TECHNICAL MEMO

TO:	Ola Panczyk, Conservation Halton Holly Anderson, Conservation Halton
FROM:	Bo Lam, Dillon Consulting Limited Caitlin Vandermeer, Dillon Consulting Limited
cc:	Sarah Labrie, Town of Halton Hills Jessica Rahim, Town of Halton Hills Michael Mendes, Rice Group Aarthi Thaya, Rice Group Julie Scott, Crozier Consulting
DATE:	April 1, 2026
SUBJECT:	9094 Regional Road 25 – Phase 1 - Wetland Study
OUR FILE:	25-1781

Introduction

Dillon Consulting Limited (Dillon) was retained by Halton Hills One Limited Partnership to complete a Natural Heritage Evaluation (NHE) in support of a proposed development at 9094 Regional Road 25 (the Subject Property), Halton Hills (the Town) (**Attachment A – Figure 1**). Following the first submission of the NHE, a phased approach has been proposed for the Subject Property where the development application for the commercial block (Phase 1) will be submitted in advance of the proposed employment area (Phase 2). Since the development of Phase 1 will require the removal of two wetlands, Conservation Halton (CH) has requested that a Wetland Study be completed to support the proposed removals. As a result, this memo has been prepared to address CH's requirements in support of the Phase 1 development application.

Existing Conditions

Wetlands within Phase 1 of the Subject Property are shown in **Attachment A – Figure 2**. Representative photos of the wetlands have been included in **Attachment B**.

Wetland A

Location

Wetland A is approximately 0.227 ha and is located on the northeast boundary of the Subject Property. It is bounded by Regional Road 25 to the northeast and beyond the road, there is a truck yard and agricultural field. To the southwest, it is bounded by a residential property and isolated from the Natural Heritage System (NHS) by the active agricultural field and driving range. The wetland is directly connected to the roadside drainage for Regional Road 25 and is between a residential manicured lawn

and the road. In the overall landscape, it is located at the high point of the Subject Property. The wetland was staked with CH on September 19, 2025.

Vegetation

This wetland is mapped as a Cattail Mineral Meadow Marsh (MASM1-1) community. The community is dominated by hybrid Cattails (*Typha angustifolia X Typha latifolia/Typha x glauca*) with Giant Bur-Reed (*Spargaum eurocarpum*), Panicled Aster Aster (*Symphyotrichum lanceolatum* ssp. *lanceolatum*) and Common Duckweed (*Lemna minor*) present. Invasive species such as Purple Loosestrife (*Lythrum salicaria*) and Reed Canary Grass (*Phalaris arundinacea*) were also observed within the community.

Hydrology

The catchment area of Wetland A is approximately 1.35 ha (**Attachment C**). This wetland is connected to the roadside ditch along Regional Road 25. Surface water inputs from the roadside ditches were observed during the first HDF survey in March 2026 and standing water along the edge of the wetland was measured at 0.27 m. Standing water was observed within the wetland in July 2025, during the Ecological Land Classification (ELC) survey suggesting that deeper areas of the wetland are likely wet all year round. The edge of the wetland contained silty clay substrate. Based on a review of the Geotechnical Investigation (Soil Engineers Ltd., 2025) and the Hydrogeological Assessment (Soil Engineers Ltd., 2025), no groundwater was encountered in the vicinity of Wetland A (i.e., drilling of boreholes 1, 13 and 14 and in monitoring wells 1 and 14) up to a depth of 6.6 m. This suggests that the groundwater table is low in the area around the wetland and there is likely limited groundwater input and that the main water source is likely surficial. However, additional monitoring within the wetland will be completed throughout the 2026 field season to accurately characterize the hydrology of Wetland A.

Habitat

Although no wildlife surveys (i.e., amphibian call surveys and breeding bird surveys) have been completed prior to the submission of this memo, it can be conservatively assumed that the wetland likely provides habitat to anurans, birds and common urban mammals based on the existing vegetation and hydroperiod. Field studies will be completed in 2026 to understand the habitat function of the wetland.

Wetland B

Location

Wetland B is approximately 0.058 ha and is located at the centre of the Subject Property, at the base of a slope. It is isolated from other natural heritage features and the existing NHS by an active agricultural field, driving range and residential property. The wetland was staked with CH on September 19, 2025.

Based on observations during the first headwater drainage feature (HDF) survey in March 2026, flow was observed within the constructed low flow channel of the wetland. The channel was approximately 1 m deep and 2.5 m wide. It likely is an open section of an on-site water management system (i.e., tile

drainage or pipes) since observed surface flows originated within the channel but there were no observations of surficial flows into the wetland nor did surface flows continue downstream of the wetland.

