AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

November 7, 2025 AEC 23-095

Angelo Carnevale
537086 Main Street
Melancthon, Ontario L9V 1X7

Re: **Vegetation Protection and Restoration Plan Addendum & Response #1 to Peer Review Comments– 537086 Main Street, Horning's Mills, Township of Melancthon (Project No. 300056814.0000)**

Angelo Carnevale:

Azimuth Environmental Consulting, Inc. (Azimuth) has reviewed peer review comments prepared by R.J. Burnside & Associates Limited ("Burnside") on behalf of the Township of Melancthon (the "Township") with regard for a Vegetation Protection and Restoration Plan (VPRP) prepared by Azimuth for a proposed residential development at 537086 Main Street (Horning's Mills), dated April 29, 2024.

The purpose of this letter is to provide a detailed VPRP Addendum & Response #1 to consolidated peer review comments, based on a revised development planning materials (*e.g.* Draft Plan of Subdivision, Grading Plan) prepared by the project team in October 2025. Peer review comment/responses are also detailed in an accompanying comment matrix submitted in parallel with this VPRP Addendum, under a separate cover. Azimuth also prepared a separate Scoped Environmental Impact Study (EIS) related to the proposed development concept, dated April 16, 2024. Consolidated peer review comment responses related to the Scoped EIS have similarly been prepared with regard for revised development planning materials, submitted under a separate cover.

VPRP Addendum Responses

<u>R.J. Burnside & Associates EIS Comments</u>

Burnside Comment #2:

The adjacent residential property at the south west corner of the subject property is surrounding by a coniferous hedgerow. Grading is planned to the property line and could affect boundary trees. Please clarify how these trees will be protected.

Azimuth Response to Burnside Comment #2:
The proposed edge of grading and associated tree protection fencing have been revised in the southwest property adjacent the hedgerow to permit an additional 1.5m of setback to the property line on the north edge of the property in this location, where the grading is closest to the trees. This is reflected in the updated Figure 2A of the Vegetation Protection and Preservation Plan (attached). The maximum tree size in this hedgerow is 25cm DBH, as noted in Table 2, Figure 2, and these trees were noted to be located on adjacent lands (*i.e.* south of the property boundary), albeit very close to the property boundary. Therefore, given the maximum tree size, ensuring a minimum of 1.5m along this line preserves a minimum of 75% of any single Tree Protection Zone of a tree in this hedgerow, preventing harm to these trees in a post-construction scenario. This revised grading and tree protection fencing is consistent with the standards of Section 4.0 of the Vegetation Protection and Preservation Plan.

<u>R.J. Burnside & Associates VPRP Comments</u>
Burnside VPRP Comment #1:
The location of tree protection fencing appears as though it may interfere with construction of the drainage swale along the northern property boundary. The tree protection fencing should be inspected by an arborist to ensure that it is installed correctly. The constructability of the drainage swale should be reviewed to ensure there is no conflict between tree protection and swale construction.

Azimuth Response to Burnside VPRP Comment #1:
The alignment of the tree protection fencing, limit of grading and swale positioning along the north property boundary have been revised to avoid conflicts between grading, tree protection and swale construction. See updated Figure 2A of the Vegetation Protection and Preservation Plan.

Burnside VPRP Comment #2:
The adjacent residential property at the southwest corner of the subject property is surrounded by a coniferous hedgerow. Grading is planned to the property line and could affect boundary trees. Please ensure that an adequate root protection zone will be respected.

Azimuth Response to Burnside VPRP Comment #2:
Refer to Azimuth response to Burnside EIS Comment #2 above.

Burnside VPRP Comment #3:
The number of trees proposed for removal is unclear as large numbers of trees were "grouped" rather than being counted individually. A total of 72 new trees are proposed to be installed. It appears as though more trees will be removed than replaced. We recommend planting at least 15 more trees to more closely achieve a 1:1 tree replacement ratio.

Azimuth Response to Burnside VPRP Comment #3:
In addition to the original 72 compensation trees, 15 additional trees have been included within the compensation planting area to address the above comment.

It should also be noted that, in addition to the above, another 45 trees have been added to the compensation as discussed within Azimuth's response to Burnside VPRP Comment #4 (below). Refer to updated Figure 3 of the Vegetation Protection and Preservation Plan. The adjusted total number of trees required for compensation has been updated to 132 to accommodate these revisions.

