Table of Contents

Community Tree Plan Intent

Mandate

Distinctive Qualities of Chautauqua

Distinctive & Iconic Tree Species of Chautauqua

Distinctive Landmarks of Chautauqua

Recommended Species for Street Tree Plantings

Recommended Species for Private Property Planting

Recommended Design Guidelines

Recommended Tree Sources

Recommended Planting Programs

Recommended Codes of Conduct Regarding Decisions for Removal

Appendix 1 Excerpts from myChautauqua.ca

Prepared by Leslie Frankish September 2017 UPDATE MAY 2019

The layers of our history are evident in our landscape. Let our era be the one that ensures the future of the Great Chautauqua Tree Canopy.

The following is based on the findings made in the 2016-2017 Chautauqua Tree Inventory.

Community Tree Plan Intent

To provide guidelines for future municipal street tree and park plantings.

To provide recommendations for private property plantings.

To be used in conjunction with any tree protection bylaws or polices by providing area specific guidelines for discretionary decisions regarding trees.

Mandate

To maintain the distinctive landscape of Chautauqua:

Respect the unique beauty & harmony of the Chautauqua tree canopy.

Respect the historical layers while accommodating contemporary conditions.

Retain distinctive streetscapes, vistas, focal points & landscape gestures.

Identify and protect the Iconic landmark heritage trees.

Recognize that, in addition to healthy habitat & public safety, the aesthetic & experiential aspects of the landscape are essential considerations.

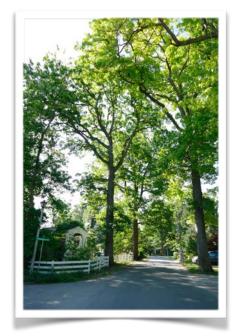
Distinctive Qualities

Atmosphere: Throughout Chautauqua there is a relaxed ambience. Although year round residences predominate the area, it still maintains a cottage resort atmosphere. The architecture is eclectic and the curb free roads feel more like large sidewalks. The epic tree canopy, however, is responsible for the strong 'sense of place'. It has been nicknamed the Cathedral of the Everyday. The feelings it evokes are paradoxicalmajestic & cozy....uplifting & grounded. Dichotomy is the key to the distinct quality of Chautauqua.

The majestic, uplifting aspect is achieved by the signature 'regal' form of the native Oaks,.... the predominant trees of Chautauqua. The high limbed, soaring trunks culminate in a canopy of large, artfully meandering branches that draw the eye upward.

The cozy, grounded aspect is created by the understory of 'cottagey' flowering shrubs and small trees. The multi-stemmed mounding forms create a comforting nest from which to view the majestic Oaks.

It is the strong contrast between the cozy and the uplifting that makes the big impact. Key to this, is the minimal presence of low branches or mid sized trees that would undermine the effect. This remarkable relationship needs to be preserved.



Arrangement: The elegant, noble trees are in a random arrangement scattered across many properties. It implies a natural forest setting rather than developers' regimentation. Formal silhouettes, layouts, and arrangements recall urban formality and are at odds with the relaxed informal atmosphere of Chautauqua.

Harmony: A very limited range of species creates this very harmonious canopy. Widespread planting of other species will dilute the tranquil unity of this arboreal wonder.

Specific species in a specific relationship defines the The Great Chautauqua Tree Canopy.

Please refer to the Design Guidelines & Recommended Planting lists for information on how to retain the distinctive Chautauqua landscape. For more information on the history and distinctive beauty of Chautauqua please refer to the Chautauqua Tree Inventory Report and myChautauqua.ca



The Distinctive & Iconic Tree Species of Chautaugua

The following are tree species that meet the criteria for distinctive status in Chautauqua...those species that contribute to the character of the neighbourhood and the beauty of the canopy. The rationale for this list is explained in the Chautauqua Tree Inventory Report. Not all, however, are recommended for replanting. Please refer to the list of Recommended Species for Planting.

