Vegetation Protection and Restoration Plan

537086 Main Street, Horning's Mills
Township of Melancthon

Prepared for:
Mr. Angelo Carnevale

Prepared by:
Azimuth Environmental
Consulting, Inc.

April 2024

AEC 23-095

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

April 29, 2024 AEC 23-095

Mr. Angelo Carnevale
537086 Main Street
Melancthon, Ontario
L9V 1X6

Re: Vegetation Protection and Landscape Plan
537086 Main Street, Township of Melancthon (Horning's Mills)

Dear Mr. Carnevale:

Azimuth Environmental Consulting, Inc. (Azimuth) is pleased to submit our Vegetation Protection and Landscape Plan for the proposed residential development located at 537086 Main Street within the Township of Melancthon, Ontario.

This report includes the results of our tree inventory for the above-mentioned property, which focused on individual trees and tree groupings located within and along the proposed development limits. Included information pertains to existing tree size, species and health classifications for all trees/groupings inventoried, along with recommended measures to protect and preserve vegetation adjacent to the proposed development limits during construction. Proposed on-site tree compensation planting locations are also provided.

If you have any questions pertaining to the information within this report, please do not hesitate to contact me directly.

Yours truly,

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

David d'Entremont, H.B.Sc.
Terrestrial Ecologist and Consulting Arborist
ISA #ON-3073A

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1.0 INTRODUCTION

Azimuth Environmental Consulting, Inc. (Azimuth) was retained by Mr. Angelo Carnevale (the "proponent") to complete a Vegetation Protection and Landscape Plan for the proposed residential development located at 537086 Main Street within the Township of Melancthon (Horning's Mills). The subject property is bordered by Main Street along the eastern limits and Dufferin Road 124 along the western limits, with large rural residential properties to the north and south. The subject property is approximately 10.2 ha (25.2 acres) in area and consists primarily of active agricultural lands with some natural (vegetated) areas within the central, southern and northeastern portions.

The proposed development includes the construction of twenty-six (26) rural residential lots, along with one primary road connecting to Main Street and an emergency access connecting to Dufferin Road 124. The site is part of the Niagara Escarpment and is designated an Area of Development Control under the Niagara Escarpment Plan (2017). This designation requires a permit from the Niagara Escarpment Commission for land development.

Along with this Vegetation Protection and Landscape Plan, Azimuth has also prepared a separate Environmental Impact Study (EIS) for the subject property (Azimuth, 2024). The scope of work for this Vegetation Protection and Landscape Plan report was prepared in recognition of the Niagara Escarpment Commission (NEC) "Guideline for the Preparation of Vegetation Protection Plans" (2017). The scope of work completed for this study is provided in greater detail in the following section.

2.0 SCOPE OF WORK

2.1 Coniferous Forest (Plantation)

The site contains a small coniferous forest (plantation) feature which is located within the northeastern portion of the subject property (Grouping #1). This feature will be partially removed for construction of the proposed Storm Water Management (SWM) pond and one of the streets. The inventory of this forest was completed as a general grouping assessment with characteristics such as average DBH, species composition and general health having been recorded. This forest feature is quite dense (approx. 150 trees in feature) which also made it difficult to inventory using individual tree assessment techniques.

2.2 Hedgerows

The site contains multiple hedgerows which vary in size and density. As the hedgerows were observed to contain similar primary species, age/size and health condition, these features were assessed generally (similar to coniferous forest assessment explained above), which included an approximate stem count. As can be seen in Figure 2, hedgerows included in the inventory are located within the northeastern (Grouping #2 and #3), and central (Grouping #5) portions of the subject property. It should be noted that Grouping #3 is located on a neighbouring property and close enough to the subject property to be potentially impacted by site construction.

2.3 Thicket

The site contains one thicket feature that was observed to contain similar primary species, age/size and health condition. Due to these characteristics the thicket feature was assessed generally. The primary genus observed within the thicket features was Hawthorn (*Crataegus spp.*), with many of the trees/shrubs being in poor condition. As can be seen in Figure 2, the only thicket feature included in the inventory is located within the northwestern (Grouping #4) portion of the subject property. Grouping #4 could be considered an edge feature of the larger woodland which is located just off-site to the north.

2.4 Woodland

The site contains a small woodland within the southeastern corner adjacent to the proposed parkland/future lot block. This feature has been identified as Grouping #6, and contains primarily Hawthorn species (*Crataegus spp*.).

2.5 Individual Trees

Individual tree inventory data was collected for existing trees which were not observed to be part of a tree grouping or forest feature. The majority of individual tree locations are located along the eastern and northern property boundaries, along with the central portion of the subject property. Some sporadic individual trees are also located at the southern and western extents.

All individual trees were assessed through the following methodology.

All individual trees (10cm DBH of greater) within the subject property were included in the inventory and a GPS waypoint was collected for each tree to map their locations on the property.

Individual tree assessment included the following elements:

- Species identification (common and scientific names)
- DBH measurement (1.4 metres (m) above base of tree)
- Health condition (Good, Fair, Poor or Dead)
- GPS location
- Tagged identification number (aluminum pre-numbered tag)

Individual canopy drip line measurements were not measured as root zone areas for each tree were calculated based on DBH measurements (ISA accepted practice). The root zone calculation formula of 1 inch DBH = 1 foot root protection zone generally provides more protection than drip line measurements.

2.6 Boundary and Off-site Trees

As the site contains several trees located directly on property boundaries and trees located within adjacent neighbouring properties within 5m of property boundaries, these trees were included in the inventory as they are co-owned/not owned by the proponent but within potential areas of development impact. These trees would require permission from the adjacent neighbouring property owner(s) to remove and/or impact, although it is assumed that all of these trees will be preserved (other than hazard trees which pose a safety risk). Boundary trees are shown in Figure 2 with a purple marker. Trees located fully off-site but within 5m of the subject property boundaries are shown with a blue marker.

All boundary trees were assessed using the same methodology as stated in Section 2.5 for individual trees. Trees located fully on neighbouring properties were assessed only through visual means and were not tagged due to land access issues. The sizes (DBH) and locations of neighbouring trees were also visually estimated rather than physically measured.

3.0 VEGETATION IMPACT ASSESSMENT

A total of 69 individual trees were included in the inventory, outside of tree groupings. The majority of the individual trees on the property will be removed due to being located within areas of proposed grading or poor health condition (hazard trees along property boundaries). The Vegetation Protection Plan (Figure 2) illustrates all individually-inventoried tree locations, the proposed site plan features, and recommendations for trees to be removed/preserved.

