect
274	black locust (Robinia pseudoacacia)	12	2.4	York Region Right of Way	Protect



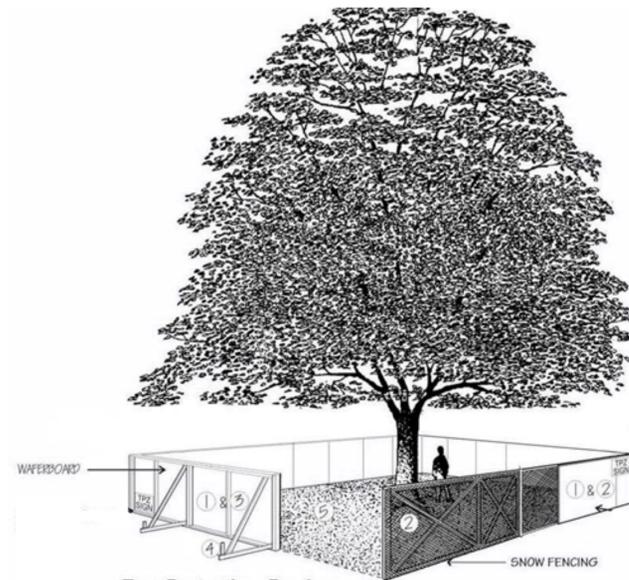
GENERAL NOTES

- This plan is to be read in conjunction with the arborist report prepared by Bruce Tree Expert Company Ltd. dated Nov. 27 2020.
- Bruce Tree Expert Company Ltd. provided the tree protection comments and icons for Trees 268-271 AND 274 (locations field measured). All other information was provided on a site plan prepared by 4 Architecture Inc. dated Nov. 19, 2020 and based on a survey prepared by Lloyd & Purcell dated September 2019. Reference made to Site Servicing and Grading Plans prepared by Counterpoint Engineering Inc. dated Mar. 5 2020.

5	Nov 27 2020
4	Jun 8 2020
3	Jun 1 2020
2	Mar 10 2020
1	Oct 10 2019
Ns.	DATE

Bruce Tree Expert Company Ltd.
 1-1750 The Queensway, Suite 1329
 Toronto, ON M9C 5H5
 p. 416.252.8769 f. 416.252.4574
 e. contact@bruce.com www.bruce.com

TITLE
TREE PROTECTION PLAN
 SITE
605 Fernbank Rd., Newmarket
 Brec File | 1155-3952 SCALE 1:300
 SHEET 1/2



Tree Protection Barriers

- ① Tree protection barriers must be 1.2m (4ft) high, waferboard hoarding or an equivalent
- ② Tree protection barriers for trees situated on the Town road allowance where visibility must be maintained can be 1.2m (4ft.) high and consist of plastic web snow fencing on a wood frame made of 2"x 4"s .
- ③ Where some excavate or fill has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the Tree Protection Zone.
- ④ All supports and bracing should be outside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.
- ⑤ No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

Town of Newmarket Tree Protection Barrier Detail

STAKE DETAIL

WOODEN STAKE
WOOD SCREWS
125 MM MINIMUM

NOTES:

1. REFER TO YORK REGION STREET TREE & FOREST PRESERVATION AND COMPENSATION GUIDELINES FOR COMPLETE TREE PRESERVATION REQUIREMENTS.
2. TREE PROTECTION ZONE (TPZ) BARRIER SHALL BE INSTALLED AT THE OUTER LIMIT OF THE MINIMUM REQUIRED TPZ FOR EACH TREE TO BE PRESERVED.
3. TPZ IS DELINEATED AS A RADIUS, IN METRES, MEASURED OUTWARD FROM THE BASE OF THE TREE TO BE PROTECTED. THE TPZ RADIUS IS DETERMINED BASED UPON THE DIAMETER AT BREAST HEIGHT (DBH) OF THE TREE'S MAIN STEM. FOR MULTI-STEMMED TREES, THE DIAMETER AT BREAST HEIGHT (DBH) OF THE LARGEST-DBH STEM IS USED TO DETERMINE THE TPZ RADIUS. THE TPZ FOR ALL TREES 24 CM DBH OR LESS IS A MINIMUM OF 2.4 M. THE TPZ FOR TREES 25 CM OR GREATER IS 10 CM FOR EVERY CENTIMETRE OF DBH.
4. TPZ BARRIERS SHALL PROTECT CONTIGUOUS GROUPS OF TREES WHEREVER POSSIBLE.
5. TPZ BARRIERS SHALL BE ESTABLISHED, INSPECTED, AND APPROVED BY YORK REGION OR ITS DESIGNATE PRIOR TO THE COMMENCEMENT OF ANY SITE DISTURBANCE.
6. TPZ BARRIERS SHALL BE INSPECTED WEEKLY AND BE MAINTAINED IN GOOD WORKING ORDER AND APPEARANCE UNTIL COMPLETION OF ALL SITE WORKS.

