# Tree Inventory, Protection & Removal Plan

Prepared for: Hillsburgh Heights Inc.

Site: 5916 Trafalgar Road North, Hillsburgh, Erin Ontario

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## **<u>1.0</u>** Introduction

#### 1.1 Purpose of Assignment

The Urban Arborist Inc was retained by Hillsburgh Heights Inc. to prepare a Tree Inventory, Protection Plan, and Removal Plan for a proposed subdivision. Two sections of land is to be left for future uses. Area of land to be developed is shown in Tree Inventory / Protection Plan Drawing TP-1.



Figure 1. Subject Lot at 5916 Trafalgar Road North. Erin, ON. Part 1 and Part 2 Lot 26 Concession 7

#### 1.2 Existing Site Characteristics

The site consists of 1 detached home, with a large barn, and a secondary large garage. The lot has several large grade changes in the form of hills and valleys.

## 2.0 Methodology

All data used in this report is empirical in nature, unless stated otherwise. All measurements in this report utilize the metric system of measurement.

## 2.1 Field Study

Site inspection and data collection was initiated August 31, 2021. All significant trees measuring 20cm DBH and greater located on the subject lands. Trees were measured 1.37m from grade (DBH). All trees smaller than the 20cm DBH threshold are shown as groupings.

## 2.2 Tree Locations

The locations of all significant trees were surveyed and plotted and shown on drawing in appendix 2.

## 2.3 Tree Conditions

During field study a generalized assessment system was used to give each significant tree a rating based on structural condition and health condition.

The following 5 level assessment for health is listed below.

| Very Poor - | Tree displays severe dieback of branches, canopy is extremely sparse.<br>May exhibit extreme pathogen infestation or infection. Or tree is dead.                                     |
|-------------|--|
| Poor -      | Tree displays some dieback. Branches or canopy is sparse with little or<br>no signs of new growth or vigour. Possible pathogen infestation or<br>infection. Foliar canopy is sparse. |
| Average -   | Tree is developing in a manner typical to others in the area. Canopy is full.  |
| Good -      | New growth is vigorous as evidenced by stem elongation and colour.<br>Canopy is dense.   |
| Very Good - | In addition to the attributes of a good rating, tree is displaying extremely vigorous growth and trunk displays a pattern of vigour cracks or lines.                                 |

The following 5 level assessment for structural condition was as follows:

Very Poor - Trunk has large pockets of decay, is bifurcated or has a severe lean. Limbs or branches are poorly attached or dead. Possible hazard.

| Poor -      | Limbs or branches are poorly attached or developed. Canopy is not symmetrical. Trunk has a lean.                 |
|-------------|--|
| Average -   | Trunk, limb and branch development though flawed is typical of this species.                                     |
| Good -      | Trunk is well developed with well attached limbs and branches; some flaws but are hardly visible.                |
| Very Good - | In addition to attributes of a good rating, the tree exhibits a well developed root flare and a balanced canopy. |

Factors Assessed were as follows:

| Roots             | Trunk             | Foliage/Buds                       | Scaffold Branches      | Small Branches/Twigs  |
|-------------------|-------------------|------------------------------------|------------------------|-----------------------|
| · Collar/flare    | · Cavities        | · Size of foliage/buds             | · Attachments/included | · Vigour/growth rates |
| Mechanical injury | Mechanical injury | <ul> <li>Foliage colour</li> </ul> | bark                   | Distribution          |
| · Girdling roots  | · Cracks          | Foliage injury                     | · Taper                | · Appearance          |
| · Insects/disease | · Swollen/sunken  | · Dieback of                       | Distribution           | · Insects/disease     |
| · Decay/fungi     | areas             | buds/foliage                       | · Decay/cavities       | · Dieback             |
|                   | · Insects/disease | · Insects/disease                  | · Deadwood             |                       |
|                   | · Fungi           |                                    | · Insects/disease      |                       |

#### 3.0 Tree Inventory

A total of 80 trees were individually inventoried and 6 groupings of trees were inventoried. (See Tree Inventory Spreadsheet in appendix 1).

Groupings consisted of mostly juvenile trees less than 20cm in diameter.

### 3.1 Trees to Preserve

The trees in this section have been evaluated suitable for preservation and fall under the Tree Preservation, Protection and Management guidelines in this report. Different approaches of Tree Preservation can be carried out following tree health and structure evaluation. The following describes the differences in approaches to Tree Preservation.