Vegetation

This wetland is mapped as a Cattail Graminoid Mineral Meadow Marsh (MAMM1-2) community. The sub-canopy contained occasional mid-age Bebb's Willow (*Salix bebbiana*) with occasional mid-age Heart-leaved Willow (*Salix eriocephala*), and occasional mid-age Peach-leaved Willow (*Salix amygdaloides*). The understory was dominated by hybrid Cattails with occasional Goldenrod species (*Solidago* sp.) and juvenile Red-osier Dogwood (*Cornus sericea* ssp *sericea*). The ground layer contained Goldenrod species, and occasional Sensitive Fern (*Onoclea sensibilis*). Invasive species such as occasional Purple Loosestrife and occasional Colt's-foot (*Tussilago farfara*) were present within the community.

Hydrology

The catchment area of Wetland B is approximately 0.98 ha (**Attachment C**). During the ELC survey in July 2025, Wetland B did not contain standing water, but the soils were described as silty clay and very moist (Munsell Color Chart: 10YR 6/1, G 10YR 5/8). A 0.4 m soil profile identified mottles at 0.05 m and gley at 0.24 m below ground level. Groundwater was encountered at 0.23 m below ground level.

Flow was observed within the constructed low flow channel of the wetland in March 2026. Flows started at the upstream end within the channel and stopped at the downstream end of the channel and it was assumed that it continued through the driving range via tile drainage or equivalent infrastructure however, no inlet or outlet was observed. No surficial flows were observed feeding into the upstream end during the HDF survey. Water levels were approximately 0.05 m deep and 0.8 m wide on the upstream end and 0.3 m deep and 1.78 m wide on the downstream end. Based on the field observations, the wetland is seasonally wet (i.e., during the freshet or periods of high precipitation) within the low flow channel but dries up by the summer. As noted above, the wetland likely functions as an open section of an on-site water management system.

Based on a review of the Geotechnical Investigation (Soil Engineers Ltd., 2025) and the Hydrogeological Assessment (Soil Engineers Ltd., 2025), the shallow groundwater level from the centre of the Subject Property to the western boundary ranged from above grade to 4.2 m below grade or 222.3 masl to 225.2 masl based on sampling from September and October 2025. Additional monitoring within the wetland will be completed throughout the 2026 field season to accurately characterize the hydrology of Wetland B.

Habitat

Although no wildlife surveys (i.e., amphibian call surveys and breeding bird surveys) have been completed prior to the submission of this memo, it can be conservatively assumed that the wetland may provide habitat to anurans, birds and common urban mammals. However, depending on the hydroperiod, anuran habitat may be limited if the wetland dries out during the breeding season. Field studies will be completed in 2026 to understand the habitat function of the wetland.

Proposed Removal

The proposed removals have been shown in **Attachment A – Figure 3**.

Wetland A

Development of Phase 1 will propose the removal and relocation of Wetland A (0.227 ha). The wetland is too small (<2 ha) to meet criteria for evaluation under the Ontario Wetland Evaluation System (OWES) Manual. It is also not within 30 m of other wetlands so it was not considered part of a larger wetland complex (MNRF, 2022).

In its current location, the wetland has limited connectivity to existing natural heritage features outside of an adjacent meadow and thicket. Given its direct connectivity to the roadside drainage from Regional Road 25, the quality of the wetland has likely been impacted by the road through introduction of contaminants such as road salts, oils, litter, etc. Further, the wetland is already dominated by the non-native hybrid Cattails and contained other non-native or invasive species such as Purple Loosestrife and Reed Canary Grass with a high potential for more invasive species introduction as the surrounding area continues to urbanize. While the wetland may provide habitat for wildlife such as anurans, birds and urban mammals, animal movement to the northeast and roadside mortality is a potential issue if the wetland was to remain in-situ due to the adjacent road. From an ecological perspective, maintaining the wetland in its current location while preventing further degradation and enhancing its function is not a suitable long-term goal. With the proposed urbanization of the surrounding area, the wetland will remain isolated and enhancing habitat directly adjacent to an arterial road is not generally recommended.

Based on the existing hydrological data, the main water source of the wetland is mainly surficial from the roadside drainage. There is no connectivity to other natural surface water features and with the deeper groundwater table and silty clay soils there is likely to be limited groundwater interactions. However, the hydrological function will need to be confirmed through the 2026 field studies.

Compensation for the proposed removal of Wetland A is proposed to be accommodated within the Phase 2 area of the Subject Property. It is anticipated that the hydrological function of the wetland will be replicated through stormwater management (SWM) planning and implementation of mitigation measures such as low impact development (LID) design. However, the exact methods will be determined following the 2026 field studies. The proposed potential compensation areas will add to the existing NHS to the south and result in a connected system compared to maintaining the wetland in its current isolated location. The potential compensation areas and proposed enhancements are discussed further below.

