Ravine Stewardship Plan
4050 Yonge Street
Toronto, ON

prepared for

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1.0 INTRODUCTION

Kuntz Forestry Consulting Inc. was retained by Easton's Group/The Gupta Group c/o Urban Strategies Inc. to complete a Tree Inventory and Preservation Plan report in support of a development application for a property located at 4050 Yonge Street in Toronto, Ontario. The subject property is located in the Lower Don River Watershed on the Northwest corner of Yonge Street and Wilson Avenue. Refer to the Tree Inventory and Preservation Plan report dated 11 February 2020.

The property is subject to the provisions of the City of Toronto's Ravine and Natural Feature Protection By-law (Chapter 658) which prohibits and regulates the injury and destruction of trees, filling, grading and dumping in ravines and associated wooded areas within the Ravine Protection Line. Compliance with the Ravine By-law requires that development applications be supported by a tree replacement, woodland management, stewardship, or rehabilitation plan.

The Ravine Stewardship Plan was developed to outline preservation and enhancement opportunities for the adjacent Lower West Don River ravine system. Restoration efforts will address all ecological issues currently present in the natural feature. Prescriptions will deal with tree removals, site preparation, restoration of ecological integrity including enhancement of species diversity and ecological function of the riparian forest.

1.1 Regulatory Policy Framework

City of Toronto's Ravine and Natural Feature Protection By-law (Chapter 658)

The entire property is subject to the provisions of the City of Toronto's Ravine and Natural Feature Protection By-law (Chapter 658) which prohibits and regulates the injury and destruction of trees, filling, grading and dumping in ravines and associated wooded areas within the Ravine Protection Line.

2.0 EXISTING CONDITIONS

The majority of the subject property is occupied by an asphalt parking lot facility. Immediately north and west of the parking lot lies a portion of the Lower West Don River and its associated ravine system. The ravine valley system has been heavily degraded as a result of surrounding urban development resulting in a large accumulation of debris and high percentage of non-native species. The subject property is bounded by Yonge St. to the east, Wilson Avenue to the south, the Don River to the west, and a works yard and treed manicured lawn to the north.

The geotechnical study completed by Alston Associates indicates a thick layer of fill is located directly below the asphalt parking lot. It is estimated that the entire vegetated ravine (east of the river) was established based on a seed bed located in the original fill pile used to create the parking lot. The fill likely contained a very dense seed bed of Siberian Elm, resulting in a feature densely populated by Siberian Elm.

2.1 Vegetation Assessment

An evaluation of Ecological Land Classification communities was completed by Savanta Inc. in April 2010 and reassessed in February 2020. Field investigations conducted by KFCI on 3 May 2010 confirmed the results provided in Savanta Inc. report and identified an additional vegetation community within the West Don River valley system adjacent to the proposed development. Community boundaries were determined using desk top analysis and confirmed in the field; communities and compartments were mapped (Figure 1) and described according to the Ecological Land Classification (ELC) system for southern Ontario (Lee *et al.* 1998) and standard forest protocol. A list of vascular plants was recorded for the natural heritage feature and a list is provided in Appendix A. Nomenclature for vascular plant species follows Flora Ontario – Integrated Botanical Information System (FOIBIS) (2005) and the Ontario Plant List (1998).

Savanta Inc. identified one vegetation community, a Dry-Fresh Siberian Elm Forest (FOD), for the wooded portion of the subject property east of the West Don River. The Dry-Fresh Siberian Elm community is described by Savanta Inc. as, "*The main tree canopy is composed almost exclusively of this non-native elm, with a minor occurrence of weeping willows along the base of the north slope. The secondary canopy is composed of occasional Manitoba maple and Norway maple. In the shrub layer grow Siberian Elm with maple saplings, along with abundant common buckthorn and some Tartarian honeysuckle. The ground cover is relatively well developed, but dominated by the invasive garlic mustard. The entire slope is significantly disturbed and contains large amounts of woody debris and trash*."

In 2010, KFCI identified one vegetation community, a Fresh-Moist Sugar Maple Deciduous Forest Ecosite (FOD6), along the western limit of the subject property adjacent to the West Don River. Located primarily within the floodplain of the West Don River to the toe of the valley slope, this community represents the highest quality vegetation community located on the subject property. This community is dominated by Sugar maple (*Acer saccharum* ssp. *saccharum*) with Eastern Cottonwood (*Populus deltoides ssp. deltoides*), Manitoba Maple (*Acer negundo*), American Basswood (*Tilia americana*), Siberian Elm (*Ulmus pumila*) and Green Ash (*Fraxinus pennsylvanica*) as common associates. Gaps in canopy are present throughout the community specifically within the southern portion of the unit due to a felled over-mature Eastern Cottonwood. Regeneration of native tree resources is limited to Green Ash as expected.

Understory species include Common Buckthorn (*Rhamnus cathartica*), Choke Cherry (*Prunus virginiana ssp. virginiana*), Alternate leaved Dogwood (*Cornus alternifolia*) and a small percentage of Tartarian Honeysuckle (*Lonicera tatarica*). The groundlayer is dominated by the highly invasive Garlic Mustard (*Alliaria petiolata*) but does include a number of native woodland species such as Trout Lily (*Erythronium americanum),* Dutchman's-breeches (*Dicentra cucullaria*), Bloodroot (*Sanguinaria canadensis*), Virginia Waterleaf (*Hydrophyllum virginianum*), sedges (*Carex spp*.), Ostrich Fern (*Matteuccia struthiopteris*), Jack-in-the-pulpit (*Arisaema triphyllum ssp. triphyllum*), and Enchanter's Nightshade (*Circaea lutetiana ssp. canadensis*). The non-native, invasive Celandine (*Chelidonium majus*) is also present within this community. Refer to Appendix A for additional species.

There is abundant woody debris within this vegetation unit with occasional standing snags (primarily Siberian Elm). Invasive species are prevalent throughout this unit within the shrub and ground layer due to impacts from the surrounding land use.

2.1.1 Invasive Species

Field investigations conducted on 3 May 2010 and 28 January 2020 identified 16 non-native and/or invasive species for the subject property. An additional 22 non-native and/or invasive species were incorporated from Savanta Inc.'s Natural Heritage Impact Study (NHIS). Invasive species identified in the field were categorized using "*Invasive Exotic Species Ranking for Southern Ontario*" (Urban Forest Associates 2002). The document provides a list of priority species categorized into four categories based on their level of disruption and negative impact on a natural area. All species identified for the natural heritage feature were categorized where applicable but only Category 1 species, and dominant Category 2 species (i.e. Siberian Elm) are recommended for removal and control. Refer to Table 1 for Urban Forest Associates Invasive Species Ranking and Appendix B for a list of invasive species found.

Table 1. Invasive Species Ranking

Category	Description
1	Aggressive invasive exotic species that can dominate a site to exclude all other species and remain dominant on the site indefinitely. These are a threat to natural areas wherever they occur because they can reproduce by means that allow them to move long distances. Many of these are dispersed by birds, wind, water, or vegetative reproduction. These are the top priority for control, but control may be difficult. Eradication may be the only option for long-term success.
2	Exotic species that are highly invasive but tend to only dominate certain niches or do not spread rapidly from major concentrations. Many of these spread vegetatively or by seeds that drop close to the parent plant. They may have been deliberately planted and persist in dense populations for long periods. Control where necessary and limit their spread into other areas.
3	Exotic species that are moderately invasive but can become locally dominant given certain conditions. Control where necessary and limit their spread into other areas.
4	Exotic species that do not pose immediate threat to natural areas but do compete with more desirable native species. These can often be tolerated in restoration projects if they are already present. They may eventually be replaced through natural succession or management. Control where necessary and limit their spread to other areas.

(*Urban Forest Associates Inc. 2002*)

2.2 Wildlife Use

Wildlife studies were limited to those identified in Savanta's NHIS report and incidental observations made during the KFCI site visits. The NHIS study identified the Lower West Don River traversing the site as a tolerant warmwater fishery. Aquatic species located within the stretch of the Lower West Don River traversing the site are those typically found in tolerant warmwater. Species identified on-site included during KFCI site visits are identified as one mammal species, Grey Squirrel (*Sciurus carolinensis*), five bird species, Mallard Duck (*Anas platyrhynchos*), Canada Goose (*Branta canadensis*), Northern Cardinal (*Cardinalis cardinalis*), Red-winged Blackbird (*Agelaius phoeniceus*) and Black-capped Chickadee (*Poecile atricapillus),* and one reptile species of Garter Snake (*Thamnophis sp.*). Numerous burrowing animal dens were noted onsite and potentially belong to groundhogs (*Marmota monax*) or red foxes (*Vulpes vulpes*).

The subject property is located within the West Don River valley system, a deciduous forest ravine system that extends beyond the subject property's boundaries to the northwest and southeast where it is fragmented by existing development including the Don River Golf Course, residential and commercial land use, and transportation routes. Due to impacts from urban development including community fragmentation, an increase in impervious surfaces and an increase in non-native and/or invasive species, the subject property habitat has adapted to support species more tolerable of urban conditions.

2.3 Tree Assessment

An evaluation of tree resources and potential tree saving opportunities based on the proposed development was completed during field investigations conducted on 13 April 2010, 10 January 2011,11 September 2015, 24 January 2020, and 28 January 2020. The tree assessment included all tree resources within proximity of the impact the subject property and those located on neighboring property within 6 meters of the subject property limits. Trees located within the wooded ravine feature have been individually inventoried and tagged or inventoried using 100% tally.

Individual tree resources were assessed for condition utilizing the following parameters:

Tree # - numbers assigned to tree.
Species - common and botanical names.
DBH - diameter (centimeters) at breast height, measured at 1.4 m above the ground.
Condition - condition of tree considering trunk integrity, crown structure and crown vigor. Condition ratings include poor (P), fair (F) and good (G).
Comments - additional relevant detail.

The updated tree inventory documented a total of 242 trees located within the proximity of disturbance on the subject property and on the neighbouring property to the north. Trees included in the inventory were tagged 618 – 735, 1 – 147, and 780 – 804. Two trees located on the neighbouring property were labelled with the letters "A" and "F". One Siberian Elm located directly on the corner of Yonge Street and Wilson Avenue was labelled with the letter "B". One Siberian Elm located on the east side of the Wilson Avenue parking lot entrance was labelled with the letter

"G". A Siberian Elm located within the Yonge Street right-of-way was labelled with the letter "H". Fifty-nine (59) trees that were included in the original inventory no longer exist (either missing or have been removed). The 100% tally of all remaining trees (trees not tagged) documented 9 trees greater than 10cm DBH and 356 trees less than 10cm DBH, for a total of 365 trees.

Tree resources included in the inventory are comprised of 47% Siberian Elm (*Ulmus pumila*), 27% Manitoba Maple (*Acer negundo*), 22% Norway Maple (*Acer platanoides*), 4% Green Ash (*Fraxinus pennsylvanica*), and 2% White Elm (*Ulmus americana*) with associates of Weeping Willow (*Salix x pendula*), Staghorn Sumac (*Rhus typhina*), Silver Maple (*Acer saccharinum*), Black Locust (*Robinia pseudoacacia*), Filbert species (*Corylus* spp.), Eastern Cottonwood (*Populus deltoides*), White Ash (*Fraxinus americana*), Black Walnut (*Juglans nigra*) and Basswood (*Tilia americana*).

Refer to Appendix C for the detailed individual tree inventory table and Appendix D for a 100% tally of remaining trees excluded from the individual tree inventory. Refer to Figure 2 for the locations of trees.

3.0 PROPOSED DEVELOPMENT

The proposed development is comprised of a multi-storey mixed-use building with associated underground parking and amenity areas.

3.1 Preservation Planning

The following section provides a discussion and analysis of rehabilitation impacts, tree removal and tree preservation impacts to trees relative to the proposed works.

3.1.1 Development Impacts

The removal of all trees except for Tree A will be required due to their species and condition, and to accommodate proposed slope restoration work and development. A total of 250 trees greater than 10cm DBH and 356 trees less than 10cm DBH will require removal due to their species, health and condition, and/or to accommodate the proposed development.

3.1.2 Tree Removal

The trees included in the inventory are comprised almost exclusively of Siberian Elm, Manitoba Maple and Norway Maple. Manitoba Maple is ranked as a Category 1 invasive species, while Siberian Elm and Norway Maple are both ranked as Category 2 invasive species (Urban Forest Associates Inc., 2002). Many trees are exhibiting moderate to heavy poor form (asymmetrical crowns) as they are growing out over the parking lot in competition for sunlight. It should also be noted that many edge trees have been top-cut towards the base of their original crowns and do not warrant preservation within the urban matrix. Considering the invasive nature of the species dominating the ravine, the poor form of many edge trees and the lack of native regeneration, their removal is required and recommended with compensation to be provided in the form of restoration of the natural feature.