Burnside VPRP Comment #4:
The limit of grading appears to extend beyond the property limits south of the SWM pond. If this is correct, please include in the report the trees on the adjacent property which will be removed to accommodate this grading.

Azimuth Response to Burnside VPRP Comment #4:
The limit of grading is correctly depicted as extending beyond the property limits south of the SWM pond. A supplementary site visit was completed on November 3, 2025 (D. d'Entremont) to collect information relating to these additional tree groupings (Tree Groupings #8 and #9), focused on trees within 6m of the limit of grading and trees with potential to be impacted by grading. Figure 2 of the Vegetation Protection and Preservation Plan has been divided into Figures 2A and 2B, which have been updated with information relating to Tree Groupings #8 and #9, including characterization of the extent of associated removals.

Based on the footprint of proposed grading south of the property boundary, thirty (30) trees associated with Tree Grouping #8 and fourteen (14) trees associated with Tree Grouping #9 are expected to require removal. Further, based on the proposed outflow on the SWM pond to the east towards Main Street, Azimuth also notes that Tree #209 will require removal. Based on a 1:1 tree replacement ratio noted in Burnside VPRP Comment #3, 45 trees have been added to the proposed planting plan to accommodate removals associated with Tree Groupings #8, #9, and Tree #209. Combined with the original 72 compensation trees + 15 additional trees required by Burnside VPRP Comment #3, a total of 132 compensation trees are now included in the updated Figure 3.

Burnside VPRP Comment #5:
The tree protection fencing appears to cross through the wetland in the northeastern corner of the site. No work should occur within the wetland. Please move the tree protection fencing outside of the wetland and its buffer.

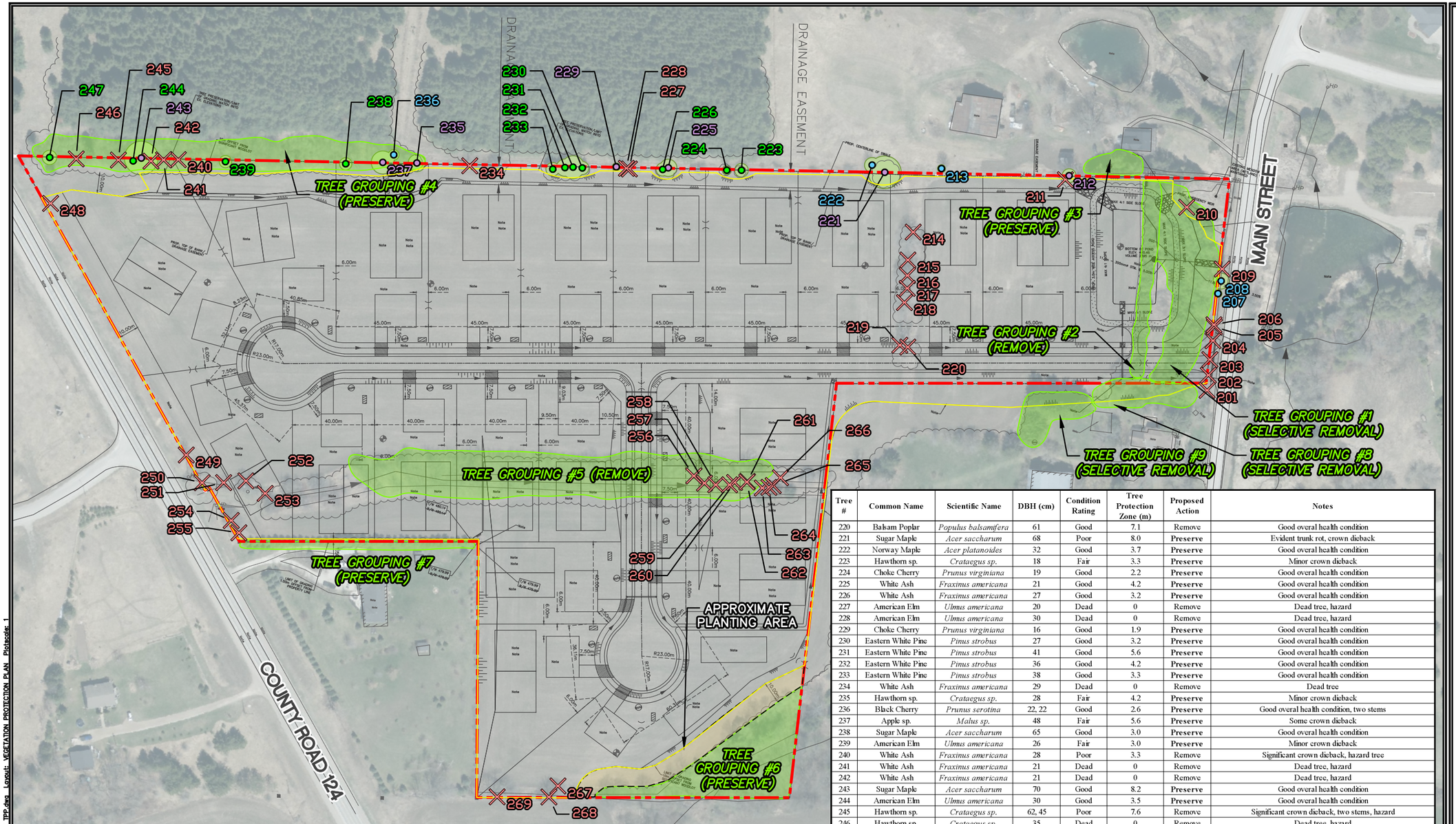
Azimuth Response to Burnside VPRP Comment #5:
Figure 2 (Vegetation Protection Plan) has been corrected to ensure Tree Protection Fencing does not cross through the retained wetland feature and its buffer in the northeast portion of the property.