#### 1. Preserve, Protect & Maintain

Includes protection with tree preservation hoarding, as well as pre and post-construction arboricultural works.

#### 2. Preserve & Protect

Includes the installation of tree protection hoarding; no maintenance will be required unless specified in the recommendations in Appendix 1

5916 Trafalgar Road North, Hillsburgh, Erin Ontario. Tree Inventory & Protection Plan. July 22, 2022.

#### 3. Retain

No protection or maintenance measures are required. Installation of tree protection barriers is optional.

#### 4. Transplanting

Where size of tree permits transplanting, it is recommended that moving a tree to a location that would suit the tree.

| # of Trees evaluated as suitable<br>for Preservation | 31                                     |
|--|--|
| # of Trees to use Method 1                           |  |
| # of Trees to use Method 2                           | 1241 – 1244, 1246 – 1267, 1303 – 1307, |
| # of Trees to use Method 3                           | Grouping 3                             |
| # of Trees to use Method 4                           |  |

In the case of 5916 Trafalgar Road North, 31 trees individually inventoried trees and 1 grouping of trees can be preserved on site. Trees that will be protected with hoarding are all trees the subject site that are not proposed to be removed. Trees suitable for preservation must be preserved only through the full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines contained in this report for trees to continue to survive.

#### 3.2 Trees to Remove

All trees scheduled for removal shall be removed prior to any construction, earthworks or installation of tree protection hoarding. Due to site or development, tree condition or location, retention is not warranted. All trees and groupings of trees, except for tree 1241 - 1244, 1246 - 1267, 1303 - 1307, and Grouping 3 will be required to be removed due to development impact.

| Total of number of Trees to Remove | All except 1241 – 1244, 1246 – 1267, 1303 – |
|------------------------------------|---|
|                                    | 1307, grouping 3                            |

#### 3.3 Trees to Injure

There are no trees to be injured. All trees are except those outside of development area are to be removed.

## 3.4 Trees to Replant (Replacement)

Replacement planting requirements must still be negotiated with the Town of Erin and will be coordinated into a Landscape Plan at the Design Stage.

## 4.0 Tree Preservation, Protection and Management

## 4.1 Tree Protection

All trees scheduled to be *Preserved Protected & Maintained* or *Preserved & Protected* shall have their critical rooting zones protected with the installation of tree protection barriers. Tree protection barriers shall be installed as per Town of Erin Barriers Detail.

## **5.0**Conclusions and Recommendations

Based on all data collected from on-site field work and review of all site plans the following conclusions and recommendations are made and correspond with Tree Inventory in Appendix 1:

| Conclusions  | Recommendations  |
|--|--|
| All trees within the development are to be removed.  | Submit this plan to Town of Erin.  |
| 31 trees are to be preserved & protected to the full extent of minimum tree protection distances and maintained during construction. | Install tree protection barriers as shown in Tree<br>Protection Plan Drawing TP-1 in appendix 2. |
| Replacement trees are to be determined with the Town of Erin.  | Create Replanting Plan at Design Stage.  |

Attachments are as follows:

Appendix 1 Tree Inventory

Appendix 2 Tree Protection Plan Drawing TP-1

This 7 page Report was written by

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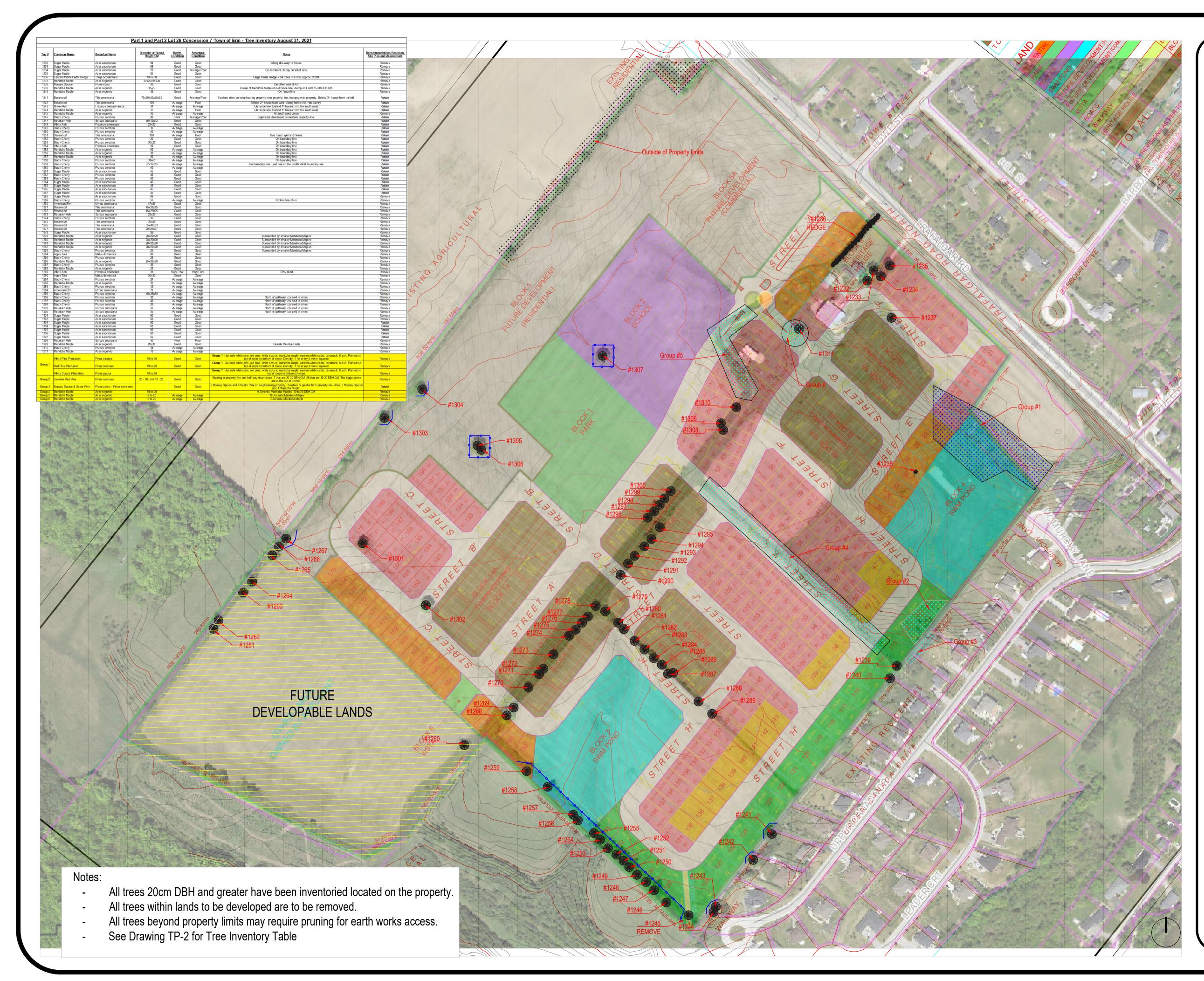
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MTCU Qualified Arborist 18004025 Butternut Health Assessor #644