Tree F is a Siberian Elm in declining condition and is recommended for removal. Removal of Tree F will require the neighbouring property owner's permission as it is a shared tree. Tree H is located within the City of Toronto right-of-way, therefore permission from the City of Toronto will be required prior to its removal. Considering that the removal of the entire east ravine feature is recommended primarily based on the invasive nature of the Siberian Elm, the removal of this tree is also recommended on the same basis, providing it is replaced by native species. Refer to Figure 2 of this report for tree locations.

3.1.3 Tree Preservation and Tree Protection Recommendations

Preservation of Tree A, a mature Weeping Willow, will be possible with appropriate tree preservation measures. The tree is located 2.1 meters from the surveyed bottom of slope. Tree roots generally exploit water resources (among other resources) and considering water runs downhill, very few tree roots are anticipated to be located uphill in the original fill substrate.

Based on the City of Toronto's standards, the minimum Tree Protection Zone (mTPZ) for this tree is 24.6 meters. This distance extends past the top of bank and onto the existing asphalt parking lot. It is unlikely that tree roots exist here and the tree protection fencing has been proposed at the stable top of slope line.

Encroachment into the Tree Protection Zone (TPZ) of this tree will be required to accommodate tree removals, site preparation for restoration planting and restoration planting. Tree removals within the mTPZ of Tree A should occur during the winter months while the soil is frozen, to prevent damage to the root zone of this tree. The removal of debris, refuse, and fill will be required to prepare the northern slope for restoration planting. The removal of debris and refuse within the TPZ should be conducted by hand. Tree root exploration using hand tools and/or air spade may be used to ensure fill removal does not impact the roots of this tree. The application of topsoil within the TPZ of this tree should retain pre-existing grades. No heavy equipment is permitted within the TPZ of this tree. All works completed within the TPZ of this tree should be supervised by a Certified Arborist or registered professional forester (R.P.F.).

Tree protection measures must be implemented prior to construction phase to ensure that all trees identified for preservation are not impacted by the development. Refer to Figure 2 for tree protection zone locations and further tree protection notes.

4.0 RAVINE STEWARDSHIP PLAN

The existing forest community occupying the Lower West Don River valley system adjacent to the subject property is dominated by Siberian Elm, a non-native invasive species which has contributed to a low ecological integrity for the natural feature. Surrounding urban development has resulted in a number of impacts to the adjacent ravine system including the dumping of industrial and household debris and the spread of non-native invasive species, which has resulted in a severely disturbed and degraded natural ravine system area.

Natural heritage resources located within the ravine and natural feature protection area for the subject property represent a very low constraint to the proposed development due to the high percentage of invasive species and level of disturbance within the ravine system. Remediation of the ravine system through the removal of the existing invasive forest community and

subsequent native plantings is recommended resulting in an overall increase in floristic quality and ecological integrity.

Refer to Kuntz Forestry Consulting Inc.'s *Tree Inventory and Preservation Plan, 4050 Yonge Street, Toronto, ON* (20 May 2015, revised 11 February 2020) for a detailed inventory of tree resources comprising the west and north slopes of the subject property (east of the river).

4.1 Goals and Management Issues

The general stewardship goals for the subject property (east of river) include the replacement of the non-native forest canopy and the restoration and enhancement of the ravine feature. Key management issues identified and addressed in the Plan include the following:

- Disease – one instance of target canker
- Litter – extensive household garbage is scattered throughout the feature
- Debris/Dumping – construction debris from original construction of parking lot and large woody debris from tree cutting present
- Non-native, Invasive species – Siberian Elm, Manitoba Maple, Norway Maple, Goutweed, Dog-Strangling Vine, Canada Thistle, Garlic Mustard, Dames Rocket, Tatarian Honeysuckle, Celandine, Black Locust, and Common Buckthorn throughout the feature
- Eroded gullies – overland flow has eroded drainage channels in surface topography
- Slope stabilization – portions of the west bank will require engineering
- Native Species Diversity – very low
- Restoration – the existing canopy will require removal and will be replaced with native tree, shrub and herbaceous plantings up to the stable top of slope

4.2 Management Objectives and Strategies

Refer to the following objectives and strategies developed to address the specific management issues identified during the site assessment.

4.2.1 Site Clean-up and Preparation

Objective:

Prepare the slopes to provide a suitable growing environment for native species restoration plantings.

Strategy:

Removal of existing debris from ravine system and preparation of planting areas prior to implementation of restoration work.

Implementation:

North and West Slope

Removal of forest resources in the West and North Slope areas is required to accommodate restoration of the forest with native species. The entire West slope is to be cleared and grubbed

to accommodate slope restoration works. Tree stumps may be retained for soil stability on the north slope, depending on the extent of fill removal required. Tree removals should occur just prior to slope works and restoration activities, where possible. A boom truck can be used to extract felled trees from the slope areas.

North Slope

Removal of the various refuse items, large woody debris and piles of construction material waste will be implemented by hand (if possible), to prevent additional impacts to the slope feature. Large and heavy materials, such as concrete, asphalt or large logs may be removed using light equipment (i.e. Bobcat), if necessary. Horizontal hoarding should be laid underneath the path of the light equipment to minimize soil compaction on the north slope, particularly over the minimum Tree Protection Zone of Tree A. All refuse, debris and materials should be removed and taken off-site.

In order to determine the suitability of the current soil conditions on the north slope for plant growth, composite soil testing at a minimum of 5 soil core samples per 4000 m^2 (TRCA, 2012) will be completed prior to slope restoration works. The soil core samples will determine soil pH, organic matter, bulk density, particle size, and soil texture classification prior to the start of construction. The results of these soil samples will determine the appropriate topsoil application depth (minimum 30cm) required for adequate growing conditions. Material removal (e.g. fill) may be required to accommodate topsoil additions to maintain existing grades.

West Slope

As the west slope will be re-constructed, equipment may be used to remove refuse and heavy materials in preparation for slope restoration works. On-site removal of existing debris and yard waste is recommended to improve the quality of the ravine system long-term and prepare for slope restoration works.

The west slope will be reconstructed to include a continuous slope planting surface and rip-rap area (refer to Riggs Engineering drawings for technical details). A portion of the fill on the existing slope will be excavated, backfilled and re-graded. A 30cm layer of topsoil will be applied to the continuous slope planting surface.

Based on Toronto and Region Conservation Authority's (TRCA) Preserving and Restoring Healthy Soil: Best Practices for Urban Construction (2012) guidelines, the following soil specifications for the topsoil applications are proposed:

- Loam soil (40% sand, 40% silt and 20% clay)
- 15% organic matter content
- Bulk density of less than 1.4 grams/cm^3
- pH of 6-8

4.2.2 Invasive Species Removal and Management

Impacts to the ravine system's biodiversity include habitat fragmentation from urban development, dumping of minor debris, and presence of non-native/invasive species. Invasive species removal for the subject property should be based on the removal of Siberian Elm, Manitoba Maple, Norway Maple, Goutweed, Dog-Strangling Vine, Canada Thistle, Garlic Mustard, Dames Rocket, Tatarian Honeysuckle, Celandine, Black Locust, and Common Buckthorn (Category 1 and 2 species). Proper removal and management of invasive species will improve the floristic quality of the subject property's ravine slope feature and increase the overall ecological integrity of the site.

Objective:

Preserve and re-establish populations of native species to increase biological richness of ravine environment.

Strategies:

Remove the identified non-native, invasive species and re-plant with recommended native species while improving slope stability.

Implementation:

Invasive species removal for the ravine-protected portion of the subject property should target the removal of Category 1 and Category 2 species which include Siberian Elm, Manitoba Maple, Norway Maple, Goutweed, Dog-Strangling Vine, Canada Thistle, Garlic Mustard, Dame's Rocket, Tatarian Honeysuckle, Black Locust, and Common Buckthorn. Proper removal and management of invasive species will improve the floristic quality of the subject property's ravine slope feature and increase the overall ecological integrity of the site.

Due to feasibility issues, long-term efforts should focus mainly on Tatarian Honeysuckle, Buckthorn and Norway Maple, Siberian Elm, and Manitoba Maple regeneration and/or coppice growth. As the western slope will be grubbed and graded and the northern slope will be cleaned up, many of the invasive species will be removed during these processes. The removal of fill will reduce the existing seed bank of invasive species and this will be replaced with healthy topsoil. Efforts controlling invasive species should be limited to the control methods described below, following site preparation and clean-up and as necessary for the long-term control of invasive shrub species. The nurse crop proposed to be installed as described in section 4.2.4 should help to control any remaining herbaceous invasive species.

Planting of native species immediately following the removal of identified invasive species will be required to minimize re-establishment of non-native, invasive species. Potential impacts of delayed restoration may include increased erosion, opening of the canopy leading to a negative effect on existing native plants, colonization from existing invasive species, impacts to local wildlife and changes in drainage and increased sedimentation to the adjacent watercourse (Daigle 1996). Refer to Section 4.2.3 for a more detailed discussion regarding timing of restoration.

Many of the invasive species identified for the valley system have been identified by Environment Canada's, Canadian Wildlife Service, as serious threats to Ontario's natural areas (CWS 1993).

Proper removal and management will improve the native biodiversity of the natural heritage features and increase the overall ecological integrity. The goal of the removal and management strategy is to reduce competition from non-native species and to provide a competitive advantage to high functioning native species. This is achieved through aggressive removal of the identified species by removing large quantities within the natural heritage features and replacing them with desirable species. Table 2 identifies removal and control strategies for priority invasive species. Control strategies of woody species should continue for a minimum of five years after initial efforts, as needed and as identified in monitoring events, discussed in section 4.3.

Table 2. Removal and Control Strategies for Priority Invasive Species

Invasive Species	Biology	Removal and Control Strategy	Timing
Manitoba Maple / Norway Maple / Siberian Elm	Hardy, fast growing tree that can tolerant dry, extremely cold conditions and extended periods of flooding. Inhabits a number of habitat types including woodlands, woodland edges, floodplains, meadows, wetlands.	Girdling and stem cutting is recommend for mature specimens. A glyphosate-based herbicide should be applied immediately following cutting to suppress coppice growth. Successful control of this species may require repeated cuttings throughout the first three years. Small specimens may be hand pulled.	Removal of Manitoba Maple / Siberian Elm is most efficiently removed in fall/late fall when most other plants are entering dormancy to prevent any negative impacts on surrounding native species.
Common Buckthorn	Dioecious shrub; females produce berrylike drupes. Typically found in upland habitats, floodplain forests, woodland edges, hedgerows and old fields. Common Buckthorn has a tolerance of a wide range of conditions allowing it to reproduce successively within various habitat types. High seed production and germination rates.	Girdling and stem cutting is recommend for mature specimens. A glyphosate-based herbicide should be applied immediately following cutting. Successful control of this species may require repeated cuttings throughout the first three years. Small specimens may be hand pulled.	Removal of Common Buckthorn is most efficiently removed in fall/late fall when most other plants are entering dormancy to prevent any negative impacts on surrounding native species.
Tartarian Honeysuckle	Invades meadows, forest edges, and disturbed successional communities. Moderately shade tolerant, present within canopy gaps. Prolific seed production, berries popular food source for birds which then spread seed across landscape. Once population is established, sprouting will occur.	Repeated stem cutting to ground level may result in high mortality. A glyphosate-based herbicide should be applied immediately following cutting. Small specimens may be hand pulled.	Removal of Tartarian Honeysuckle is most efficiently removed in fall/late fall when most other plants are entering dormancy to prevent any negative impacts on surrounding native species.
Garlic Mustard	Dominates forest herb layer	Manual removal (hand-pulling or spading) is the ideal removal method for this species specifically near ground level. Flowering	Removal should occur early in the growing season to avoid seed dispersal.