Closure
We trust that the above sufficiently addresses outstanding questions and concerns outlined in consolidated peer review comments based on Azimuth's initial VPRP submission (April 2024). If you have any questions, please do not hesitate to contact the undersigned.

Yours truly,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

David d'Entremont, H.B.Sc.
ISA Certified Arborist ON-3073A

Attached:
Figure 2A – Vegetation Protection Plan (Updated)
Figure 2B – Tree Grouping Assessment Details (Updated)
Figure 3 – Vegetation Restoration Plan (Updated)



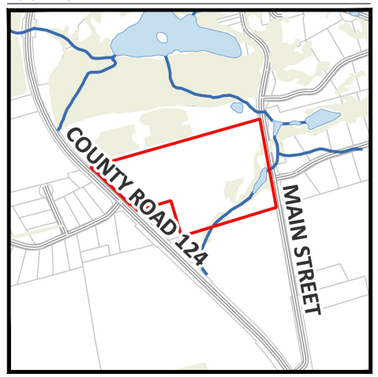
LEGEND:

- 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

NOTES:

1. FOR TREE GROUPING DETAILS, SEE TABLE 2 ON FIGURE 2B.

LOCATION PLAN



0 50.00 100.0

HORIZONTAL SCALE 1: 2000

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	Remove	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

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

VEGETATION PROTECTION PLAN

537086 MAIN STREET
MELANCHTON, ON

DATE ISSUED:	*OCTOBER 2025*	Figure No. 2A
CREATED BY:	*A.L.*	
PROJECT NO.:	*23-095*	
REFERENCE:	*DUFFERIN COUNTY*	

Plotted by: ALIL on November 4, 2025 at 4:49pm
File: Q:\23 Projects\23-095 Hornings Mills Melanchton EIS\04.0 - Drafting\23-095_TPP.dwg Layout: VEGETATION PROTECTION PLAN Plotscale: 1

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
Grouping #8	White Spruce, Norway Spruce, Eastern White Pine, Eastern White Cedar, Black Locust	10 - 40	Good - Poor	Minimum Dripline	**Selective Removal**	Coniferous Plantation and yard-bordering treeline, containing approx. 52 live trees (2 trees poor, 2 dead trees not included), including approximately 40 trees within 6m of the proposed grading limits, and approximately 30 live trees in good condition expected to be removed or impacted by grading. Remove trees only within grading limits and those within close enough proximity to grading to be harmed by grading.
Grouping #9	Norway Spruce, Northern Red Oak, Black Walnut, Manitoba Maple	10 - 70*	Good	Minimum Dripline	**Selective Removal**	Hedgerow predominantly comprised of large Norway Spruce and few deciduous trees. Contains 16 trees within 6m of proposed grading, with the majority (at least 14) expected to require removal due to proximity of grading. *Note: only Norway Spruce trees exceeded 30cm DBH, varying between 50-70cm DBH

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 (specific locations meant to be a guide to technical installation professionals only). Trees should be planted with a spacing of minimum 2.5 metres on centre. Plantings should be planted away from existing mature trees where feasible.

