

MEMORANDUM

The Landplan Collaborative Ltd.
landscape architects, environmental planners, heritage planners
25 Mitchell Street, Guelph, Ontario N1E 4J2
(519) 824-8664 E-mail: npulver@thelandplan.com

Date: October 9, 2015

File: 14-0019

Re: Response to June 16, 2015 City Comments for 1511-1517 Gordon and 15 Lowes Road – OPA 1402/ZC1408 Tree Inventory and Management Report

To: Michael Witmer, City of Guelph

Copies: Astrid Clos, Astrid J. Clos Planning Consultants
Mario Cotroneo, Mar-Cot Developments
Prachi Patel, City of Guelph

From: Nina M. Pulver, Landplan

This memo summarizes changes made to the Tree Management Plan and Report issued by Landplan and dated March 30, 2014.

- a) It is unclear whether all trees greater than or equal to 10 cm DBH have been depicted:
The updated Tree Management Plan and Report has been revised to clearly define regulated trees, in addition to cedar hedge canopy area as of August 25, 2015.
- b) Concern regarding the 3 metre buffer strip affording adequate tree protection:
A high curb/low retaining wall is proposed to minimize extent of cut & fill in that area. Structural roots should be excavated by hand to minimize disturbance.
- c) Staff [support] the retention and preservation of ... all neighbouring trees with the exception of those dead. Removals from neighbouring properties require consent from landowners. This will be required at the time of Site Plan Application.
Agreed.
- d) Staff support the retention and/or transplant of trees ...
As noted in section (a) and detailed on the revised Tree Inventory Plan, accompanying spreadsheet and in the Tree Management Report, trees have been identified for protection and/or transplant. While the plan identifies trees to be protected, some of the smaller



specimens may be shifted slightly for aesthetic purposes. Any adjustments in this regard will be detailed at the Site Plan Application stage.

e) Compensation:

- i. Staff are agreeable to compensation ratios.
Please see report for updated compensation calculations.
- ii. The numbers in the summary table on LP-1 seem to require adjustment. For clarity, add a column to the Tree Inventory table.
As noted above, a spreadsheet has been prepared (Appendix 1) which is to be read in conjunction with the Tree Inventory and Management Plan (LP-1). This spreadsheet includes an additional column showing replacement ratios and total compensation for each tree or hedge grouping. In addition, a summary table has been included in the body of the Tree Management report for clarity.
- iii. For what reason are the *Taxus* species proposed to be exempt?
This *Taxus* species were non-native overgrown shrubs, which exhibited multi-stem branching with no dominant leaders. While some of the branches equalled 10 cm DBH, the shrub itself is not a tree that is applicable under the bylaw. For this reason it was exempted from compensation. On this revised plan, the *Taxus* have been illustrated as a shrub border and not included in the inventory.
- iv. The two *Acer saccharum* (4,5) are not bylaw exempt, however compensation will not be sought due to their poor condition.
Agreed.
- v. The *Malus* species is not exempt from the Tree Bylaw as the hazard condition is being created as part of the development.
The *Malus* species was determined to be exempt from compensation as it is a fruit tree according to Section 4h of the Tree Bylaw. This detail, coupled with the existence of large, hanging branches which will likely require significant maintenance pruning for general safety in the near future, was the rationale for bylaw exemption. See attached photos (Figures 1 and 2) for reference.
- vi. Staff strongly believes that compensation will not be able to be achieved on site for this property ...
Agreed. Compensation will likely need to be achieved through a combination of on-site planting, compensation planting at 375 Southgate Drive, and cash-in-lieu.
- vii. Landscape securities ...
To be addressed prior to site plan approval.

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- f) The Tree protection fencing to be used on site during construction will need to be paige wire fencing with silt fence attached.

This has been reflected in the Tree Protection Fencing detail on drawing LP-1.

For additional comments or concerns, please do not hesitate to contact Nina Pulver via email at npulver@thelandplan.com.



