AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

November 7, 2025 AEC 23-095

Angelo Carnevale
537086 Main Street
Melancthon, Ontario L9V 1X7

Re: **Scoped Environmental Impact Study 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 consolidated natural heritage peer review comments prepared by the Niagara Escarpment Commission (NEC), R.J. Burnside & Associates Limited ("Burnside") on behalf of the Township of Melancthon (the "Township"), and the Nottawasaga Valley Conservation Authority (NVCA) with regard for a Scoped Environmental Impact Study (EIS) prepared by Azimuth for a proposed residential development at 537086 Main Street (Horning's Mills), dated April 16, 2024.

The purpose of this letter is to provide a detailed EIS 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 EIS Addendum, under a separate cover. Azimuth also prepared a separate Vegetation Protection and Restoration Plan (VPRP) related to the proposed development concept, dated April 29, 2024. Consolidated peer review comment responses have similarly been prepared with regard for revised development planning materials, submitted under a separate cover.

EIS Addendum Responses

Niagara Escarpment Commission Comments

NEC Comment #1:

The EIS has identified lot grading and a drainage swale occurring within a proposed 10.0 m buffer to a significant woodland that is adjacent the north property boundary. The proposed site alteration within the buffer impacts its function to protect the significant woodland from negative impacts during development activities which includes disturbance of the tree roots and natural drainage

patterns. There is no review of the woodland edge, mapping on the limit of the existing tree canopy and current edge conditions to determine what is an appropriate buffer and limit of site disturbance to demonstrate that there will be no negative impacts on the woodland following Natural Heritage policies of the PPS.

Azimuth Response to NEC Comment #1:
The site grading plan has been revised to re-locate the drainage swale entirely beyond the proposed 10m buffer to the off-property Significant Woodland. The revised proposed grading plan is overlain on revised environmental features mapping (Figure 3), attached to this letter response. In the case of woodlands, the Natural Heritage Reference Manual (OMNR, 2010) recommends a minimum buffer width of 10m beyond the dripline of trees to protect the rooting zone of the preserved woodland feature. Given the anthropogenic character of the property directly adjacent to the Significant Woodland feature (*i.e.* annual row cropping), it is Azimuth's opinion that maintenance of a 10m naturalized buffer will avoid negatively impacting the adjacent Significant Woodland, thereby demonstrating conformity with Section 4.1.5 of the Provincial Planning Statement (PPS; MMAH, 2024) and associated provincial and municipal requirements.

NEC Comment #2:
Significant Wildlife Habitat, habitat of endangered species and threatened species as well as species identified as threatened and endangered has been identified as being on or associated with the subject lands. An Information Gathering Form should be submitted to the Ministry of Environment Conservation and Parks to determine if any additional review, avoidance or permitting may be required under the Endangered Species Act.

Azimuth Response to NEC Comment #2:
Section 4.3.1 of the EIS states that a pair of Bobolink and fledglings were observed in proximity to survey station #4, and concludes that the observed Bobolink were likely transient and moving around the landscape to forage, as the individuals were observed on a single occasion toward the end of the breeding period and not during the first or second breeding bird survey. To provide additional clarification, there is no expectation that the Bobolink observed on the property during the third breeding bird survey (June 28, 2023) originated from a nest site on the property or adjacent lands, given no evidence of the species had been identified to date.

Habitat conditions on the property (wheat field) are not considered consistent with the species' habitat requirements for breeding. The provincial Recovery Strategy for the Bobolink (*Dolichonyx oryzivorius*) and Eastern Meadowlark (*Sturnella magna*) in Ontario (McCracken *et al.*, 2013) includes the recommendation that habitat regulation should relate to open country habitats consisting of

"natural or semi-natural grassland (including but not limited to tallgrass prairie, alvar grasslands, beaver meadows, and grassy peatlands), hayfields, pastures, grassland habitat restoration sites, and abandoned fields…", and specifically clarifies that "habitat regulation should exclude annual row crops (*e.g.*, winter wheat and rye)."