		stems may also be cut to avoid the spread of seeds. Herbicide spraying is not recommended as it may be detrimental to surrounding native plant species. As this is a highly prolific species, on-going removal and management is required to successfully manage this species. All plant material should be removed from the site and preferably placed in dark plastic bags in the sun off-site to aid in the solarization of plants and rootstocks.	Removal later in the season should target flowering stems prior to seed maturation to negate re-sprouting.
Goutweed	Dominates forest understory. Forms dense mats and is shade tolerant. Population expansion occurs by primarily by vegetative means from rhizomes.	Manual removal (hand-pulling or spading) is the ideal removal method for this species specifically near ground level. New infestations should be rapidly treated to prevent establishment of root system. All plant material should be removed from the site and preferably placed in dark plastic bags in the sun off-site to aid in the solarization of plants and rootstocks.	Removal of Goutweed can occur in early spring therefore preventing plants from obtaining optimal photosynthesis to replenish carbohydrate reserves thus limiting the spread of the species. Additional removal may occur throughout the growing season but care must be taken not to impact surrounding native plant species.
Dame's Rocket	Dominates open forest understory and meadows. Short-lived, planted ornamental.	Manual removal (hand-pulling or spading) is the ideal removal method for this species specifically near ground level. Flowering stems may also be cut to avoid the spread of seeds. Herbicide spraying is not recommended as it may be detrimental to surrounding native plant species. As this is a highly prolific species, on-going removal and management is required to successfully manage this species. All plant material should be removed from the site and preferably placed in dark plastic bags in the sun off-site to aid in the solarization of plants and rootstocks.	Removal should occur early in the growing season to avoid seed dispersal. Removal later in the season should target flowering stems prior to seed maturation to negate re-sprouting.
Canada Thistle	Dominates meadows, prairies, forest edges.	Manual removal (cutting, or spading) is the ideal removal	Removal of Canada Thistle can occur in early spring

	Spreads by seed production and vegetatively by production of rhizomes.	method for this species specifically near ground level. Flowering stems may also be cut to avoid the spread of seeds. Herbicide spraying is not recommended as it may be detrimental to surrounding native plant species. As this is a highly prolific species, on-going removal and management is required to successfully manage this species. All plant material should be removed from the site and preferably placed in dark plastic bags in the sun off-site to aid in the solarization of plants and rootstocks.	therefore preventing plants from obtaining optimal photosynthesis to replenish carbohydrate reserves thus limiting the spread of the species. Additional removal may occur throughout the growing season but care must be taken not to impact surrounding native plant species.
Dog-strangling Vine	Dominates meadows and forest understorey. Forms dense populations and smothers native vegetation.	Manual removal (hand-pulling or spading) is the ideal removal method for this species specifically near ground level. Flowering stems may also be cut to avoid the spread of seeds. Herbicide spraying is not recommended as it may be detrimental to surrounding native plant species. As this is a highly prolific species, on-going removal and management is required to successfully manage this species. All plant material should be removed from the site and preferably placed in dark plastic bags in the sun off-site to aid in the solarization of plants and rootstocks.	Removal should occur early in the growing season to avoid seed dispersal. Removal later in the season should target flowering stems prior to seed maturation to negate re-sprouting.

(CWS 1993 and EC 1999)

Plantings should be implemented in areas subject to invasive species removal to eliminate or reduce the re-introduction of invasive plant species. Plantings should incorporate native tree, shrub and herbaceous species appropriate to the natural heritage feature.

4.2.3 Slope Stabilization

Objective:

Prevent the erosion and destabilization of the ravine slope and prevent the long-term meandering of the river through the development area.

Strategy

Implement solutions along the slope to maintain the structural integrity of the slope, while utilization natural stabilization techniques.

Timing

Slope stabilization and restoration planting are proposed within 24 months of the initial start of site works, including excavation and below ground building construction. It is recommended that the trees be retained during this period in order to maintain soil and slope stability prior to slope stabilization works. Select tree removals may be required to accommodate excavation and a construction ramp. Hazardous trees within striking distance of the construction should be removed prior to the start of construction. Any trees that will be destabilized as a result of the construction should be removed prior to the start of construction. All remaining tree removals should be conducted in the winter months while the soil is frozen, to minimize disturbance to the site, including soil erosion. Woody, non-native species removal on the north slope should be conducted during the dormant season of the proposed tree removals. In order to minimize the time between tree removals and restoration planting, it is recommended that the northern slope be planted and hydro-seeded as soon as possible following the tree removals and site preparation, to stabilize the slopes and prevent re-establishment of non-native, invasive species. Due to the slope stabilization works required on the west side, restoration plantings should occur as soon as possible following completion of works, and within the appropriate planting windows. If the slopes cannot be restored immediately, then additional measures may be recommended. Additional measures may include temporary erosion and sediment control techniques (such as staked fibre rolls) and/or the application of a solarization blanket to minimize the re-establishment of non-native, invasive species and to reduce the non-native, invasive species seed bank. The application of topsoil should be conducted just prior to restoration plantings.

Implementation

North Slope - Restoration Area

Due to the recommended removal of the invasive Siberian Elm forest canopy along the north slope and the addition of topsoil, the use of hydro-seeding is recommended to establish slope stability and improve success of restoration plantings. The application of hydro-seed with an approved tackifier is recommended prior to the planting of trees and shrubs and will help prevent soil erosion, slumping, and uprooting of planted material. The hydro-seed will be applied on top of the topsoil addition. Refer to Section 4.2.4 for additional hydro-seeding specifications. The removal of Siberian Elm stumps may be required to accommodate fill removal for site preparation (to be determine based on soil surveys in prior to slope restoration). Retention of Siberian Elm stumps may help prevent further impacts to the existing slope and maintain soil stability. A glyphosate-based herbicide should be applied immediately following cutting to suppress coppice growth. Successful control of this species may require repeated cuttings throughout the first three years. Small specimens may be hand pulled. Refer to Table 4 for the proposed planting schedule and Figure 3 for the restoration plan.

West Slope – Restoration Area and Engineered Slope Area

The west slope will be re-constructed to include an engineered slope area and a continuous slope planting area. A 750mm thick layer of 200-400mmØ rip-rap will be used for the lower portion of the bank (up to elevations of 128.8m and 129.5m). A granular filter consisting of 100mm of sand fill, 100mm of clear stone fill (Type 2), and 150mm of clear stone fill (Type 1) will be placed beneath the rip-rap layer. In order to provide topsoil for vegetation growth, 100mm tall geowebs will be stacked and filled with 300mm of topsoil and 260mm of sand. Refer to Riggs Engineering Drawings MA-03 for technical details and MA-04 for construction sequencing.

Bioengineering plugs will be planted along the engineering slope area at elevations of greater than 127.2m. Five rows of plugs will be installed along the engineered slope, starting at the 2 year flood line (127.2m) to the top of engineered slope, at 0.4m increments in elevation. Based on an approximate spacing of 0.5m on centre, the density of plugs is 40,000 stems per hectare (sph). The total number of plugs proposed for the engineered slope area is 1400 stems based on an engineered slope area of 0.035 hectares. The required spacing of plugs within each row in order to achieve 1400 stems is approximately 0.35m.

The geoweb cell size is approximately 259mm x 224mm and will be filled in order to obtain a 300mm thick layer of topsoil for bioengineering plug planting and root growth. The 100mm tall geoweb will be stacked into layers along the slope. The bioengineering plug installation sequencing is described below:

1. Excavate native soil material to defined excavation limits and sequentially place continuous 100mm tall stacked geowebs on regraded bank.
2. Sequentially fill geoweb cells with a minimum layer of 300mm thick topsoil and 260mm thick sand.
3. Place 100mm layer of sand across extent of engineered slope.
4. Place 100mm layer clear stone fill (Type 2), 150mm layer clear stone fill (Type 1) and rip-rap layer below first row of bioengineering plugs.
5. Locally excavate through 100mm layer of sand to install bioengineering plug within the topmost geoweb layer (100mm of topsoil). The geoweb layers are perforated and are staggered to allow for root growth into the remaining 200mm of topsoil.
6. Install 4" diameter flexible perforated PVC tile drain pipe around the bioengineering plug.
7. Place topsoil within the bottom two-thirds of each pipe, in contact with the bioengineering plug.
8. Place 100mm layer clear stone fill (Type 2), 150mm layer clear stone fill (Type 1) and rip-rap layer above installed bioengineering plugs, up to the next proposed row of bioengineering plugs (0.4m increments of elevation).
9. Repeat Steps 5 to 9 for the following 4 rows of bioengineering plugs.

The tile drain will be split vertically to allow growth of the plant material. The length of the tile drain will be 1.1m in length and will be installed from the surface of the geoweb layer to the top surface of the rip-rap. The plug will be a minimum of 1.4m in length to allow for 10cm of root ball to be planted within the topsoil and 20cm of the bioengineering plug to extend above the surface of the rip-rap. Each bioengineering plug will be watered at the time of installation.

Refer to NAK Design Strategies Sheet L7 (included in this report) for the west slope sections and bioengineering plug detail and notes. Refer to Figure 3 for the engineered slope planting area. Refer to Table 3 below for the planting schedule – engineered slope area:

Table 3. Planting Schedule – Engineered Slope Area

Zone	Type	Qty	Botanical Name	Common Name	Material Type
Engineered Slope Area (0.035 ha)	**Shrubs**	374	*Salix discolor*	Pussy Willow	bioengineering plugs
		374	*Salix eriocephala*	Heart-leaved Willow	bioengineering plugs
		373	*Cornus sericea*	Red Osier Dogwood	bioengineering plugs
		93	*Alnus incana*	Speckled Alder	bioengineering plugs
		93	*Salix exigua*	Sandbar Willow	bioengineering plugs
		93	*Salix bebbiana*	Bebb's Willow	bioengineering plugs

The application of hydro-seed with an approved tackifier is recommended prior the planting of trees and shrubs in the western slope restoration area and will help prevent soil erosion, slumping, and uprooting of planted material. The hydro-seed will be applied on top of the 30cm of added topsoil. Removal of Siberian Elm stumps on the west slope will be required in order to re-construct the slope. Removals of stumps should occur immediately prior to the start of restoration works to minimize soil erosion. Refer to Section 4.2.4 for hydro-seeding specifications.

4.2.4 Forest Health

Objective:

Improve forest health and ecological function of natural ravine area.

Strategies:

Improve floristic quality through establishment of three layers comprised of herbaceous, shrub and tree plantings to mimic natural forest structure. Use of native forest nursery stock adapted to local conditions is required.

Implementation:

Trees are to be removed and the site prepared per the Site Clean-Up and Preparation section noted above. Plantings identified below will occur in the northern and western slope restoration areas. Refer to Figure 3 for the location of the planting areas.

Recommended tree, shrub and herbaceous species will help re-establish vegetation layers, improve soil stability and increase the number of native species adapted to the existing environmental conditions. Species selection is based on native nursery stock availability and species adapted to the existing environmental conditions. Tree and shrub layers will be planted using bare root or container stock, and herbaceous species shall be applied using hydro-seeding as discussed below. The site clean-up and preparation, invasive species removal, and slope stabilization activities described above should be implemented prior to planting.

The restoration works described here, including tree and shrub plantings, are recommended to be implemented by a reputable ecological restoration company during the appropriate planting windows as noted in the planting schedules on Figure 3. Refer to Table 4 for the planting schedules for both the northern and western slope areas. Refer to Figure 3 for the restoration planting areas.

If possible, trees planted should be of bare root type with moderately advanced branching. Should planting efforts occur outside of bare root season, 2-gallon potted container stock can be substituted given they are appropriately watered.

Table 4. Proposed Restoration Planting Schedule

Zone	Type	Qty	Botanical Name	Common Name
Northern Side - (0.11ha)	**Trees**	50	*Acer saccharum* ssp. *saccharum*	Sugar Maple
		35	*Quercus rubra*	Red Oak
		35	*Tilia americana*	Basswood
		35	*Thuja occidentalis*	Eastern White Cedar
	Shrubs	124	*Prunus virginiana ssp. virginiana*	Choke Cherry
		124	*Diervilla lonicera*	Bush Honeysuckle
		124	*Cornus foemina*	Gray Dogwood
		124	*Rubus odoratus*	Flowering Raspberry
		124	*Cornus alternifolia*	Alternate-leaf Dogwood
Western Side, Restoration Slope (0.084ha)	**Trees**	12	*Tilia americana*	Basswood
		12	*Acer rubrum*	Red Maple
		12	*Acer saccharum* spp. *saccharum*	Sugar Maple
		13	*Juglans nigra*	Black Walnut
		15	*Populus tremuloides*	Trembling Aspen
		15	*Populus grandidentata*	Largetooth Aspen
		20	*Quercus macrocarpa*	Bur Oak
		20	*Thuja occidentalis*	Eastern White Cedar
	Shrubs	79	*Prunus virginiana ssp. virginiana*	Choke Cherry
		79	*Cornus alternifolia*	Alternate-leaf Dogwood
		79	*Alnus incana* ssp. *rugosa*	Speckled Alder
		79	*Cornus foemina*	Gray Dogwood
		79	*Cornus sericea*	Red-Osier Dogwood
		80	*Sambucus racemosa*	Red-berried Elderberry

Planting locations specified on Figure 3 are general areas, plantings should occur according to micro-site selection following the general guidelines outlined in the following section. Species should be planted evenly throughout each of the two respective planting areas.