Figure 1. *Malus* spp. bark shedding

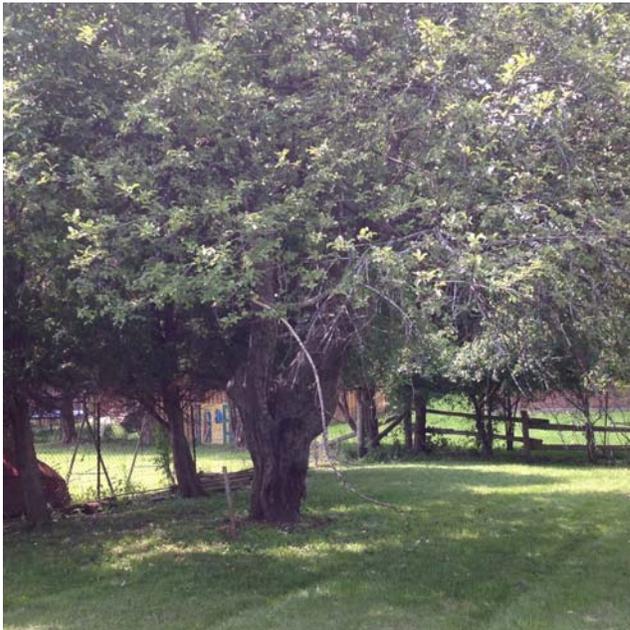


Figure 2. *Malus* spp. Top-heavy branching and co-dominant limbs

Tree Inventory and Management Report
for
Proposed Commercial Development
1511 Gordon St, 1517 Gordon St, and 15 Lowes Road, Guelph

Prepared for:

Mario Cotroneo
Mar-Cot Developments
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Prepared by:



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October 3, 2015
(Revised)

1.0 Introduction

The Landplan Collaborative, Ltd. (Landplan) was retained by Mario Cotroneo of Mar-Cot Property Developments (owner) to prepare a Tree Management Plan for 1511 Gordon Street, 1517 Gordon Street, and 15 Lowes Road in the City of Guelph. The client is proposing to demolish the 3 existing houses (one per property) and single-car garage existing at 1517 Gordon Street, and subsequently construct a new 2-storey commercial building and parking lot. This report and accompanying Tree Inventory and Management Plan (LP-1) has been prepared in support of the Official Plan Amendment (OPA) and zone change application.

Update September 17, 2015: The house at 1511 Gordon Street has been demolished.

The existing house at 1511 Gordon Street is located on the south side of the property, midway between the front and rear property lines, on the irregularly shaped, 0.15 hectare lot. Driveway access is off Gordon Street. The existing house at 1517 Gordon Street is located on the north side of the property, immediately adjacent to the 1511 Gordon St. building. A single detached garage is located at the southwest corner of the property, with driveway access off of Lowes Road. The building at 15 Lowes Road is located in the approximate centre of the 0.18 ha (0.5 acre) lot, with a small outbuilding immediately behind it on the west side. Driveway access is on the west side of the property, off Lowes Road. Individual ornamental trees are scattered throughout the manicured lawn area of all three properties, while white cedar hedgerows are located along the north property boundary of 1511 Gordon St, the western property lines of all three properties, and along of the frontage of both 1511 and 1517 Gordon Street as shown on the Tree Inventory and Management Plan (LP-1).

A preliminary concept plan has been prepared by BJC Architects in support of this application, and the final plan will be determined at the time of site plan approval. The proposed 2 storey commercial building will be located on the front half of the site along Gordon Street while above ground parking for 66 vehicles will be provided at the side and rear of the building, with driveway access off Lowes Road. The proposed development limits tree saving opportunities to the perimeter of the site, but offers opportunities for replacement in some parking islands, irregular open spaces, and the parking lot perimeter.

The following discussion describes the study methodology, existing tree conditions in the affected area and evaluates the feasibility of tree preservation in relation to the proposed demolition/construction activity.

