

Staff Report to Council

To: Mayor Isbester and Members of Council

Date: March 26, 2019

Prepared By: Mike Mulvenna, Director of Public Works and Facilities

Presented By: Peter Dafoe, General Manager of Infrastructure Services

Re: Infrastructure Services (Public Works) - Tree Canopy and Urban Forestry Reports

Staff Recommendation:

That Council receive for information the Infrastructure Services (Public Works) – Tree Canopy and Urban Forestry Reports.

Financial Implications:

Upon review, there are no additional financial implications at this time. The Town has been active with tree replacement within the community for many years with funding allocated through existing operating and capital budgets.

Accessibility Implications:

This report may be available in alternate format upon request.

Information Technology Implications:

Upon review, there are no information technology implications.

Energy Management Implications:

Upon review, there are no energy management implications.

Background Information:

Previous Studies

During March and April of 2014, an Urban Forest Report (attached) was undertaken that included an inventory of local trees and species of trees found within our municipality. The field inspections noted the condition and pressures on those trees as well as the different types of species. The Napanee area has predominantly Maple varieties (approx. 70%), which may increase vulnerability to infestation or diseases specific to Maple species. It is recommended to diversify species of trees in the future to limit any potential adverse impact.

Current Practices

The Town does not require a formal application or sign off process for cutting trees within the municipality, but staff will initiate consultation as required if the area has significant heritage interest. As a general rule of thumb, staff will not cut down a tree on municipal property unless it is absolutely necessary.

During capital projects, staff will evaluate all available options and consult with an arborist to determine overall health prior to recommending removal of any such tree. In the event a tree is removed for infrastructure renewal, the Town has replaced trees at a 1:1 ratio (minimum). Staff consult with the property owner regarding tree replacement at the municipal/private property line but if a homeowner does not want a tree replanted in front of their home it is simply placed in a municipal park or property. This approach has been recently expanded to include an option of rear or side yard plantings.

In addition to the Town's Official Plan having regard to tree canopy for development, the Town has also provided trees to residents at no charge on an annual basis upon request. Staff have a target of fifty (50) new plantings each year and advertise to solicit public interest. In years of low demand, the trees are incorporated into the restoration phase of infrastructure renewal projects.

Public donations in the past have also contributed to the Town's tree canopy.

Next Steps

It is recommended that staff work closely with local Conservation Authorities to support tree planting initiatives and actively promote programs through public education campaigns.

It is also recommended to update and possibly expand the urban forestry report to look for opportunities of continual improvement. Staff will continue to promote diversity of trees and ensure new plantings will not present any challenges with future infrastructure renewal projects.

The Town's Official Plan (OP) currently has regard for tree canopy during development review but further policy may augment green initiatives. Supplemental policies to the Town's OP will be presented for Council consideration during the 2019/2020 update.

NAPANEE URBAN FOREST REPORT

Prepared by Dan Baker,
Registered Professional Forester and Urban Forestry Consultant

September 2014

TREE INVENTORY

The tree inventory was done during March and April of 2014. Please see the appendix for the actual inventory information. The streets inventoried were along the streets highlighted on the map of Napanee included in the Staff Report to Council prepared by David Morgan and dated August 27, 2013. They include parts of Park Drive, Centre Street North, John Street, East Street, Adelphi Street, Alma Avenue, Elizabeth Street, Dundas Street East, Bridge Street East, Thomas Street East, Graham Street East and Isabella Street.

The following characteristics of each tree were recorded:

- Size (diameter in centimetres measured 1.3 metres above the ground)
- Health (class 1 = Good, 2 = Fair, 3 = Poor, and Dead)
- Location (civic address)
- Proximity to city utilities (sewer grates, utility lines, etc.)
- Comments/Recommendations (pruning/removal, etc.)

Tree Inventory Summary

Observations

245 trees and 27 different species of trees were recorded during the tree inventory. However, only three tree species comprise over 70 percent of the inventoried trees, all of them species of maples (*Acer*). Silver maple (28.6%), sugar maple (17.6%), and Norway maple (24.1%).

Diameters ranged in size from 2.2 centimetres to over 100 centimetres. The vast majority of trees were considered to be in “Good” condition (182 trees) and can generally be considered to remain growing with some vigour for another decade at least. The 55 trees were considered to be in “Fair” condition. These trees typically had crown dieback greater than 10% of their fine branching and/or significant wounds and/or poor bark vigour characteristics. Only 5 trees were classified as “Poor”, trees in such a condition that they likely will not survive another 5 years. Finally, 3 dead trees were recorded.

Despite the relatively high number of “Good” condition trees, it was noted on many trees and particularly in the case of large silver maples that large branch wounds generally within 10 feet of the ground often occurred. Many may have been a result of wounds and or pruning following the 1998 ice storm. While many if not most of the wounds were healing well, in many cases, this large area of exposed wound may serve as entry point for water and rot, creating a “rot column” in many of the larger trees. While an individual tree may continue to live for many years with an internal rot column it may lead to weakening of the structure of the tree, leaving it more prone to breaking in future wind events.

Tree Replacement Program

As dead, dying or damaged municipal trees need to be replaced in the future or as new areas are considered for tree plantings, it is recommended that Napanee looks to improve the overall health and diversity of the urban forest. In general, the current health of the urban forest is in good condition as indicated by observations made from the spring 2014 inventory.