The proposed planting plan will help restore the floristic quality and ecological integrity of the subject property's ravine community. Species selection promotes the use of pioneer trees along with shade-tolerant trees, shrubs and herbaceous plant species to help establish an appropriate cover crop while accelerating the process of natural succession. Multi-layered plantings and seeding forming distinct vegetation layers should be implemented mirroring a natural forest model of canopy-understory-ground layer. It is recommended that tree species be planted on 3m centres, and shrub species be planted on 1.5-2m centres to promote natural density coverage of forested communities.

Prior to restoration planting, hydro-seeding is recommended to prevent soil erosion, slumping and uprooting of planted material. Seed rate of the native herbaceous species mix is 10kg/ha. Hydro-seeding can occur from frost-free period to mid-November, with different nurse crops

recommended based on the time of year. Recommended nurse crops based on the time of application are as follows, with appropriate seed rates:

1. Annual Rye (*Lolium perenne*) – April 15 (pending no further risk of frost) to September 15 (with watering): 30 kg/ha
2. Buckwheat (*Fagopyrum esculentum*) - June 1 to July 31 (with watering) winter kill: 40kg/ha
3. Oats (*Avena sativa*) – April 15 (pending no further risk of frost) to May 31 & August 1 to August 31 (with watering) winter kill: 65 kg/ha
4. Canada Wild Rye (*Elymus canadensis*) - October 15 to November 15: 10 kg/ha

The application of a nurse crop and native herbaceous species will help control invasive species and prevent erosion while native tree and shrub species establish over a 2 - 3 year period. It is recommended that hydro-seeding occur as soon as possible following topsoil application, and prior to the planting of bareroot trees and shrubs. Hydro-seeding will be applied on top of the topsoil application. For fall hydro-seeding, a short-term biodegradable erosion control blanket is recommended on the slopes to stabilize the soil prior to vegetation establishment and prior to the spring freshet. See below for the native herbaceous species seed mix:

15% Poverty Oat Grass (*Danthonia spicata*)
15% Witch Grass (*Panicum capillare*)
10% Canada Goldenrod (*Solidago canadensis*)
10% Common Milkweed (*Asclepias syriaca*)
10% Evening Primose (*Oenothera biennis*)
10% Heart Leaved Aster (*Symphyotrichum cordifolium*)
10% Heath Aster (*Symphyotrichum ericoides* var. *ericoides*)
10% Tall Goldenrod (*Solidago altissima* var. *altissima*)
5% Black Eyed Susan (*Rudbeckia hirta*)
5% Wild Bergamot (*Monarda fistulosa*)

The establishment of microhabitats along the slopes is recommended to allow for pockets of leaf litter and detritus accumulation and increased moisture. Microhabitats can be created using horizontal placement of native logs, or horizontal placement and staking of seeded coir logs and erosion and sediment control (silt) socks. The same native herbaceous seed mix used in the hydro-seed may be used within the logs and/or socks. These microhabitats should be installed prior to tree and shrub plantings. The locations of these microhabitats will be determined in situ.

4.3 Maintenance and Monitoring

Objective:

Track the success of ecological restoration initiatives and guide the short and long-term maintenance of the restored features.

Strategy:

Execute monitoring strategies and create monitoring schedule involving periodic site inspections by contractor and/or responsible agencies.

Implementation:

Watering of planted bare root and container stock is recommended once a week from the time of planting until the end of the first growing season (mid-fall). Additional watering may be required during droughty summer conditions (i.e. twice a week). Watering should be completed in the early morning to minimize evaporation loss.

Short-term maintenance and monitoring events should occur twice during the growing season, if applicable, for the year following the implementation of restoration plantings and initiatives. Due to the limited size of the subject property, permanent plots or sample quadrants are not necessary for successful monitoring. Visual analysis incorporating detailed notes to address survivorship of plant species, individual plant health and potential growth of invasive species is recommended. Mortality of all planted individuals should be determined and the causes of mortality identified (shade intolerance, herbivory, drought, etc.). Required removal and control of invasive species should be identified during monitoring events to prevent invasive species from becoming well established. Removal of regenerating Siberian Elm, Norway Maple, Manitoba Maple, Buckthorn and Honeysuckle throughout the property, specifically along the north ravine slope is vital to the success of the restoration plan. It is anticipated that regeneration on the western slope will be minimal as the stumps will require removal to accommodate the slope stabilization works. Invasive species removal to be conducted by hand to minimize disturbance to the restored areas.

Long-term monitoring events should track the success of restoration initiatives and monitor the spread and/or re-establishment of non-native/invasive species. Invasive species management efforts should continue as needed from years 3 to 5 subsequent to the first two years of short-term monitoring and maintenance. Monitoring events should occur annually from years 3 to 5 to assess restoration success and level of invasive species. After five years, planted stock should be sufficiently established and frequent monitoring will no longer be necessary. Long-term monitoring (greater than five years) of the restored slopes will occur on an as-needed basis. A threshold of greater than 85% established cover of native species for two consecutive years is recommended to determine whether continued monitoring up to 10 years will be required. For example, if the monitoring events in years 4 and 5 determine a native species cover of greater than 85% cover, than continued monitoring will no longer be required. Replacement plantings and seeding will be determined based on the monitoring events and will be recommended to ensure an 80% survival rate of planted stock. Refer to Table 5 for the detailed invasive species management and monitoring schedule and Figure 4 for the general locations of invasive species management and maintenance.

Table 5. Invasive Species Management, Restoration Maintenance and Monitoring Schedule

Year	Objective	Task Description	Frequency/Timing
Year 1	Invasive Species Management	Invasive species removal following initial tree, woody shrub and herbaceous species removal and following restoration: remove coppice growth from stumps on the northern side, re-apply glyphosate (if required) (Area 1)	Late fall (one event)
	Restoration Planting/Hydro-seeding	Conduct slope restoration works, including hydro-seeding and restoration planting (All areas)	variable
Year 2	Invasive Species Management	Remove coppice growth from stumps, hand-pull seedlings of woody, non-native invasive species (Area 1, Area 3 as required)	Late fall (one event)
	Replacement Plantings	Additional plantings to maintain an 80% survival rate of planted stock (Areas 1 and 2)	As necessary based on monitoring event
	Monitoring	Monitor success of plantings and identify causes of mortality, note potential growth of herbaceous and woody non-native invasive species (All areas)	Twice; During the growing season (summer) and end of growing season (early to mid-Fall)
Year 3	Invasive Species Management	Remove coppice growth from stumps, hand-pull seedlings of woody, non-native invasive species (Area 1, Area 3 as required)	As necessary based on monitoring event
	Replacement Plantings	Additional plantings to maintain an 80% survival rate of planted stock (Areas 1 and 2)	As necessary based on monitoring event
	Monitoring	Monitor success of plantings and identify causes of mortality, note potential growth of herbaceous and woody non-native invasive species (All areas)	Annually during the growing season
Year 4	Invasive Species Management	Remove coppice growth from stumps, hand-pull seedlings of woody, non-native invasive species (Area 1, Area 3 as required)	As necessary based on monitoring event
	Replacement Plantings	Additional plantings to maintain an 80% survival rate of planted stock (Areas 1 and 2)	As necessary based on monitoring event
	Monitoring	Monitor success of plantings and identify causes of mortality, note potential growth of herbaceous and woody non-native invasive species (All areas)	Annually during the growing season
Year 5	Invasive Species Management	Remove coppice growth from stumps, hand-pull seedlings of woody, non-native invasive species (Area 1, Area 3 as required)	As necessary based on monitoring event
	Replacement Plantings	Additional plantings to maintain an 80% survival rate of planted stock (Areas 1 and 2)	As necessary based on monitoring event
	Monitoring	Monitor success of plantings and identify causes of mortality, note potential growth of herbaceous and woody non-native invasive species (All areas)	Annually during the growing season
Years 6-10	Monitoring	Monitor success of plantings, monitoring potential growth of invasive species	As necessary; it is recommended that monitoring continue until greater than 85% established cover of native species is observed for two consecutive years, including in Years 4 and 5.

5.0 CONCLUSION

Kuntz Forestry Consulting Inc. was retained by Easton's Group/The Gupta Group c/o Urban Strategies Inc. to complete a Ravine Stewardship Plan and report in support of a development application for a property located at 4050 Yonge Street in Toronto, Ontario. The entire subject property is subject to the City of Toronto's Ravine and Natural Feature Protection By-law (Chapter 658). Construction of the existing TTC parking facility within the Ravine lands and extensive land use have contributed to a number of impacts to the Lower West Don River ravine system including establishment of an invasive non-native forest canopy, low biodiversity, and extensive dumping of various refuse items. Removal of existing debris and the implementation of the proposed Ravine Stewardship Plan will provide restoration and enhancement for the existing ravine feature including improved forest health and biodiversity in conjunction with the proposed development.

Respectfully Submitted,

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APPENDIX A. WORKING VASCULAR PLANT SPECIES LIST

February 2020

Scientific Name	Common Name	Non-Native
DRYOPTERIDACEAE	**WOOD FERN FAMILY**	
Matteuccia struthiopteris (L.) Todaro	American Ostrich Fern	
EQUISETACEAE	**HORSETAIL FAMILY**	
Equisetum arvense L.	Field Horsetail	
ARACEAE	**ARUM FAMILY**	
Arisaema triphyllum (L.) Schott	Jack-in-the-pulpit	
CYPERACEAE	**SEDGE FAMILY**	
Carex granularis	Meadow Sedge	
Carex spp.	Sedge	
LILIACEAE	**LILY FAMILY**	
Erythronium americanum Ker	Yellow Trout Lily	
Maianthemum racemosum (L.) Link	False Solomon's-seal	
Trillium grandiflorum (Michx.) Salisb.	White Trillium	
ACERACEAE	**MAPLE FAMILY**	
Acer negundo L.	Manitoba Maple	
Acer platanoides	Norway Maple	x
Acer saccharinum L.	Silver Maple	
Acer saccharum Marsh.	Sugar Maple	
ANACARDIACEAE	**SUMAC FAMILY**	
Toxicodendron rydbergii	Rydberg's Poison Ivy	
Rhus typhina	Staghorn Sumac	
APIACEAE	**CARROT FAMILY**	
Aegopodium podagraria	Goutweed	x
Daucus carota L.	Wild Carrot, Queen Anne's Lace	x
ASCLEPIADACEAE	**MILKWEED FAMILY**	
Asclepias syriaca	Common Milkweed	
Cynanchum rossicum	Dog-strangling vine	x
ASTERACEAE	**ASTER FAMILY**	
Achillea millefolium	Yarrow	x
Arctium minus (Hill) Bernh.	Common Burdock	x
Aster spp.	Aster	
Symphyotrichum lanceolatum ssp. *lanceolatum*	Tall White Aster	
Cichorium intybus	Chicory	x
Cirsium arvense	Canada Thistle	x
Erigeron strigosus	Daisy Fleabane	
Solidago altissima L.	Tall Goldenrod	
Solidago canadensis L.	Canada Goldenrod	
Solidago flexicaulis	Zig-zag Goldenrod	
Sonchus arvensis ssp. *arvensis*	Field Sow-thistle	x
Taraxacum officinale Weber	Dandelion	x
BALSAMINACEAE	**TOUCH-ME-NOT FAMILY**	
Impatiens capensis	Spotted Jewelweed	
BORAGINACEAE	**BORAGE FAMILY**	
Myosotis scorpioides L.	True Forget-me-not	x
BRASSICACEAE	**MUSTARD FAMILY**	
Alliaria petiolata (Bieb.)Cavara & Grande	Garlic Mustard	x
Hesperis matronalis	Dame's Rocket	x
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**	
Lonicera tatarica L.	Tartarian Honeysuckle	x
Viburnum opulus	Cranberry Viburnum	x
CORNACEAE	**DOGWOOD FAMILY**	