2.0 Study Methodology

Prior to the initiation of detailed fieldwork a site visit was conducted to ascertain the amount of tree cover on the property. Due to the abundance of trees, particularly in the white cedar hedgerows, all tree locations were total station surveyed by Gamsby and Mannerow, Engineers, and a site plan showing existing conditions was prepared. Landplan staff carried out a detailed tree inventory during two site visits dated March 26, 2014 and April 4, 2014. All trees 10cm in

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diameter and greater measured at breast height (dbh) or 1.4 metres from the ground, were tallied by species, dbh and condition according to four vigour classes: good, fair, poor, and dead. Details on tree defects and indicators of decline were also noted and preliminary recommendations were made on tree maintenance/removal work. During the inventory 5 additional un-surveyed trees were found. Two of these trees were on the subject property, while three others were located along the west property boundary of 15 Lowes Road. These trees were inventoried and located by scaling from existing features shown on the Existing Conditions Plan. Three trees which had appeared on the original survey were identified as recently cut stumps, while two unregulated sumac shrubs located along the Gordon Street frontage and three forsythia shrubs located along the rear 15 Lowes Road property line (all <10 cm dbh) that had been identified as trees were removed from the plan.

Updated note, September 14, 2015: A third site visit was conducted on July 3, 2015 to re-assess site conditions and contents of the hedgerows along the south and east side of 1517 Gordon Street, as well as that along the west property line of 15 Lowes Road. During this time approximately 30 additional trees were documented (though not all are regulated under the City of Guelph's tree bylaw due to size). The additional trees found were tagged by Van Harten Surveying on August 21, 2015.

3.0 Existing Tree Conditions

A total of **121 caliper trees** were inventoried in accordance with the requirements of the City of Guelph's Private Tree Protection By-law, in addition to cedar hedgerows totalling approximately 108 metres in length. The 121 trees assessed are broken down as follows:

- 61 cedars and 3 saplings along the property line between 1511 and 1499 Gordon Rd (on 1499 Gordon property)
- 5 trees outside the property line of 1511 and 1517 Gordon St.
- 14 trees on the combined properties of 1511 and 1517 Gordon St.
- 6 trees at 15 Lowes Rd.
- 2 trees at 17 Lowes Rd.
- 21 trees on the property line between 15 and 17 Lowes Rd.
- 2 trees at 72 Revell Dr.
- 2 trees at 70 Revell Dr.
- 2 trees at 68 Revell Dr.
- 3 stumps at 1511 Gordon St.

Tree inventory details are summarized in Appendix 1, and illustrated on attached Tree Management Plan LP-1.

3.1 1511 Gordon Street

A mature hedgerow of eastern white cedar (H4), densely planted at 30-60 cm intervals and approximately 69 metres in length, runs along along the east property line of 15 Lowes Road and back (west) property lines of 1511 and 1517 Gordon St. Although these cedars range in size

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from 10 to 30 cm dbh, the majority are less than 20cm in diameter and single-stemmed. Several cedars have been suppressed and tree growth has stagnated as a result of the dense planting. The majority of these appear to be in fair health individually with some central dieback due to dense planting, although a few smaller stems (<5) have been cut off 300 cm from the base. Portions of the hedgerow exhibit dieback higher up inside the crowns, with thin canopies due to overcrowding and shading from neighbouring structures, such as between the garage on 1517 Gordon Street and the house at 15 Lowes Road.

A line of cedar trees, planted along the north property line abutting 1499 Gordon St. (#22-82), has been trimmed up approximately 3.0 metres or greater to accommodate recent development of the commercial building on that site. Most trees have 1-2 stems between 10-25 cm dbh, with the majority in the 20-25 cm range. Some of the smaller co-dominant stems (approximately 6) have been pruned off completely at around 250 cm, and 12 have been cut to a 30-90 cm high stump. Many stems show recent branch pruning cuts, most likely to accommodate construction activities at the neighbouring commercial site.