Forest, hedgerow and thicket features are also shown in Figure 2. The majority of these features will be preserved as they are located along site peripheries or on neighbouring properties. The largest feature to be removed is the Ash hedgerow (Grouping #5) which traverses the central portion of the subject property and contains approximately 150 White Ash (*Fraxinus americana*) trees. These trees are largely in fair to poor condition due to impacts from the Emerald Ash Borer. Other impacts will consist of partial tree removals to Groupings #1 and full removal of Grouping #2 to accommodate construction of the proposed SWM pond and one of the streets.

The trees to be preserved outside of the development limits should be protected by Vegetation Preservation Fencing, with proposed fencing locations shown in Figure 2. The silt fencing should, at minimum, be comprised of page wire-backed heavy duty silt fencing meeting the specifications provided in Section 4.1.3 below. This protective fencing will prevent inadvertent encroachment into the retained vegetation communities and will protect the root zones and canopy of the retained tree resources.

4.0 VEGETATION PROTECTION

4.1 Vegetation Protection Recommendations

The following measures should be implemented to ensure protection of retained tree and vegetation resources outside and adjacent to the development limits (once determined):

1. Vegetation Protection Zones (VPZ) should be established for the trees to be preserved. The following actions are not permitted within a VPZ:
    a. Alteration or disturbance to existing grade of any kind;
    b. Changes to the grade by adding fill, excavating or scraping;
    c. Storage of construction materials or equipment;
    d. Storage of soil, construction waste or debris;
    e. Disposal of any deleterious materials *e.g.* concrete sleuth, gas, oil, paint; and;
    f. Movement of vehicles, equipment or pedestrians

It should be noted that site grading and other construction excavations could encroach into the root protection zones and impact preserved trees to a minor degree. Encroachment of less than 25% into a single tree root protection zone is considered minor, with a low chance of significant impact to the protected tree.

2. The VPZ is identified as the limit of site disturbance along the periphery of the proposed development, along the tree resources to be retained post-development. These VPZ's include the limits of preserved tree groupings, as well as the majority (>75%) of each root protection zone identified for preserved trees that were individually inventoried.

3. The VPZ must be delineated by:
   a) A heavy-duty Vegetation Preservation Fence comprised (at minimum) of page wire-backed sediment fencing adhering to the following minimum specifications:
      - Final height of fencing should be at least 1.2m above grade; and,
      - Stakes/T-bars should be spaced 2.0m on center or closer;
   b) The installation of the above-described Vegetation Preservation Fence should adhere to the specifications described by OPSD 219.130 (see Appendix A); and,
   c) The VPZ should be established along the periphery of the development limits across the site where trees are to be preserved.

4. "Vegetation Protection Area" signage (minimum 11" x 17") must be posted on the Vegetation Preservation Fencing of the VPZ at appropriate spacing.

5. All trees within VPZs identified for removal (*e.g.*, hazard trees) should be removed immediately prior to the installation of the preservation fence using low impact tree removal methods. Tree removals within the development envelope may proceed once the Vegetation Preservation Fencing has been installed.

6. Pruning of branches and roots (where necessary) to facilitate construction activities should be completed under the direction of a qualified arborist or tree professional in accordance with proper arboriculture standards.

7. If branch, bark or trunk damage occurs to any retained trees, the project Arborist or should be contacted within 24 hours to inspect the damage and decide if the tree should be retained or removed depending on extent of injury.

8. Replace any trees identified for protection and damaged during construction on a per caliper basis to the satisfaction of NEC.

4.2 Vegetation Restoration Plan

As per the NEC's recommendations during pre-consultation, the proponent is to complete a planting plan within a suitable portion of the subject site. This planting plan, herein

referred to as the Vegetation Restoration Plan, is comprised of tree plantings to compensate for the loss of trees resulting from the proposed development. These plantings will provide additional native tree species to the property, filling in a portion of non-vegetated area within the proposed 10m grading buffer at the southeast extent of the property. A total of seventy-two (72) trees are proposed to be planted in this buffer area. This The Vegetation Restoration Plan also includes the installation of a native wildflower/grass seed mix outside of the mulched tree/shrub locations. Native tree species, counts, sizes, planting details and site preparation/maintenance notes are included within the plan (Figure 3). It should be noted that the majority of trees to be removed within the subject site are Ash species in fair to poor condition impacted by the Emerald Ash Borer.