Major Deciduous Trees:

White Oak
Red Oak
Pin Oak
Quercus rubra
Quercus rubra
Quercus palustris
Sugar Maple
Silver Maple
Acer saccharinum

Red Maple Acer rubrum and Acer x fremanii

Shagbark Hickory
Shellbark Hickory
Northern Catalpa
Black Walnut
White Ash
Carya ovata
Carya laciniosa
Catalpa speciosa
Julgans nigra
Fraxinus americana

Major Coniferous Trees:

White Pine Pinus strobus
White Spruce Picea glauca

Understory Trees:

Flowering Dogwood Cornus florida
Redbud Cercis canadensis
Sumac Rhus typhina

To prevent the destruction of the historic tree canopy of Chautauqua these species require protection. Every possible measure should be taken to prevent the removal of mature versions of these trees and to prevent unqualified pruning and damage to root systems. Additionally, the wide spreading root systems of the White Oaks need extra protection from interference of any sort especially root compaction. The Inventory Map in conjunction with the Catalogue can be used to identify those properties containing White Oaks.



The Distinctive Landmarks of Chautauqua

The following are single trees, groves & other landscape gestures recommended for Heritage Tree status.

They are identified as significant landmarks in the Chautauqua landscape for the following reasons:

- Members of the original Oak Savannah
- Rare Carolinian species
- Emblematic of a Historical, Cultural or Streetscape role
- Remarkable Age, Size or Beauty

As the "most famous residents" of our neighbourhood they should be actively protected. The rationale for this list is explained in the Chautauqua Tree Inventory Report.

The Famous Residents of Chautauqua:

White Oak at 10 Circle...possibly old growth

White Oak pair in Ryerson Park

White Oak at 491 Niagara Boulevard

White Oak Groves on Shakespeare

Red Oak Groves on Wesley

Silver Maple Promenade Trees planted by the 1880s Chautauqua along Wilberforce

Wesley Wisteria

The Hedges of Vincent

Sugar Maple Allee on Oak Street

Sugar Maples planted by the 1880s Chautauqua encircling the Amphitheatre (now known as Circle St)

The Scarlet Oak Ring on Circle Street

The Cottonwood at 522 Niagara Boulevard....at 122' the tallest tree in Chautauqua!

White Pine at the crest of Ryerson Park

The Memorial Oak on Ryerson Park

Note: This list is a work in progress. Upon completion of the proposed Chautauqua Oaks Replanting Project further landscape gestures will be included.

UPDATE MAY 2019 Please see myChautauqua.ca for updates.



Recommended Species for Street Tree Planting

It is recognized that the 'Street Trees' contribute significantly to the landscape of Chautauqua, especially its distinctive harmony. The high canopy coverage they provide creates the impressive vaulted corridors that have earned them the nickname 'The Cathedrals of the Everyday'. To retain this feature, a very edited list of species is recommended. It will maintain a unifying theme for the whole canopy, while providing slight variations for the unique quality of individual streets or areas.

Note: This list reflects the existing distinctive quality of the streets as well as incorporates the intention of the proposed Chautauqua Oaks Replanting Project. Given the vagaries of process, as each stage of the program is completed this list may require adjustments.

Please refer to the Recommended Design Guidelines for the relationships within which they should be planted & Pruned.

UPDATE MAY 2019 In association with Niagara College, The Chautauqua Oaks Project will be growing and providing the Oaks as of 2022. Please see <u>myChautauqua.ca</u> for more details and updates.

Street Specific Species:

Circle Street

Predominantly: Scarlet Oak

Accents: Pin Oaks & White Pine

Wilberforce

Predominantly: White Oak

Accents: Pin Oak, White Pine

Vincent, Luther, Addison & Wykcliffe

Predominantly: Red Oaks

Accents: Northern Catalpa

<u>Shakespeare</u>

Predominantly: White Oak

Accents: Red Oak & at the south end Shagbark Hickory

Oak Street

Predominantly: Red & Swamp White Oak

Accents: Sugar Maple Allee at north end & Shagbark Hickory at south end

Dixie Street

Predominantly: Red & Swamp White Oak

Accents: White Oak & at south end Shagbark Hickory

Froebel & Palatine

Predominantly: Red Oak

Accents: TBD

Wesley

Predominantly: Red Oak

Accents: Beech & White Pine

Niagara Boulevard

Predominantly: White Pine Accents: White Oak

Parks TBD

This list is subject to refinement with The Chautauqua Oaks Replanting Project plantings.