However, recent histories in other jurisdictions have shown that both native and introduced pests can have a significant negative impact on the urban forest canopy, particularly those that are not well diversified. For example, up until recently, the City of Ottawa for has had an urban tree canopy comprised largely of native ash species. The introduced Emerald Ash Borer has now largely decimated this ash tree canopy in many if not most areas of Ottawa. Within Ottawa city limits over 15 000 ash trees have been removed in the last five years in response to this pest. Ironically, many of these ash trees now being removed had been planted in response to another pest, Dutch Elm Disease which killed a great number of elm trees in Ottawa during the 1960s and 1970s.

If a similar pest to Emerald Ash Borer (EAB) was to impact all the maple species (*Acer*) as the EAB does to all the ash species (*Fraxinus*), over 70% of the trees in Napanee would likely be killed within a few years, as the three maple species were the vast majority of the trees inventoried.

As a result of potential pest problems, many jurisdictions are now putting an emphasis on diversifying the urban tree canopy in an attempt to mitigate the impact of any one pest. For example, New York City is attempting to cap any one tree species to a maximum 10% of the urban tree canopy. Similarly, it is recommended that Greater Napanee undertake diversification efforts in planting new trees in the future.

The table below shows 61 species of trees found in Ontario (both introduced and native). Most, if not all will grow in the Napanee area. Indeed, many were seen growing in Napanee during the tree inventory and noted as such in the table. This table can be used as the basis for future tree selection but can further refined as details about availability of species, etc. becomes apparent.

List of Ontario (both native and introduced) Tree Species

<u>Native Species (grows in Ontario)</u>	<u>Common Name</u>	<u>Latin Name</u>	X if noted growing in Napanee	<u>Street Tree Planting for "downtown" urban conditions.</u>			<u>Large Trees: Mature Height Greater Than 50 Feet</u>
				X if recommended for Downtown/Urban Street Plantings (tolerant of harsh, urban conditions)	<u>Small Trees: Mature height less than 25 feet</u>	<u>Medium Trees: Mature Height 35-40 Feet</u>	
Native	Black Ash	<i>Fraxinus nigra</i>					
Native	Green Ash	<i>Fraxinus pennsylvanica</i>	X	X			X
Native	White Ash	<i>Fraxinus americana</i>	X	X			X
Native	Apple & Crabapple	<i>Malus</i> spp.	X	X	X		
Native	Basswood	<i>Tilia americana</i>	X	X			X
Native	American Beech	<i>Fagus grandifolia</i>	X				
Native	Blue Beech	<i>Carpinus caroliniana</i>		X			
Native	Butternut	<i>Juglans cinerea</i>	X				
Introduced	European Buckthorn	<i>Rhamnus cathartica</i>	X				
Introduced	Glossy Buckthorn	<i>Rhamnus frangula</i>	X				
Native	White Birch	<i>Betula papyrifera</i>	X				
Native	Yellow Birch	<i>Betula alleghaniensis</i>					
Native	Black Cherry	<i>Prunus serotina</i>					
Native	Eastern White Cedar	<i>Thuja occidentalis</i>	X				
Native	Eastern Red Cedar	<i>Juniperus virginiana</i>	X				
Native	Red Elm	<i>Ulmus rubra</i>	X				
Native	White Elm	<i>Ulmus americana</i>	X	X			X
Native	Balsam Fir	<i>Abies balsamea</i>	X				
Native	Hawthorn	<i>Crataegus</i> spp.	X	X			
Native	Eastern Hemlock	<i>Tsuga canadensis</i>	X		X		
Native	Bitternut Hickory	<i>Carya cordiformis</i>	X				
Native	Shagbark Hickory	<i>Carya ovata</i>					
Native	Ironwood	<i>Ostrya virginiana</i>	X			X	
Native	Black Locust	<i>Robinia pseudoacacia</i>					X

Introduced	European Larch		Larix decidua		Street Tree Planting for "downtown" urban conditions.			
	Native Species (grows in Ontario)	Common Name	Latin Name	X if noted growing in Napanee	X if recommended for Downtown/Urban Street Plantings (tolerant of harsh, urban conditions)	Native Species (grows in Ontario)	Common Name	Latin Name
Introduced		Japanese Larch	<i>Larix leptolepis</i>					
Native		Larch	<i>Larix laricina</i>					
Native		Sugar Maple	<i>Acer saccharum</i>	X	X			
Native		Red Maple	<i>Acer rubrum</i>	X	X			
Native		Silver Maple	<i>Acer saccharinum</i>	X	X			
Native		Manitoba Maple	<i>Acer negundo</i>	X	X		X	
Native		Black Oak	<i>Quercus velutina</i>					
Native		Burr Oak	<i>Quercus macrocarpa</i>	X	X			X
Native		Red Oak	<i>Quercus rubra</i>					
Native		Chinkapin Oak	<i>Quercus muehlenbergii</i>		X			X
Native		White Oak	<i>Quercus alba</i>	X				
Native		Jack Pine	<i>Pinus banksiana</i>					
Native		Red Pine	<i>Pinus resinosa</i>					
Native		White Pine	<i>Pinus strobus</i>	X				
Native		Trembling Aspen	<i>Populus tremuloides</i>					
Native		Large Tooth Aspen	<i>Populus grandidenta</i>					
Native		Balsam Poplar	<i>Populus balsamifera</i>					
Native		Sassafras	<i>Sassafras albidum</i>					
Native		Norway Spruce	<i>Picea abies</i>					
Native		White Spruce	<i>Picea glauca</i>					
Native		Black Spruce	<i>Picea mariana</i>					
Native		Tulip Tree	<i>Liriodendron tulipifera</i>					
Native		Black Walnut	<i>Juglans nigra</i>	X				
Native		Willow	<i>Salix</i> spp.	X				
Introduced		Ginkgo	<i>Ginkgo biloba</i>					X
Native		Common Hackberry	<i>Celtis occidentalis</i>				X	
Introduced		Norway Maple	<i>Acer platanoides</i>					X
Native		Eastern Redbud	<i>Cercis canadensis</i>				X	