The provincial Bobolink General Habitat Description (MECP, 2021) indicates that Regulated Habitat categorizations are based upon distance from an active nest (*i.e.* Category 1 = nest location to 10m, Category 2 = area between 10m and 60m from the nest, Category 3 = area between 60m and 300m from the nest). Azimuth's site investigation did not document evidence of active Bobolink nesting within the study area limits, rather it is expected that wheat field/row crop conditions on the property were providing foraging and/or movement opportunities for Bobolink which had originated offsite, outside of the study area limits. Based on the above, no portion of the study area would be considered Regulated Habitat for Bobolink in accordance with Ministry of the Environment, Conservation and Parks (MECP) requirements, as Regulated Habitat categories are predicated on presence of an active nest location.

Azimuth acknowledges that it is proponent's responsibility to ensure that the proposed activity is not occurring in contravention of the *Endangered Species Act*, 2007 (ESA), including Section 9 and Section 10 that afford individual and habitat protection, respectively, to species listed as Threatened or Endangered under the ESA. In Azimuth's opinion the above clarifications sufficiently demonstrate that the proposed activity would not result in harm to Bobolink or destruction of their regulated habitat in a manner that could be interpreted as a contravention of the ESA. Azimuth therefore disagrees that an Information Gathering Form should be submitted to the MECP with regard for potential future permissions or approvals.

NEC Comment #3:
The EIS identifies that fish habitat is associated with Horning's Mill Creek that flows into Pine River and are both considered a cold-water system; further, DF1 flows into Horning's Mill Creek and is proposed to be altered/re-aligned as well as receive the stormwater management outlet for the proposed development. DF1 has been identified as an indirect fish habitat and as having the potential for thermal and water quality impacts as a result of the development. The EIS should provide further detail to demonstrate how the proposed development will not establish negative impacts on Fish Habitat to meet the with PPS 4.2 Natural Heritage policies.

Azimuth Response to NEC Comment #3:
It is our understanding that Pearson is implementing a cooling trench into the design of the Stormwater Management (SWM) Pond, which should facilitate the cooling of discharge water from

the pond. The cooling trench would act as a thermal sink as water passes through the buried stone/pipe before discharging to DF1 and Horning's Mill Creek. With the proposed SWM pond being a dry pond, there are limited design options to cool/lower water temperatures before water discharges from the pond. However, the inclusion of Low Impact Development (LID) techniques throughout the development are also intended to lower the amount of discharge from the pond, while also mitigating thermal impacts from the subject lands. From a landscape perspective, Horning's Mill Creek has several online ponds, including two immediately upstream of the property and a large pond/lake feature approximately 400m downstream of the property. Therefore, the anticipated impacts of a dry pond with a cooling trench and LIDs should be negligible.

R.J. Burnside & Associates Comments

Burnside Comment #1:
It appears as though grading and a drainage swale is proposed right to the woodland edge along the northern property limit. It also appears as though grading may occur within the woodland buffer on Lot 23. No grading should occur within the 10m woodland setback.

Azimuth Response to Burnside Comment #1:
Refer to Azimuth Response to NEC Comment #1 above, with regard for the 10m woodland setback along the northern property limit.

The proposed grading limit has been revised to accommodate a 10m grading limit setback in regards to the woodland buffer on Lot 18 (formerly Lot 23), as illustrated in the Figure 3 update (attached).

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:
Refer to the corresponding response in the accompanying VPRP Addendum & Response #1 letter.

Burnside Comment #3:
Section 4.1.3 of the EIS states that a pair of Bobolink were observed on the subject property, demonstrating breeding behaviour. The author's interpretation was that, "the nesting process was completed and the fledglings had left the nest." This contradicts a further statement that no nesting behaviour was observed. The EIS later suggests that because nesting for Bobolink was not observed, there are no requirements under the Endangered Species Act (ESA). We strongly recommend that an

Information Gathering Form be submitted to the Ministry of Environment, Conservation and Parks to clarify whether compensation or other authorizations may be required. The proponent is responsible for any requirements under the ESA.