PLAN VIEW

TREE PROTECTION ZONE (TPZ) BARRIER
TREE
MINIMUM REQUIRED TREE PROTECTION ZONE (TPZ)

ENVIRONMENTAL SERVICES

York Region

TREE PROTECTION ZONE (TPZ) BARRIER

DATE: _____ SCALE: N.T.S.

REV. _____ **NHF - 400**

CROSS BRACE
MINIMUM ONE STAKED SUPPORT LEG PER 2400 MM, OR FRAME SECTION (SEE STAKE DETAIL)
MINIMUM 3/8" PLYWOOD (SOLID HOARDING TYPE) ATTACHED WITH WOOD SCREWS
WOOD FRAME 2"x4"s
1200 MM MINIMUM
ORANGE CONSTRUCTION SAFETY FENCING (FRAMED CONSTRUCTION FENCING TYPE) ATTACHED WITH STAPLES
SIGNAGE (REFER TO DRAWING NHF - 401)
2400 MM MAXIMUM

TREE PROTECTION ZONE (TPZ)

GRADE CHANGE
DUMPING
STORAGE
UNAUTHORIZED ENTRY
TREE INJURY OR REMOVAL
DISTURBANCE OF ANY KIND

York Region

ARE STRICTLY PROHIBITED WITHIN THIS TPZ

THIS BARRIER SHALL NOT BE DAMAGED OR MOVED

PLEASE REPORT ANY ENTRY INTO THIS ZONE TO:
Access York -
1-877-464-9675 ext. 73000
accessyork@york.ca

MIN. 400 MM
MIN. 600 MM

ENVIRONMENTAL SERVICES

York Region

TREE PROTECTION ZONE (TPZ) SIGNAGE

DATE: _____ SCALE: N.T.S.

REV. _____ **NHF - 401**

GENERAL NOTES

1. This plan is to be read in conjunction with the arborist report prepared by Bruce Tree Expert Company Ltd. dated Nov. 27 2020
2. Bruce Tree Expert Company Ltd. provided the tree protection comments and icons for Trees 268-271 AND 274 (locations field measured). All other information was provided on a site plan prepared by 4 Architecture Inc. dated Nov. 19, 2020 and based on a survey prepared by Lloyd & Purcell dated September 2019. Reference made to Site Servicing and Grading Plans prepared by Counterpoint Engineering Inc. dated Mar. 5 2020.

5	Nov. 27 2020
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No.	DATE

Bruce Tree Expert Company Ltd.



TITLE
TREE PROTECTION PLAN

SITE
605 Fernbank Rd.
Newmarket

Brec FILE 1155-3952 SCALE 1:300

SHEET 2/2

TPP-2

Appendix IV – Assumptions and Limiting Conditions

1. Care has been taken to obtain information pertinent to this file from reliable sources - and to the degree reasonably possible - to verify the information as an accurate representation of the facts. However, Bruce Tree Expert Company Ltd. can neither guarantee nor be responsible for the accuracy of information provided by others.
2. Unless expressed otherwise:
 - a. this report relies on information supplied or available from the client or their agent or other sources and/or information gained by Bruce Tree including but not necessarily limited to internet searches, literature review, site visits, meetings, assessments, testing;
 - b. site/tree inspections and assessments were made using commonly recognized arboricultural techniques reasonable for the scope of work for which Bruce Tree was retained;
 - c. tree inspection and assessment was limited to external visual examination from ground level (unless specified, climbing, dissection, probing, increment boring or resistograph testing, sonic tomography or pull testing, detailed exploratory root excavation or examination was not done);
 - d. access for tree inspection was limited to that authorized by the client (no unauthorized trespass occurred);
 - e. Trees are living organisms subject to genetics and factors related to their immediate environment and despite reasonable efforts to accurately represent the condition of trees as outlined in this report, Bruce Tree will not warranty or guarantee (expressed or implied), that problems or deficiencies with the tree(s) or any parts thereof will not arise in the future;
 - f. Bruce Tree staff is not qualified to make a legal determination of ownership of any tree where the position of the tree relative to the closest property line(s) leaves ownership in question.
3. It is the responsibility of the landowner to ensure that their tree(s) are inspected and assessed periodically to ensure that the tree(s) do not pose any unreasonable risk to visitors or passersby or their property.
4. This report and any information expressed herein represents the opinion of the Bruce Tree author and the payment of fees and expenses by the client are in no way contingent upon any pre-requisite objective implied by the client.
5. Unless otherwise required by law, possession of this report or a copy does not imply right of publication or use for any purpose in whole or in part, by any other than the person who retained Bruce Tree (the client) or their authorized agent or representative, without the prior written consent of the client, their authorized agent or representative.
6. Excerpting from or altering the report - without the written authorization of the Bruce Tree author or senior staff - invalidates its intent and/or implied conclusions. This report may not be used for any expressed purpose other than that originally stated in "Introduction" of this report.