Street Tree Planting for "downtown" urban conditions.						
<u>Native Species (grows in Ontario)</u> Native	<u>Common Name</u>	<u>Latin Name</u>	<u>X if noted growing in Napanee</u>	<u>X if recommended for Downtown/Urban Street Plantings (tolerant of harsh, urban conditions)</u>	<u>Native Species (grows in Ontario)</u> Common Name	<u>Latin Name</u>
	Eastern Flowering Dogwood	<i>Cornus florida</i>				
Native	Honeylocust (thornless variety)	<i>Gleditsia triacanthos</i> (var. <i>inermis</i>)		X	X	
Native	Pear	<i>Pyrus</i> spp.		X		
Introduced	Japanese Zelkova	<i>Zelkova serrata</i>		X		X
Native	Northern Catalpa	<i>Catalpa speciosa</i>		X		X
Native	Kentucky Coffeetree	<i>Gymnocladus dioica</i>		X	X	
Introduced	London Plane	<i>Platanus x acerifolia</i>		X		X
Native	Serviceberry	<i>Amelanchier</i> spp.		X	X	
Native	"Schubert" Chokecherry	<i>Prunus virginiana</i> (var. <i>Schubert</i>)		X	X	

APPENDIX

<u>Tree #</u>	<u>Species</u>	<u>dbh (cm)</u>	<u>#</u>	<u>Civic Address Street</u>	<u>Condition</u> 1 = Good 2 = Fair 3 = Poor	<u>Close to Utilities?</u>	<u>Comments/Recommendations</u>
1	Manitoba Maple	84.0		Cambden Road	1	Power Lines growing through crown.	Good example of healthy Manitoba Maple
2	Silver Maple	18.1	69	Bridge Street East	1	N/A	Forking branch.
3	Silver Maple	26.2	55	Bridge Street East	1	N/A	
4	Silver Maple	21.1	55	Bridge Street East	1	N/A	
5	Silver Maple	60.4	53	Bridge Street East	1	Some power lines growing underneath crown	
6	Sugar Maple	68.7	53	Bridge Street East	2	Some power lines growing underneath crown	Cavity in bottom of tree but otherwise healthy. Slight crown dieback.
7	Sugar Maple	78.1	51	Bridge Street East	2	N/A	Slight crown dieback but has received pruning.
8	Norway Maple	36.0	43	Bridge Street East	1	Telephone lines run through crown.	
9	Sugar Maple	10.4	39	Bridge Street East	1	N/A	

10	Silver Maple	86.2	?	Bridge Street East	1	N/A	In front of Trinity United Church. Very slight crown dieback on one major branch in crown.
11	Norway Maple	47.2	19	Bridge Street West	1	Power lines generally below crown	Has received pruning. Very slight dieback in crown.
12	Sugar Maple	60.8	51	Bridge Street West	1	Power lines generally below crown	Slight crown dieback.
13	Silver Maple	66.7	51	Bridge Street West	2	Power lines generally below crown	Major pruning in past. Bark characteristics indicate mediocre growth.
14	Norway Maple	33.0	83	Bridge Street West	1	Power lines in front of crown.	Good health.
15	Norway Maple	42.1	83	Bridge Street West	2	Power lines in front of crown.	2 species of fungus including Euytapella spp. on main bole of tree but the fine branching appears healthy.
16	Green Ash	23.1	83	Bridge Street West	1		Some epicormic branching.
17	Silver Maple	11.6	83	Bridge Street West	1		Good health.
18	Silver Maple	72.3	83	Bridge Street West	1	Power lines generally below crown.	Some dead branches in crown.
19	Norway Maple	40.2	83	Bridge Street West	1	Power lines through front of crown.	

20	Sugar Maple	34.7	109	Bridge Street West	2	Power lines through front of crown.	Some crown dieback and large basal wound. Rot column forming.
21	Norway Maple	26.4	109	Bridge Street West	1	Power lines through front of crown.	
22	Sugar Maple	88.5	123	Bridge Street West	1	Power lines below crown	Multiple large branching/forking but overall good health. Slight dieback on one branch/fork.
23	Silver Maple	71.0	123	Bridge Street West	1	Power lines below crown	Some dieback on one branch but overall good health.
24	Sugar Maple	1.0	133	Bridge Street West	1	N/A	Planted by landowner?
25	Sugar Maple	8.9	149	Bridge Street West	1	N/A	
26	Silver Maple	77.0	149	Bridge Street West	1	Power lines below crown	Good health.
27	Ironwood	33.5	169	Bridge Street West	1	Power lines through front of crown.	Planted by landowner? Possible species for tree planting diversification?
28	Sugar Maple	32.7	169	Bridge Street West	1	Power lines through front of crown.	Planted by landowner?
29	Silver Maple	62.4	177	Bridge Street West	1	Power lines below crown	Slight storm damage/branch dieback in crown. Active seam on bole but OK.