Azimuth Response to Burnside Comment #3:
Refer to Azimuth Response to NEC Comment #2 above.

Nottawasaga Valley Conservation Authority Comments
NVCA Comment #1:
An unmapped MAMO1-5 wetland was delineated on the subject site abutting the proposed SWM pond. This feature is noted to have unique, fen-like vegetation characteristics, indicators of groundwater presence such as seeps and Nasturtium officinale (watercress). The report notes despite the wetland's small size 0.034ha its unique characteristics ought to be preserved. NVCA staff advise that O. Reg. 41/24 does not specify a minimum size for wetlands to be regulated.

Azimuth Response to NVCA Comment #1:
Acknowledged.

NVCA Comment #2:
The report notes that the proposed development will not encroach upon the wetland and that no direct impacts are anticipated. NVCA staff have concerns that this conclusion is not supported by the proposed SWM design which shows grading and placement of 1-2m of fill within 5-10m from the wetland boundary (see drawing PND-1 by Pearson Engineering). Since the EIS was submitted to support the zoningby-law amendment it is unclear whether the preliminary stormwater designs have been reviewed by the applicant's ecology consultant. NVCA staff request the impact assessment to the MAMO1-5 wetland be reviewed by the applicant's ecologist in conjunction with the SWM design drawings and updated to include additional mitigation measures to support the conclusion of no impact, as applicable.

Azimuth Response to NVCA Comment #2:
SWM Pond designs have been reviewed by Azimuth in the context of identified natural features associated with the study area, including the retained MAMO1-5 wetland in the northeast corner of the subject property. It remains our recommendation that mitigation measures detailed in the initial EIS and VPRP submissions should be adhered to, minimizing the potential for negative impacts to the retained SWM feature. Grading associated with the proposed Stormwater (SWM) Pond will match grade at the interface between the edge of SWM infrastructure and the limit of the proposed 5m setback. It is anticipated that through incorporation of previously-described mitigation measures, and

ecological enhancements and offsetting described in Azimuth NVCA responses below, negative impacts to the retained wetland and its ecological functions will be avoided. Additional ecological review should occur at the detailed design stage to ensure mitigation measures and conclusions provided herein remain accurate and supportable.

NVCA Comment #3:
Please provide additional information on how the proposed SWM design supports maintenance of the wetland hydroperiod.

Azimuth Response to NVCA Comment #3:
Response regarding maintenance of wetland hydroperiod is to be addressed by others. Providing the wetland hydroperiod is maintained, indirect negative hydrological impacts to the wetland would not be anticipated to occur.

NVCA Comment #4:
It is noted that BH104-23 included a monitoring well – please reconcile the findings of the reported groundwater levels of ~4mbgs in the hydrogeological report and the EIS report findings of groundwater discharge areas (seeps) within the wetland and surrounding area. Please provide further information on the hydrogeological context of the wetland feature and how the proposed development will have regard for maintaining flows to this feature.

Azimuth Response to NVCA Comment #4:
Response regarding maintenance of wetland hydroperiod is to be addressed by others. Providing the wetland hydroperiod is maintained, indirect negative hydrological impacts to the wetland would not be anticipated to occur.

NVCA Comment #5:
NVCA staff recommend that the development plans be revised to provide additional buffering capacity and functional enhancements within the proposed setback to the identified wetland. Direct mitigation measures to support the 25m reduction in required wetland setback must be documented to support the conclusion of no impact to the wetland. Revisions to the SWM design may be necessary in order to accommodate appropriate mitigation measures.

Azimuth Response to NVCA Comment #5:
It remains our recommendation that mitigation measures detailed in the initial EIS and VPRP submissions should be adhered to, minimizing the potential for negative impacts to the retained wetland feature. Refer to Azimuth Response to NVCA Comment #6 regarding proposed offsetting for

loss of natural lands within 30m of the feature, and Azimuth Response to NVCA Comment #7 regarding proposed naturalization/ecological enhancements for the proposed SWM facility.