Bf-c-assumptions and limiting conditions-12-17-2017

Appendix V – Appraised Value Calculations
Attached

Address: 605 Fernbank Rd., Newmarket

TREE 203

Field Observations:

1 Species	Scots pine
2 Condition (see Guide to judging plant conditions)	40% poor
3a Trunk Circumference	in ² /cm ²
3b Diameter	40 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreaks, aesthetic
4c Site Placement	80% windbreak, screening
4d Location% (#4a + #4b + #4c)/3 =	<u>87%</u>

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

5 Species Rating	53%
6a Replacement Tree Size (diameter)	10 cm
6b Trunk Area	78.5 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 485.00
8 Installation Cost	\$ 1,212.50 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 1,697.50</u>
10 Unit Tree Cost	\$ 21.62 <u>per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	1600 x0.785
11c TA _A or ATA _A	<u>1256 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	1177.5 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	\$ 27,160.00 in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	\$ 4,990.20
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 4,990.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 204

Field Observations:

1 Species	Scots pine
2 Condition (see Guide to judging plant conditions)	80% excellent-good
3a Trunk Circumference	in ² /cm ²
3b Diameter	37 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreaks, aesthetic
4c Site Placement	80% windbreak, screen
4d Location% (#4a + #4b + #4c)/3 =	<u>87%</u>

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

5 Species Rating	53%
6a Replacement Tree Size (diameter)	10 cm
6b Trunk Area	78.5 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 485.00
8 Installation Cost	\$ 1,212.50 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 1,697.50</u>
10 Unit Tree Cost	<u>\$ 21.62 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b)	<u>1369 x0.785</u>
11c TA _A or ATA _A	<u>1074.665 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	996.165 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 23,238.78 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 8,539.48</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 8,500.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 205

Field Observations:

1 Species	Scots pine
2 Condition (see Guide to judging plant conditions)	80% good
3a Trunk Circumference	in ² /cm ²
3b Diameter - stem 1	31 cm
3b Diameter - stem 2	27 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreaks, aesthetic
4c Site Placement	80% windbreak, screen
4d Location% (#4a + #4b + #4c)/3 =	87%

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

5 Species Rating	53%
6a Replacement Tree Size (diameter)	10 cm
6b Trunk Area	78.5 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 485.00
8 Installation Cost	\$ 1,212.50 x 2.5
9 Total Installed Tree Cost (#7 + #8)	\$ 1,697.50
10 Unit Tree Cost	\$ 21.62 per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b) - stem 1	961 x0.785
11b or d ² (#3b) - stem 2	729 x0.785
11c TA _A or ATA _A	1326.65 in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	1248.15 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	\$ 28,687.75 in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	\$ 10,541.79
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	\$ 10,500.00

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost**, the **Retail Replacement Tree Cost**, or the **Installed Tree Cost** (#9) divided by the **Replacement Tree Size** (#6) can be used for the **Unit Tree Cost** (#10), or it can be set by the Regional Plant Appraisal Committee.