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

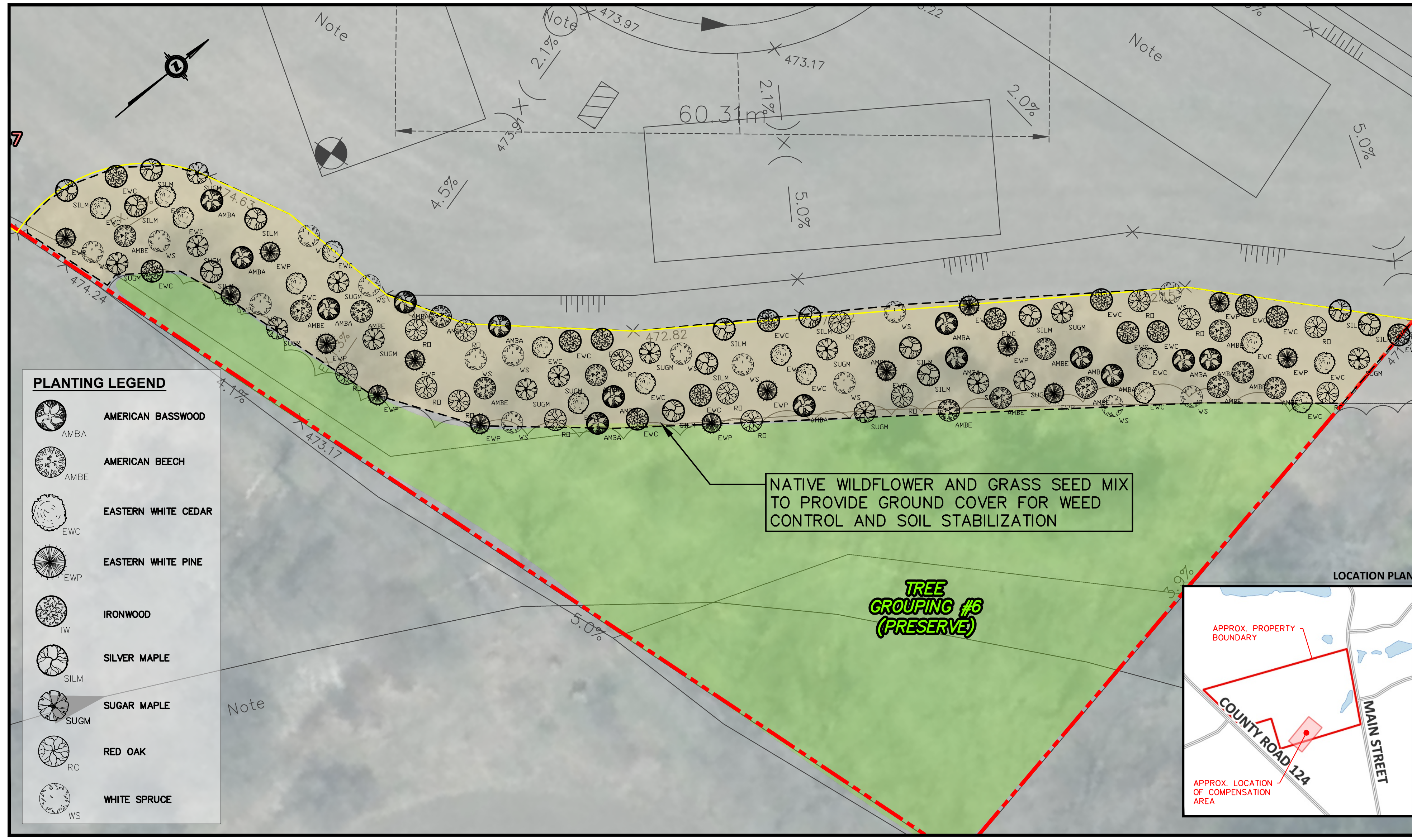
The areas immediately surrounding the trees should be mulched. All areas within the planting zone and outside of the mulched areas should be planted with native seed mixture.