|              |                                  | <u> </u>                                  | Part 1 and Part 2               | Lot 26 C            | oncession               | 7 Town of Erin - Tree Inventory August 31, 2021   |  |
|--------------|----------------------------------|---|---------------------------------|---------------------|-------------------------|---|--|
|              | 1                                | 1   |                                 | r                   |                         |   | 1  |
| <u>Tag #</u> | Common Name                      | Botanical Name                            | Diamater at Breast<br>Height CM | Health<br>Condition | Structural<br>Condition | Notes   | Recommendations Based on<br>Site Plan and Assessment |
| 1232         | Sugar Maple                      | Acer saccharum                            | 94                              | Good                | Good                    | Along driveway to house.  | Remove   |
| 1233         | Sugar Maple                      | Acer saccharum                            | 58                              | Good                | Good                    |   | Remove   |
| 1234<br>1235 | Sugar Maple<br>Sugar Maple       | Acer saccharum<br>Acer saccharum          | 79<br>81                        | Good<br>Good        | Average/Poor<br>Good    | Co-dominant, decay on West side.  | Remove<br>Remove                                     |
| 1235         | Eastern White Cedar Hedge        | Thuja occidentalis                        | 10 to 30                        | Good                | Good                    | Large Cedar Hedge – 54 trees in a row, approx. 200 ft.  | Remove   |
| 1237         | Manitoba Maple                   | Acer negundo                              | 20x20x15x20                     | Good                | Good                    | ,,,,,   | Remove   |
| 1238         | Norway Spruce                    | Picea abies                               | 20                              | Good                | Good                    | On other side of hill.  | Remove   |
| 1239         | Manitoba Maple                   | Acer negundo                              | 15-20                           | Good                | Good                    | Clump of Manitoba Maple on old fence line, clump of 4 with 15-20 DBH CM.  | Remove   |
| 1240         | Manitoba Maple                   | Acer negundo                              | 38                              | Good                | Good                    | On fence line   | Remove   |
| 1241         | Basswood                         | Tilia americana                           | 75x60x50x65x55                  | Good                | Average/Poor            | 1 broken stem on neighbouring property near property line, hanging over property. Behind 3 <sup>ed</sup> house from the left.             | Retain   |
| 1242<br>1243 | Basswood<br>Green Ash            | Tilia americana<br>Fraxinus pennsylvanica | 100<br>34                       | Average<br>Average  | Poor<br>Average         | Behind 2 <sup>rd</sup> house from west. Along fence line. Has cavity.<br>On fence line. Behind 1 <sup>st</sup> house from the south west. | Retain<br>Retain                                     |
| 1243         | Manitoba Maple                   | Acer negundo                              | 34                              | Average             | Poor                    | On fence line. Behind 1 <sup>st</sup> house from the south west.  | Retain   |
| 1245         | Manitoba Maple                   | Acer negundo                              | 30                              | Average             | Average                 | At south west corner  | Remove   |
| 1246         | Black Cherry                     | Prunus serotina                           | 80                              | Poor                | Average/Poor            | Significant deadwood on western property line.  | Retain   |
| 1247         | Mountain Ash                     | Sorbus aucuparia                          | 30x12x12                        | Good                | Good                    |   | Retain   |
| 1248<br>1249 | White Ash                        | Fraxinus americana                        | 23x20<br>30                     | Good                | Good                    |   | Retain   |
| 1249         | Black Cherry<br>Black Cherry     | Prunus serotina<br>Prunus serotina        | 40                              | Average<br>Average  | Average<br>Average      |   | Retain<br>Retain                                     |
| 1250         | Basswood                         | Tilia americana                           | 100                             | Average             | Poor                    | Has major split and failure.  | Retain   |
| 1252         | Black Cherry                     | Prunus serotina                           | 20                              | Good                | Good                    | On boundary line.   | Retain   |
| 1253         | Black Cherry                     | Prunus serotina                           | 30x30                           | Good                | Good                    | On boundary line.   | Retain   |
| 1254         | White Ash                        | Fraxinus americana                        | 28                              | Good                | Good                    | On boundary line.   | Retain   |
| 1255         | Manitoba Maple                   | Acer negundo                              | 50                              | Average             | Average                 | On boundary line.   | Retain   |
| 1256<br>1257 | Manitoba Maple<br>Manitoba Maple | Acer negundo<br>Acer negundo              | 30<br>30                        | Average<br>Average  | Average<br>Average      | On boundary line.<br>On boundary line.  | Retain<br>Retain                                     |
| 1257         | Black Cherry                     | Prunus serotina                           | 30-40                           | Average             | Average                 | On boundary line.   | Retain   |
| 1259         | Black Cherry                     | Prunus serotina                           | 37x15x15                        | Average             | Average                 | On boundary line. Last one on the South West boundary line.   | Retain   |
| 1260         | Black Cherry                     | Prunus serotina                           | 50                              | Average             | Average                 |   | Retain   |
| 1261         | Sugar Maple                      | Acer saccharum                            | 55                              | Good                | Good                    |   | Retain   |
| 1262         | Black Cherry                     | Prunus serotina                           | 40<br>50                        | Good                | Good                    |   | Retain   |