Address: 605 Fernbank Rd., Newmarket

TREE 206

Field Observations:

1 Species	black walnut
2 Condition (see Guide to judging plant conditions)	90% good
3a Trunk Circumference	in ² /cm ²
3b Diameter	75 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreaks, aesthetic
4c Site Placement	80% windbreak, screen
4d Location% (#4a + #4b + #4c)/3 =	<u>87%</u>

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

5 Species Rating	67%
6a Replacement Tree Size (diameter)	7 cm
6b Trunk Area	38.465 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 240.00
8 Installation Cost	\$ 600.00 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	5625 x0.785
11c TA _A or ATA _A	<u>4415.625 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	4377.16 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 96,428.57 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 50,393.57</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 50,400.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 207

Field Observations:

1 Species	<u>Scots pine</u>
2 Condition (see Guide to judging plant conditions)	<u>50% fair - poor</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>24 cm</u>
4a Site Position	<u>90% municipal, parkland</u>
4b Site Contribution	<u>90% windbreaks, aesthetic</u>
4c Site Placement	<u>80% windbreak, screen</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>87%</u></u>

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

5 Species Rating	<u>53%</u>
6a Replacement Tree Size (diameter)	<u>9 cm</u>
6b Trunk Area	<u>63.585 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 391.67</u>
8 Installation Cost	<u>\$ 979.18</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u><u>\$ 1,370.85</u></u>
10 Unit Tree Cost	<u>\$ 21.56</u> per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b)	<u>576 x0.785</u>
11c TA _A or ATA _A	<u><u>452.16</u></u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	<u>388.575</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 9,748.23</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 2,238.84</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 2,340.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 208

Field Observations:

1 Species	black walnut
2 Condition (see Guide to judging plant conditions)	90% good
3a Trunk Circumference	in ² /cm ²
3b Diameter	70 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreaks, aesthetic
4c Site Placement	80% windbreak, screen
4d Location% (#4a + #4b + #4c)/3 =	<u>87%</u>

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

5 Species Rating	67%
6a Replacement Tree Size (diameter)	7 cm
6b Trunk Area	38.465 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 240.00
8 Installation Cost	\$ 600.00 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	4900 x0.785
11c TA _A or ATA _A	<u>3846.5 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	3808.035 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 84,000.00 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 43,898.40</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 43,900.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 209

Field Observations:

1 Species	Scots pine
2 Condition (see Guide to judging plant conditions)	63% fair
3a Trunk Circumference	in ² /cm ²
3b Diameter	40 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreaks, aesthetic
4c Site Placement	80% windbreak, screen
4d Location% (#4a + #4b + #4c)/3 =	<u>87%</u>

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

5 Species Rating	53%
6a Replacement Tree Size (diameter)	10 cm
6b Trunk Area	78.5 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 485.00
8 Installation Cost	\$ 1,212.50 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 1,697.50</u>
10 Unit Tree Cost	\$ 21.62 per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	1600 x0.785
11c TA _A or ATA _A	<u>1256 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	1177.5 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	\$ 27,160.00 in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 7,859.56</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 7,900.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 212

Field Observations:

1 Species	Scots pine
2 Condition (see Guide to judging plant conditions)	80% good
3a Trunk Circumference	in ² /cm ²
3b Diameter	36 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	63% framing views
4c Site Placement	63% well-spaced planting
4d Location% (#4a + #4b + #4c)/3 =	<u>72%</u>

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

5 Species Rating	53%
6a Replacement Tree Size (diameter)	10 cm
6b Trunk Area	78.5 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 485.00
8 Installation Cost	\$ 1,212.50 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 1,697.50</u>
10 Unit Tree Cost	\$ 21.62 per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	1296 x0.785
11c TA _A or ATA _A	<u>1017.36 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	938.86 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	\$ 21,999.60 in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	\$ 6,716.04
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 6,700.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 218

Field Observations:

1 Species	black walnut
2 Condition (see Guide to judging plant conditions)	80% fair>good
3a Trunk Circumference	in ² /cm ²
3b Diameter	44 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreaks, aesthetic
4c Site Placement	90% considerable element
4d Location% (#4a + #4b + #4c)/3 =	<u>90%</u>

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

5 Species Rating	67%
6a Replacement Tree Size (diameter)	7 cm
6b Trunk Area	38.465 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 240.00
8 Installation Cost	\$ 600.00 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	1936 x0.785
11c TA _A or ATA _A	<u>1519.76 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	1481.295 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 33,188.57 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 16,010.17</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 16,000.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 220

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>70% fair</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>84 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>90% shade-cooling, air filtration</u>
4c Site Placement	<u>90% considerable element</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>90%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacement Tree Size (diameter)	<u>7 cm</u>
6b Trunk Area	<u>38.465 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u>7056</u> x0.785
11c TA _A or ATA _A	<u><u>5538.96</u></u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>5500.495</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 120,960.00</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4	<u>\$ 51,057.22</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 51,100.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 221