The largest tree on the property, a 58 cm dbh Crimson King Norway maple (#2) found in the northeast section, exhibits moderate branch damage including one co-dominant branch that appears to be completely dead. The tree exhibits some old pruning cuts that have generally healed over with callous wood. The overall crown and dominant leaders appear healthy, but due to split crotch, moderate rot, and some leaning, the tree was rated in fair condition. Three maple trees in the front yard of 1517 Gordon were found to be in fair to poor condition due to premature shedding bark, dead branches, and narrow crowns – most likely due to shading from the adjacent Norway maple. A red maple in the front of the house, (#1), is in good condition, while another at the back of the house (#21) shows significant branch damage, likely from the recent (December 2013) ice storm, as well as a split trunk (evidently an old injury with much calloused wood grown around). A spruce at the far rear of 1511 Gordon St. exhibits significant premature needle dieback at the base (#20), hence a ‘fair’ condition rating.

Updated note, October 9, 2015: Inventoried trees #1-8 and #21 (of which only #1 and #3 are regulated under the Tree Protection Bylaw) have been removed as of January 2015. Please see attached Tree Removal Permit #TP#-2014 000242.

3.2 1517 Gordon Street

The property line of 1517 Gordon St is almost entirely ringed by a predominantly cedar hedge (hedge sections H1, H2, and H3), comprised of trees ranging in size from under 10 cm dbh to over 25 cm dbh. Two mature, robust cedars in the centre of the property are located adjacent to the 1511 Gordon St. driveway (#9 & 10). A large, healthy spruce is located adjacent to these (#13), and between the spruce and the cedar hedge are two white pines at 7.5 cm and 17.5 cm dbh (#12 and 14, respectively) as well as a small balsam fir (#11). The pines are severely crowded between the spruce and the cedar hedge, but are in otherwise good health.

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The frontage of 1517 Gordon exhibits a significant diversity of deciduous and coniferous shrubs. A hedgerow of largely single-stemmed cedars ranging in size from <10 to 15 cm dbh runs along the Gordon Street frontage, along with mixed specimen conifers just outside the property line (#15-19) as well as mature sumac shrubs, buckthorn, lilac, and ninebark. As the cedar hedge continues around the corner of Lowes Road toward the driveway of 1517 Gordon, it changes to an older hedge of cedars greater in caliper (10-20 cm dbh) which appear to be in poorer condition, with extensive dieback and suckering, pruning cuts, co-dominant stems cut off at breast height, and overgrowth in the form of large deciduous shrubs including lilac, ninebark, and buckthorn. Construction impacts and existing hedge condition will likely require the majority of this hedge to be removed, but select trees with healthy crowns and uninjured stems may be selectively retained and cosmetically pruned as specimen landscape trees for the new development.

3.3 15 Lowes Road

This lot is largely comprised of cedar trees running around the perimeter, with the rest of the property manicured lawn and four specimen trees. Two trees at the very front of the lot are large, mature cedar trees in good health (#120 and 121). In the centre of the front yard is a multi-stemmed Amelanchier species (#119) which appears to be in good health. The last specimen tree on the lot is a large Malus species (#96), which shows limb damage, pruned co-dominant limbs and significant leaning of a third co-dominant large limb. Along the northwestern property line, a series of cedars are in very good condition and have been well maintained (#95, 97-103). Moving south along the property line toward Lowes Road, there is a series of quite large, mature cedars (#105-117) which are in good condition and should be preserved. Seven of these are moderately crowded between the dwellings located at 15 and 17 Lowes Rd (#105-112), and should receive cosmetic pruning. At the north side of the property line a grouping of Norway spruce is suffering from advanced stages of diplodia tip blight with severe needle loss. Some of these are on adjacent properties; two at the rear of 70 & 72 Revere Drive and two at 15 Lowes Road are dead and should be removed. Coordination with the owners of these properties should occur at the time of construction to address removal and corrective pruning. At the far northeast of the property, two Scots pine (#86 & 87) are in fair condition, with diplodia tip blight apparent. These trees can be retained, and affected branches should be pruned with the precaution that tree leaders be left intact. Between the spruce trees and pines is a small cedar hedge with stems under 10 cm dbh to be retained; see recommendations in section 4.0.