| 1263<br>1264 | Black Cherry<br>Sugar Maple      | Prunus serotina<br>Acer saccharum         | 45                              | Good<br>Good        | Good<br>Good            |   | Retain<br>Retain                                     |
| 1265         | Sugar Maple                      | Acer saccharum                            | 45                              | Good                | Good                    |   | Retain   |
| 1266         | Sugar Maple                      | Acer saccharum                            | 45                              | Good                | Good                    |   | Retain   |
| 1267         | Sugar Maple                      | Acer saccharum                            | 45                              | Good                | Good                    |   | Retain   |
| 1268         | Sugar Maple                      | Acer saccharum                            | 88                              | Good                | Good                    | De des des de la  | Remove   |
| 1269<br>1270 | Black Cherry<br>American Elm     | Prunus serotina<br>Ulmus americana        | 55<br>47x47                     | Average<br>Good     | Average<br>Good         | Broken branch in  | Remove<br>Remove                                     |
| 1271         | Basswood                         | Tilia americana                           | 45x25x25                        | Good                | Good                    |   | Remove   |
| 1272         | Basswood                         | Tilia americana                           | 45x25x25                        | Good                | Good                    |   | Remove   |
| 1273         | Mountain Ash                     | Sorbus aucuparia                          | 28x22                           | Good                | Good                    |   | Remove   |
| 1274         | Black Cherry                     | Prunus serotina                           | 30                              | Good                | Good                    |   | Remove   |
| 1275<br>1276 | Basswood<br>Basswood             | Tilia americana<br>Tilia americana        | 30x26<br>35x40x33               | Good<br>Good        | Good<br>Good            |   | Remove<br>Remove                                     |
| 1270         | Basswood                         | Tilia americana                           | 20x25x27                        | Good                | Good                    |   | Remove   |
| 1278         | Sugar Maple                      | Acer saccharum                            | 26                              | Good                | Good                    |   | Remove   |
| 1279         | Manitoba Maple                   | Acer negundo                              | 28x20x20                        | Good                | Good                    | Surrounded by smaller Manitoba Maples   | Remove   |
| 1280         | Manitoba Maple                   | Acer negundo                              | 28x20x20                        | Good                | Good                    | Surrounded by smaller Manitoba Maples   | Remove   |
| 1281<br>1282 | Manitoba Maple<br>Manitoba Maple | Acer negundo<br>Acer negundo              | 28x20x20<br>28x20x20            | Good<br>Good        | Good                    | Surrounded by smaller Manitoba Maples<br>Surrounded by smaller Manitoba Maples  | Remove<br>Remove                                     |
| 1282         | Black Cherry                     | Prunus serotina                           | 25                              | Good                | Good                    | Surrounded by smaller Manitoba Maples   | Remove   |
| 1284         | Apple Tree                       | Malus domestica                           | 80                              | Dead                | Dead                    |   | Remove   |
| 1285         | Black Cherry                     | Prunus serotina                           | 25                              | Good                | Good                    |   | Remove   |
| 1286         | Manitoba Maple                   | Acer negundo                              | 25x20x20                        | Good                | Good                    |   | Remove   |
| 1287         | Black Cherry<br>Manitaba Manla   | Prunus serotina                           | 35                              | Good                | Good                    |   | Remove   |
| 1288<br>1289 | Manitoba Maple<br>White Ash      | Acer negundo<br>Fraxinus americana        | 25<br>38                        | Good<br>Very Poor   | Good<br>Very Poor       | 50% dead  | Remove<br>Remove                                     |
| 1209         | Apple Tree                       | Malus domestica                           | 30x30                           | Good                | Good                    | 55 / deau   | Remove   |
| 1291         | Black Cherry                     | Prunus serotina                           | 24                              | Average             | Average                 |   | Remove   |
| 1292         | Manitoba Maple                   | Acer negundo                              | 35                              | Average             | Average                 |   | Remove   |
| 1293         | Black Cherry                     | Prunus serotina                           | 42                              | Average             | Average                 |   | Remove   |
| 1294<br>1295 | American Elm<br>Black Cherry     | Ulmus americana<br>Prunus serotina        | 70<br>40x25x30                  | Average<br>Average  | Average                 |   | Remove<br>Remove                                     |
| 1295         | Black Cherry<br>Black Cherry     | Prunus serotina<br>Prunus serotina        | 40x25x30<br>30                  | Average             | Average<br>Average      | North of pathway, covered in vines.   | Remove   |
| 1290         | Black Cherry                     | Prunus serotina                           | 40                              | Average             | Average                 | North of pathway, covered in vines.   | Remove   |
| 1298         | Black Cherry                     | Prunus serotina                           | 25                              | Average             | Average                 | North of pathway, covered in vines.   | Remove   |
| 1299         | Mountain Ash                     | Sorbus aucuparia                          | 20                              | Average             | Average                 | North of pathway, covered in vines.   | Remove   |
| 1300         | Mountain Ash                     | Sorbus aucuparia                          | 35                              | Average             | Average                 | North of pathway, covered in vines.   | Remove   |
| 1301         | Sugar Maple                      | Acer saccharum                            | 60                              | Good                | Good                    |   | Remove   |