5.0 CONCLUSIONS

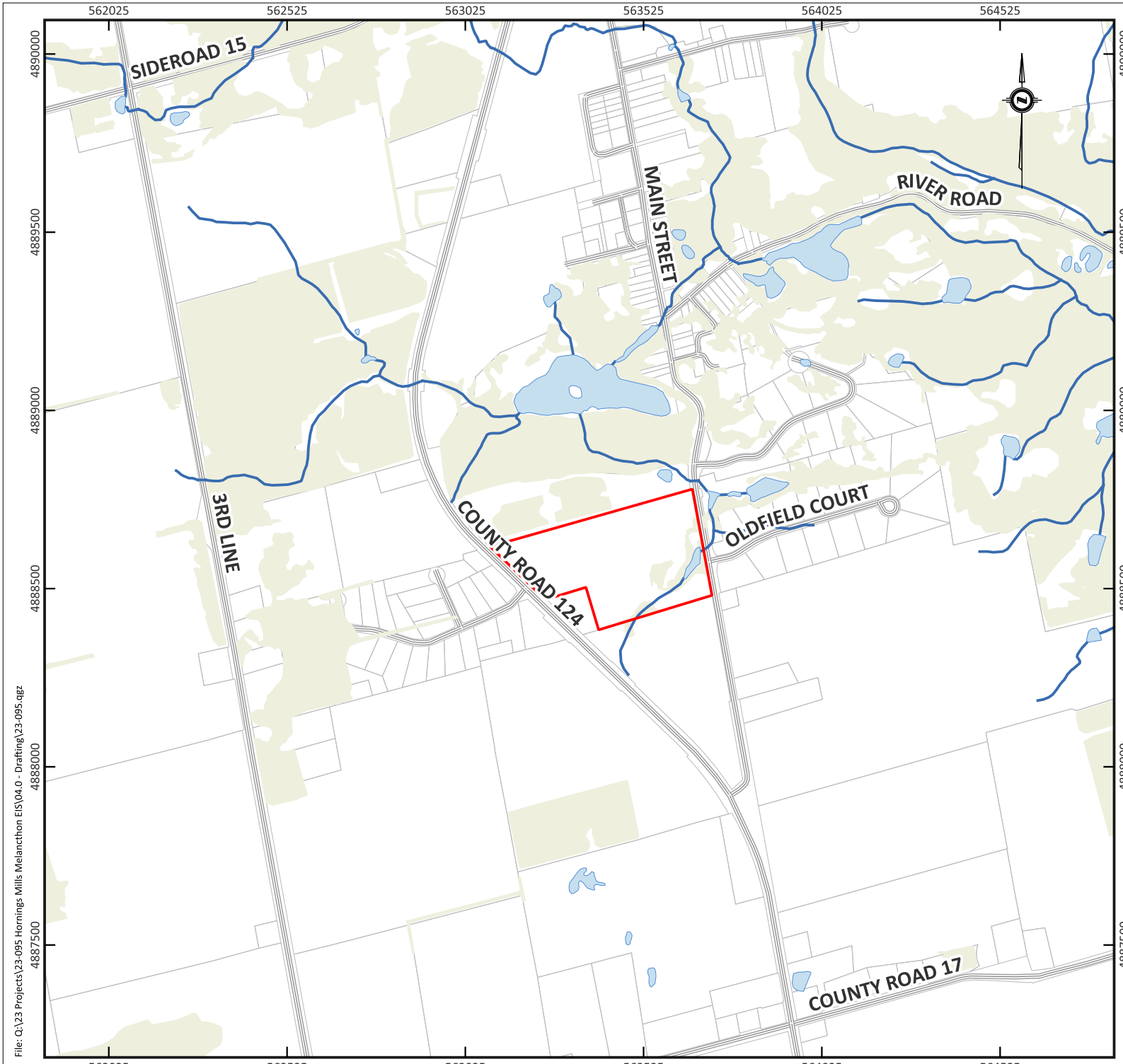
Azimuth has completed a Vegetation Protection and Restoration Plan for the proposed residential development property. Through this study, Azimuth has determined that the vegetation communities to be preserved on and off-site will continue to thrive post development if the recommended tree protection and mitigation strategies are employed (*i.e.*, installation of tree protection/silt fencing). Exact numbers of trees to be removed within the subject site are not known, as selective removal will be required in areas where construction will encroach into vegetated areas (*e.g.,* SWM pond into Groupings #1). The majority of tree removals will occur within Groupings #2 and #5 where primarily Ash species in fair to poor condition will be removed. Removed trees should be compensated with native species within the southeast portion of the property, as shown in the Vegetation Restoration Plan.

6.0 REFERENCES

Azimuth Environmental Consulting, Inc. 2024. Environmental Impact Study for 537086 Main Street, Township of Melancthon.

Ministry of Natural Resources and Forestry (MNRF) 2017. Niagara Escarpment Plan. Part 1 Land Use Policies.

Niagara Escarpment Commission (NEC). 2017. Guideline for the Preparation of Vegetation Protection Plans.

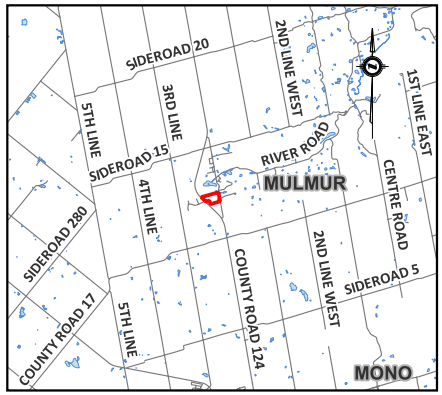


LEGEND

- Approx. Property Boundary
- Road
- Waterbody
- Permanent Watercourse
- Wooded Area

REGIONAL MAP

SCALE 1:250000



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KILOMETERS

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

ENVIRONMENTAL ASSESSMENTS & APPROVALS

SITE LOCATION

537086 MAIN STREET
MELANCHTON, ON

DATE ISSUED:	APRIL 2024
CREATED BY:	A.L.
PROJECT NO.:	23-095
BASE MAP:	MNRF

Figure No. 1

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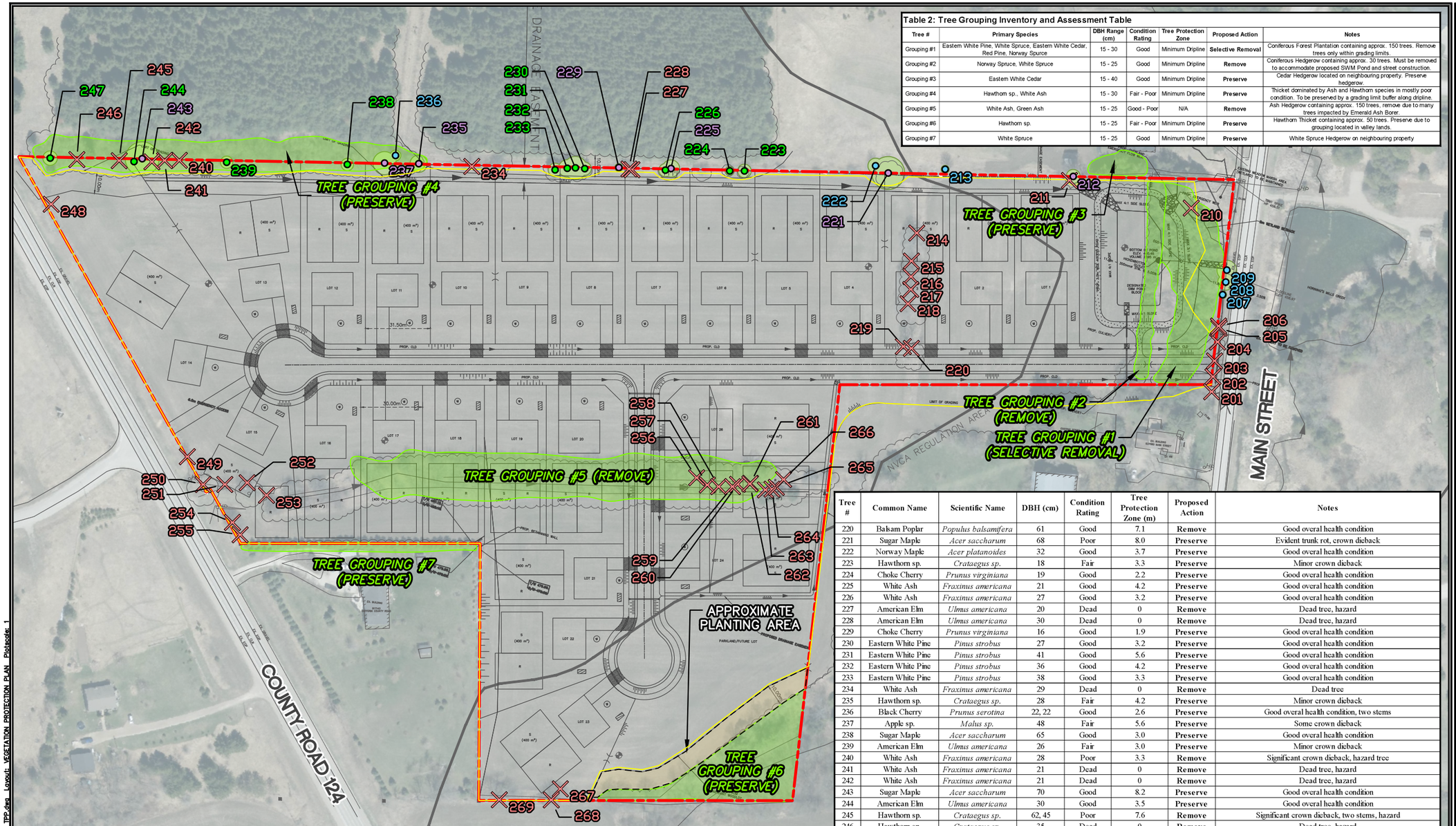