NVCA Comment #6:
Wetland setback offsetting in accordance with the NVCA's Net Gains Guideline must also be documented to support the wetland buffer encroachment. Please provide a wetland offsetting plan to address the wetland buffer removal.

Azimuth Response to NVCA Comment #6:
In accordance with NVCA's Achieving Net Gains through Ecological Offsetting (NVCA, 2021; "Ecological Offsetting Guidelines"), proposed wetland removals must first satisfy a Mitigation Hierarchy which contemplates the following steps, prior to presenting a proposal for wetland compensation:

1) Avoidance of impacts
2) Minimization of impacts
3) Mitigation of impacts
4) Compensation for losses

In the case of the proposed development, through discussions with the proponent it is Azimuth's understanding that avoidance of impacts to the wetland units was reviewed and it was determined that although direct removals within the wetland can be avoided, no suitable alternative to encroachment within 30m of the wetland limit exists, in a manner that would allow the project to remain viable. The proposed development is located within a Settlement Area within the Township of Melancthon, is limited in size (0.034ha) and is located directly adjacent to Main Street (Horning's Mills) and is therefore likely already subject to indirect impacts from road salt application, roadway maintenance, ditch works and similar impacts associated with various municipal right-of-way uses. Based on the above, it is Azimuth's opinion that the proponent has sufficiently considered avoidance and minimization of impacts to the wetland feature, such that the proposed removals satisfy NVCA requirements for Step 1 (Avoidance) and Step 2 (Minimization) of the Mitigation Hierarchy.

With regard for Step 3 (Mitigation), the proposed works are to occur in manner that complies with Erosion and Sediment Controls (ESCs), Best Management Practices (BMPs), timing windows for vegetation removals, and other considerations (such as those related to SAR), described in detail in the initial EIS submission. It is Azimuth's opinion that providing conformity is demonstrated for the above mitigation measures, the proposed development would satisfy NVCA requirements for Step 3 (Mitigation) of the Mitigation Hierarchy.

Based on the above review, it is Azimuth's opinion the proposed development would be considered eligible for wetland compensation (under Step 4) as outlined in the Offsetting Guidelines. There are no direct wetland losses proposed, however an area of upland vegetation loss within 30m of the wetland limit is equal to 1,323.8m^2. Please note that areas currently subject to active row crop agriculture are considered anthropogenic land uses, and have been excluded from the above calculation where removals of active cropland will occur within 30m of the wetland. Section 3.2 of the Offsetting Guidelines specifies that a wetland replacement ratio of 1:1 should be implemented for loss of wetland setback, therefore based on the proposed wetland vegetation removals, the required wetland compensation to achieve ecological gains would be 1,323.8m^2 as shown on the updated Figure 3 (attached).

To achieve net ecological gain for proposed wetland removals, direct onsite creation of a proposed wetland compensation area was considered but deemed not suitable based on lack of available lands. The proponent is therefore proposing to proceed with a cash-in-lieu option described in Section 4.2.1 of NVCA's Offsetting Guidelines, citing a wetland compensation value of $120,000/ha. Based on this wetland compensation figure, the proposed cash-in-lieu value to offset wetland losses is calculated as **$15,885.60**.

With regard for the above, it is Azimuth's opinion that removal of 1,323.8m^2 of natural upland vegetation within 30m of the retained MAMO1-5 wetland feature (Figure 3) is eligible for wetland compensation in accordance with NVCA's Offsetting Guidelines, and that payment of **$15,885.60** toward NVCA implementation of wetland creation/restoration projects would achieve a net gain for the proposed wetland losses. As such, with consideration for mitigation and compensation detailed in the initial EIS submission and additional information presented above, there is no expectation that the proposed works would negatively impact wetlands within the study area limits.