30	Sugar Maple	98.3	177	Bridge Street West	1	Power lines below crown	Hollow stem towards bottom as a result of one large branch being removed.
31	Norway Maple	24.5	181	Bridge Street West	1	Crown will begin to grow into power lines in future.	Will require pruning to avoid power lines - candidate for removal?
32	Silver Maple	104.8	185	Bridge Street West	1	Power lines below crown	Good health.
33	Norway Spruce	67.1	191	Bridge Street West	1	Some power lines growing underneath crown and through lower crown.	Good health.
34	Sugar Maple	86.7	211	Bridge Street West	1	Power lines below crown	Active cavity, previous pruning relatively heavy on one side of crown.
35	Silver Maple	79.1	219	Bridge Street West	2	Power lines below crown	Previous pruning took off one large main branch @ 10' so slow rot hollowing of main stem below 10' but otherwise OK.
36	Norway Maple	8.5	210	Bridge Street West	2	No power lines in vicinity of tree.	Some epicormic branching, basal area scar due to previous forked leader.
37	Silver Maple	88.6	210	Bridge Street West	1	Power lines below crown	One lager branch dead - could use pruning. Otherwise, good, full crown.
38	Norway Maple	3.5	192	Bridge Street West	1	No power lines in vicinity of tree.	
39	Norway Maple	9.1	192	Bridge Street West	1	No power lines in vicinity of tree.	

40	Silver Maple	87.9	178	Bridge Street West	1	No power lines in vicinity of tree.	Some epicormic branching along old pruned stubs.
41	Silver Maple	95.2	178	Bridge Street West	1	Power lines below crown	One larger branch dead or dying - could use pruning. Otherwise, good full, healthy crown.
42	Norway Maple	27.6	178	Bridge Street West	1	N/A	
43	Bitternut Hickory	39.1	166	Bridge Street West	1	N/A	Nice condition street tree - potential candidate species for future planting.
44	Norway Maple	34.6	166	Bridge Street West	1	Some house lines through crown.	Some dead branching in interior of crown.
45	White Spruce	26.9	166	Bridge Street West	1	Power lines below crown	Pruned up by landowner?
46	Norway Maple	21.6	164	Bridge Street West	1	N/A	Probably shaded by neighbouring trees.
47	Norway Maple	34.1	164	Bridge Street West	1	Sewer grate in front of tree.	Old clothesline hanger in tree.
48	Silver Maple	22.9	164	Bridge Street West	1	N/A	
49	Norway Maple	22.1	164	Bridge Street West	1	N/A	

50	Red Oak	34.1	146	Bridge Street West	1	Close to house lines.	Excellent condition.
51	Sugar Maple	43.1	144	Bridge Street West	1	N/A	Previous large dead branch off main stem pruned - OK.
52	Norway Maple	25.8	144	Bridge Street West	3	N/A	Fine branch dieback - poor bark characteristics likely due to lack of water & compaction by driveway.
53	Sugar Maple	33.2	140	Bridge Street West	1	N/A	Nicely balanced crown.
54	Sugar Maple	58.2	134	Bridge Street West	1	Some house lines through crown.	Co-leader died and is slowly rotting on main bole but OK for time being.
55	Sugar Maple	34.9	122	Bridge Street West	1	Within 8' of fire hydrant.	Has received some pruning in the past.
56	Sugar Maple	3.0	122	Bridge Street West	2	N/A	Spindly - some epicormic branching - planted by landowner? OK but not very good.
57	Silver Maple	76.8	122	Bridge Street West	2	N/A	Some dead branching in crown - pruning?
58	Norway Maple	26.2	122	Bridge Street West	1	N/A	
59	Norway Maple	27.9	110	Bridge Street West	1	House utilities through crown.	Slight lean.

60	Norway Maple	31.3	110	Bridge Street West	1	N/A	Free-to-grow (no competition and no power lines).
61	White Pine	84.7	110	Bridge Street West	2	N/A	1 of 3 major stems broken off. Previously active seam on bole now healed over.
62	Silver Maple	62.1	100?	Bridge Street West	2	N/A	1 of 2 main stems broken off halfway up, but still alive.
63	Norway Maple	22.1	100?	Bridge Street West	1	N/A	Very close to larger tree #62 above and likely overshadowed.
64	Norway Maple	31.5	100?	Bridge Street West	1	N/A	Free-to-grow (no competition and no power lines).
65	Norway Maple	29.9	100?	Bridge Street West	1	Growing close to utilities lines but not through yet.	Free-to-grow (no competition and no power lines).
66	Silver Maple	87.8	48	Bridge Street West	1	Power lines below crown	Some previous wounds (old branch scar & basal wound) but healing well. Some persistent root damage from driveway likely.
67	Silver Maple	76.0	30	Bridge Street West	1	Power lines below crown	Some previous storm damage in crown has been pruned - OK.
68	White Ash	14.2	30	Bridge Street East	2	May grow into house utility lines.	Suppressed by tree # 67. May not respond to release.
69	Norway Maple	31.9	58	Bridge Street East	1	Utility lines growing through crown and rubbing on branches - prune.	Prune? Utilities rubbing on branches. Has been pruned in the past but healing well.