Table 2: Tree Grouping Inventory and Assessment Table

Tree #	Primary Species	DBH Range (cm)	Condition Rating	Tree Protection Zone	Proposed Action	Notes
Grouping #1	Eastern White Pine, White Spruce, Eastern White Cedar, Red Pine, Norway Spurce	15 - 30	Good	Minimum Dripline	**Selective Removal**	Coniferous Forest Plantation containing approx. 150 trees. Remove trees only within grading limits.
Grouping #2	Norway Spruce, White Spruce	15 - 25	Good	Minimum Dripline	**Remove**	Coniferous Hedgerow containing approx. 30 trees. Must be removed to accommodate proposed SWM Pond and street construction.
Grouping #3	Eastern White Cedar	15 - 40	Good	Minimum Dripline	**Preserve**	Cedar Hedgerow located on neighbouring property. Preserve hedgerow.
Grouping #4	Hawthorn sp., White Ash	15 - 30	Fair - Poor	Minimum Dripline	**Preserve**	Thicket dominated by Ash and Hawthorn species in mostly poor condition. To be preserved by a grading limit buffer along dripline.
Grouping #5	White Ash, Green Ash	15 - 25	Good - Poor	N/A	**Remove**	Ash Hedgerow containing approx. 150 trees, remove due to many trees impacted by Emerald Ash Borer.
Grouping #6	Hawthorn sp.	15 - 25	Fair - Poor	Minimum Dripline	**Preserve**	Hawthorn Thicket containing approx. 50 trees. Preserve due to grouping located in valley lands.
Grouping #7	White Spruce	15 - 25	Good	Minimum Dripline	**Preserve**	White Spruce Hedgerow on neighbouring property

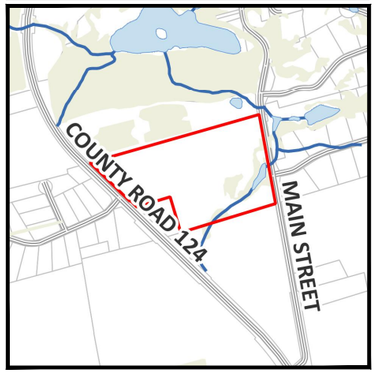
Table 1: Individual Tree Inventory and Assessment Table