4.0 Assessment of Potential Impacts and Tree Management Requirements

Based on the proposed concept plan prepared by BJC Architects and illustrated on LP-1, it is feasible to retain the manicured rows of cedar trees adjacent to 17 Lowes Road and 1499 Gordon Street, parts of the hedge along the north property line of 15 Lowes Road, and selected trees along the Gordon St./Lowes Rd. frontage of 1517 Gordon St. Five of the specimen conifers at the front of 1517 Gordon St (#15-19) should be able to be retained, and if site grading impacts make this impossible, they are still of an appropriate size to transplant on site by tree spade if

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necessary. Similarly, existing mature, ornamental shrubs adjacent to the spruce could be retained for aesthetic purposes and urban wildlife habitat, provided grading is designed to work around this existing vegetation and meet the western and northern property lines of 15 Lowes Rd. Given the proposed grading plan and existing topography on this site it appears cut or fill can be minimized in these areas.

The majority of trees to be retained are in good health, but some would nonetheless benefit from corrective pruning. A cedar hedge along the back of 15 Lowes Road, though not of tree caliper size, is in good health and aesthetically useful, and could benefit from pruning of lower dead branches (see LP-1). Likewise, a portion of the cedar hedge on the 1517 Gordon St property along the Lowes Rd. frontage can be retained, and dead branches should be pruned accordingly (see Recommendation & Rationale, Appendix 1). If the owners of 70 and 72 Revell Drive agree, approximately 6 dead or ailing spruce trees on those properties abutting 15 Lowes Rd. should be removed or pruned for safety reasons. As mentioned previously, the *Malus* species should be removed due to hazardous branching.

After the required tree removal and pruning work has been completed, tree protection fencing consisting of 4 foot high paige wire fencing affixed to wood frames with silt screen attached should be installed 1m beyond the dripline of retained trees. A sign composed of Gator board or similar clearly identifying the retained section as a tree protection zone should be affixed to the fencing. This protective fencing must be maintained in an effective condition until all construction activities have been completed, including landscaping work. No grade changes which could adversely affect retained trees are allowed within this protected area and no materials or equipment may be stored in it. Any excavated soil that is to be stockpiled on site for backfilling purposes must be placed in areas outside of this tree protection zone. If root trimming occurs in the area of the cedar tree hedge, affected trees should receive a deep root feeding with a fertilizer high in phosphorous the following spring in order to help promote new root growth.

5.0 Conclusion and Compensation Recommendations

The ornamental shade trees on the subject properties were originally planted to augment the landscaping around the existing houses. Similarly, the hedgerows were likely planted to provide screening from the road and between neighbours. The proposed commercial development will result in the removal of 22 individual specimen trees from the site and 387.40 m² of hedgerow canopy from the site, leaving approximately 17.10 m² of hedgerow canopy and 99 specimen trees on site and in the near vicinity. The majority of these are located on property lines shared with adjacent properties.

Of the 121 non-hedgerow or specimen trees inventoried, there are 101 trees in good health, 13 with fair vigour, 4 in poor condition and 3 are stumps. The width of the cedar hedgerows averaged 3.8 metres along a total length of 106.5 metres, with an approximate area of 404.5 square metres. Although the individual trees in the hedges range from fair to poor condition,

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overall, the hedges appear to be in good condition, with healthy canopies that can provide numerous urban ecosystem services, including urban heat island mitigation, wildlife habitat, and carbon sequestration. If these hedges are removed, they may be replaced with a diversity of deciduous and coniferous tree species which reach larger mature sizes and thus can provide greater canopy coverage. An analysis was conducted to determine how much canopy area is represented by the hedge to be removed, and how many well-formed trees in a row would be required to have the same canopy coverage. Using a compensation approach of assuming one tree per 10 m², the removal of 387.40 m² of hedge would equate to 39 trees. Table 1 below shows tree compensation calculations.