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>70% fair</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>50 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>90% shade-cooling, air filtration</u>
4c Site Placement	<u>90% considerable element, screen</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>90%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacement Tree Size (diameter)	<u>7 cm</u>
6b Trunk Area	<u>38.465 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u><u>\$ 840.00</u></u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u>2500</u> x0.785
11c TA _A or ATA _A	<u><u>1962.5</u></u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>1924.035</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 42,857.14</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 18,090.00</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 18,100.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 222

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>75% fair</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>54 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>90% shade-cooling, air filtration</u>
4c Site Placement	<u>90% considerable element, screen</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>90%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacement Tree Size (diameter)	<u>7 cm</u>
6b Trunk Area	<u>38.465 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u>2916</u> x0.785
11c TA _A or ATA _A	<u><u>2289.06</u></u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>2250.595</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 49,988.57</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 22,607.33</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 22,600.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 224

Field Observations:

1 Species	<u>white cedar</u>
Condition (see Guide to judging plant conditions)	<u>63% fair</u>
2 conditions)	<u>in²/cm²</u>
3a Trunk Circumference	<u>21.5 cm</u>
3b Diameter - stem 1	<u>15 cm</u>
3b Diameter - stem 2	<u>90% parkland/greenspace</u>
4a Site Position	<u>63% accent, space definition</u>
4b Site Contribution	<u>63% moderately-spaced planting</u>
4c Site Placement	<u>72%</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>72%</u></u>

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

5 Species Rating	<u>72%</u>
6a Replacment Tree Size (diameter)	<u>9 cm</u>
6b Trunk Area	<u>63.585 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 300.00</u> 6mm
8 Installation Cost	<u>\$ 750.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 1,050.00</u>
10 Unit Tree Cost	<u>\$ 16.51 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b) - stem 1	<u>462.25 x0.785</u>
11b or d ² (#3b) - stem 2	<u>225 x0.785</u>
11c TA _A or ATA _A (2 stems)	<u><u>539.49125 in²/cm²</u></u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#1	<u>475.90625 in²/cm²</u>
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 8,908.80 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x	<u>\$ 2,909.54</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest	<u>\$ 2,910.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 225

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>75%</u> good to fair
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>80</u> cm
4a Site Position	<u>90%</u> parkland/greenspace
4b Site Contribution	<u>90%</u> shade-cooling, air filtration
4c Site Placement	<u>90%</u> considerable element
4d Location% (#4a + #4b + #4c)/3 =	<u><u>90%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacement Tree Size (diameter)	<u>7</u> cm
6b Trunk Area	<u>38.465</u> cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84</u> per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u>6400</u> x0.785
11c TA _A or ATA _A	<u><u>5024</u></u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>4985.535</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 109,714.29</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 49,618.29</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 49,600.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 226

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>55% fair</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>58 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>90% shade-cooling, air filtration</u>
4c Site Placement	<u>90% considerable element, screen</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>90%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacement Tree Size (diameter)	<u>7 cm</u>
6b Trunk Area	<u>38.465 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u> </u> x0.785
11c TA _A or ATA _A	<u><u>2640.74 in²/cm²</u></u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>2602.275 in²/cm²</u>
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 57,668.57 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 19,125.78</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 19,100.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 227

Field Observations:

1 Species	<u>sugar maple</u>
2 Condition (see Guide to judging plant conditions)	<u>50% poor</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>28 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>90% shade-cooling, air filtration</u>
4c Site Placement	<u>80% well placed, maximum benefit</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>87%</u></u>

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

5 Species Rating	<u>78%</u>
6a Replacement Tree Size (diameter)	<u>10 cm</u>
6b Trunk Area	<u>78.5 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 550.00</u>
8 Installation Cost	<u>\$ 1,375.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u><u>\$ 1,925.00</u></u>
10 Unit Tree Cost	<u>\$ 24.52 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b)	<u>784 x0.785</u>
11c TA _A or ATA _A	<u><u>615.44 in²/cm²</u></u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>536.94 in²/cm²</u>
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 15,092.00 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 5,101.10</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 5,100.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 228

Field Observations:

1 Species	yew
2 Condition (see Guide to judging plant conditions)	50% poor
3a Trunk Circumference	in ² /cm ²
3b Diameter	28 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	75% space definition
4c Site Placement	50% infrastructure conflict
4d Location% (#4a + #4b + #4c)/3 =	<u>72%</u>