70	Silver Maple	87.3	68	Bridge Street East	1	Power lines below crown	Large branch removed on mail bole - healing but large wound, probably a potential entrance for rot.
71	Silver Maple	117.2	68	Bridge Street East	1	Power lines below crown	Nice, though decadent, old tree. Some crown dieback but otherwise OK. Could use pruning - 1 large dead limb.
72	Honey Locust	49.2	80	Bridge Street East	1	Power lines through front of crown.	Nice tree.
73	Sugar Maple	42.8	106	Bridge Street East	1	Power lines through front of crown.	Good health.
74	Silver Maple	82.8	106	Bridge Street East	1	Power lines below crown	Has had some pruning.
75	Silver Maple	78.7	112	Bridge Street East	1	Power lines below crown	Has had some pruning. One larger dead limb.
76	Austrian Pine	39.6		Bridge Street East (opposite 141)	1	N/A	One of a group. Recommend pruning dead branches.
77	Austrian Pine	24.8		Bridge Street East (opposite 141)	1	N/A	One of a group. Recommend pruning dead branches.
78	Austrian Pine	27.5		Bridge Street East (opposite 141)	2	N/A	One of a group. Recommend pruning dead branches.
79	Austrian Pine	28.4		Bridge Street East (opposite 141)	2	Utility lines growing through top of crown.	One of a group. Recommend pruning dead branches or possible removal.

80	Austrian Pine	35.0		Bridge Street East (opposite 141)	2	Utility lines growing through top of crown.	One of a group. Recommend pruning dead branches or possible removal.
81	Norway Maple	3.0	169	Camden Road	1	N/A	Free-to-grow (no competition and no power lines).
82	Silver Maple	78.0	179	Camden Road	2	N/A	1 major limb removed but OK. Likely rot column forming.
83	Green Ash	20.8	91	Dundas Street East	3	N/A	Tree in decline - recommend removal/replacement. Looks to have suffered multiple impacts from vehicles.
84	Norway Maple		?	Dundas Street East	2	N/A	Some dieback & epicormic branching in crown but OK.
85	Small Leaved Linden	9.5	53	Dundas Street East	1	N/A	Good health.
86	Ornamental Lilac	4.9	45	Dundas Street East	1	N/A	Good health.
87	Ornamental Lilac	4.2	27?	Dundas Street East	1	N/A	Good health.
88	Small Leaved Linden	9.0	25	Dundas Street East	2	N/A	Some storm damage (<15%), but recovering. OK.
89	Small Leaved Linden	11.9	19	Dundas Street East	2	N/A	Some storm damage (<15%), but recovering. OK. Some basal wounding at 1 metre but it is dry and healing.

90	Ornamental Lilac	9.9	19	Dundas Street East	1	N/A	Good health.
91	Ornamental Lilac	8.7	15	Dundas Street East	1	N/A	Good health.
92	Norway Maple	9.2	15	Dundas Street East	2	N/A	Growing very slowly - tough conditions for growth. Some mechanical wounds on stem but healing over.
93	Green Ash	13.2	10?	Dundas Street East	1	N/A	
94	Norway Maple	6.2	3	Dundas Street West	2	N/A	Not fast growth but OK considering location - mechanical wound on bole is healing.
95	Ornamental Lilac	4.1	3	Dundas Street West	1	N/A	Good health.
96	Norway Maple	31.5	17	Dundas Street West	1	N/A	
97	Honey Locust	5.4	23	Dundas Street West	1	N/A	
98	Small Leaved Linden	12.8	29	Dundas Street West	2	N/A	Some previous (storm?) damage but healing OK.
99	Ornamental Lilac	3.8	33	Dundas Street West	2	N/A	Mechanical damage but healing. Consider pruning.

100	Silver Maple	57.4	41	Dundas Street West	1	Power lines below crown	
101	Norway Maple	30.0, 28.9, 26.3	101	Dundas Street West	1	Power lines through front of crown.	
102	Silver Maple	11.4	101	Dundas Street West	2	Under power lines.	Flat topped. Recovering slowly from pruning. Suppressed somewhat from #101.
103	Silver Maple	28.7	107	Dundas Street West	2	Power lines through front of crown.	Tree OK but not very vigorous looking bark.
104	Norway Maple	17.0	111	Dundas Street West	1	Power lines in front of crown.	Good health.
105	Norway Maple	40.4	171	Dundas Street West	1	Power lines through front of crown.	
106	Norway Maple	22.3	181	Dundas Street West	1	Power lines in front of crown.	
107	Silver Maple	107.4	185	Dundas Street West	1	Power lines through front of crown.	Some lower limbs in power lines but generally above. <10% crown dieback.
108	White Elm	42.4	217	Dundas Street West	1	Power lines through front of crown.	Forks @ 4 feet above ground.
109	Colorado Spruce	26.6	217	Dundas Street West	1	Power lines through front of crown.	