Updated note, October 9, 2015: Compensation for two regulated trees on 1511 Gordon Street regulated under the City Tree Bylaw has been paid in the form of cash-in-lieu, or \$500 per tree, as of January 2015.

Table 1. Regulated Tree Summary for Compensation

<u>Regulated Tree Summary for Compensation</u>	
Inventory	
Total trees inventoried	121
Total on-site trees inventoried	23
Total boundary/off-site trees inventoried	98
Total hedge canopy area	404.5 m ²
Removal	
Total on-site trees to be removed	22
Total off-site trees to be removed with coordination	2
Total hedge canopy area to be removed	387.4 m ²
Trees Exempt from Compensation	
Trees exempt from compensation pursuant to City By-law (ie. dead, fruit trees, buckthorn, poor condition, size)	12
Hedge canopy area	N/A
Trees previously compensated by cash-in-lieu (January 2015)	2

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Trees Being Removed Requiring Compensation	
Caliper trees requiring compensation	8
Hedge canopy area	387.4 m ²
Compensation Ratio	
Caliper trees	3:1
Hedge canopy area	1 tree per 10 m ² of canopy
Number of Compensation Trees to be Planted	
Caliper trees	24
Hedge canopy area	39
Total Compensation Required	63

It seems unlikely that the proposed building and parking area will be able to accommodate all compensation planting, though new cedar hedging and ornamental tree planting around the new building can substantially contribute toward that goal. It is anticipated that a combination of on-site planting, (both hedge and specimen trees), off-site planting, and payment-in-lieu will likely be necessary to meet current municipal canopy cover targets.

Respectfully Submitted,

The Landplan Collaborative, Ltd.



Nina M. Pulver, M.L.A., O.A.L.A., C.S.L.A.
Landscape Architect



Date: January 16, 2015

Private Tree Protection By-law #19058

Application for permission to Destroy or Injure 4 Trees in the City of Guelph.

Address: 1511 Gordon St
Guelph ON

Application: TP #14 000242 Proposed Destruction or Injuring of 4 Trees.

Applicant: Mario Cotroneo

Date of issuance of Permit: January 16, 2015

-
1. Enclosed is the Permit in respect of this Application, which is subject to the conditions on it.
 2. The Applicant must immediately post the enclosed Permit on the land where the trees are located, so that it is visible and legible to passers-by, at least five (5) days prior to the Destruction or Injuring, and must ensure that it remains posted until the Destruction, Injuring or other related activities are complete.
 3. If the Applicant wishes to appeal the conditions, they must submit written notice, including the grounds for the appeal, to the Inspector, to be received within 7 days after the above issuance date. The appeal would be heard by the Planning, Building, Engineering and Environment Committee and the final approval would be made by City Council. Should you wish to appear as a delegation at the meeting, please contact the City's Clerks Department to register.
 4. Should you require further information regarding the Permit, please contact the undersigned at (519) 822-1260 ext. 2563.

Sincerely,



Adèle Labbé
Environmental Planner - Development

**Infrastructure,
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PRIVATE TREE PROTECTION BY-LAW #19058
PERMIT TO DESTROY OR INJURE TREE(S)
Permit# TP#-2014 000242

Issuance Date: January 16, 2015

Expiry Date: April 16, 2015

Address: 1511 Gordon St
Guelph ON

Legal Desc: PLAN 508 PT LOT 1

Owner(s): 2320339 Ontario Inc.

Applicant(s): Mario Cotroneo

An application for the removal of 4 trees at 1511 Gordon Street has been received and reviewed by the City of Guelph. A permit for the removal of 4 trees at the above address has been granted **conditionally**, based on the following condition(s):

1. That the applicant provide cash-in-lieu compensation for the removal of the two Red Maple trees.
2. That protective tree hoarding be erect on site prior to demolition in accordance with drawing LP-1A dated (revision) December 18, 2014 and attached.
3. That once installed, the protective tree hoarding is inspected by City staff.

Issued by:

Adèle Labbé
Environmental Planner - Development

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