Wetland B

Development of Phase 1 will propose the removal and relocation of Wetland B (0.058 ha). The wetland is too small (<2 ha) to meet criteria for evaluation under the Ontario Wetland Evaluation System (OWES)

Manual. It is also not within 30 m of other wetlands so it was not considered part of a larger wetland complex (MNRF, 2022).

In its current location, the wetland is isolated from existing natural heritage features and the NHS by the agricultural field, driving range and residential property. There is a constructed channel within the wetland which appeared to function as part of the on-site water management system (e.g. tile drainage, piping, etc.) based on observations during the first HDF survey. Further, the wetland is already dominated by the non-native hybrid Cattails and contained other non-native or invasive species such as Purple Loosestrife and Colt's-foot (*Tussilago farfara*). While wildlife such as anurans, birds and urban mammals may utilize the wetland, its habitat function is likely limited due to its small size and lack of direct connectivity to other natural heritage features. As a result, from an ecological perspective, maintaining a fragmented wetland patch dominated by non-native species is not a suitable long-term goal that would enhance the existing NHS.

Based on site observations, the wetland has an intermittent hydroperiod with flows present within the constructed channel during the spring freshet but there was no standing water present in the summer. Flows appeared to be from on-site water management (e.g., tile drainage, pipes, etc.). There is no connectivity to other surface water features and there is likely no groundwater recharge since the wetland dried up in the summer. However, the hydrological function will need to be confirmed through the 2026 field studies.

Compensation for the proposed removal of Wetland B is proposed to be accommodated within the Phase 2 area of the Subject Property. It is anticipated that the hydrological function of the wetland will be replicated through stormwater management planning and implementation of mitigation measures such as low impact development (LID) design. However, the exact methods will be determined following the 2026 field studies. The proposed potential compensation areas will add to the existing NHS to the south and result in a connected system compared to maintaining the wetland in its current isolated location. The potential compensation areas and proposed enhancements are discussed further below.

Proposed Compensation

Compensation for the proposed removal of Wetland A and B has been proposed within the Phase 2 area of the Subject Property. While further studies (e.g., Scoped Subwatershed Study, Secondary Plan, etc.) will need to be completed to confirm the exact location, two options have been proposed as part of this memo. The options have been shown on **Attachment A – Figure 4**.

Based on the Geotechnical Investigation (Soil Engineers Ltd., 2025), soils within the agricultural fields in the Subject Property consisted of silty clay till up to at minimum 4.6 m deep. Hydraulic conductivity testing completed as part of the Hydrogeological Assessment (Soil Engineers Ltd., 2025) indicated that soils within the Subject Property have a low hydraulic conductivity which ranged from 2.1×10^{-7} to 5.4×10^{-7}. Soils with low hydraulic conductivity are generally suitable for wetland creation due to their low permeability and ability to retain water at the surface.

Regardless of the location, it is proposed that the newly created wetland be constructed using habitat restoration design to maximize the potential for wildlife use and this may include the implementation of features such as:

- Basking logs,
- Brush piles,
- Raptor poles,
- Rock piles, and
- Terrestrial mounds.

These proposed features increase the potential for wildlife passage, forage and residency by providing a variety of topographies and habitat within the proposed restoration area. The location and configuration of the above-noted habitat elements will be further refined by Dillon and GEO Morphix as the project proceeds. The design of these features from Geo Morphix Ltd.'s (GEO Morphix) 2025 Fluvial Geomorphology Assessment (GEO Morphix, 2025) are described below.

Basking logs consist of a mixture of hardwood and softwood species, placed in shallow areas of wetlands and anchored with a mix of stone or limestone blocks. These logs are angled in a way that promotes turtle basking (GEO Morphix, 2025).

Brush piles consist of logs, snags and other wood debris placed in a way that forms a stable interconnected mound shaped like a pallet. The brush piles are also planted with native fruit-bearing vines, which provide foraging opportunities for wildlife. Brush piles are placed at various locations along the length of the floodplain (GEO Morphix, 2025).

Raptor poles are constructed from large conifer tree trunks embedded into the ground, providing perches for larger raptors (GEO Morphix, 2025).

Terrestrial mounds consist of native material piled up to create small mounds with a small dimple on the top. The bottom of the mound is seeded with the specified seed mix, while the top has limited soil and seed on it to provide foraging opportunities (GEO Morphix, 2025).

Rock piles consist of stones of varying sizes piled up to create small mounds. These features provide hibernation habitat and cover from predators for various terrestrial species. The base of the piles is partially buried to prevent rock falls. Rock piles are installed at multiple locations along the corridor length within the buffer (GEO Morphix, 2025).