Cornus alternifolia L.f.	Alternate-leaved Dogwood	
FABACEAE	**PEA FAMILY**	
Robinia pseudoacacia	Black Locust	x
FUMARIACEAE	**FUMITORY FAMILY**	
Dicentra cucullaria (L.) Bernh.	Dutchman's-breeches	
GERANIACEAE	**GERANIUM FAMILY**	
Geranium robertianum L.	Herb Robert	x
HYDROPHYLLACEAE	**WATERLEAF FAMILY**	
Hydrophyllum virginianum L.	Virginia Waterleaf	
JUNCACEAE	**RUSH FAMILY**	
Juncus dudleyi	Dudley's Rush	
JUGLANDACEAE	**WALNUT FAMILY**	
Juglans nigra	Black Walnut	
LAMIACEAE	**MINT FAMILY**	
Leonurus cardiaca L.	Motherwort	x
LILIACEAE	**LILY FAMILY**	
Erythronium americanum	Yellow Trout-lily	
Maianthemum racemosum	False Solomon's Seal	
Trillium grandiflorum	White Trillium	
POACEAE	**GRASS FAMILY**	
Bromus inermis	Awnless Brome	x
Dactylis glomerate	Orchard Grass	x
Elymus repens	Quack Grass	x
Schedonorus arundinaceus	Tall Fescue	
Festuca filiformis	Filiform Fescue	x
Lolium perenne	English Rye Grass	
Phleum pretense	Timothy	x
Poa pratensis ssp. pratensis	Kentucky Bluegrass	
OLEACEAE	**OLIVE FAMILY**	
Fraxinus americana L.	White Ash	
Fraxinus pennsylvanica	Red Ash	
ONAGRACEAE	**EVENING-PRIMROSE FAMILY**	
Circaea lutetiana L.	Enchanter's Nightshade	
PAPAVERACEAE	**POPPY FAMILY**	
Chelidonium majus L.	Celandine	x
Sanguinaria canadensis L.	Bloodroot	
PLANTAGINACEAE	**PLANTAIN FAMILY**	
Plantago major	Common Plantain	x
POLYGONACEAE	**SMARTWEED FAMILY**	
Persicaria maculosa	Lady's-thumb	x
RANUNCULACEAE	**BUTTERCUP FAMILY**	
Thalictrum dioicum L.	Early Meadow Rue	
RHAMNACEAE	**BUCKTHORN FAMILY**	
Rhamnus cathartica L.	Common Buckthorn	x
ROSACEAE	**ROSE FAMILY**	
Geum urbanum	Wood Avens	
Prunus virginiana L.	Choke Cherry	
Rubus idaeus L.	Wild Red Raspberry	
SALICACEAE	**WILLOW FAMILY**	
Populus deltoides Marsh	Cottonwood	
Salix x pendulina	Hybrid Willow	x
SCROPHULARIACEAE	**FIGWORT FAMILY**	
Linaria vulgaris	Butter-and-eggs	x
SOLANACEAE	**NIGHSHADE FAMILY**	
Solanum dulcamara	Climbing Nightshade	x
TILIACEAE	**LINDEN FAMILY**	

Tilia americana L.	Basswood	
ULMACEAE	**ELM FAMILY**	
Ulmus americana	White Elm	
Ulmus pumila L.	Siberian Elm	x
URTICACEAE	**NETTLE FAMILY**	
Urtica dioica ssp. *dioica*	European Stinging Nettle	x
VITACEAE	**GRAPE FAMILY**	
Parthenocissus inserta (A. Kerner) Fritsch	Virginia Creeper	
Vitis riparia Michx.	Riverbank Grape	

APPENDIX B. EXISTING INVASIVE SPECIES

Scientific Name	Common Name	Category			
		1	2	3	4
ACERACEAE	**MAPLE FAMILY**				
**Acer negundo*	Manitoba Maple	x			
Acer platanoides	Norway Maple		x		
APIACEAE	**CARROT FAMILY**				
Aegopodium podagraria	Goutweed	x			
Daucus carota L.	Wild Carrot, Queen Anne's Lace	N/A	N/A	N/A	N/A
ASCLEPIADACEAE	**MILKWEED FAMILY**				
Cynanchum rossicum	Dog-strangling vine	x			
ASTERACEAE	**ASTER FAMILY**				
Achillea millefolium ssp. millefolium	Common Yarrow	N/A	N/A	N/A	N/A
Arctium minus	Common Burdock	N/A	N/A	N/A	N/A
Cichorium intybus	Chicory	N/A	N/A	N/A	N/A
Cirsium arvense	Canada Thistle	x			
Sonchus arvensis ssp. arvensis	Field Sow Thistle	N/A	N/A	N/A	N/A
Taraxacum officinale	Dandelion	N/A	N/A	N/A	N/A
BORAGINACEAE	**BORAGE FAMILY**				
Myosotis scorpioides	True Forget-me-not				x
BRASSICACEAE	**MUSTARD FAMILY**				
Alliaria petiolata	Garlic Mustard	x			
Hesperis matronalis	Dame's Rocket	x			
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**				
Lonicera tatarica	Tatarian Honeysuckle	x			
Viburnum opulus	Guelder Rose				x
CELASTRACEAE	**BITTERSWEET FAMILY**				
Euonymus europaeus	Spindle Tree			x	
FABACEAE	**PEA FAMILY**				
Robinia pseudoacacia	Black Locust		x		
GERANIACEAE	**GERANIUM FAMILY**				
Geranium robertianum	Herb Robert	N/A	N/A	N/A	N/A
LAMIACEAE	**MINT FAMILY**				
Leonurus cardiaca	Motherwort	N/A	N/A	N/A	N/A
PAPAVERACEAE	**POPPY FAMILY**				
Chelidonium majus	Celandine	N/A	N/A	N/A	N/A
PLANTAGINACEAE	**PLANTAIN FAMILY**				
Plantago major	Common Plantain	N/A	N/A	N/A	N/A
POACEAE	**TRUE GRASSES FAMILY**				
Bromus inermis ssp. Inermis	Awnless Brome	N/A	N/A	N/A	N/A
Dactylis glomerata	Orchard Grass			x	
Elymus repens	Quack Grass			x	
Festuca arundinacea	Tall Fescue			x	
Festuca filiformis	Filiform Fescue	N/A	N/A	N/A	N/A
Lolium perenne	English Rye Grass				x
Phleum pratense	Timothy Grass	N/A	N/A	N/A	N/A
POLYGONACEAE	**KNOTWEED FAMILY**				

Polygonum persicaria	Lady's Thumb	N/A	N/A	N/A	N/A
RHAMNACEAE	**BUCKTHORN FAMILY**				
Rhamnus cathartica	Common Buckthorn	x			
ROSACEAE	**ROSE FAMILY**				
Geum urbanum	Wood Avens	N/A	N/A	N/A	N/A
SALICACEAE	**WILLOW FAMILY**				
Salix x pendulina	Weeping Willow	N/A	N/A	N/A	N/A
Salix cf babylonica	Weeping Willow	N/A	N/A	N/A	N/A
SCROPHULARIACEAE	**FIGWORT FAMILY**				
Linaris vulgaris	Butter-and-Eggs				x
SOLANACEAE	**NIGHTSHADE FAMILY**				
Solanum dulcamara	Bitter Nightshade			x	
ULMACEAE	**ELM FAMILY**				
Ulmus pumila	Siberian Elm		x		
URTICACEAE	**NETTLE FAMILY**				
Urtica dioica ssp. dioica	European Stinging Nettle			x	

**Plants marked with an asterisk may be indigenous to parts of Ontario, but have aggressive behaviour that threatens natural biodiversity. They are considered invasive exotic plants outside their natural range.*

APPENDIX C. TREE INVENTORY TABLE

Location: 4050 Yonge St., Toronto
Date: 13 Apr. 2010 , 10 Jan. 2011, 11 Sep. 2015, 24 Jan. 2020

Surveyors: JJJ and AC, JLR, CB, and KD

Tree#	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	cat.	Comments	Action
618	Norway Maple	*Acer platanoides*	25, 16	G	F	P-F		4	union at base, stem wounds (M), seam (L), 1.5 meters from sidewalk, gypsy moth present	Remove
619	Norway Maple	*Acer platanoides*	26	F	F-G	F		4	seam (L), swollen flare (M), gypsy moth present	Remove
620	Siberian Elm	*Ulmus pumila*	18, 14	F	F	F		4	union at 0.4 meters, included bark (M), deadwood (L)	Remove
621	Manitoba Maple	*Acer negundo*	13, 9.5, 4	F	F	F		4	lean (M), union at base and 0.5 meters, included bark (M), stem wound (L)	Remove
622	Siberian Elm	*Ulmus pumila*	17, 16, 15	F	F	F		4	union at 0.5 meters with included bark (M), exposed roots, drainage swale adjacent to base, grapevine competition (M)	Remove
623	Siberian Elm	*Ulmus pumila*	31, 19	F	F	F		4	union at 1 and 1.5 meters, grapevine competition (L), deadwood (M)	Remove
624	Siberian Elm	*Ulmus pumila*	13	F-G	F-G	F		4	asymmetrical crown (M), bow (L)	Remove
625	Siberian Elm	*Ulmus pumila*	11, 8	P	P	P		4	Dead	Remove (Condition)
626	Manitoba Maple	*Acer negundo*	9	F	F	G		4	lean (L) towards parking lot, asymmetrical crown (M)	Remove
627	Siberian Elm	*Ulmus pumila*	6, 8	F	F	F		4	union at base, asymmetrical crown (M)	Missing
628	Siberian Elm	*Ulmus pumila*	42	F	F	F		4	union at 1.6 meters, deadwood (M)	Remove
629	Siberian Elm	*Ulmus pumila*	29	F	P-F	F-G		4	lean (M) toward parking lot, asymmetrical crown (M)	Remove
630	Siberian Elm	*Ulmus pumila*	18	G	F	F-G		4	deadwood (L)	Remove
631	Siberian Elm	*Ulmus pumila*	22	F-G	P-F	F-G		4	seam (M), asymmetrical crown (L), broken top	Remove
632	Siberian Elm	*Ulmus pumila*	9.5	F	F	F-G		4	understory tree, asymmetrical crown (M)	Remove
633	Siberian Elm	*Ulmus pumila*	23.5	G	F-G	F-G		4		Remove
634	Siberian Elm	*Ulmus pumila*	24	F-G	P-F	F		4	Broken top, asymmetrical crown (M)	Remove
635	Siberian Elm	*Ulmus pumila*	14	F	F	F		4	asymmetrical crown (H), lean (L)	Missing
636	Siberian Elm	*Ulmus pumila*	7, 15, 9.5	F	F	F		4	union at base and 0.35 m, lean (L), asymmetrical crown (M), understory tree, pruning wounds (M)	Missing
637	Siberian Elm	*Ulmus pumila*	18	F	F	F		4	epicormic branching (H), lean (L), broken top	Remove
638	Siberian Elm	*Ulmus pumila*	28	F	F	F		4	lean (L), union at 5 meters, poor form (M)	Remove
639	Siberian Elm	*Ulmus pumila*	25.5				100	4	elevated hazard potential	Missing
640	Siberian Elm	*Ulmus pumila*	28	F-G	F-G	F		4	grapevine competition (L), union at 5 meters	Remove
641	Siberian Elm	*Ulmus pumila*	20, 17	F	F	F		4	lean (L), union at 0.75 meters, asymmetrical crown (H), broken branches (L)	Remove
642	Siberian Elm	*Ulmus pumila*	18	F	P-F	P-F	50	4	lean (L), union at 2.5 meters, broken branches (M)	Remove
643	Siberian Elm	*Ulmus pumila*	17, 5	F	P-F	F		4	lean (L), union at base, broken top	Remove
644	Siberian Elm	*Ulmus pumila*	26	F	F	F		4	union at 2 meters, included bark	Remove
645	Siberian Elm	*Ulmus pumila*	21	F	P-F	F		4	asymmetrical crown (H), lean (L), broken top	Remove
646	Siberian Elm	*Ulmus pumila*	16	F	P	F		4	union at 1.6 and 2 m, pruning wounds (M), understory tree	Missing
647	Siberian Elm	*Ulmus pumila*	10	F	P	F		4	lean (M), asymmetrical crown (H)	Missing
648	Siberian Elm	*Ulmus pumila*	~18, ~15	P-F	F	F		4	15 cm stem dead, union at base, asymmetrical crown (M)	Remove
649	Siberian Elm	*Ulmus pumila*	17	F	F	F-G		4	lean (L), asymmetrical crown (M), broken top	Remove
650	Manitoba Maple	*Acer negundo*	15, 9	F	P-F	P-F		4	union at base with included bark (L), stem wound (L), lean (M), asymmetrical crown (M), concrete debris against flare, small stem dead	Remove
651	Siberian Elm	*Ulmus pumila*	24	F	F	F		4	lean (L), asymmetrical crown (L), sweep (L)	Remove
652	Manitoba Maple	*Acer negundo*	20.5	P	P	P		4	Dead	Remove (Condition)
653	Siberian Elm	*Ulmus pumila*	22	F	F	F	25	4	asymmetrical crown (L), seam (L), union at 3 meters, stem wound (M), one stem dead	Remove
654	Siberian Elm	*Ulmus pumila*	10	F	P-F	F		4	understory tree, asymmetrical crown (H), sanopy conflicting with tree 653, broken top	Remove
655	Siberian Elm	*Ulmus pumila*	13, 10	F	F	F		4	union at 1.3 meters, asymmetrical crown (L), included bark, broken top	Remove
656	Siberian Elm	*Ulmus pumila*	21, 6	F	F	F		4	crook (L), union at 0.2 m, swollen flare (M)	Remove
657	Siberian Elm	*Ulmus pumila*	21.5	F	F	F		4	Dead	Remove
658	Siberian Elm	*Ulmus pumila*	~9, ~7	F	P	F		4	pruning wounds (H)	Missing
659	Siberian Elm	*Ulmus pumila*	13	F	F	F		4	pruning wounds (H), lean (L), asymmetrical crown (M)	Missing
660	Siberian Elm	*Ulmus pumila*	18	F	F	F-G		4	crook (L), lean (L), understory tree, asymmetrical crown (M)	Missing
661	Siberian Elm	*Ulmus pumila*	~40	F	F	F		4	lean (L), asymmetrical crown (M), pruning wounds (L), broken branches (H), one stem dead	Remove
662	Siberian Elm	*Ulmus pumila*	20.5	F	F	F		4	understory tree, seam (L), co-dominant stems in crown	Remove
663	Siberian Elm	*Ulmus pumila*	15, 10	F	P	F		4	asymmetrical crown (H), crook at base (L), stem wounds (L), lean (L)	Remove
664	Siberian Elm	*Ulmus pumila*	36	F	F	F		4	sweep (L), lean (L), deadwood (M)	Remove
665	Siberian Elm	*Ulmus pumila*	21, 11	F	F	F		4	union at base with included bark (L), 11 cm stem dead, asymmetrical crown (M), lean (L)	Remove
666	Siberian Elm	*Ulmus pumila*	~10	F	F	F		4	crook (M), sweep (L), asymmetrical crown (L), included fence	Remove
667	Siberian Elm	*Ulmus pumila*	~10	F	F	F		4	grapevine competition (M), included fence, broken branches (M)	Remove
668	Siberian Elm	*Ulmus pumila*	~7	P-F	F	F		4	lean (M), grapevine competition (H)	Missing
669	Siberian Elm	*Ulmus pumila*	17	P-F	P-F	P-F		4	Dead	Remove (Condition)
670	Siberian Elm	*Ulmus pumila*	19	F	P	F		4	understory tree, lean (M)	Remove
671	Siberian Elm	*Ulmus pumila*	19	F	F	F	30	4	asymmetrical crown (M)	Remove
672	Siberian Elm	*Ulmus pumila*	13	F	P	P-F		4	animal burrow under root zone, crook at base (L), poor form (M)	Remove
673	Siberian Elm	*Ulmus pumila*	13	F	P-F	F		4	lean (L), asymmetrical crown (M), understory tree	Remove
674	Siberian Elm	*Ulmus pumila*	13.5	F	P-F	F		4	lean (L), understory tree, asymmetrical crown (M)	Missing
675	Siberian Elm	*Ulmus pumila*	19.5	F	F	F	20	4	lean (L)	Remove
676	Siberian Elm	*Ulmus pumila*	38	F	F	F		4	lean (L), deadwood (L)	Remove
677	Siberian Elm	*Ulmus pumila*	30.5	F	F	F		4	lean (L), codominant at 5 meters, understory to 676, broken branches (M)	Remove
678	Siberian Elm	*Ulmus pumila*	20	F	F	F	20	4	lean (M), sweep at base (L)	Remove
679	Siberian Elm	*Ulmus pumila*	34, 16	F	F	F	25	4	union at 1 meter with included bark (M), 16 cm stem dead, asymmetrical crown, broken branches (M)	Remove
680	Siberian Elm	*Ulmus pumila*	12.5	F	F	F		4	lean (L), understory tree, asymmetrical crown (M)	Missing
681	Siberian Elm	*Ulmus pumila*	7	F-G	F	F		4	asymmetrical crown (M), understory tree	Remove
682	Siberian Elm	*Ulmus pumila*	6	P	P	P		4	Dead	Missing
683	Siberian Elm	*Ulmus pumila*	11, 7	F	P-F	F		4	asymmetrical crown (H), crown lodged under limb of adjacent tree, union at base, twisting stems	Remove
684	Siberian Elm	*Ulmus pumila*	15	F	P-F	F		4	lean (L), asymmetrical crown (M), broken top, epicormic branching (H)	Remove
685	Siberian Elm	*Ulmus pumila*	12	F	P	F		4	main stem broken at 3 meters, union at 1.6 meters	Remove