Recommended Species for Private Property Plantings

The following list provides a wider range of choices for homeowners to plant on their own property. It includes native species as well as species now naturalized and deemed compatible with the native species. The rationale for this list is explained in the Chautauqua Tree Inventory Report. Please refer to the Recommended Design Guidelines for the relationships within which they should be planted and to Recommended Sources to ensure proper provenance is maintained. Please also visit myChautauqua.ca for more information on planting in Chautauqua.

**** Denotes those species particularly Iconic of the distinctive Chautauqua landscape.

Major Deciduous Trees:

Native to Chautaugua Oak Savannah:

Acer saccharum 'Green Mountain" Sugar Maple

Shagbark Hickory Carya ovata Shellbark Hickory Carya lacinoisa American Beech Fagus grandifolia Black Walnut Juglans nigra Sycamore/Buttonwood Platanus occidentalis Black Cherry Prunus serotina Quercus alba **** White Oak Swamp White Oak Quercus bicolor Pin Oak Quercus palustris Red Oak Quercus rubra ****

Naturalized & Compatible:

Silver Maples Acer saccharinum Catalpa speciosa **** Northern Catalpa Purple European Beech Fagus sylvatica Columnar Oak Quercus alba fastigiata

Scarlet Oak Quercus coccinea

Major Evergreen Trees:

Native to Chautaugua Oak Savannah:

Balsam Fir Abies balsamea White Pine Pinus strobus **** White Spruce Picea glauca ****

Small Deciduous Trees: Note......Multi-stem versions are recommended

Native to Chautauqua Oak Savannah:

Amelanchier **** Service Berry Pawpaw Asimina triloba Paperbark Birch Betula papyrifia Blue Beech Carpinus caroliniana

Flowering Redbud Cercis canadensisincluding purple cultivar 'Forest Pansy' ****

Flowering Dogwood Cornus florida **** Pagoda Dogwood Cornus alternifolia Witch Hazel Hamamelis virginiana Ironwood or Hop Hornbeam Ostrya virginiana Sumac Rhus typhina

Naturalized & Compatible:

Japanese Maples Acer palmatum

Magnolia Magnolia soulangiana and Philadelphus coronarius **** Mock Orange

Ornamental Purple Plum Prunus cerasifera 'Atropurpurea' Pissard Plum **Ornamental Cherry** Prunus subhirtella 'Autumnalis' or serrulata 'Kwanzan'

Lilac Syringa ****

Small Evergreen Trees:

Naturalized & Compatible: Note.....good for hedges & walls

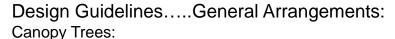
Yew Taxus cuspidata

Emerald Cedar Thuja occidentalis 'smaragd'

Recommended Design Guidelines

It is recognized that specific species in a specific relationship are the key to the unique harmony of the Great Chautauqua Tree Canopy. It is also recognized that within this harmony, individual streetscapes provide variations on the theme. The following outlines the general framework. Street specific signature styles will be outlined once the Chautauqua Oaks Replanting Program is complete.

UPDATE MAY 2019 Please see Appendix 1 for excerpts from <u>myChautauqua.ca</u> with more information on Design Guidelines and Tree Care.



Maintain 'remnants of the forest' quality with non formal, scattered arrangements that create the effect of a grove of trees spanning many properties.

Achieved best with staggered groups...clusters of 'a pair and a friend nearby'.

<u>Street Trees:</u> Placed off centre and not rigidly aligned along the street. <u>Private Property</u>: Placed at the edges & corners of the property will preclude interference with the house, and safeguard against future removal for renovations and rebuilds.

Mid story Trees:

<u>Street Trees</u>: None should be planted on the road allowances. <u>Private Property</u>: Best placed in back yards or closer to houses.

Understory Trees:

<u>Street Trees:</u> None should be planted on the road allowances. <u>Private Property</u>: Clusters of multi-stemmed or mounding small trees & shrubs creates the comforting nest aspect of Chautauqua.

Design Guidelines.....General Trimming:

Canopy Trees:

<u>Street Trees</u>: Prune as high limbed to maintain the iconic Cathedrals of the Everyday, and to prevent interference with large municipal vehicles such as garbage trucks and ploughs.

<u>Private Property:</u> There are some exceptions but generally prune to high limbed as well. This is more compatible with small lots by allowing large trees to 'live above' the houses. It also allows air movement and prevents claustrophobia.