The proposed compensation wetland will also be planted with a mix of native wetland species, including trees and shrubs. The setback and buffer areas between the proposed compensation and existing natural heritage features may be enhanced and incorporated into the wetland design. These areas have been shown as enhancements on **Attachment A – Figure 4** but have not been counted towards the overall compensation area.

Compensation Option A

Compensation Option A is a 0.311 ha area proposed south of reach N-2-Da that will be nested in between the reach and the woodland. The proposed area has been placed outside of existing buffers and setbacks (i.e., wetland, meanderbelt, dripline, etc.) and will be outside of future proposed cuts to accommodate the floodplain. This area will be further refined as part of future studies (i.e., Scoped Subwatershed Study, Secondary Plan, etc.) for Phase 2 and/or the greater subwatershed as constraints such as the floodplain are refined.

For this compensation option, it is anticipated that the wetland will be fed by reach N-2-Da and will function as an open riparian wetland. This area has been proposed for the following reasons:

- Habitat Diversity: Creating a wetland within this area will increase the types of habitats available to wildlife within the NHS. Reach N-2-Da is an unconfined watercourse with a riparian wetland that does not contain pools or open areas of standing water. Creating open wetland habitat in this area will potentially result in new functions to the NHS such as turtle basking, reptile hibernacula and raptor habitat or enhance potential existing functions such as amphibian breeding.

- Connectivity: In its existing condition, N-2-Da is narrow (10-15 m) corridor that is separated from the woodland by an active agricultural field. Locating the compensation wetland within this area will widen the NHS corridor to approximately 150 m. The proposed compensation wetland will be the intermediary between the reach to the woodland.

- Wildlife Movement: The proposed larger NHS corridor is anticipated to facilitate wildlife movement from upstream habitat to the downstream woodland, particularly for species that utilize wetlands such as amphibians, turtles and terrestrial crayfish.
- Size: Compensation Option A will result in a net gain of 0.026 ha in wetland size. The size of the wetland may be further increased if interior buffers and setbacks are enhanced as part of the wetland.

To support this proposed compensation option, the following will be required:

- Approval from the adjacent landowner to accommodate the proposed CH regulated area and associated wetland buffer or additional studies to refine the floodplain in order to accommodate the CH regulated area within the Subject Property will be required as part of Phase 2.
- Approval from the adjacent landowner to access the lands to complete the restoration.
- Alternatively, a temporary crossing at reach N-2-Da may be required to access the proposed compensation area. Impacts and mitigation related to this temporary crossing should be discussed as part of the future studies for Phase 2, if required.

Compensation Option B

Compensation Option B is a 0.285 ha area proposed north of the woodland and on top of the valleyland. The proposed area has been placed outside of existing buffers and setbacks (i.e., wetland, meanderbelt, dripline, etc.) and will be outside of future proposed cuts to accommodate the floodplain. This area will be further refined as part of future studies (i.e., Scoped Subwatershed Study, Secondary Plan, etc.) for Phase 2 and/or the greater subwatershed.

For this compensation option, it is anticipated that the wetland will be fed by LIDs, such as clean rooftop drainage, and will function as an open wetland. This area has been proposed for the following reasons:

- Habitat Diversity: Creating a wetland within this area will increase the types of habitats available to wildlife within the NHS. Creating open wetland habitat in this area will potentially result in new functions to the NHS such as turtle basking, reptile hibernacula and raptor habitat or enhance potential existing functions such as amphibian breeding.
- Connectivity: This proposed compensation area will add to the existing NHS, extending beyond the valleyland and increasing the width of the NHS in this area to approximately 150 m.
- Size: While the proposed compensation is at a 1:1 ratio, there is opportunity to further increase the size of the wetlan if interior buffers and setbacks are enhanced as part of the wetland.

To support this proposed compensation option, the following will be required:

- Approval from the adjacent landowner to accommodate the proposed CH regulated area and associated wetland buffer or additional studies to refine the floodplain in order to accommodate the CH regulated area within the Subject Property will be required as part of Phase 2.
- The proposed compensation has conservatively accommodated a 10 m easement for the proposed SWM outlet. Although this easement may be naturalized, it will likely require maintenance to allow for access to the outlet.

Proposed Field Studies to be Completed in 2026

Field studies for the 2026 field season are discussed below. These studies will be completed prior to the removal or work within 30 m of wetlands.

Ecological Monitoring

The following will be completed as part of the 2026 field program to characterize the habitat function of Wetland A and Wetland B as well as the existing NHS:

- Spring vegetation survey (spring 2026);
- Amphibian breeding survey (three rounds, April to June 2026); and,
- Breeding bird survey (two rounds, June 2026).