110	Norway Maple	2.8	217	Dundas Street West	1	N/A	Planted by landowner?
111	Norway Maple	26.0	217	Dundas Street West	1	Power lines through front of crown.	
112	Red Cedar	25.0	231	Dundas Street West	1	N/A	Planted by landowner?
113	Red Cedar	12.4	231	Dundas Street West	2	N/A	Somewhat shaded by Sugar Maple behind.
114	Red Cedar	22.0	231	Dundas Street West	1	N/A	
115	Sugar Maple	2.2	243	Dundas Street West	2	N/A	Suppressed by large sugar maple behind. Landowner says was planted by municipality but barely within allowance.
116	Sugar Maple	2.2	243	Dundas Street West	1	N/A	Suppressed by large sugar maple behind. Landowner says was planted by municipality but barely within allowance.
117	Burr Oak	39.6	243	Dundas Street West	1	N/A	Some low limbs are growing into power lines - prune? Group of nice burr oak. One, not on municipal land is very large.
118	White Spruce	39.7	290	Dundas Street West	1	Power lines through front of crown.	
119	White Spruce	46.2	290	Dundas Street West	1	Power lines through front of crown.	

120	White Elm	67.5	288	Dundas Street West	1	Power lines through front of crown.	Impressive sized white elm. Rare to achieve this size. Right on border of allowance. Probably grew initially on private and then grew into town allowance.
121	Silver Maple	89.2	244	Dundas Street West	1	Free to grow. No power lines above to grow into.	Some dead branches in crown. 5-10%
122	Silver Maple	77.0	244	Dundas Street West	2	Free to grow. No power lines above to grow into.	30% branch dieback - pruning?
123	White Elm	10.2 12.4	232	Dundas Street West	1	Free to grow. No power lines above to grow into.	Suppressed under large sugar maple.
124	Norway Maple	13.6	232	Dundas Street West	1	Free to grow. No power lines above to grow into.	
125	Noble Fir?	49.1	232	Dundas Street West	1	Free to grow. No power lines above to grow into.	
126	Norway Maple	10.9	232	Dundas Street West	1	Free to grow. No power lines above to grow into.	Suppressed by #125 and #127.
127	Silver Maple	89.8	232	Dundas Street West	2	Power lines below crown	~25% crown dieback.
128	Norway Maple	15.7	208	Dundas Street West	1	Free to grow. No power lines above to grow into.	
129	Silver Maple	73.0	210	Dundas Street West	1	Free to grow. No power lines above to grow into.	<15% branch dieback.

130	Silver Maple	81.9	192	Dundas Street West	2	Free to grow. No power lines above to grow into.	~40% branch dieback - prune? Previous fork removed. Black seep. Likely rot starting.
131	Silver Maple	79.4	192	Dundas Street West	2	Free to grow. No power lines above to grow into.	~20% branch dieback - prune? Active seam but OK.
132	Sugar Maple	50.0	182	Dundas Street West	1	Free to grow. No power lines above to grow into.	
133	Norway Maple	32.6	172	Dundas Street West	1	Free to grow. No power lines above to grow into.	
134	Black Walnut	28.9	156	Dundas Street West	1	Free to grow. No power lines above to grow into.	Forks @ 4 feet above ground.
135	Bitter Cherry	17.9	156	Dundas Street West	1	Free to grow. No power lines above to grow into.	
136	Norway Maple	25.7	134	Dundas Street West	1	Power lines through front of crown.	Frost crack on SW side - OK.
137	Sugar Maple	4.0	126	Dundas Street West	1	Free to grow. No power lines above to grow into.	
138	Norway Maple	53.4	114	Dundas Street West	1	Free to grow. No power lines above to grow into.	Fungus on bole - black spots. Crown looks fine though.
139	Silver Maple	41.4	110	Dundas Street West	1	Free to grow. No power lines above to grow into.	Not particularly vigorous bark but OK.

140	Silver Maple	7.5	110	Dundas Street West	3	Free to grow. No power lines above to grow into.	Major mechanical wound on bole, slow growth, canker. Candidate for removal.
141	Silver Maple	13.9	104	Dundas Street West	2	Free to grow. No power lines above to grow into.	Not particularly vigorous bark but OK.
142	Scotch Pine	27.0	92	Dundas Street West	1	Free to grow. No power lines above to grow into.	
143	Red Oak	3.5	82	Dundas Street West	1	Free to grow. No power lines above to grow into.	
144	Norway Maple	21.4	80	Dundas Street West	Dead	Not Applicable.	Consider for Removal.
145	Norway Maple	37.7	40	Dundas Street West	2	Free to grow. No power lines above to grow into.	Some previous major branch dieback.
146	Green Ash	20.5	18	Dundas Street West	2	Free to grow. No power lines above to grow into.	Some mechanical damage on bole but healing OK.
147	Crabapple	13.1	18	Dundas Street West	1	Free to grow. No power lines above to grow into.	Fencing growing into tree - Remove?
148	Ornamental Lilac	8.5	18	Dundas Street West	1	Free to grow. No power lines above to grow into.	Fencing growing into tree - Remove?
149	Honey Locust	5.0	4	Dundas Street West	1	Free to grow. No power lines above to grow into.	