Tree #	Common Name	Scientific Name	DBH (cm)	Condition Rating	Tree Protection Zone (m)	Proposed Action	Notes
201	Sugar Maple	*Acer saccharum*	>100	Poor	11.7	**Remove**	Evident trunk rot, tree on municipal property
202	Sugar Maple	*Acer saccharum*	85	Fair	9.9	**Remove**	Minor crown dieback, tree on municipal property
203	Sugar Maple	*Acer saccharum*	32	Good	3.7	**Remove**	Good overal health condition, tree on municipal property
204	Sugar Maple	*Acer saccharum*	50	Good	4.3	**Remove**	Good overal health condition, tree on municipal property
205	White Ash	*Fraxinus americana*	22	Poor	2.6	**Remove**	Significant crown dieback, tree on municipal property
206	Sugar Maple	*Acer saccharum*	17	Poor	3.0	**Remove**	Significant crown dieback, tree on municipal property
207	Sugar Maple	*Acer saccharum*	21	Good	1.9	**Preserve**	Good overal health condition, tree on municipal property
208	Sugar Maple	*Acer saccharum*	80	Fair	3.9	**Preserve**	Minor crown dieback, tree on municipal property
209	Sugar Maple	*Acer saccharum*	61	Fair	4.8	**Preserve**	Minor crown dieback, tree on municipal property
210	Balsam Poplar	*Populus balsamifera*	70	Good	8.2	**Remove**	Good overal health condition
211	Sugar Maple	*Acer saccharum*	47	Poor	5.5	**Remove**	Evident trunk rot, tree leaning, hazard tree
212	Sugar Maple	*Acer saccharum*	67	Good	3.4	**Preserve**	Good overal health condition
213	Sugar Maple	*Acer saccharum*	37	Good	1.9	**Preserve**	Good overal health condition
214	Sugar Maple	*Acer saccharum*	>100	Fair	11.7	**Remove**	Minor crown dieback
215	White Ash	*Fraxinus americana*	28	Poor	3.3	**Remove**	Significant crown dieback, Emerald Ash Borer damage
216	Sugar Maple	*Acer saccharum*	>100	Good	11.7	**Remove**	Good overal health condition
217	Sugar Maple	*Acer saccharum*	75	Good	8.8	**Remove**	Good overal health condition
218	Sugar Maple	*Acer saccharum*	78	Fair	9.1	**Remove**	Large open trunk wound
219	Balsam Poplar	*Populus balsamifera*	68	Good	2.3	**Remove**	Good overal health condition
220	Balsam Poplar	*Populus balsamifera*	61	Good	7.1	**Remove**	Good overal health condition
221	Sugar Maple	*Acer saccharum*	68	Poor	8.0	**Preserve**	Evident trunk rot, crown dieback
222	Norway Maple	*Acer platanoides*	32	Good	3.7	**Preserve**	Good overal health condition
223	Hawthorn sp.	*Crataegus sp.*	18	Fair	3.3	**Preserve**	Minor crown dieback
224	Choke Cherry	*Prunus virginiana*	19	Good	2.2	**Preserve**	Good overal health condition
225	White Ash	*Fraxinus americana*	21	Good	4.2	**Preserve**	Good overal health condition
226	White Ash	*Fraxinus americana*	27	Good	3.2	**Preserve**	Good overal health condition
227	American Elm	*Ulmus americana*	20	Dead	0	**Remove**	Dead tree, hazard
228	American Elm	*Ulmus americana*	30	Dead	0	**Remove**	Dead tree, hazard
229	Choke Cherry	*Prunus virginiana*	16	Good	1.9	**Preserve**	Good overal health condition
230	Eastern White Pine	*Pinus strobus*	27	Good	3.2	**Preserve**	Good overal health condition
231	Eastern White Pine	*Pinus strobus*	41	Good	5.6	**Preserve**	Good overal health condition
232	Eastern White Pine	*Pinus strobus*	36	Good	4.2	**Preserve**	Good overal health condition
233	Eastern White Pine	*Pinus strobus*	38	Good	3.3	**Preserve**	Good overal health condition
234	White Ash	*Fraxinus americana*	29	Dead	0	**Remove**	Dead tree
235	Hawthorn sp.	*Crataegus sp.*	28	Fair	4.2	**Preserve**	Minor crown dieback
236	Black Cherry	*Prunus serotina*	22, 22	Good	2.6	**Preserve**	Good overal health condition, two stems
237	Apple sp.	*Malus sp.*	48	Fair	5.6	**Preserve**	Some crown dieback
238	Sugar Maple	*Acer saccharum*	65	Good	3.0	**Preserve**	Good overal health condition
239	American Elm	*Ulmus americana*	26	Fair	3.0	**Preserve**	Minor crown dieback
240	White Ash	*Fraxinus americana*	28	Poor	3.3	**Remove**	Significant crown dieback, hazard tree
241	White Ash	*Fraxinus americana*	21	Dead	0	**Remove**	Dead tree, hazard
242	White Ash	*Fraxinus americana*	21	Dead	0	**Remove**	Dead tree, hazard
243	Sugar Maple	*Acer saccharum*	70	Good	8.2	**Preserve**	Good overal health condition
244	American Elm	*Ulmus americana*	30	Good	3.5	**Preserve**	Good overal health condition
245	Hawthorn sp.	*Crataegus sp.*	62, 45	Poor	7.6	**Remove**	Significant crown dieback, two stems, hazard
246	Hawthorn sp.	*Crataegus sp.*	35	Dead	0	**Remove**	Dead tree, hazard
247	Norway Spruce	*Picea abies*	30	Good	3.5	**Preserve**	Good overal health condition
248	Lombardy Poplar	*Populus nigra*	27	Good	3.2	**Remove**	Good overal health condition
249	Lombardy Poplar	*Populus nigra*	49	Good	5.7	**Remove**	Good overal health condition
250	American Elm	*Ulmus americana*	49	Good	5.7	**Remove**	Good overal health condition
251	American Elm	*Ulmus americana*	29	Poor	3.4	**Remove**	Significant crown dieback, hazard tree
252	Hawthorn sp.	*Crataegus sp.*	52, 45	Poor	6.1	**Remove**	Significant crown dieback, two stems, hazard
253	Apple sp.	*Malus sp.*	26	Poor	3.0	**Remove**	Significant crown dieback, hazard tree
254	Norway Maple	*Acer platanoides*	75	Poor	8.8	**Remove**	Large open trunk wound, significant crown dieback, hazard tree
255	Lombardy Poplar	*Populus nigra*	25	Good	2.9	**Remove**	Good overal health condition
256	Black Walnut	*Juglans nigra*	28	Fair	3.3	**Remove**	Minor crown dieback
257	Black Walnut	*Juglans nigra*	28	Fair	3.3	**Remove**	Minor crown dieback
258	Black Walnut	*Juglans nigra*	27	Good	3.2	**Remove**	Good overal health condition
259	Red Pine	*Pinus resinosa*	22	Poor	2.6	**Remove**	Significant crown dieback, hazard tree
260	Black Walnut	*Juglans nigra*	23	Poor	2.7	**Remove**	Significant crown dieback, hazard tree
261	Black Walnut	*Juglans nigra*	24	Poor	2.8	**Remove**	Significant crown dieback, hazard tree
262	Red Pine	*Pinus resinosa*	21	Poor	2.5	**Remove**	Significant crown dieback, hazard tree
263	Red Pine	*Pinus resinosa*	32	Good	3.7	**Remove**	Good overal health condition
264	Red Pine	*Pinus resinosa*	23	Good	2.7	**Remove**	Good overal health condition
265	Red Pine	*Pinus resinosa*	29	Good	3.4	**Remove**	Good overal health condition
266	White Spruce	*Picea glauca*	32	Good	3.7	**Remove**	Good overal health condition
267	Hawthorn sp.	*Crataegus sp.*	31	Fair	3.6	**Remove**	Minor crown dieback
268	American Elm	*Ulmus americana*	41	Good	4.8	**Remove**	Good overal health condition
269	Hawthorn sp.	*Crataegus sp.*	87	Poor	10.2	**Remove**	Significant crown dieback, hazard tree

LEGEND:

- APPROX. PROPERTY BOUNDARY
- EXISTING TREE TO BE PRESERVED – LOCATED ON PROPERTY
- EXISTING TREE TO BE PRESERVED – LOCATED ON PROPERTY LINE
- EXISTING TREE TO BE PRESERVED – LOCATED OFF PROPERTY
- EXISTING TREE LOCATION TO BE REMOVED
- TREE GROUPING
- ROOT PROTECTION ZONE – INDIVIDUAL TREES
- APPROX. PLANTING AREA
- VEGETATION PRESERVATION FENCING

LOCATION PLAN



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HORIZONTAL SCALE 1:2000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

VEGETATION PROTECTION PLAN

537086 MAIN STREET
MELANCHTON, ON

DATE ISSUED:	*APRIL 2024*	Figure No. 2
CREATED BY:	*A.L.*	
PROJECT NO.:	*23-095*	
REFERENCE:	*DUFFERIN COUNTY*	

TREE PLANTING NOTES

Planting Areas and Site Preparation

Trees should be planted within the general vicinity (where possible) of the areas shown within the plan (node locations meant to be a guide only). Trees should be planted at 3 metre spacings within each node. Nodes should be planted away from existing mature trees.