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*)



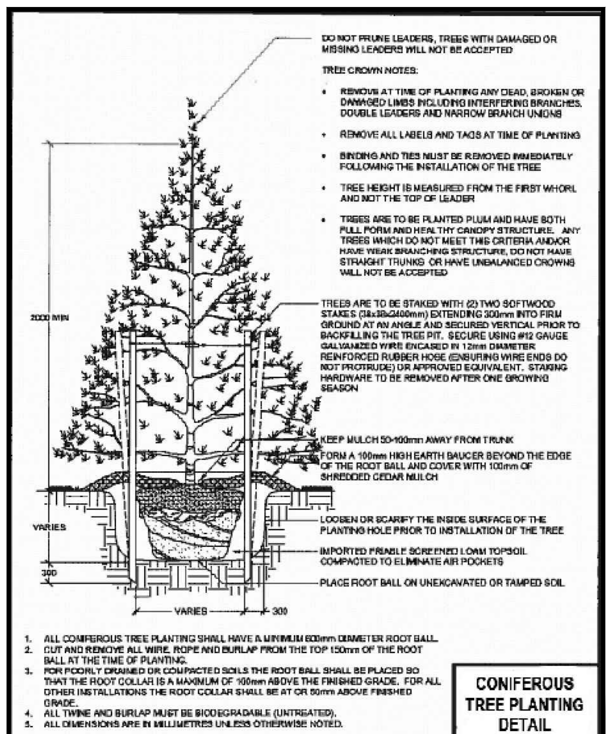
SCALE 1:500

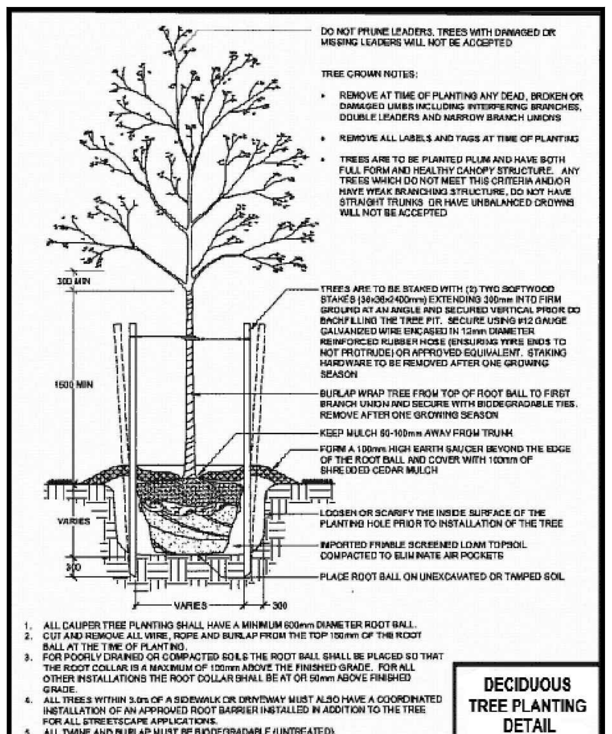
0 2 4 6 8 10 20 30 METRES

LEGEND

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

Planting Node	Common Name	Latin Name	Count	Caliper/Height
Coniferous	Eastern White Cedar	*Thuja occidentalis*	15	H (1800mm)
Coniferous	Eastern White Pine	*Pinus strobus*	15	H (1800mm)
Coniferous	White Spruce	*Picea glauca*	15	H (1800mm)
Deciduous 1	Sugar Maple	*Acer saccharum*	15	C (50mm)
Deciduous 1	Red Oak	*Quercus ruba*	15	C (50mm)
Deciduous 1	American Beech	*Fagus grandifolia*	15	C (50mm)
Deciduous 2	Silver Maple	*Acer saccharinum*	14	C (50mm)
Deciduous 2	American Basswood	*Tilia americana*	14	C (50mm)
Deciduous 2	Ironwood	*Ostrya viginiana*	14	C (50mm)





AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

VEGETATION RESTORATION PLAN

537086 MAIN STREET
MELANCHTON, ON

DATE ISSUED:	OCTOBER 2025	Figure No.
CREATED BY:	A.L.	3
PROJECT NO.:	23-095	
REFERENCE:	DUFFERIN COUNTY	

Plotted by: ALIU on November 4, 2025 at 3:27pm
File: O:\23 Projects\23-095 Hornings Mills Melancthon EIS\04.0 – Drafting\23-095 TPP.dwg Layout: VEGETATION RESTORATION PLAN Plotscale: 1