686	--	--	~25					4	elevated hazard potential, all limbs Missing from trunk, just stem remains	Remove (Condition)
687	Siberian Elm	*Ulmus pumila*	27	F	P-F	F		4	sweep (L), lean (L), topcut at 6 meters, asymmetrical crown (M), epicormic branching (H)	Remove
688	Siberian Elm	*Ulmus pumila*	~12				100	4	Dead	Remove (Condition)
689	Siberian Elm	*Ulmus pumila*	15	F	P-F	F		4	asymmetrical crown (L), topcut at 5 meters, epicormic branching (H)	Remove
690	Siberian Elm	*Ulmus pumila*	36	F	F	F-G		4	pruning wounds (M), asymmetrical crown (M), poor form (M), top cut at 7 meters	Remove
691	Siberian Elm	*Ulmus pumila*	17	F	P	F		4	lean (L), topcut at 5.5 meters, sweep (L)	Remove
692	Siberian Elm	*Ulmus pumila*	7, 11.5, 13.5	F	F	F		4	clump of 3 stems, lean (L), asymmetrical crown (M), sweep (L)	Missing
693	Siberian Elm	*Ulmus pumila*	16	F	F	F		4	sweep (M), understory tree	Missing
694	Siberian Elm	*Ulmus pumila*	7.5	P-F	P	F		4	topcut at 1.75 m, asymmetrical crown (M), poor form (M)	Missing
695	Siberian Elm	*Ulmus pumila*	9	F	F	F		4	lean (L), asymmetrical crown (M)	Missing
696	Siberian Elm	*Ulmus pumila*	8, 5.5	F	F	F		4	union at 0.3 m, cavity with heart rot (L)	Missing
697	Siberian Elm	*Ulmus pumila*	11.5	F	F	F		4	understory tree, asymmetrical crown (M)	Missing
	Siberian Elm	*Ulmus pumila*	16.5				100	4	dead, elevated hazard potential	Missing
698	Siberian Elm	*Ulmus pumila*	11.5	F	P	F		4	topcut at 2 m, understory tree	Missing
699	Siberian Elm	*Ulmus pumila*	35	F	F	F-G		4	included bark (M), pruning wounds (M), poor form (M), stem pruned at previous union	Remove
700	Siberian Elm	*Ulmus pumila*	17	G	G	F		4	asymmetrical crown (M)	Remove
701	Siberian Elm	*Ulmus pumila*	9.5	F	P	F		4	top cut at 2 m, pruning wounds (M)	Missing
702	Siberian Elm	*Ulmus pumila*	18	F	P-F	P-F	70	4	pruning wounds (M)	Missing
703	Siberian Elm	*Ulmus pumila*	21	F	P	F		4	topcut at 4 m, lean (L), asymmetrical crown (M)	Missing
704	Siberian Elm	*Ulmus pumila*	13	P	P	P	80	4	topcut at 1 meter, understory tree	Remove
705	Siberian Elm	*Ulmus pumila*	10	P	F	P		4	top cut at 1 meter, stem wounds (M), asymmetrical crown (M)	Remove
706	Siberian Elm	*Ulmus pumila*	12.5	F	P	F		4	topcut at 1 meter, epicormic branching (H)	Remove
707	Siberian Elm	*Ulmus pumila*	18, 17	F	P	F	30	4	union at 0.4 meters with narrow angle, included bark, top cut at 3 meters	Remove
708	Siberian Elm	*Ulmus pumila*	37	F	P	F		4	pruning wounds (M), lean (L), asymmetrical crown (M), top cut	Remove
709	Siberian Elm	*Ulmus pumila*	26				100	4	crown Missing, dead, elevated hazard potential	Missing
710	Siberian Elm	*Ulmus pumila*	15	F	F	F		4	lean (L), asymmetrical crown (M)	Remove
711	Siberian Elm	*Ulmus pumila*	35	P-F	P-F	F		4	stem wound at base (H), leaning away from stem wound (H) over parking lot, topcut, pruning wounds (M), elevated hazard potential	Missing
712	Manitoba Maple	*Acer negundo*	9.5	P	P	P		4	broken branches (H), lean (M)	Remove
713	Manitoba Maple	*Acer negundo*	9.5	P-F	P	P		4	topcut at 2 meters, lean (M)	Remove
714	Siberian Elm	*Ulmus pumila*	17	P-F	P	P		4	lean (L), understory to 716, asymmetrical crown (H), bark peeling, declining	Remove
715	Manitoba Maple	*Acer negundo*	18.5	F	P	F		4	crooks (M), lean (L), understory to 716, asymmetrical crown (H), large snag against trunk	Remove
716	Siberian Elm	*Ulmus pumila*	49, 45	F	F	F		4	union at 0.6 meters, broken branches (L), lean (M), asymmetrical crown (M)	Remove
	Siberian Elm	*Ulmus pumila*	29	F	F	F		4	asymmetrical crown (M), union at 2.2 meters with included bark and narrow angle	Remove
717	Siberian Elm	*Ulmus pumila*	42	F-G	F	F		4	broken branches (L)	Remove
718	Siberian Elm	*Ulmus pumila*	~47	P	P	P	75	4	pruning wounds (M), lean (L)	Remove
719	Siberian Elm	*Ulmus pumila*	35, 31.5	F	F	F		4	clump of 2, union at base, lean (L) away from parking lot, asymmetrical crown (L), deadwood (L)	Remove
720	Siberian Elm	*Ulmus pumila*	60	F	F	F		4	union at 5 meters, lean (L), broken branches (M)	Remove
721	Manitoba Maple	*Acer negundo*	14.5	P-F	P-F	G		4	lean (H), asymmetrical crown (H)	Missing
722	White Elm	*Ulmus americana*	27	F-G	F-G	F-G		4	union at 0.3 meters with included bark (L)	Remove
	Siberian Elm	*Ulmus pumila*	40	F	F	F	20	4	broken branches (H), lean (L)	Remove
723	Siberian Elm	*Ulmus pumila*	~50	F-G	F	F	20	4	sweep (L), broken branches (M), deadwood (L)	Remove
724	Siberian Elm	*Ulmus pumila*	20	F	F	F		4	lean (L), asymmetrical crown (M), understory tree	Missing
725	Siberian Elm	*Ulmus pumila*	14	F	F	F		4	understory tree, lean (L), asymmetrical crown (M)	Missing
726	Siberian Elm	*Ulmus pumila*	10	P	P	P	90	4		Missing
727	Siberian Elm	*Ulmus pumila*	26.5	F	F-P	F		4	lean (L) towards parking lot, seam (M), pruning wounds (L), poor form (M)	Missing
728	Siberian Elm	*Ulmus pumila*	~30, ~30	F	P-F	F	30	4	codominant stems at 1.2 meters, pruning wounds (L), top cut at 10 meters	Remove
729	Siberian Elm	*Ulmus pumila*	37	F	F	F		4	codominant at 1 meter with narrow angle, broken branches (L), included bark	Remove
730	White Elm	*Ulmus americana*	14	F-G	F	F		4	understory tree, asymmetrical crown (M), lean (L), asymmetrical crown (L)	Remove
731	Siberian Elm	*Ulmus pumila*	26	F-G	F	F-G		4	codominant at 2 meters with narrow angles, broken branches (L)	Remove
732	Filbert species	*Corylus sp.*	29, 10	F	F	F		4	seam (M), lean (L)	Remove
733	Siberian Elm	*Ulmus pumila*	16	F	F	F-G		4	seam (M)	Remove
734	Filbert species	*Corylus sp.*	17	P	P	P	90	4	Dead	Remove (Condition)
735	Siberian Elm	*Ulmus pumila*	25.5	F	F	F-G		4	union at 2 meters, broken branches (M)	Remove
1	Manitoba Maple	*Acer negundo*	15	G	G	G		4	Dead	Remove (Condition)
2	Eastern Cottonwood	*Populus deltoides*	52	P	F	F		4	Top cut at 7 meters	Missing
3	Norway Maple	*Acer platanoides*	15	G	G	G		4	Top cut at 7 meters	Missing
4	Siberian Elm	*Ulmus pumila*	30.5	G	G	G		4	Top cut at 7 meters	Missing
5	Eastern Cottonwood	*Populus deltoides*	36	G	G	G		4	Top cut at 7 meters	Missing
6	White Elm	*Ulmus americana*	16.5	G	G	G		4	Exposed roots (L)	Missing
7	Manitoba Maple	*Acer negundo*	15	P	G	P		4	Lean (M)	Missing
8	Black Locust	*Robinia pseudoacacia*	38	G	G	G		4	Grapevine competition (L), co-dominant at 2m	Missing
9	White Elm	*Ulmus americana*	17	G	G	G		4		Missing
10	White Elm	*Ulmus americana*	20	G	G	G		4		Remove
11	Black Walnut	*Juglans nigra*	28	G	G	G		4		Missing
12	Siberian Elm	*Ulmus pumila*	28	G	G	G		4	Grapevine competition (M), stem wounds (L)	Missing
13	Manitoba Maple	*Acer negundo*	17.5	G	G	G		4	Dead	Missing
14	Manitoba Maple	*Acer negundo*	16	F	F	F		4	Lean (H), stem wounds (M), grapevine competition (M)	Missing
15	Siberian Elm	*Ulmus pumila*	15	G	F	F		4	Lean (L), grapevine competition (M)	Missing
16	Siberian Elm	*Ulmus pumila*	55	P-F	P-F	P-F		4	Co-dominant at 2.5 meters, stem wounds (M), grapevine competition (M), broken branches (H)	Remove
17	Siberian Elm	*Ulmus pumila*	14.5	F	F	F		4	Leader impacted by #18	Remove
18	Siberian Elm	*Ulmus pumila*	13	P	P	P		4	Stem wound (M), lean (M), leaning into crown of #17	Missing
19	Black Locust	*Robinia pseudoacacia*	~20, ~20	P	P	F		4	Co-dominant at base, lean (M), stem wound (M), bark splitting with rot	Remove (Condition)
20	Black Locust	*Robinia pseudoacacia*	~35	G	F-G	G		4	Lean (L)	Remove
21	White Ash	*Fraxinus americana*	11	P	P	P		4	Dead	Remove (Condition)
22	Norway Maple	*Acer platanoides*	15	F	F	F		4	Co-dominant at 1 meter, lean (L), stem wounds (M), broken branches (M)	Remove
23	Siberian Elm	*Ulmus pumila*	~35	G	G	G		4	Stem wound (L), growth deficit (L), deadwood (M), bow (L), union at 2.5 meters	Remove
24	Siberian Elm	*Ulmus pumila*	10	F	P-F	P		4	Asymmetrical crown	Remove
25	Black Locust	*Robinia pseudoacacia*	32	P	P	P		4	Co-dominant at base, 3 stems dead, exposed roots (M)	Remove (Condition)