All pruning should be done by a certified arborist.









Recommended Tree Sources

It is important to maintain the canopy with trees of the proper provenance.....actual progeny of the existing trees or stock locally grown in Southern Ontario.

Purity with Progeny

Ideally the Oak rejuvenation should be with the progeny of our existing heritage Oaks but their acorns are not naturally finding a welcoming environment to begin their germination process. Residents Holmes Hooke & Leslie Frankish began a seedling rescue program in 2016. On June 12th 2017 Town Council approved a proposal to assist in the cultivating of the seedlings by providing a nursery setting in Nassau Park.

The intention is to create a consistent and continuous crop of Heritage ChautauquaOaks in perpetuity. (The arrangement is still a work in progress but as of January 2018 there are 72 seedlings which are slated to assist in the Chautauqua Oak Replanting Project in 2020.)

UPDATE MAY 2019 The above program was replaced when the Niagara College School of Horticulture Seed Germination Program partnered with The Chautauqua Oaks Replanting Project to harvest and grow the progeny of our historic trees. All future plantings done by The Project will be done with these trees. A remarkable and rare event for an urban forest. In process at the time of this update.... establishing the gifting of crops of ChautauquaOaks to the greater Niagara on the Lake urban forest. To help with the Ash crisis and beyond. Anticipated start date 2024. Please visit myChautauqua.ca for the outcome and updates.

Local Grown

The following are recommended commercial sources that provide plant stock grown in Southern Ontario: SASSAFRASS FARMS EARTHGEN

Recommended Planting Programs

The majority of the major trees we enjoy today were planted (or allowed to grow) in the mid 1800s. A minimal number of major trees were planted in subsequent years. This has resulted in the unique landscape of Chautauqua.....a very high canopy with very few mid size trees obscuring the effect. To replicate this spatial arrangement it is recommended to replant with waves of plantings.....mass plantings of similar sized trees that 'rise' together.

(As discovered in the 2016-17 Inventory a significant replanting is long overdue. Please see the proposal for the 2018- 2022 Chautauqua Oaks Replanting Project)

UPDATE MAY 2019 In 2018 Phase 1 was completed....82 trees planted on Wilberforce and The Circle. The rest of the phases are dependent on the growth rate of the seedlings at Niagara College. Please visit myChautauqua.ca for the outcome & yearly updates.

Recommended Codes of Conduct Regarding Decisions for Removal

All efforts should be made to find solutions that preclude the removal or destruction of mature or distinctive species. This includes but not limited to the placement of:

- Houses and other structures such as garages, sheds, etc
- Swimming pools
- · Driveways...especially the request for secondary driveways
- Fire hydrants
- Utility poles, transformers, etc.
- Power lines

Subcontractors should be held to the same high standards as the town staff.

Appendix 1 Excerpts from myChautauqua.ca

UPDATE MAY 2019 More information on the Distinctive nature of the Chautauqua landscape, Design Guidelines and Care Tips.

a sense of place

Distinctive Atmosphere

Throughout Chautauqua there is a relaxed ambience.

Although year round residences predominate there is still a cottage resort atmosphere. The architecture is eclectic and the curb free roads feel more like large sidewalks.

The epic tree canopy, however, is largely responsible for the strong 'sense of place'.

Distinctive Harmony

The Great Chautauqua Tree Canopy is a unique version of the greater Niagara on the Lake urban forest. *Our* heritage trees are of a very limited range of species. A beautiful harmony results.

This signature aspect of the Chautauqua landscape needs to be preserved.





a collective beauty

Distinctive Paradox: Majestic

It is a restorative experience walking under our vaulted streetscapes.

It is the result of a unique relationship between the prevalent species.....a result far greater than the sum of its parts. The feelings evoked are paradoxicalmajestic & cozy....uplifting & grounded.

The majestic, uplifting aspect is achieved by the signature 'regal' form of the predominant tree of Chautauqua......the native Oaks.

The soaring trunks culminate in high, artfully meandering branches effortlessly holding aloft the epic leafy canopy. The eye rushes upwards and the soul is stirred.

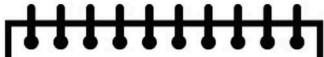












Distinctive Paradox: Cozy

In concert with the high canopy of mature trees is a low understory of small trees and shrubs which creates a cozy 'nestled in' feeling.