Hydrological Monitoring

Piezometers will be installed in Wetland A, Wetland B and other wetlands to support a feature-based water balance and characterization of the hydrological function of the wetland. The data will be collected over one full season (spring, summer and fall) and will be completed by the hydrogeological consultants.

Future Technical Studies and Reports

A Scoped Subwatershed Study (SSWS) and/or a Secondary Plan will be completed to support the development of Phase 2 and/or the greater subwatershed area. These reports will determine the final compensation area for the proposed wetland removals. As part of these reports, the following technical details/studies will be included:

- Ecological Results and Significance Analysis: The study will include a summary of the ecological results and a significance analysis to confirm the existing functions of Wetland A and Wetland B as well as the existing NHS to support the determination of the final compensation area.
- Floodplain Analysis: The study will include a floodplain analysis to help identify the most suitable compensation area while staying out of proposed cuts, if required.
- Feature-based Water Balance: The study will characterize the hydrological function of Wetland A and Wetland B. It will also identify the suitability of the proposed compensation areas which will include analyses such as soil hydrology, water availability, surface drainage and groundwater drainage.
- Wetland Design: The study will include a preliminary wetland design that will discuss the long-term viability and resiliency as well as proposed habitat enhancements and functions.
- Net-Gain Analysis: The study will include a net-gain analysis discussing the overall proposed NHS compared to the existing conditions.
- Adaptive Monitoring Plan: The study will include an adaptive monitoring plan that will include at minimum, ecological monitoring and hydrological monitoring of the compensation wetland.

These requirements will be confirmed through the future Terms of Reference process for the SSWS and/or Secondary Plan. Additional requirements may also be identified through this process.

Summary

This Wetland Study has been prepared to support the proposed development within Phase 1 of the Subject Property. Two wetlands, Wetland A and Wetland B, are proposed to be removed and relocated to support Phase 1. The wetlands and proposed compensation are further detailed below.

Wetland A is an approximately 0.227 ha Cattail Mineral Meadow Marsh community dominated by hybrid Cattails and containing non-natives and/or invasives such as Purple Loosestrife and Reed Canary Grass. It was connected to the roadside drainage of Regional Road 25 and isolated from other natural heritage features and the existing NHS in the landscape. The wetland has an approximately 1.35 ha catchment area and likely has a permanent hydroperiod as water was present during the ELC survey in July 2025. However, based on existing boreholes and monitoring well data, it is likely fed by surface water from the roadside drainage since no groundwater was encountered in the surrounding lands up to a depth of 6 m.

Wetland B is an approximately 0.058 ha Cattail Graminoid Mineral Meadow Marsh community dominated by hybrid Cattails and containing invasive such as Purple Loosestrife and Colt's-foot. It was located at the base of the slope and contained a constructed channel that likely functions as an open section of underground water management (i.e., tile drains or pipes). The wetland was isolated on the landscape from other natural heritage features and the existing NHS. It has an intermittent hydroperiod as it was dry in July 2025 but contained flow in March 2026. The catchment area is approximately 0.98 ha. The existing functions of both wetlands will be confirmed following ecological and hydrological field studies in 2026.

Both these features were isolated in the landscape and maintaining the wetlands in-situ under post-development conditions would not be a beneficial long-term objective. Wetland A was located adjacent to Regional Road 25 where it is susceptible to roadside impacts such as road contaminants, further introduction of invasive species and an increased likelihood of roadside mortality for wildlife. Wetland B would provide limited habitat functions if it were maintained in-situ due to its small size and lack of connectivity to other features.

To compensate for the proposed removal, two compensation options have been proposed. Both options propose to relocate the features adjacent to the existing natural heritage features, adding area to the existing NHS. The proposed compensation may also include habitat features that will enhance the function of the compensation areas and will target both terrestrial and semi-aquatic species. This will also diversify the available habitat within the NHS compared to existing conditions. Based on the available geotechnical and hydrogeological data, the soils in the agricultural fields of the Subject Property were silty clay till up to 4 m to 6 m deep. The soils had a low hydraulic conductivity which indicated low permeability and high-water retention capability that would be suitable for wetland construction. Nonetheless, further studies will need to be completed as part of a future SSWS and/or Secondary Plan to confirm the suitability, location and configuration of the compensation areas.

The SSWS and/or Secondary Plan should include the following: Ecological Results and Significance Analysis, Floodplain Analysis, Feature-based Water Balance, Wetland Design, Net-Gain Analysis, and Adaptive Monitoring Plan. These requirements will be confirmed through the future Terms of Reference process for the SSWS and/or Secondary Plan. Additional requirements may also be identified through this process.