26	Black Locust	*Robinia pseudoacacia*	~25	P	P	P		4	Lean (M), stem wounds (H)	Remove (Condition)
27	Black Locust	*Robinia pseudoacacia*	17.5, 12	P	P	P	98	4	Dead	Remove (Condition)
28	Black Locust	*Robinia pseudoacacia*	~25, ~25, ~20	P	P	P		4	Co-dominant at base, 3 stem, 2 stems dead, stem wounds (H)	Remove (Condition)
29	Norway Maple	*Acer platanoides*	~20	P	P	G		4		Remove
30	Black Walnut	*Juglans nigra*	21	F	F	F		4	Stem wound (M)	Missing
31	Manitoba Maple	*Acer negundo*	15	F	G	F		4	Lean (L), bark peeling	Remove
32	Manitoba Maple	*Acer negundo*	~30	P	P	P		4	Co-dominant at 0.25 meters, 2 stems, 1 dead, lean (L), epicormic branching (L), broken branches (L), stem wounds (M)	Remove (Condition)
33	Siberian Elm	*Ulmus pumila*	~25	F	G	G		4	Growth deficit at base, debris in root zone, stem wound (L), grapevine competition (L)	Remove
34	Norway Maple	*Acer platanoides*	~15	G	F-G	F		4	Growth deficit (L) at base	Remove
35	Siberian Elm	*Ulmus pumila*	~30, ~25, ~20, ~15	G	P-F	F		4	Co-dominant at 0.5 meters, 4 stems, stem wounds (M), deadwood (M), lean (L-M)	Remove
36	Siberian Elm	*Ulmus pumila*	14	F	F	F		4	Lean (L), stem wounds (L), broken branches (L), asymmetrical crown	Remove
37	White Ash	*Fraxinus americana*	12	G	G	G		4		Missing
38	Manitoba Maple	*Acer negundo*	13	G	G	G		4	Lean (M), asymmetrical crown	Remove
39	Siberian Elm	*Ulmus pumila*	~14	F	F	F		4	Not tagged due to topography, lean (L), asymmetrical crown, stem wounds (M)	Missing
40	Siberian Elm	*Ulmus pumila*	~13	F	G	G		4	Stem wound (L)	Remove
41	Siberian Elm	*Ulmus pumila*	~25	G	G	G		4	Lean (L), stem wounds (L), union at 2.5 meters	Remove
42	Siberian Elm	*Ulmus pumila*	~15	G	G	G		4	Stem wounds (L)	Remove
43	Norway Maple	*Acer platanoides*	~12	G	G	G		4		Remove
44	Siberian Elm	*Ulmus pumila*	11	G	F	F		4	Stem wounds (M)	Remove
45	Siberian Elm	*Ulmus pumila*	13	G	F	F		4	Stem wounds (M), crack (0.5m)	Remove
46	Siberian Elm	*Ulmus pumila*	~40	G	F	F		4	Deadwood (m), exposed roots, broken branches (M), union at 2 meters	Remove
47	Siberian Elm	*Ulmus pumila*	26	P	P	P		4	Lean (H), grapevine competition (H), stem wounds (H)	Remove
48	Siberian Elm	*Ulmus pumila*	~25	G	F	F		4	Stem wounds (M), asymmetrical crown, growth deficit at base, deadwood (M)	Remove
49	Norway Maple	*Acer platanoides*	~25	F	F	G		4	Lean (H), growth deficit at base, exposed roots	Remove
50	Norway Maple	*Acer platanoides*	18	G	G	F		4	Grapevine competition (M), asymmetrical crown (M)	Remove
51	Siberian Elm	*Ulmus pumila*	~35	P-F	P-F	P		4	Lean (M), impacted by Manitoba maple on other side of river, 2 stems dead, stem wounds (M)	Remove
52	White Elm	*Ulmus americana*	~27	F	P	P		4	Broken leader, grapevine competition (M), not tagged due to topography	Remove (Condition)
53	Siberian Elm	*Ulmus pumila*	~23	G	G	G		4	Not tagged due to topography, stem wounds (L)	Missing
54	Siberian Elm	*Ulmus pumila*	~50	F	F	F		4	Co-dominant at 2 meters, 1 stem dead, stem wounds (L), burls (M), deadwood (M)	Remove
55	Siberian Elm	*Ulmus pumila*	~15	P	G	G		4	Bark peeling	Remove
56	Siberian Elm	*Ulmus pumila*	21	G	G	G		4		Remove
57	Siberian Elm	*Ulmus pumila*	19	G	G	G		4	Lean (L)	Remove
58	Norway Maple	*Acer platanoides*	15.5	F-G	G	G		4	Crook (VL), exposed roots	Remove
59	Norway Maple	*Acer platanoides*	12.5	P	P	P		4	Grapevine competition (VL), declining	Remove
60	Siberian Elm	*Ulmus pumila*	17.5	P	F	P		4	Lean (H), stem wounds (M)	Remove
61	Siberian Elm	*Ulmus pumila*	~35	F	F	P		4	Asphalt around base, broken branches (L), stem wounds (M), epicormic branching (M), deadwood (H), broken top	Remove
62	Black Locust	*Robinia pseudoacacia*	~30	P	P	P		4	Multiple dead stems, growth deficit (H), crack, rot at base, lean (L)	Remove (Condition)
63	Manitoba Maple	*Acer negundo*	15, 14	F	P-F	P-F		4	Co-dominant at base, 1 stem leans (H) toward ravine & has grapevine competition (H), 1 stem has grapevine competition (M)	Remove
64	Siberian Elm	*Ulmus pumila*	~25	F	F	G		4	Lean (M), deadwood (L), growth deficit at base	Remove
65	Siberian Elm	*Ulmus pumila*	~30, ~26	F	F	P-F		4	Co-dominant at base, crook (M) in 1 stem, grapevine competition (L), stem wounds (L), deadwood (M), broken branches (M)	Remove
66	Silver Maple	*Acer saccharinum*	~40	F	F	G		4	Lean (H), crook (L), grapevine competition (L), debris at base	Remove
67	Manitoba Maple	*Acer negundo*	14	F	P	F		4	Vine competition (M), poor form (H)	Remove
68	Manitoba Maple	*Acer negundo*	21	F	P-F	G		4	Lean (H) toward ravine, vine competition (L), asphalt around base	Remove
69	Manitoba Maple	*Acer negundo*	~20	F	G	G		4	Grapevine competition (M), growth deficit at base, asphalt around base	Remove
70	Siberian Elm	*Ulmus pumila*	~55	G	G	G		4	Crook, debris in root zone, deadwood (L)	Remove
71	Siberian Elm	*Ulmus pumila*	75, 31	F	G	G		4	Rot from base to breast height (0.5m width) where pruning occurred, broken branches (L), co-dominant stems in crown	Remove
72	Siberian Elm	*Ulmus pumila*	31	P	P	P		4	Stem wounds (H), co-dominant at base, 1 stem dead, deadwood (M)	Remove
73	Siberian Elm	*Ulmus pumila*	18.5	F	F	G		4	Lean (L), asymmetrical crown, impacted by 72	Remove
74	Siberian Elm	*Ulmus pumila*	15	G	G	F-G		4	Pruning wounds (L)	Remove
75	Siberian Elm	*Ulmus pumila*	41, 38	F	P-F	F		4	Co-dominant at base, 36.5cm stem leans (L), 37cm stem has rot, splitting bark, pruning wounds (L), stem wounds (L), deadwood (L)	Remove
76	Siberian Elm	*Ulmus pumila*	27	G	G	G		4	Crook (L)	Remove
77	Siberian Elm	*Ulmus pumila*	~70	G	F	F-G		4	Canker (L), stem wounds (M), pruning wounds (L), co-dominant stems in crown	Remove
78	Manitoba Maple	*Acer negundo*	18	F	F	F-G		4	Crook (L), growth deficit at base (L)	Remove
79	Siberian Elm	*Ulmus pumila*	57	F	F	G		4	Pruning wounds (M), crack from base to breast height with open wound at rot, crack at 5 meters, lean (M)	Remove
80	Siberian Elm	*Ulmus pumila*	~60	G	G	G		4	Lean (L), crook (L)	Remove
81	Siberian Elm	*Ulmus pumila*	16	G	G	G		4	lean (L), deadwood (L)	Remove
82	Manitoba Maple	*Acer negundo*	17.5	F	P	P		4	Dead	Remove (Condition)
83	Siberian Elm	*Ulmus pumila*	16.5	F	F	F		4	Stem wounds (M), pruning wounds, poor form (L)	Remove
84	Siberian Elm	*Ulmus pumila*	64	F	F	F		4	Co-dominant stems at 1.5 meters, stem wounds (M), lean (L), included bark, broken branches (M)	Remove
85	Manitoba Maple	*Acer negundo*	12	F	G	G		4	Crook (M)	Remove
86	Siberian Elm	*Ulmus pumila*	~60	G	G	F-G		4	Stem wounds (M), deadwood (L)	Remove
87	Siberian Elm	*Ulmus pumila*	27.5, 10	F	F	F		4	1 dead stem, pruning wounds (L), grapevine competition (L)	Remove
88	Siberian Elm	*Ulmus pumila*	22	G	G	G	25	4	Pruning wounds (L)	Remove
89	Siberian Elm	*Ulmus pumila*	~50	F	P	P		4	Pruning wounds (M), epicormic branching (M), grapevine competition (H), co-dominant stems at 2.5 meters	Remove (Condition)
90	Siberian Elm	*Ulmus pumila*	17	F	P	P		4	Pruning wounds (L), grapevine competition (H), deadwood (L)	Remove (Condition)
91	Siberian Elm	*Ulmus pumila*	42	F-G	F	F		4	Crack to 4 meters, rot	Remove
92	Manitoba Maple	*Acer negundo*	12	F-G	F	G		4	Co-dominant at base, growth deficit at base, stem wound (H), bow (L)	Remove
93	Siberian Elm	*Ulmus pumila*	~35, ~30	P-F	F	P-F		4	Union at base, broken top, included bark, decay in upper crown, pruning wounds (L), stem wounds (L)	Remove
94	Siberian Elm	*Ulmus pumila*	41	F-G	F	F		4	Grapevine competition (M), stem wounds (M), seam (L), co-dominant stems in crown, deadwood (L)	Remove
95	Siberian Elm	*Ulmus pumila*	45, 39, 29	P	P	F		4	Union at base, multiple stem failures, 1 dead and lying across base of tree, grapevine competition (M), pruning wounds (L), stem wounds (M), open wound (H)	Remove (Condition)