| 1302    | Sugar Maple                | Acer saccharum                 | 60                    | Good    | Good    |  | Remove |
|---------|----------------------------|--------------------------------|-----------------------|---------|---------|--|--------|
| 1303    | Sugar Maple                | Acer saccharum                 | 60                    | Good    | Good    |  | Retain |
| 1304    | Sugar Maple                | Acer saccharum                 | 60                    | Good    | Good    |  | Retain |
| 1305    | Sugar Maple                | Acer saccharum                 | 60                    | Good    | Good    |  | Retain |
| 1306    | Sugar Maple                | Acer saccharum                 | 60                    | Good    | Good    |  | Retain |
| 1307    | Sugar Maple                | Acer saccharum                 | 60                    | Good    | Good    |  | Retain |
| 1308    | Mountain Ash               | Sorbus aucuparia               | 30                    | Poor    | Poor    |  | Remove |
| 1309    | Manitoba Maple             | Acer negundo                   | 20x15                 | Good    | Good    | Beside Mountain Ash  | Remove |
| 1310    | Black Cherry               | Prunus serotina                | 38                    | Average | Average |  | Remove |
| 1311    | Manitoba Maple             | Acer negundo                   | 70                    | Average | Average |  | Remove |
|         | White Pine Plantation      | Pinus strobus                  | 10 to 20              | Good    | Good    | Group 1 - Juvenile white pine, red pine, white spruce, manitoba maple, eastern white cedar, tamarack, & ash. Planted on top of slope to bottom of slope. Density, 1 for every 4 meter squared. | Remove |
| Group 1 | Red Pine Plantation        | Pinus resinosa                 | 10 to 20              | Good    | Good    | Group 1 - Juvenile white pine, red pine, white spruce, manitoba maple, eastern white cedar, tamarack, & ash. Planted on top of slope to bottom of slope. Density, 1 for every 4 meter squared. | Remove |
|         | White Spruce Plantation    | Picea glauca                   | 10 to 20              |         |         | Group 1 - Juvenile white pine, red pine, white spruce, manitoba maple, eastern white cedar, tamarack, & ash. Planted on top of slope to bottom of slope.                                       | Remove |
| Group 2 | Juvenile Red Pine          | Pinus resinosa                 | 20 - 30, and 10 - 20. | Good    | Good    | Starting at property line and half way down slope. 7 that are 20-30 DBH CM, 25 that are 10-20 DBH CM. The bigger pines are at the top of the hill.   | Remove |
| Group 3 | Norway Spruce & Scots Pine | Picea abies / Pinus sylvestris |                       | Good    | Good    | 2 Norway Spruce and 6 Scot's Pine on neighbouring property, 3 meters or greater from property line. Also, 3 Norway<br>Spruce and 1 Manitoba Maple.   | Retain |
| Group 4 | Manitoba Maple             | Acer negundo                   | 10 to 20              |         |         | 9 Juvenile Manitoba Maples, 10 to 20 DBH CM.   | Remove |
| Group 5 | Manitoba Maple             | Acer negundo                   | 5 to 20               | Average | Average | 16 Juvenile Manitoba Maple   | Remove |
| Group 6 | Manitoba Maple             | Acer negundo                   | 5 to 20               | Average | Average | 3 Juvenile Manitoba Maple  | Remove |



| Ceneral Notes   Ceneral Notes   Construction   Construction </th |
|--|
| EXISTING CONIFEROUS TREE GROUPING OF TREES AREA TO BE DEVELOPED  |
| GROUPING OF TREES  |
| AREA TO BE DEVELOPED   |
|  |
| TREE PROTECTION FENCE  |
|  |
|  |
|  |
|  |
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|  |
|  |
|  |
| Robert R Lis<br>ISA Certified Arborist<br>NO. ON-1374A   |
|  |
| No. Revision/Issue Date  |
| Firm Name and Address<br>The Urban Arborist Inc.<br>P.O. Box 74525<br>Humbertown Centre<br>Etobicoke, ON<br>M9A 5E2<br>FROM THE ROOTS UP   |
| Project Name and Address<br>Part 1 and Part 2<br>Lot 26 Concession 7<br>Town of Erin<br>Ontario  |
| Project<br>Hillsburgh Heights<br>Date<br>22.07.2022<br>Scale<br>NTS  |

# **Appendix 1: Typical Detail Drawings**

#### NHF-400: Tree Protection Zone (TPZ) barriers