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

5 Species Rating	71%
6a Replacement Tree Size (diameter)	5 cm
6b Trunk Area	19.625 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 130.00
8 Installation Cost	\$ 325.00 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 455.00</u>
10 Unit Tree Cost	\$ 23.18 per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	784 x0.785
11c TA _A or ATA _A	<u>615.44 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	595.815 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 14,268.80 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4	<u>\$ 3,630.22</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 3,630.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 230

Field Observations:

1 Species	<u>sugar maple</u>
2 Condition (see Guide to judging plant conditions)	<u>63% fair</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>40 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>90% shade-cooling, air filtration</u>
4c Site Placement	<u>63% infrastructure conflict</u>
4d Location% (#4a + #4b + #4c)/3 =	<u>81%</u>

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

5 Species Rating	<u>78%</u>
6a Replacement Tree Size (diameter)	<u>10 cm</u>
6b Trunk Area	<u>78.5 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 550.00</u>
8 Installation Cost	<u>\$ 1,375.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 1,925.00</u>
10 Unit Tree Cost	<u>\$ 24.52 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u>1600</u> x0.785
11c TA _A or ATA _A	<u> </u> <u>1256 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	<u>1177.5 in²/cm²</u>
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 30,800.00 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 12,259.45</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 12,300.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 231

Field Observations:

1 Species	<u>sugar maple</u>
2 Condition (see Guide to judging plant conditions)	<u>50%</u> fair to poor
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>67</u> cm
4a Site Position	<u>90%</u> parkland/greenspace
4b Site Contribution	<u>90%</u> shade-cooling, air filtration
4c Site Placement	<u>63%</u> infrastructure conflict
4d Location% (#4a + #4b + #4c)/3 =	<u>81%</u>

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

5 Species Rating	<u>78%</u>
6a Replacement Tree Size (diameter)	<u>10</u> cm
6b Trunk Area	<u>78.5</u> cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 550.00</u>
8 Installation Cost	<u>\$ 1,375.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 1,925.00</u>
10 Unit Tree Cost	<u>\$ 24.52</u> per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u>4489</u> x0.785
11c TA _A or ATA _A	<u>3523.865</u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	<u>3445.365</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 86,413.25</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 27,297.95</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 27,300.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 232

Field Observations:

1 Species	<u>sugar maple</u>
2 Condition (see Guide to judging plant conditions)	<u>40% poor</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>31 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>30% screening</u>
4c Site Placement	<u>75% well-spaced</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>65%</u></u>

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

5 Species Rating	<u>78%</u>
6a Replacement Tree Size (diameter)	<u>10 cm</u>
6b Trunk Area	<u>78.5 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 550.00</u>
8 Installation Cost	<u>\$ 1,375.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u><u>\$ 1,925.00</u></u>
10 Unit Tree Cost	<u>\$ 24.52</u> per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u> </u> x0.785
11c TA _A or ATA _A	<u><u>754.385</u></u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	<u>675.885</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 18,499.25</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	<u>\$ 3,751.65</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u><u>\$ 3,750.00</u></u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 233

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>80% good to fair</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter - stem 1	<u>56 cm</u>
3b Diameter - stem 2	<u>44 cm</u>
4a Site Position	<u>90% parkland/greenspace functional attributes,</u>
4b Site Contribution	<u>95% shade-cooling considerable element in the</u>
4c Site Placement	<u>90% landscape</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>92%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacement Tree Size (diameter)	<u>7 cm</u>
6b Trunk Area	<u>38.465 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area (TA _A or ATA _A ; use Tables 4.4-4.7)	
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b) - stem 1	<u>3136 x0.785</u>
11b or d ² (#3b) - stem 2	<u>1936 x0.785</u>
11c TA _A or ATA _A	<u><u>3981.52 in²/cm²</u></u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>3943.055 in²/cm²</u>
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 86,948.57 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 42,720.73</u>
15 Appraised Value (If appraised value is \$5000 or	\$ 42,700.00

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
- 3. The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 234

Field Observations:

1 Species	<u>white spruce</u>
2 Condition (see Guide to judging plant conditions)	<u>30% poor</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>49 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>30% minimal contribution</u>
4c Site Placement	<u>40% improper spacing</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>53%</u></u>

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

5 Species Rating	<u>75%</u>
6a Replacement Tree Size (diameter)	<u>10 cm</u>
6b Trunk Area	<u>78.5 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 590.00</u>
8 Installation Cost	<u>\$ 1,475.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u><u>\$ 2,065.00</u></u>
10 Unit Tree Cost	<u>\$ 26.31</u> per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u> </u> x0.08
11b or d ² (#3b)	<u>2401</u> x0.785
11c TA _A or ATA _A	<u><u>1884.785</u></u> in ² /cm ²
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	<u>1806.285</u> in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 49,580.65</u> in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 5,949.68</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u><u>\$ 5,900.00</u></u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 236