96	Siberian Elm	*Ulmus pumila*	63	F	F	G		4	Co-dominant at 2 meters, crack at union (L), deadwood (L)	Remove
97	Siberian Elm	*Ulmus pumila*	~51	P	P	P		4	Dead	Remove
98	Siberian Elm	*Ulmus pumila*	27	F	F	F		4	Lean (L), stem wounds (M) with rot, asymmetrical crown, bow (M)	Remove
99	Siberian Elm	*Ulmus pumila*	28.5	F	F	F		4	Broken branches (M), stem wounds (M), included bark, co-dominant stems in crown	Remove
100	Siberian Elm	*Ulmus pumila*	~60	G	G	F		4	Stem wounds (H), grapevine competition (H), co-dominant stems at 3 meters, broken branches (M)	Remove
101	Siberian Elm	*Ulmus pumila*	~55	G	G	G	26	4	Grapevine competition (H), pruning wounds (L)	Remove
102	Siberian Elm	*Ulmus pumila*	~60	G	G	G	15	4	Asymmetrical crown (M), deadwood (L)	Remove
103	Manitoba Maple	*Acer negundo*	15	F	P	F		4	Pruning wounds (H), lean (M)	Missing
104	Siberian Elm	*Ulmus pumila*	15	G	G	G		4		Remove
105	Siberian Elm	*Ulmus pumila*	13	G	G	F		4	Pruning wounds (L)	Remove
106	Siberian Elm	*Ulmus pumila*	12.5	G	G	F		4	Stem wounds (M)	Remove
107	Siberian Elm	*Ulmus pumila*	26	P	P	P-F		4	Lean (M), poor form (M), top cut at 2 meters	Remove (Condition)
108	Siberian Elm	*Ulmus pumila*	10.5	F	G	G		4	Lean (M)	Missing
109	Siberian Elm	*Ulmus pumila*	13.5	P	P	P		4	Phoenix tree, lean (H), stem wounds (H)	Missing
110	Siberian Elm	*Ulmus pumila*	12	F	F	P		4	Pruning wounds (M), suppressed	Remove
111	Siberian Elm	*Ulmus pumila*	16.5	F	F	F	15	4	Broken branches (L), vine competition (L)	Remove
112	Siberian Elm	*Ulmus pumila*	25	F	F	F		4	Crack (M), poor form (M), stem wounds (M), broken branches (M)	Remove
113	Siberian Elm	*Ulmus pumila*	~35	F	F	F		4	Lean (M), broken branches (L), deadwood (M)	Remove
114	Manitoba Maple	*Acer negundo*	17	P-F	P-F	F		4	Stem wound (M), 1 stem pruned at base	Remove
115	Siberian Elm	*Ulmus pumila*	21	F	P-F	F		4	Growth deficit at base, crook, stem wounds (M), broken top	Remove
116	Siberian Elm	*Ulmus pumila*	15	P	P	P		4	Stem wounds (H)	Missing
117	Siberian Elm	*Ulmus pumila*	14	G	G	F		4		Remove
118	Siberian Elm	*Ulmus pumila*	19	F	G	G		4	Stem wounds (L), seam (L)	Remove
119	Siberian Elm	*Ulmus pumila*	~40, ~40, ~35, ~20, ~15	F	P-F	F		4	Clump of 5, lean (L-M), stem wounds (L), pruning wounds (M), broken branches (H)	Remove
120	Siberian Elm	*Ulmus pumila*	20	F	F	F		4	Grapevine competition (L), impacted by neighbouring tree, pruning wounds (L)	Remove
121	Siberian Elm	*Ulmus pumila*	~37	F	F	F	30	4	Lean (M), asymmetrical crown, deadwood (M)	Remove
122	Siberian Elm	*Ulmus pumila*	16	F	F	F	30	4	Poor form (M), broken branches (L)	Remove
123	Siberian Elm	*Ulmus pumila*	46	F-G	F-G	F-G		4	Lean (L), broken branches (L)	Remove
124	White Elm	*Ulmus americana*	16	G	G	G		4	Grapevine competition (L)	Remove
125	Siberian Elm	*Ulmus pumila*	12	G	F-G	G		4	Suppressed	Remove
126	Manitoba Maple	*Acer negundo*	11	F	P-F	G		4	Lean (M), top cut at 1.5 meters	Remove
127	White Elm	*Ulmus americana*	16	G	G	G		4	Crook (L)	Remove
128	Manitoba Maple	*Acer negundo*	18	P	P	P		4	Both leaders pruned, rot	Remove
129	Norway Maple	*Acer platanoides*	22	G	G	G		4	Lean (L)	Remove
130	Siberian Elm	*Ulmus pumila*	18	P	P	P		4	Lean (H), impacted by neighbouring tree	Remove
131	Siberian Elm	*Ulmus pumila*	~14	P	P	P		4	Impacted by neighbouring tree	Missing
132	Siberian Elm	*Ulmus pumila*	55	P	P	P		4	Broken leader, stem wound (M)	Remove
133	Siberian Elm	*Ulmus pumila*	17	G	G	F		4	Pruning wounds (L)	Remove
134	Manitoba Maple	*Acer negundo*	14.5	F	F	F		4	Crook (M), lean (L), stem wounds (M), pruning wounds (M)	Remove
135	Manitoba Maple	*Acer negundo*	20	P-F	P-F	P-F		4	Crack (M), stem wounds (H), epicormic branching (M), decay present	Remove
136	Manitoba Maple	*Acer negundo*	11	P	P	P		4	Dead	Remove (Condition)
137	Manitoba Maple	*Acer negundo*	17.5	F	F	G		4	Lean (M), crook (H)	Missing
138	Siberian Elm	*Ulmus pumila*	55	F	F	G		4	Lean (M), stem wounds (M), epicormic branching (L), deadwood (L), union at 3 meters	Remove
139	Manitoba Maple	*Acer negundo*	16	F	G	G		4	sweep (M), epicormic branching (M)	Remove
140	Manitoba Maple	*Acer negundo*	14.5	F	P-F	F	35	4	Lean (L), crook (H)	Remove
141	Manitoba Maple	*Acer negundo*	29.5	F	G	G		4	Included fence	Missing
142	Manitoba Maple	*Acer negundo*	14	F	F	G		4	Crook (L), broken top	Remove
143	Manitoba Maple	*Acer negundo*	13	F	F-G	G		4	Lean (L), grapevine competition (L), epicormic branching (M)	Remove
144	Manitoba Maple	*Acer negundo*	17	F	P-F	G		4	Lean (M), bow (H)	Remove
145	Manitoba Maple	*Acer negundo*	14	F	G	G		4	Lean (L)	Remove
146	Manitoba Maple	*Acer negundo*	31	F	G	G		4	Lean (L)	Remove
147	Filbert species	*Corylus sp.*	23, 22	F	G	G		4	Co-dominant at 0.25 meters, included bark	Remove
780	Manitoba Maple	*Acer negundo*	13, 9, 8	F	F	F		4	Multi-stem at base, included bark, gypsy moth present	Remove
781	Manitoba Maple	*Acer negundo*	16	F-G	F-G	F-G		4	Sweep (L), crook (L)	Remove
782	Black Walnut	*Juglans nigra*	17	F	P-F	P-F		4	Lean (H) toward parking lot	Remove
783	Manitoba Maple	*Acer negundo*	10	P-F	P-F	P-F		4	Lean (H), epicormic branching (M), deadwood (M)	Remove
784	Manitoba Maple	*Acer negundo*	10	F	F	P-F		4	Bark peeling (M), epicormic branching (M), lean (M), deadwood (M)	Remove
785	Siberian Elm	*Ulmus pumila*	12	F	F	F-G		4	Bow (M), lean (L)	Remove
786	Manitoba Maple	*Acer negundo*	12	F	F	F		4	Lean (L) towards parking lot	Remove
787	Norway Maple	*Acer platanoides*	~15	G	G	G		4		Remove
788	Norway Maple	*Acer platanoides*	10	G	G	G		4		Remove
789	Norway Maple	*Acer platanoides*	10	G	F	G		4	Sweep (L)	Remove
790	Norway Maple	*Acer platanoides*	15	F	F-G	F-G		4	Crook (L), sweep (L), epicormic branching (M)	Remove
791	Manitoba Maple	*Acer negundo*	11	F	P-F	F		4	Bow (H)	Remove
792	Manitoba Maple	*Acer negundo*	14	F	F-G	F		4		Remove
793	Manitoba Maple	*Acer negundo*	11	F	F-G	F-G		4	Crook (L)	Remove
794	Manitoba Maple	*Acer negundo*	13	F	F	F-G		4	Crook (H), poor form, suppressed	Remove
795	Siberian Elm	*Ulmus pumila*	38	F-G	F	F-G		4	Crook (M) in crown	Remove
796	Manitoba Maple	*Acer negundo*	13	F	F	F		4	Lean (M), suppressed	Remove
797	White Elm	*Ulmus americana*	12	F-G	F	F		4	Suppressed	Remove
798	Norway Maple	*Acer platanoides*	11	G	G	G		4		Remove
799	Norway Maple	*Acer platanoides*	12.5	G	F-G	G		4		Remove
800	Norway Maple	*Acer platanoides*	14	G	G	G		4	Asymmetrical crown (L)	Remove
801	Norway Maple	*Acer platanoides*	13	G	G	G		4		Remove
802	Norway Maple	*Acer platanoides*	13	G	G	G		4		Remove
803	Siberian Elm	*Ulmus pumila*	10.5	F-G	F-G	F		4		Remove
804	Manitoba Maple	*Acer negundo*	10.5	F-G	F-G	F-G		4		Remove
1418	Siberian Elm	*Ulmus pumila*	19, 14	F-G	F	F-G		4	Co-dominant stems at 1 meter, included bark, twisting stems	Remove
A	Weeping Willow	*Salix x sepulcralis*	~205	F	F	F		4	union at 1.5 m, natural branch scars (M), included bark, gypsy moth present, broken branches (M), deadwood (L)	Retain
B	Siberian Elm	*Ulmus pumila*	15, 13	F	F	G		4	Co-dominant stems at 0.25 meters, included bark, pruning wounds (H)	Remove
C	Manitoba Maple	*Acer negundo*	28.5	P-F	F	F		4	Main stem dead with rot and broke off at 3.5m, lean(M), wildlife den below root zone, elevated hazard	Missing
D	Silver Maple	*Acer saccharinum*	48	P-F	P	P	100	4	Elevated risk potential, tree is dead, removal recommended	Missing
E	Siberian Elm	*Ulmus pumila*	45	P-F	F	F	20	4	Target canker on stem(H), asymmetrical crown(M)	Missing
F	Siberian Elm	*Ulmus pumila*	59	F	F	F	10	4	Ribbing (H), asymmetrical crown (M), union at 6 meters, broken branches (L)	Remove
G	Siberian Elm	*Ulmus pumila*	15.5, 11	F	F	F-G		4	Co-dominant stems at 0.25 meters, pruning wounds (M)	Remove
H	Siberian Elm	*Ulmus pumila*	22, 20, 12	G	F	G		4	Multi-stem at 0.25 meters, included bark, pruning wounds (L)	Remove

Codes		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
Cat.	City of Toronto Tree Category	01-May
DL	Dripline	(m)
~ = Estimate, (L) = low, (M) = moderate, (H) = heavy		

APPENDIX D. 100% TALLY OF REMAINING TREES EXCLUDED FROM THE INDIVIDUAL TREE INVENTORY

Location: 4050 Yonge St. Toronto
Date: 28 January 2020
Surveyor: KD
Compartment Number: N/A
Stations Tallied: 100% Tally

Stand Analysis Tally (by Species, Size Class and Quality Class)

Tree Size Class >>>>	11-20cm	21-30cm	31-40cm	41-50cm	Regeneration < 10 cm	Total All Sizes
Species						
Siberian Elm (*Ulmus pumila*)	*2*				86	***88***
Manitoba Maple (*Acer negundo*)	*3*				107	***110***
Norway Maple (*Acer platanoides*)	*4*				108	***112***
Black Walnut (*Juglans nigra*)					1	***1***
Staghorn Sumac (*Rhus typhina*)					26	***26***
White Elm (*Ulmus americana*)					5	***5***
Green Ash *(Fraxinus pennsylvanica)*					*23*	***23***
Total Number of Trees	9	0	0	0	356	365