Planting Process

Trees should be planted from early October until before freeze up; or in the spring after frost is out of the soil and new foliage is partially unfurled.

Planting holes should be dug twice as wide and to the depth of the root ball. Holes should be dug immediately prior to planting to avoid drying out of the backfill soil. The sides of the hole should be roughened to allow root penetration and water flow.

One tree is in place, backfill the hole two-thirds of the way with gently tamped soil. Fill remaining space with water to settle in the soil around the root ball. Once the water is drained, the remaining space should be backfilled to existing ground level.

Source Material

The stock should consist of the native species included in the species list. The landowners should be free to plant additional trees/shrubs on the property if they are native species and suitable for site conditions. The material must be purchased from a local nursery within the applicable Ontario Seed Zone (32 and 33). Field dug material is not acceptable.

Protective Measures

Immediately following the planting of trees, place mulch around the base of the trees but not allowing mulch to touch the bark. The mulch should not exceed a height of 4 inches above the base of the tree.

Monitoring and Maintenance

Planted trees should be watered during dry periods within the first growing season and inspected by a Certified Arborist over the course of two years:

1. Approximately one month after installations;
2. After leaf out following the first winter, and;
3. A full two years after installations.

During the course of the inspections, the success of the plantings and degree of damage/mortality should be recorded in the form of brief inspection reports. A success rate of 80% of the original planting amount is the recommended survival target. Trees should be replaced if the success rate fall below 80%. Inspection reports should be kept on file by the landowner and made available to the Niagara Escarpment Commission upon request.

NATIVE SEED MIX NOTES

Site Preparation

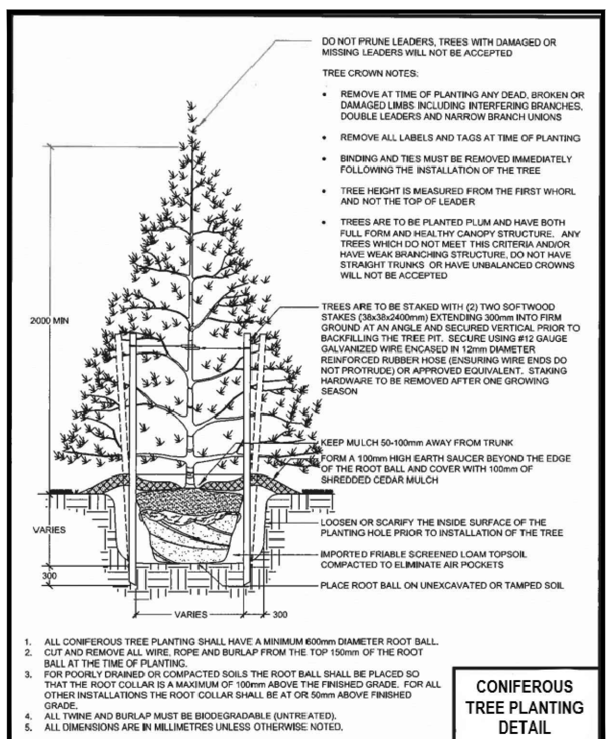
The areas immediately surrounding the trees should be mulched. All areas within the planting zone and outside of the mulched areas should be planted with native seed mixture.

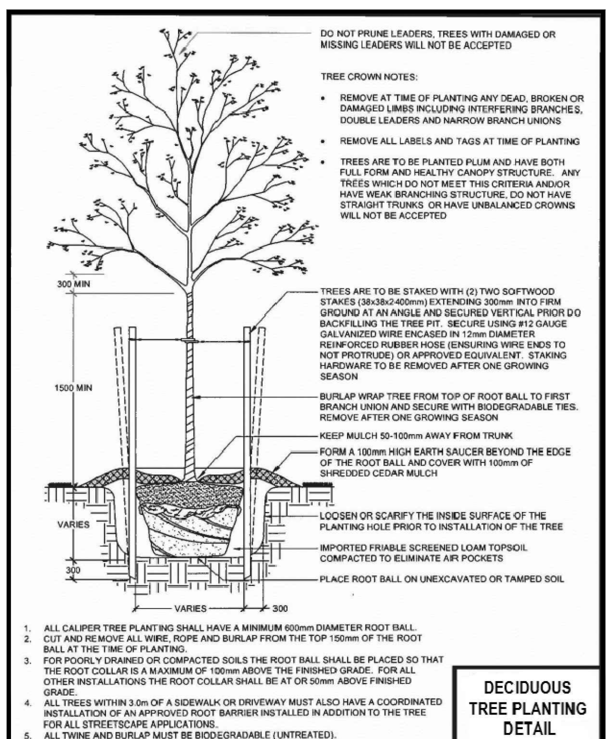
Loosen the soil to 2.5cm (1") depth with a stiff rake, cultivator or hoe. Broadcast seed evenly. Smaller seed can be mixed with dry sand to improve distribution when sowing. Cut the site height of 20cm (8") twice during the first growing season and possibly once more early in the second season to help keep aggressive weeds from taking over while the native plants work through their establishment period. Sow at $500g/180m^2$ or 25kg/Ha.