References

Geo Morphix Ltd. 2025. Sixteen Mile Creek Fluvial Geomorphology Assessment and Critical Redside Dace Habitat Delineation – Scoped Watershed Study 9094 Regional Road 25, Halton Hills, ON.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray (2008). *Ecological Land Classification for Southern Ontario: Second Approximation and Its Application.*

Ontario Ministry of Natural Resources and Forestry. 2022. Ontario Wetland Evaluation System Southern Manual. 4th Edition.

Soil Engineers Ltd. 2025. A Geotechnical Investigation for Proposed Commericial/Industrial Development – 9094 Regional Road 25, Town of Halton Hills.

Soil Engineers Ltd. 2025. A Hydrogeological Assessment for Proposed Commericial/Industrial Development – 9094 Regional Road 25, Town of Halton Hills.

Attachment A – Figures

9094 REGIONAL ROAD 25, HALTON HILLS

PROJECT LOCATION

FIGURE 1

- Subject Property
- Study Area (120 m Setback)
- Development Phase
- Major Road
- Local Road
- Watercourse
- Waterbody

SCALE 1:5,000

0 62.5 125 250 m

N W E S

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR

MAP CREATED BY: AEE
MAP CHECKED BY: GB
MAP PROJECTION: NAD 1983 CSRS UTM Zone 17N

DILLON CONSULTING

PROJECT: 25-1781
STATUS: DRAFT
DATE: 2026-04-01

FILE LOCATION: K:\2025\251781\Product\Client\9094 Regional Road 25\9094 Regional Road 25\9094 Regional Road 25.aprx

9094 REGIONAL ROAD 25, HALTON HILLS

WETLANDS

FIGURE 2

- Subject Property
- Study Area (120 m Setback)
- Development Phase
- Major Road
- Local Road
- Watercourse
- Wetland (Staked with CH, September 19, 2025)
- Wetland Limit per ELC

SCALE 1:4,500

0 55 110 220 m

N W E S

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR

MAP CREATED BY: AEE
MAP CHECKED BY: GB
MAP PROJECTION: NAD 1983 CSRS UTM Zone 17N

DILLON CONSULTING

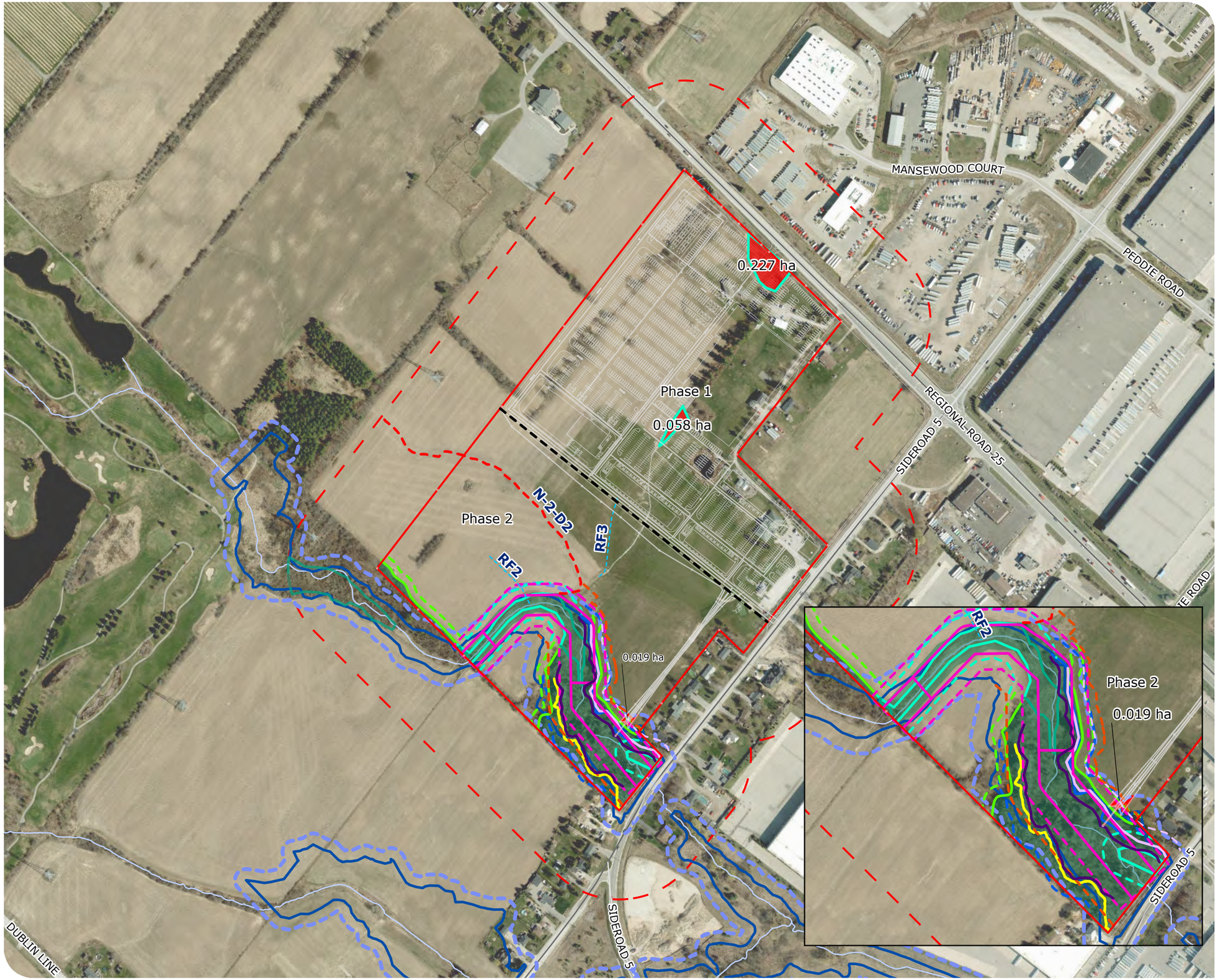
PROJECT: 25-1781
STATUS: DRAFT
DATE: 2026-04-02