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>75% good</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>58 cm</u>
4a Site Position	<u>90% parkland/greenspace</u>
4b Site Contribution	<u>90% shade-cooling, air filtration</u>
	<u>considerable element in</u>
4c Site Placement	<u>90% the landscape</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>90%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacment Tree Size (diameter)	<u>7 cm</u>
6b Trunk Area	<u>38.465 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u><u>\$ 840.00</u></u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b)	<u>3364 x0.785</u>
11c TA _A or ATA _A	<u><u>2640.74 in²/cm²</u></u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6)	<u>2602.275 in²/cm²</u>
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 57,668.57 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4)	<u>\$ 26,080.61</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 26,100.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee**

Address: 605 Fernbank Rd., Newmarket

TREE 268

Field Observations:

1 Species	black walnut
2 Condition (see Guide to judging plant conditions)	40% fair to poor
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	44 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreak
4c Site Placement	63% fairly-spaced
4d Location% (#4a + #4b + #4c)/3 =	<u>81%</u>

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

5 Species Rating	67%
6a Replacement Tree Size (diameter)	7 cm
6b Trunk Area	38.465 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 240.00
8 Installation Cost	\$ 600.00
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	\$ 21.84 per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b)	1936 x0.785
11c TA _A or ATA _A	<u>1519.76 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	1481.295 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	\$ 33,188.57 in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	\$ 7,204.58
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10)	<u>\$ 7,200.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost**, the **Retail Replacement Tree Cost**, or the **Installed Tree Cost** (#9) divided by the **Replacement Tree Size** (#6) can be used for the **Unit Tree Cost** (#10), or it can be set by the Regional Plant Appraisal Committee.

Address: 605 Fernbank Rd., Newmarket

TREE 269

Field Observations:

1 Species	black walnut
2 Condition (see Guide to judging plant conditions)	50% fair to poor
3a Trunk Circumference	in ² /cm ²
3b Diameter	47 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreak
4c Site Placement	63% fairly-spaced
4d Location% (#4a + #4b + #4c)/3 =	<u>81%</u>

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

5 Species Rating	67%
6a Replacement Tree Size (diameter)	7 cm
6b Trunk Area	38.465 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 240.00
8 Installation Cost	\$ 600.00
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	\$ 21.84 per in ² /cm ²

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	2209 x0.785
11c TA _A or ATA _A	<u>1734.065 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	1695.6 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	\$ 37,868.57 in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	\$ 10,275.64
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$100)	<u>\$ 10,300.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 270

Field Observations:

1 Species	black walnut
2 Condition (see Guide to judging plant conditions)	50% fair to poor
3a Trunk Circumference	in ² /cm ²
3b Diameter	44 cm
4a Site Position	90% parkland/greenspace
4b Site Contribution	90% windbreak
4c Site Placement	63% fairly-spaced
4d Location% (#4a + #4b + #4c)/3 =	<u>81%</u>

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

5 Species Rating	67%
6a Replacement Tree Size (diameter)	7 cm
6b Trunk Area	38.465 cm ² TA _R
7 Replacement Tree Cost (see Regional Information to use Cost selected)	\$ 240.00
8 Installation Cost	\$ 600.00 x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	x0.08
11b or d ² (#3b)	1936 x0.785
11c TA _A or ATA _A	<u>1519.76 in²/cm²</u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	1481.295 in ² /cm ²
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	\$ 33,188.57 in ² /cm ²
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4d x #5)	\$ 9,005.72
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less, round to the nearest \$100)	<u>\$ 9,000.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Address: 605 Fernbank Rd., Newmarket

TREE 271

Field Observations:

1 Species	<u>black walnut</u>
2 Condition (see Guide to judging plant conditions)	<u>90% good</u>
3a Trunk Circumference	<u>in²/cm²</u>
3b Diameter	<u>52 cm</u>
4a Site Position	<u>90% parkland/greenspace</u> erosion control, windbreak,
4b Site Contribution	<u>95% shade/cooling</u> considerable element in
4c Site Placement	<u>90% landscape</u>
4d Location% (#4a + #4b + #4c)/3 =	<u><u>92%</u></u>

