

City of Mississauga

# Arborist Report

November 2019

B000856

Burnhamthorpe Road West Improvements Class EA

**SUBMITTED BY CIMA CANADA INC.**

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# City of Mississauga

## Arborist Report

**Burnhamthorpe Road West Improvements Class EA**

Project no B000856

PREPARED BY:



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## 1. Introduction

CIMA+ was retained by the City of Mississauga to review the trees potentially affected by improvements to Burnhamthorpe Road between the West City Limit and Loyalist Drive. This report will help determine the proposed works' potential impacts and provide general recommendations to avoid and/or mitigate tree loss and injury.

## 2. Limitations

The assessment presented in this report has been made using accepted standard arboriculture techniques as outlined in the Council of Tree and Landscape Appraisers *Guide for Plant Appraisal, 9th Edition* (2000). These techniques include visual examination of above ground parts of each tree or trees in each group. The trees observed were not climbed, cored, or dissected, and excavation for detailed root crown inspection was not performed. Since some symptoms may only be present seasonally, the extent of observations that can be made may be limited by the time of year in which the inspection took place.

Since trees are living organisms, their health and vigour continually change over time due to seasonal variations, changes in site conditions, and other factors. For this reason, the assessment presented in this report is valid at the time of inspection, and no guarantee is made about the continued health of trees that are deemed to be in good condition. It is recommended that the trees be re-assessed periodically to identify changes in condition. While every standing tree has the potential for failure and therefore poses some risk, a tree assessment is a good indication of present health and potential problems that could arise in the future.

CIMA+ has prepared this report for the sole use of the client. Any use of this report by a third party, as any decision based on this report, is the singular responsibility of the third party. CIMA+ will not be held responsible for eventual damages towards a third party resulting from decisions taken, or based, on this report.

## 3. Methodology

CIMA+ conducted a site visit on November 13, 2017, to complete the following inventory and assessment.

Trees were identified within and adjacent to the existing right-of-way (ROW) and numbered, measured, and assessed for condition. The tree inventory plans are included in Appendix A which shows the locations of the numbered trees surveyed.

### 3.1 Tree Size

Size refers to trunk diameter (caliper or diameter at breast height (DBH)) measured in centimetres at 1.4 m above the ground. Where trees had more than one trunk from the base, the size of each trunk was recorded. Where trees forked to codominant trunks, each trunk was

measured, or the diameter was measured under the flare and the approximate height of the measurement was noted.

## 3.2 Observations

Several structural defects and health problems are included in the Comments section of the tree inventory and assessment table. Structural defects are often insignificant when a tree is small, but can pose problems when the tree grows larger and the weight of branches put added stress on defects that can cause weakness. Larger trees also have the potential to cause more damage should they fail. The following is an explanation of some of the observations included in the inventory and assessment table, and how they can affect trees over time.

- *Adventitious shoots* are vigorous growth of shoots from pruning cuts, inner branches, or along the trunk that usually occur in response to stress.
- *Buckthorn* is a thorny, invasive exotic shrub species that out-competes native vegetation.
- *Codominant leaders* (2 trunks or branches of approximately equal size) often have narrow branch angles, and are associated with weak branch attachment. Strong branch attachments occur between 2 limbs of unequal size with enough space for branch enlargement and formation of a branch bark ridge.
- *Included bark* is bark that has become embedded in a crotch where limbs join, and causes weakened branch attachments. As the trunk and branch increase in diameter, the bark of each stem in the tight crotch begin to push apart, increasing the likelihood of failure.
- A tree with a *lean* can be more susceptible to windthrow and soil failure. *Self-correcting lean* refers to a natural correction of the lean by development of new growth that counteracts the lean of the trunk to provide a more balanced form.
- *Narrow branch angles*, especially where there is included bark, can be a problem as trees grow larger because the inner wood is poorly attached.
- *Small dead branches* are an indicator of crown dieback and can be an early sign of stress.
- *Suppressed trees* are growing under the canopies of neighbouring trees, which can diminish vigour and affect structural form.

The detailed observations made concerning tree species, size, and condition are included in the tree inventory and assessment table on Drawing TI-4 in Appendix A.

## 3.3 Tree Condition

Each tree was given a subjective rating for trunk integrity, canopy structure, and crown vigour, and an overall health condition rating of Excellent, Good, Fair, Poor, or Dead. The following is a summary of how the ratings are determined:

- **EXCELLENT (E):** no apparent health problems; good structural form
- **GOOD (G):** minor problems with health and/or structural form
- **FAIR(F):** more serious problems with health and/or structural form

- **POOR (P):** major problems with health and structural form
- **DEAD (D):** dead

## 4. Construction Management

The most typical construction damage to trees is root damage from compaction and severance. While the dripline of a tree's canopy is typically thought to be associated with the root area, the root zones can actually extend significantly beyond the dripline of the tree, sometimes up to 2 or 3 times the height of the tree.

Grade changes and construction activities that could cause soil compaction should be kept away from trees as much as possible. If roots will be damaged by excavation equipment, it is better to cut roots cleanly with sharp pruning tools rather than allow them to be torn by large equipment. Clean cuts will help to minimize decay and entry points for disease. If branches are likely to hang in the way of passing equipment, the branches should be pruned by a qualified arborist to avoid tearing and undue injury to the tree.

Equipment and materials should not be stored near trees, and equipment should not be left idling where exhaust could burn foliage.

It is recommended that tree protection fencing be erected in accordance with City Tree Hoarding requirements in areas where trees could be affected by the work.

## 5. Certification and Closure

I certify that all the statements of fact in this assessment are true, complete, and correct to the best of our knowledge and belief, and that they are made in good faith.

Sincerely,



Lisa Cullen, OALA

ISA Certified Arborist ON-0741A

Attachments:

Appendix A: Tree Inventory Plan and Tree Inventory Table

# A

## **Appendix A**

Tree Inventory Plan (TI-1 to TI-3)

Tree Inventory Table (TI-4)











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