FILE LOCATION: K:\2025\251781\Product\Client\9094 Regional Road 25\9094 Regional Road 25\9094 Regional Road 25.aprx

9094 REGIONAL ROAD 25, HALTON HILLS

PROPOSED REMOVAL

FIGURE 3



- Subject Property
- Study Area (120 m Setback)
- Development Phase
- Proposed Site Plan
- Major Road
- Local Road
- Watercourse
- Stable Top of Slope 15m Buffer (Soil Engineers Ltd.)
- Stable Top of Slope (Soil Engineers Ltd.)
- Meander Belt (GeoMorphix)
- 15 m Meander Belt Buffer
- 30 m RSD Habitat Area (GeoMorphix)
- Approximated Toe of Slope (GeoMorphix)
- Approximated Top of Bank
- Top of Bank (Staked with CH, September 19, 2025)
- Top of Bank Buffer 15 m
- Dripline (Staked with the Town, September 19, 2025)
- Dripline Buffer 10 m
- Wetland (Staked with CH, September 19, 2025)
- Wetland Buffer 15 m
- Wetland Limit per ELC
- Proposed Floodplain (Crozier)
- Proposed Floodplain Buffer 15 m (Crozier)
- Mitigation
- Headwater Drainage Feature to be Assessed
- Proposed Wetland Removal
- Existing Natural Heritage System
- Proposed Encroachment