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

5 Species Rating	<u>67%</u>
6a Replacement Tree Size (diameter)	<u>7 cm</u>
6b Trunk Area	<u>38.465 cm²TA_R</u>
7 Replacement Tree Cost (see Regional Information to use Cost selected)	<u>\$ 240.00</u>
8 Installation Cost	<u>\$ 600.00</u> x 2.5
9 Total Installed Tree Cost (#7 + #8)	<u>\$ 840.00</u>
10 Unit Tree Cost	<u>\$ 21.84 per in²/cm²</u>

Calculations by Appraiser using Field and Regional Information:

11 Appraised Trunk Area	(TA _A or ATA _A ; use Tables 4.4-4.7)
11a or c ² (#3b)	<u>x0.08</u>
11b or d ² (#3b)	<u>2704 x0.785</u>
11c TA _A or ATA _A	<u><u>2122.64 in²/cm²</u></u>
12 Appraised Tree Trunk Increase (TA _{INCR}) (#11c - #6b)	<u>2084.175 in²/cm²</u>
13 Basic Tree Cost=TA _{INCR} (#12 x #10)+#9	<u>\$ 46,354.29 in²/cm²</u>
14 Appraised Value = Basic Tree Cost (#13 x #2 x #4c)	<u>\$ 25,622.33</u>
15 Appraised Value (If appraised value is \$5000 or more, round it to the nearest \$100; if it is less,	<u>\$ 25,600.00</u>

Notes:

1. The above calculation is referenced from "Guide for Plant Appraisal" book
2. Items 5 through 10 are determined by the Regional Plant Appraisal Committee
3. **The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the Installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee.**

Appendix VI – Tree Report Form
Attached



Tree Report Form

(Please complete either Part 1 or Part 2 and include with planning application submission)

PART 1

There are no significant large trees over 30 cm DBH and small trees over 10 cm DBH on the subject property or within 450 cm from the subject property line. There are also no trees of any size on public lands within 450 cm of the subject property line.

_____ Date

Signature of Applicant/Qualified Tree Professional _____ Address(Street/City/Postal Code)

_____ Telephone Number

Print Name _____

PART 2

A tree inventory shall include all significant large trees over 30 cm DBH and small trees over 10 cm DBH on the subject property or within 450 cm from the subject property line. In addition, the inventory shall include trees of any size on public lands within 450 cm of the subject property line.

Arborist note: at the request of the Forestry Supervisor, all trees with a DBH >= 20cm were included.

TREE INVENTORY TABLE

Identifier # TP#/TR/TRL#	Species		DBH (cm)	Condition					Category				
	Common Name	Botanical Name		E	G	F	P	D	M	1	2	3	4

Identifier # Approximate location of tree marked on a site plan, includes recommendation for preservation and/or removal (TP1 = Tree #1 to be Preserved / TR3 = Tree # 3 to be Removed / TRL5 = Tree #5 to be Relocated)

Species Both common name and botanical name

DBH Diameter at breast height (measured at 1.4 m above ground level) must be exact and measured in centimeters

Condition When considering the condition and or health of a tree, numerous factors will need to be taken into account. The ISA methodology can be used to arrive at a condition rating identified below:

E - Excellent:: the tree has a condition factor of 84 to 100%

G - Good: the tree has a condition factor of 67 to 83%

F - Fair: the tree has a condition factor of 51 to 66%

P - Poor: the tree has a condition factor of 26 to 50%

D - Dead/Dying: the tree has a condition factor of 0 to 25%

M - Maintenance Recommended: long term survival of the tree is dependent upon a maintenance program

Category 1: Large trees over 30 cm in DBH and small trees over 10 cm DBH on the subject property
2: Large trees over 30 cm in DBH and small trees over 10 cm DBH within 450 cm from the subject property line on private property

3: Trees of any size on public lands within 450 cm of the subject property line.

4: Other characteristics:

(R) Rare

(H) Heritage/historical

(N) Native

(C) Celebration

(S) Special status tree

(W) Located within a Woodland area

(CL) Forming a Cluster of trees (5+ trees and 1 significant tree)

Note:

* This report must be completed in conjunction with an accompanying tree inventory and tree plan.

* All tree maintenance programs shall be detailed in an accompanying report prepared by a tree professional.

October 10, 2019

Jennifer Gagné

Date

3-1750 The Queensway, Suite 1329, Toronto

Signature of Applicant/Qualified Tree Professional

Address (Street/City/Postal Code)

Jennifer Gagné

416.252.8769

Telephone Number

Print Name