NVCA Comment #7:
The vegetation protection and restoration plan does not address the identified wetland in relation to the installation of the stormwater management pond. In consideration of the NVCA comments above, an update to this plan should be documented showing enhancement of the reduced wetland buffer to support the impact assessment.

Azimuth Response to NVCA Comment #7:
The area within the proposed 5m naturalized wetland buffer comprises mature tree cover including dense Eastern White Pine (*Pinus strobus*) and Eastern White Cedar (*Thuja occidentalis*), therefore direct restoration works within this zone would provide limited additional ecological value due to existing tree cover/shading in this location. As an alternative, it is proposed that

naturalization/ecological enhancement efforts should be implemented within the proposed SWM facility, where it occurs within lands proximal (*i.e.* within 30m) to the retained MAMO1-5 feature. Ecological enhancement efforts should include native tree/shrub plantings where appropriate, and application of native seed mixes. Implementation of ecological enhancements within the SWM facility will provide a transitional area between the retained wetland, naturalized 5m setback, SWM infrastructure, and impermeable/routinely managed portions of the site associated with future residences. It is recommended that a planting plan should be prepared at the detailed design stage, and should be subject to ecological review prior to implementation.

Closure

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

Yours truly,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Dan Stuart, M.Env.Sc.
Ecology Lead/Partner

Roger Holmes, M.Sc.
Senior Aquatic Ecologist

Attached:
Figure 3 – Proposed Development (Updated)