150	Small Leaved Linden	11.2	5	Dundas Street East	1	Free to grow. No power lines above to grow into.
151	Crabapple	7.0	8	Dundas Street East	1	Free to grow. No power lines above to grow into.
152	Crabapple	6.0	12	Dundas Street East	1	Free to grow. No power lines above to grow into. Slight rubbing against fence.
153	Norway Maple	7.7	16	Dundas Street East	2	Free to grow. No power lines above to grow into. Slow growth but OK.
154	Ornamental Lilac	4.8	20	Dundas Street East	1	Free to grow. No power lines above to grow into.
155	Ornamental Lilac	4.0	30?	Dundas Street East	1	Free to grow. No power lines above to grow into.
156	Ornamental Lilac	5.7	42	Dundas Street East	1	Free to grow. No power lines above to grow into.
157	Crabapple	13.0	42	Dundas Street East	2	Free to grow. No power lines above to grow into. Healing well from previous wound on stem. OK, could use pruning.
158	Norway Maple	13.2	58	Dundas Street East	2	Free to grow. No power lines above to grow into. Some crown dieback.
159	Small Leaved Linden	9.3	62	Centre Street North	2	Free to grow. No power lines above to grow into. Some wounding - frost cracking? Healing slowly. Crown good.

160	Green Ash	15.3	72	Centre Street North	2	Free to grow. No power lines above to grow into.	Lots of mechanical damage but healing OK. Tree is in tough spot.
161	Ornamental Lilac	4.7	74	Centre Street North	1	Free to grow. No power lines above to grow into.	
162	Green Ash	8.7	210	Centre Street North	1	Power lines in front of crown.	Suppressed somewhat by #163
163	Silver Maple	91.6	216	Centre Street North	1	Power lines below crown	Small amount of dead branching.
164	Norway Maple	40.3	229	Centre Street North	2	Power lines in front of crown.	Some dead branching.
165	Green Ash	10.0	223	Centre Street North	3	Free to grow. No power lines above to grow into.	Main stem dead through canker and will likely not survive long. May sucker back through coppicing.
166	Norway Maple	34.6	201	Centre Street North	1	Power lines through front of crown.	
167	Norway Maple	41.8	209	Centre Street North	1	Power lines through front of crown.	Lower limb pruning?
168	Silver Maple	97.7	205	Centre Street North	1	Power lines through front of crown.	~5% dead branching.
169	Norway Spruce	51.2	168	John Street	1	Power lines below crown	

170	Norway Maple	36.6	210	John Street	1	Free to grow. No power lines above to grow into.	Previously pruned. Vigourous.
171	Sugar Maple	93.8	264	John Street	1	Power lines below crown	One pruned main branch healing but currently opening for potential rot column. Otherwise, nice tree.
172	Norway Maple	64.8	274	John Street	1	Free to grow. No power lines above to grow into.	Previous branches pruned and healing well.
173	Sugar Maple	47.6	265	John Street	2	Power lines in front of crown.	One sided crown. <10% dieback. Slowish growth but otherwise OK.
174	Norway Maple	35.5	245	John Street	1	Power lines below crown.	
175	Sugar Maple	95.0	213	John Street	1	Power lines below crown.	Wildlife cavity. ~10% branch dieback - pruning?
176	Norway Maple	24.2	205	John Street	1	Power lines through front of crown.	
177	Silver Maple	37.3 39.6	195	John Street	1	Power lines through front of crown.	Wide crown.
178	Sugar Maple	2.0	195	John Street	3	Free to grow. No power lines above to grow into.	Suckering on trunk. Possible cut & sucker candidate? Top dead.
179	Silver Maple	60.7	181	John Street	1	Power lines below crown.	

180	Sugar Maple	2.4	177	John Street	Dead	Not Applicable.	
181	Silver Maple	50.3	169	John Street	1	Power lines below crown.	Wound healing well on main bole. Prune lower branch.
182	Silver Maple	78.6	163	John Street	1	Power lines below crown.	Prune lower branch.
183	Silver Maple	100.6	156	East Street	2	Power lines below crown.	Large broken/pruned fork allowing water to move and create rot column. Crown health is good.
184	Silver Maple	8604.0	160	East Street	1	Not Applicable.	5% dead branching - pruning?
185	Sugar Maple	45.8	172	East Street	1	Not Applicable.	Group of Five.
186	Sugar Maple	76.6	172	East Street	2	Not Applicable.	Group of Five. Some removed/broke branches may now be creating a rot column.
187	Sugar Maple	41.0	172	East Street	1	Not Applicable.	Group of Five.
188	Sugar Maple	45.4	172	East Street	1	Not Applicable.	Group of Five.
189	Sugar Maple	39.7	172	East Street	1	Not Applicable.	Group of Five. Slight lean.

190	Silver Maple	82.7	198	East Street	2	Not Applicable.	Large branch removed on main bole - healing but large wound, probably a potential entrance for rot.
191	Silver Maple	84.6	212	East Street	1	Free to grow. No power lines above to grow into.	Some seeping - active but controlled seam.
192	Silver Maple	76.5	226	East Street	1	Free to grow. No power lines above to grow into.	5% dead branching - pruning?
193	Silver Maple	79.5	226	East Street	1	Free to grow. No power lines above to grow into.	5% dead branching - pruning? Black bark from seam but OK.
194	Silver Maple	98.4	232	East Street	1	Power lines below crown.	5% dead branching - pruning?
195	Sugar Maple	85.2	240	East Street	1	Free to grow. No power lines above to grow into.	Old branch stubs have healed over nicely.
196	White Ash	91.9	245	East Street	1	Power lines below crown.	Nice large specimen of white ash. Potential for EAB though. Candidate for Treeazin. Landowner would be happy to have it removed however.
197	Sugar Maple	82.3	219	East Street	2	Power lines below crown.	Slight dieback on one major branch.
198	Sugar Maple	3.0	213	East Street	2	Could grow into power lines in future but not directly above crown.	Some mechanical damage on bole but healing OK.
199	Silver Maple	85.0	209	East Street	2	Power lines below crown.	Has large limbs on lower bole removed creating possible rot column? Good crown.