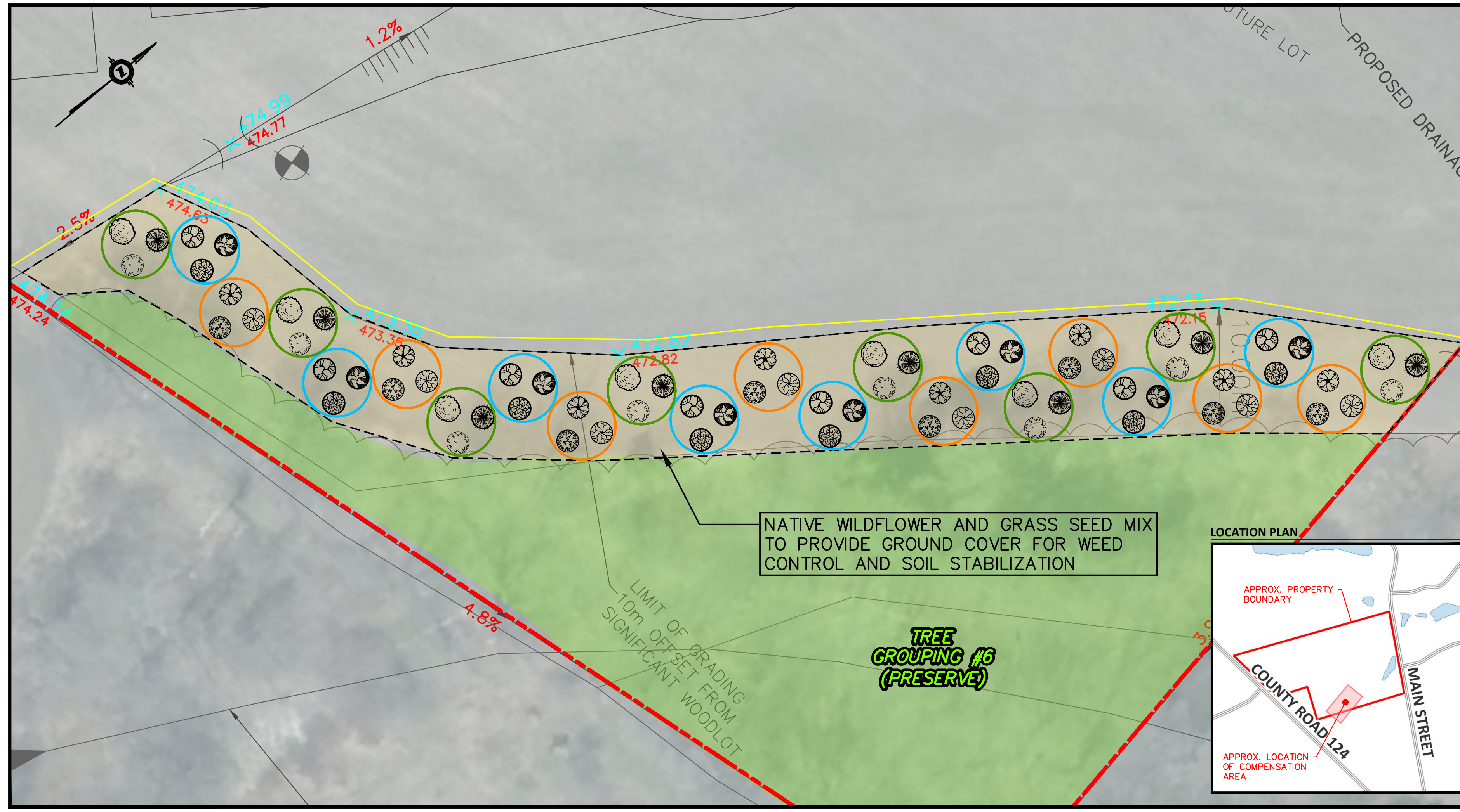
Simcoe County Native Seed Mixture

Contains:

- 12% BLACK EYED SUSAN *(Rudbeckia hirta)*
- 20% CANADA WILD RYE *(Elymus canadensis)*
- 20% INDIANGRASS *(Sorghastrum nutans)*
- 15% LITTLE BLUESTEM *(Schizachyrium scoparium)*
- 2% NEW ENGLAND ASTER *(Aster novae-angliae)*
- 1% WILD BERGAMOT *(Monarda fistulosa)*
- 4% CANADA GOLDENROD *(Solidago canadensis)*
- 5% COMMON MILKWEED *(Asclepias syriaca)*
- 20% SAND DROPSEED *(Sporobolus crytandrus)*
- 1% SMOOTH BLUE ASTER *(Aster laevis)*

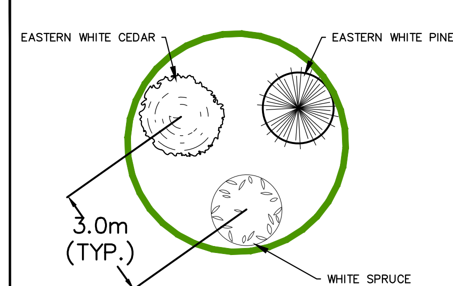




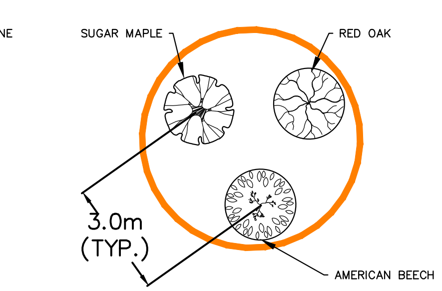


Planting Node	Common Name	Latin Name	Count	Caliper/Height
Coniferous	Eastern White Cedar	*Thuja occidentalis*	8	H (1800mm)
Coniferous	Eastern White Pine	*Pinus strobus*	8	H (1800mm)
Coniferous	White Spruce	*Picea glauca*	8	H (1800mm)
Deciduous 1	Sugar Maple	*Acer saccharum*	8	C (50mm)
Deciduous 1	Red Oak	*Quercus ruba*	8	C (50mm)
Deciduous 1	American Beech	*Fagus grandifolia*	8	C (50mm)
Deciduous 2	Silver Maple	*Acer saccharinum*	8	C (50mm)
Deciduous 2	American Basswood	*Tilia americana*	8	C (50mm)
Deciduous 2	Ironwood	*Ostrya viginiana*	8	C (50mm)