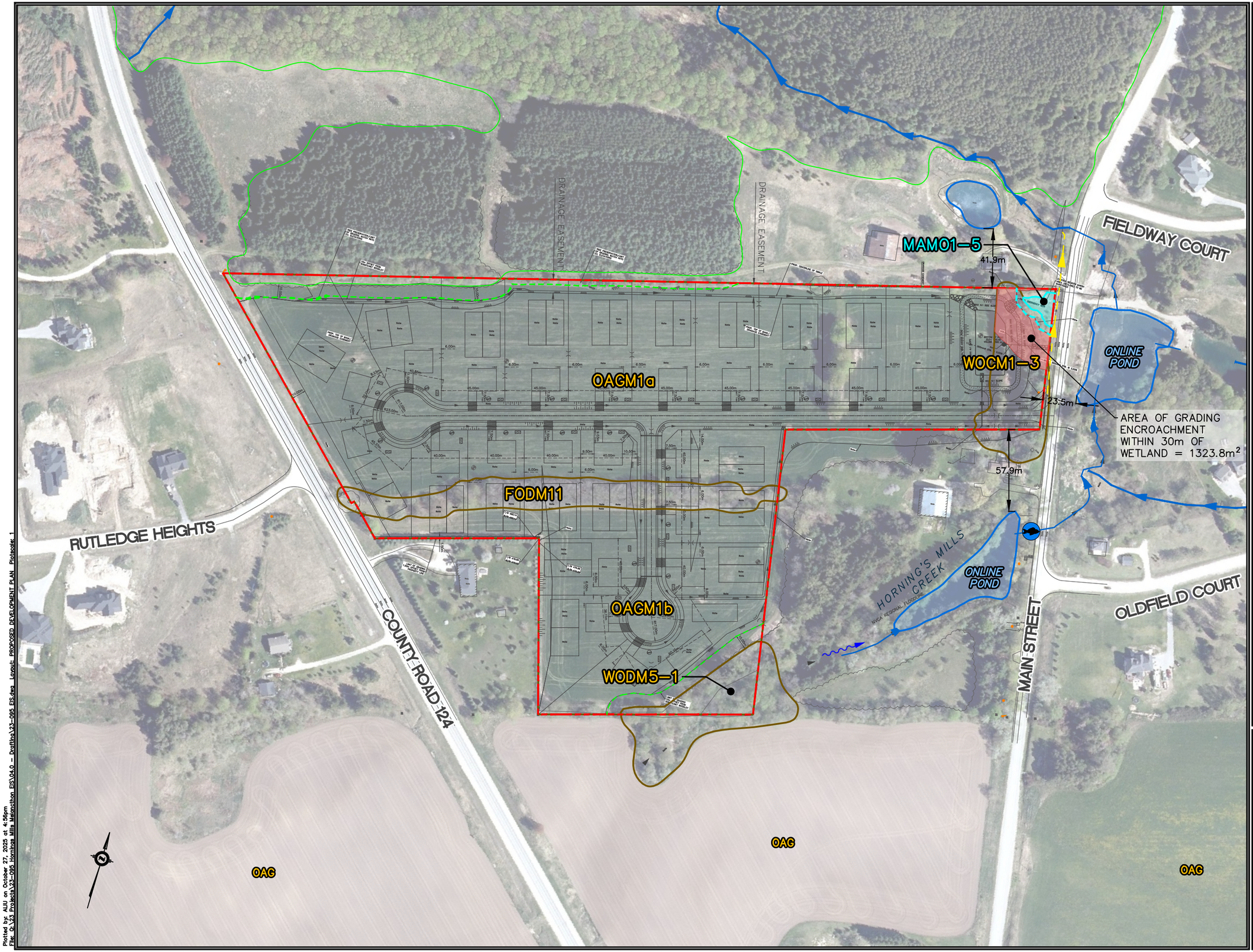
References

McCracken, J.D., R.A. Reid, R.B. Renfrew, B. Frei, J.V. Jalava, A. Cowie, and A.R. Couturier. 2013. Recovery Strategy for the Bobolink (Dolichonyx oryzivorus) and Eastern Meadowlark (Sturnella magna) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. viii + 88 pp.

Ministry of the Environment, Conservation and Parks (MECP). 2021. Bobolink General Habitat Description. (https://www.ontario.ca/page/bobolink-general-habitat-description). Accessed October 2024.

Nottawasaga Valley Conservation Authority (NVCA). 2021. Achieving Net Gains through Ecological Offsetting. September 2021. Guidelines for site-specific ecological offsetting proposals and plans. 17 pp.

Ontario Ministry of Natural Resources (OMNR). 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. Toronto: Queen's Printer for Ontario. 248 pp.



LEGEND:

- APPROX. PROPERTY BOUNDARY
- APPROX. WOODLAND DRIPLINE
- 10m BUFFER TO WOODLAND DRIPLINE

FISH HABITAT:

- PERMANENT WATERCOURSE/ DIRECT FISH HABITAT
- INTERMITTENT DRAINAGE FEATURE (DF1) / INDIRECT FISH HABITAT
- COLDWATER THERMAL REGIME
- SEEPAGE FLOW
- POND

ELC UPLAND COMMUNITIES:

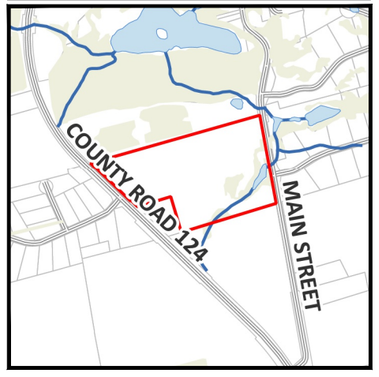
FODM11	NATURALIZED DECIDUOUS HEDGEROW
OAG	OPEN AGRICULTURE
OAGM1	ANNUAL ROW CROP – WHEAT
WOCM1–3	DRY–FRESH WHITE PINE CONIFEROUS WOODLAND
WODM5–1	FRESH–MOIST POPLAR DECIDUOUS WOODLAND

ELC WETLAND COMMUNITIES:

MAM01–5	FOWL MANNA GRASS GRAMINOID ORGANIC MEADOW MARSH

- 5m GRADING SETBACK FROM WETLAND
- GRADING ENCROACHMENT WITHIN 30m OF WETLAND

LOCATION PLAN



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HORIZONTAL SCALE 1:2500

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

PROPOSED DEVELOPMENT PLAN

537086 MAIN STREET
MELANCHTON, ON

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