200	Silver Maple	75.0	193	East Street	2	Power lines below crown.	Has had half of crown removed - rot column likely introduced. Otherwise completely healthy.
201	Sugar Maple	30.8	159	East Street	1	Power lines through front of crown.	
202	Norway Maple	18.8	159	East Street	1	Power lines through front of crown.	Being suppressed by large sugar maple behind #201.
203	Red Oak	35.6	155	East Street	1	Power lines through front of crown.	Somewhat one-sided crown but now growing well. Probably pruned poorly by landowner.
204	Sugar Maple	67.7	178	Adelphi Street	2	Free to grow. No power lines above to grow into.	Good health but rot column probably forming due to slow healing of large wound.
205	Norway Maple	51.3	158	Alma Street	1	Power lines through front of crown.	Within 33' of middle of road?
206	White Pine	14.9	172	Alma Street	1	Free to grow. No power lines above to grow into.	Within 33' of middle of road?
207	Norway Spruce	40.6	167	Alma Street	1	Power lines through front of crown.	
208	Norway Spruce	39.1	167	Alma Street	1	Power lines through front of crown.	
209	Sugar Maple	14.3	97	Alma Street	1	Free to grow. No power lines above to grow into.	

210	Sugar Maple	5.1	97	Thomas Street	1	Free to grow. No power lines above to grow into.
211	Silver Maple	3.3	97	Thomas Street	1	Free to grow. No power lines above to grow into.
212	Silver Maple	2.1	97	Thomas Street	2	Some dieback. Mechanical damage on bole but OK.
213	Silver Maple	2.2	97	Thomas Street	2	Some dieback. Mechanical damage on bole but OK.
214	Sugar Maple	13.0	97	Thomas Street	1	Tree may grow into power lines.
215	Sugar Maple	2.2	37	Thomas Street	Dead	May resprout.
216	Sugar Maple	73.3	25	Thomas Street	1	Black bark - seep from fork but Ok. Larger dead, broken off branch in crown.
217	Eastern White Cedar	29.7	6	Thomas Street	1	Power lines through front of crown.
218	Eastern White Cedar	25.7 23.2	6	Thomas Street	1	Power lines through front of crown.
219	Eastern White Cedar	2.5	159	Centre Street North	1	Power lines above crown.

220	Eastern White Cedar	2.5	159	Centre Street North	1	Power lines above crown.
221	Norway Maple	37.3	100	Thomas Street	1	Power lines through front of crown.
222	Silver Maple	104.6	108	Thomas Street	1	Power lines through front of crown. Multiple stems @ 5-6' above ground.
223	Silver Maple	79.7	128	Thomas Street	1	Power lines below crown.
224	Silver Maple	98.6	49	Graham Street	1	Free to grow. No power lines above to grow into. On municipal land for sure?
225	Silver Maple	4.4	49	Graham Street	1	Free to grow. No power lines above to grow into. On municipal land for sure?
226	Scotch Pine	38.9	49	Graham Street	1	Free to grow. No power lines above to grow into. On municipal land for sure?
227	Honey Locust	11.8	19	Graham Street	1	Free to grow. No power lines above to grow into.
228	Norway Maple	51.5	15	Graham Street	1	Power lines through front of crown. Large dead branch on front of crown - remove?
229	Sugar Maple	28.3	11?	Graham Street	1	Power lines through front of crown.

230	Silver Maple	93.1	10	Graham Street	1	Free to grow. No power lines above to grow into.	Central rot column?
231	Silver Maple	72.1	44	Graham Street	2	Power lines below crown.	Central rot column?
232	Black Walnut	7.7	50	Graham Street	1	Tree may grow into power lines.	
233	Silver Maple	80.0	50	Graham Street	1	Power lines below crown.	
234	Silver Maple	70.3	50	Graham Street	2	Power lines below crown.	
235	Norway Maple	39.2	47	Isabella Street	1	Power lines through front of crown.	
236	Silver Maple	82.3	41	Isabella Street	2	Power lines below crown.	
237	Ironwood	11.8	41	Isabella Street	1	Tree may grow into power lines.	
238	Silver Maple	86.6	25	Isabella Street	1	Power lines below crown.	
239	Sugar Maple	20.6	25	Isabella Street	1	Free to grow. No power lines above to grow into.	

240	Sugar Maple	32.1	15	Isabella Street	2	Free to grow. No power lines above to grow into.	Consider assessing during summer - dead top at least.
241	Silver Maple	68.4	15	Isabella Street	1	Free to grow. No power lines above to grow into.	
242	Silver Maple	78.7	18	Isabella Street	1	Free to grow. No power lines above to grow into.	
243	Norway Maple	47.2	42	Isabella Street	1	Power lines through front of crown.	Active seam @ approximately 4' above ground (at fork).
244	Norway Maple	18.5	46	Isabella Street	1	Power lines through front of crown.	
245	Silver Maple	46.3	46	Isabella Street	1	Free to grow. No power lines above to grow into.	