The paradox between cozy and uplifting makes the big impact. Key to this is the minimal presence of low branches or mid sized trees that would undermine the effect.

This comforting elegance needs to be preserved.

111111111

Distinctive Sociable Trees

Also distinctive to our streetscapes are the companionable trees.

Although the heritage trees along Wilberforce and around the Circle were formally planted by the 1880 developers.....
.....the rest of our historic tree canopy is largely the result of natural self seeding. The Oaks', and others, tendency was to arrange themselves in pairs and small groupings. Defying all 'landscape planting rules' these companionable groupings evoke a sociable relationship.

This charming indication that our neighbourhood is a friendly place needs to be preserved.

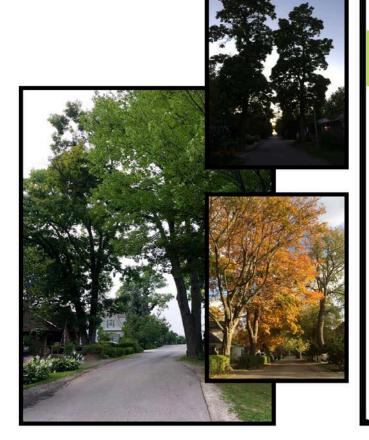












Distinctive Calming Trees

Also due to self seeding, the heritage trees are randomly scattered across many properties. Recalling the natural forest setting rather than an urban formality adds to the relaxed ambience of our little enclave.

And because the trees were here first the roads were built in deference..... gliding in between and sometimes wandering around them.

The dense arrangement of mature trees alongside the streets creates a welcoming reception line but also plays a protective role, naturally calming the traffic for our pedestrian friendly neighbourhood. The high branches maintain clear sight lines for all.

The benign influence of these sentinel trees on the atmosphere of our neighbourhood needs to be preserved.

How you can achievenestled homes.....
.....vaulted streetscapes.....
and gatherings of sociable trees.



Tree Placement Guidelines

Understory Trees

To maintain the Cozy Nest aspect of Chautauqua:

- Plant clusters of shrubs & small trees.
- Multi-stemed species nestle houses particuarly well.

Midstory Trees

To maintain the Majestic scale of our streetscapes:

The planting of mid sized trees should be avoided and none should be planted on the road allowances.

Canopy Trees

To maintain the effect of a Naturally Forested Grove spanning many properties....

- Place trees off-centre to the house.
- Flanking driveways with major trees replicates the effect of "the trees were here first".
- ❖ Plant staggered clusters of trees of the same species.
- To create the effect of Sociable Trees look at natural examples in the nieghbourhood for the appropriate distance between trees...you will be surprised at just how close together they are!

Please refer to the Distinctive Beauty section for examples.



Living with Large Trees

The Street Trees will be pruned as high limbed to maintain the iconic Cathedrals of the Everyday, and to prevent interference with large municipal vehicles.

For private property trees, high limbed major trees are very compatible with small lots by allowing large trees to 'live above' the houses.

It also allows air movement and prevents claustrophobia.



*protect the past

Mindful Care of the Heritage Trees

Roots

- Minimize the amount of hard surface ground cover... better still, use pea gravel to allow rain to get to the roots.
- Avoid placing heavy wieght on tree root systems.... too much is the equivalent of someone standing on our lungs.
- Avoid adjusting the grade of an established tree...even a little can actively suffocate it.
- a little can actively suffocate it.
 Avoid cutting through roots. Boring under is less invasive.
- Reduce the need for watering: At base of tree add 4" deep mound of composted bark mulch, keeping it clear of trunk. Water only when the soil 8" down is dry.

Trunks

- Refrain from tieing cables or nailing spikes into trunks.
- When planting ensure the trunk flare is above grade.
- Exercise caution when using weed whackers to prevent scarring of bark.

Branches

Engage a trained arborist to pruned any of the distincitve species. Ensure they read the pertinent information on this website to maintian a natural healthy form compatible with the Chautauqua landscape.

Note: It is required by law to erect protective barriers around all street trees during any manner of construction.



Food for Thought

When considering building, rennovating, or installing pools, etc....endeavour to create plans that retain any existing mature trees.

Property values actually increase by up to 27% when mature trees are present.