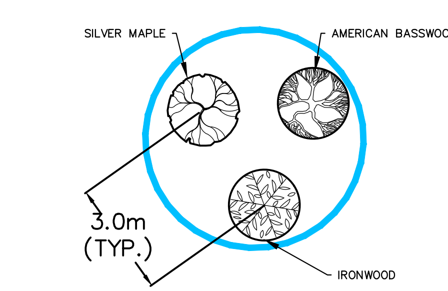
SCALE 1:500



1 CONIFEROUS PLANTING NODE
N.T.S.



2 DECIDUOUS PLANTING NODE #1
N.T.S.



3 DECIDUOUS PLANTING NODE #2
N.T.S.

LEGEND

- APPROX. PROPERTY BOUNDARY
- PLANTING AREA
- TREE GROUPING
- VEGETATION PRESERVATION FENCING

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

VEGETATION RESTORATION PLAN

537086 MAIN STREET
MELANCHTON, ON

DATE ISSUED:	APRIL 2024	Figure No.
CREATED BY:	A.L.	3
PROJECT NO.:	23-095	
REFERENCE:	DUFFERIN COUNTY	

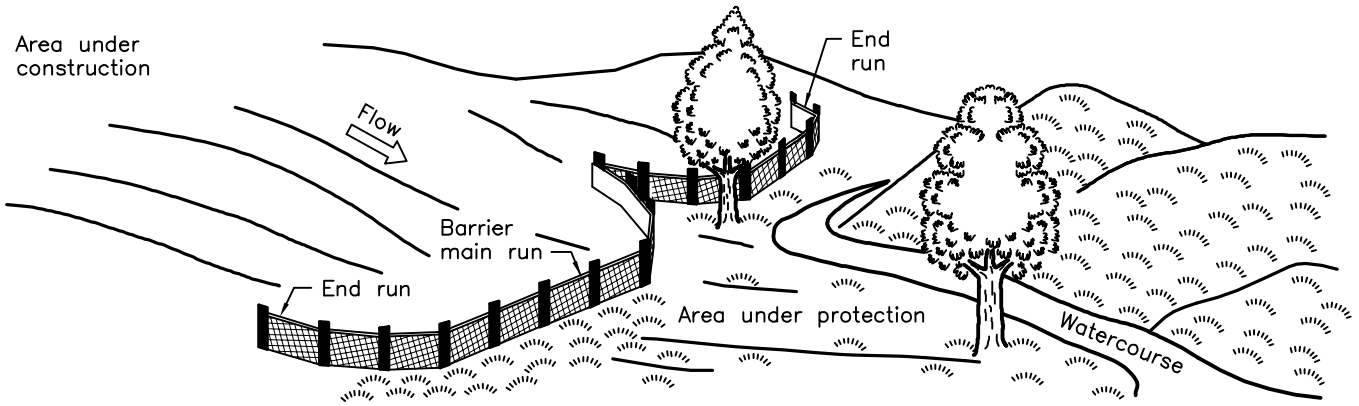
Plotted by: ALIU on April 2, 2024 at 12:12pm
File: O:\23 projects\23-095 hornings mills melancthon eis\04.0 – drafting\23-095 TPP.dwg Layout: VEGETATION RESTORATION PLAN Plotscale: 1

APPENDICES

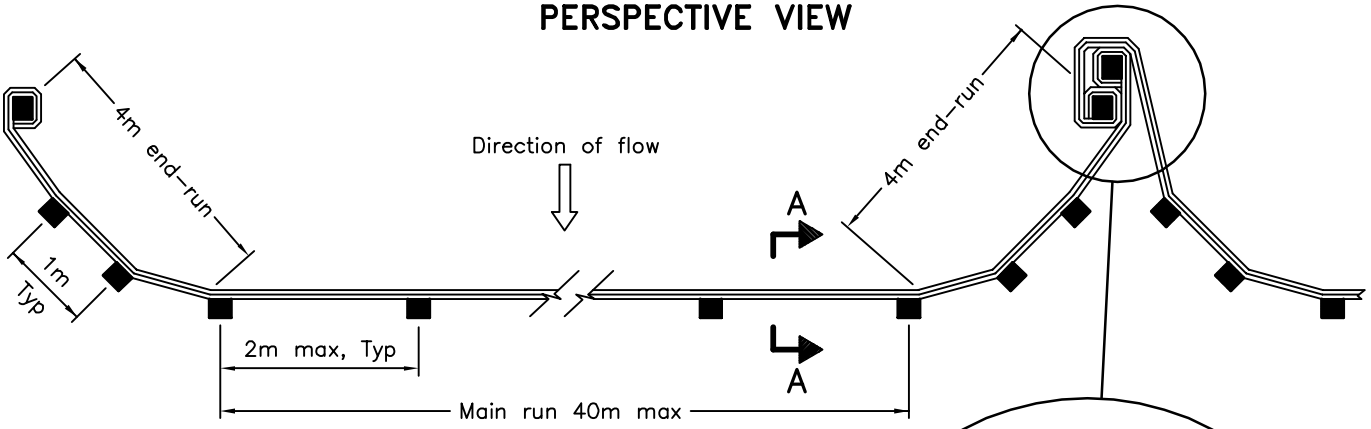
Appendix A: Ontario Provincial Standard Silt Fence Drawing (OPSD 210.130)

APPENDIX A

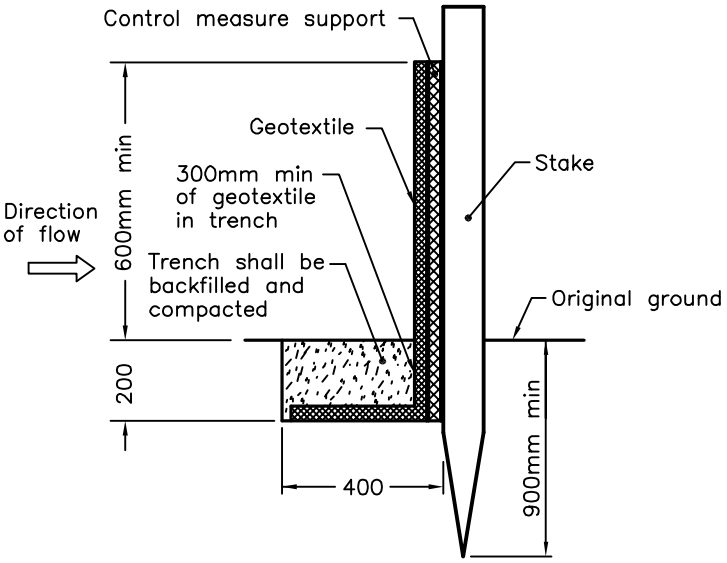
Ontario Provincial Standard Silt Fence Drawing (OPSD 210.130)



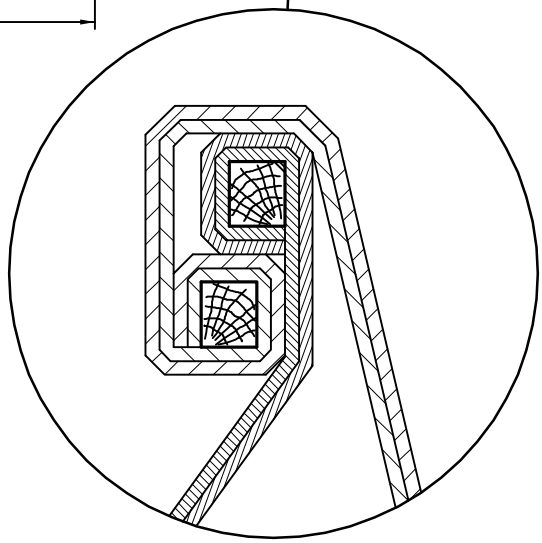
PERSPECTIVE VIEW



PLAN



SECTION A–A



JOINT DETAIL

NOTE:

A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev	2
HEAVY–DUTY SILT FENCE BARRIER			
	OPSD 219.130		