SCALE 1:5,000

0 62.5 125 250 m

N W E S

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR

MAP CREATED BY: AEE
MAP CHECKED BY: BL
MAP PROJECTION: NAD 1983 CSRS UTM Zone 17N

DILLON CONSULTING

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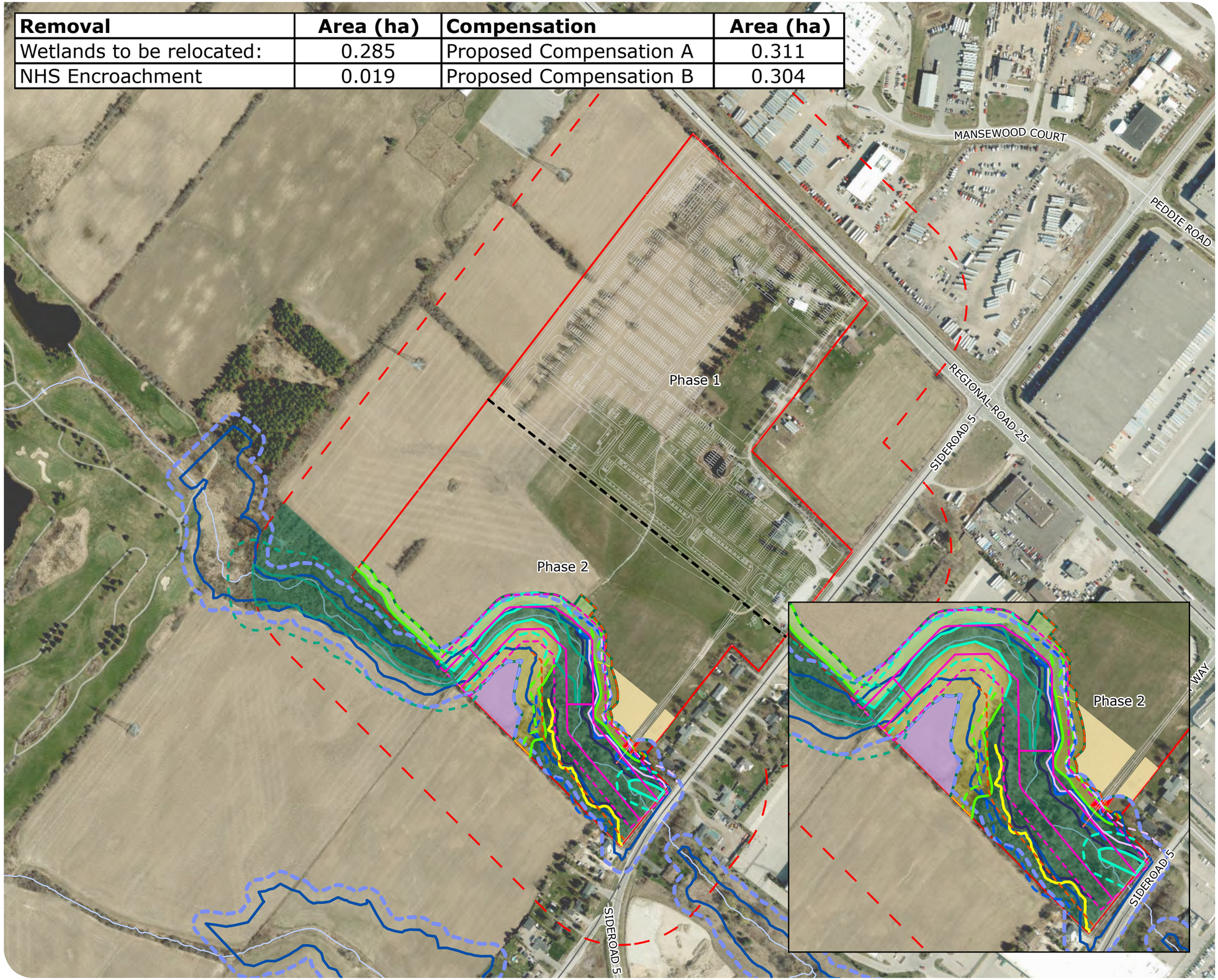
STATUS: DRAFT
DATE: 2026-04-02

FILE LOCATION: K:\2025\251781\Product\Client\9094 Regional Road 25\9094 Regional Road 25\9094 Regional Road 25.aprx

Removal	Area (ha)	Compensation	Area (ha)
Wetlands to be relocated:	0.285	Proposed Compensation A	0.311
NHS Encroachment	0.019	Proposed Compensation B	0.304



9094 REGIONAL ROAD 25, HALTON HILLS

PROPOSED RESTORATION

FIGURE 4

- Subject Property
- Study Area (120 m Setback)
- Development Phase
- Proposed Site Plan
- Major Road
- Local Road
- Watercourse
- Proposed Floodplain (Crozier)
- Proposed Floodplain Buffer 15 m (Crozier)
- Approximated Top of Bank
- Top of Bank (Staked with CH, September 19, 2025)
- Top of Bank Buffer 15 m
- Dripline (Staked with the Town, September 19, 2025)
- Dripline Buffer 10 m
- Wetland (Staked with CH, September 19, 2025)
- Wetland Buffer 15 m
- Wetland Limit per ELC
- 30 m CH Regulated Area from Wetland
- Stable Top of Slope 15m Buffer (Soil Engineers Ltd.)
- Stable Top of Slope (Soil Engineers Ltd.)
- Meander Belt (GeoMorphix)
- 15 m Meander Belt Buffer
- 30 m RSD Habitat Area (GeoMorphix)
- Estimated Toe of Slope (GeoMorphix)
- Proposed Limit of Development
- Existing Natural Heritage System
- Buffer Plantings
- Enhancement Area
- Proposed Compensation Option A
- Proposed Compensation Option B
- Proposed Encroachment

SCALE 1:4,500

0 55 110 220 m

N W E S

MAP DRAWING INFORMATION:
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MAP CREATED BY: AEE
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FILE LOCATION: K:\2025\251781\Product\Client\9094 Regional Road 25\9094 Regional Road 25\9094 Regional Road 25.aprx

Attachment B – Site Photographs

Photograph 1 2025-07-23 MASM1-1 - Cattail Mineral Meadow Marsh	
Photograph 2 2025-07-23 MASM1-1 - Cattail Mineral Meadow Marsh	

Photograph 3 2025-07-23 MASM1-1 - Cattail Mineral Meadow Marsh Note standing water present.	
Photograph 4 2026-03-23 MASM1-1 - Cattail Mineral Meadow Marsh Wetland connected to roadside drainage.	

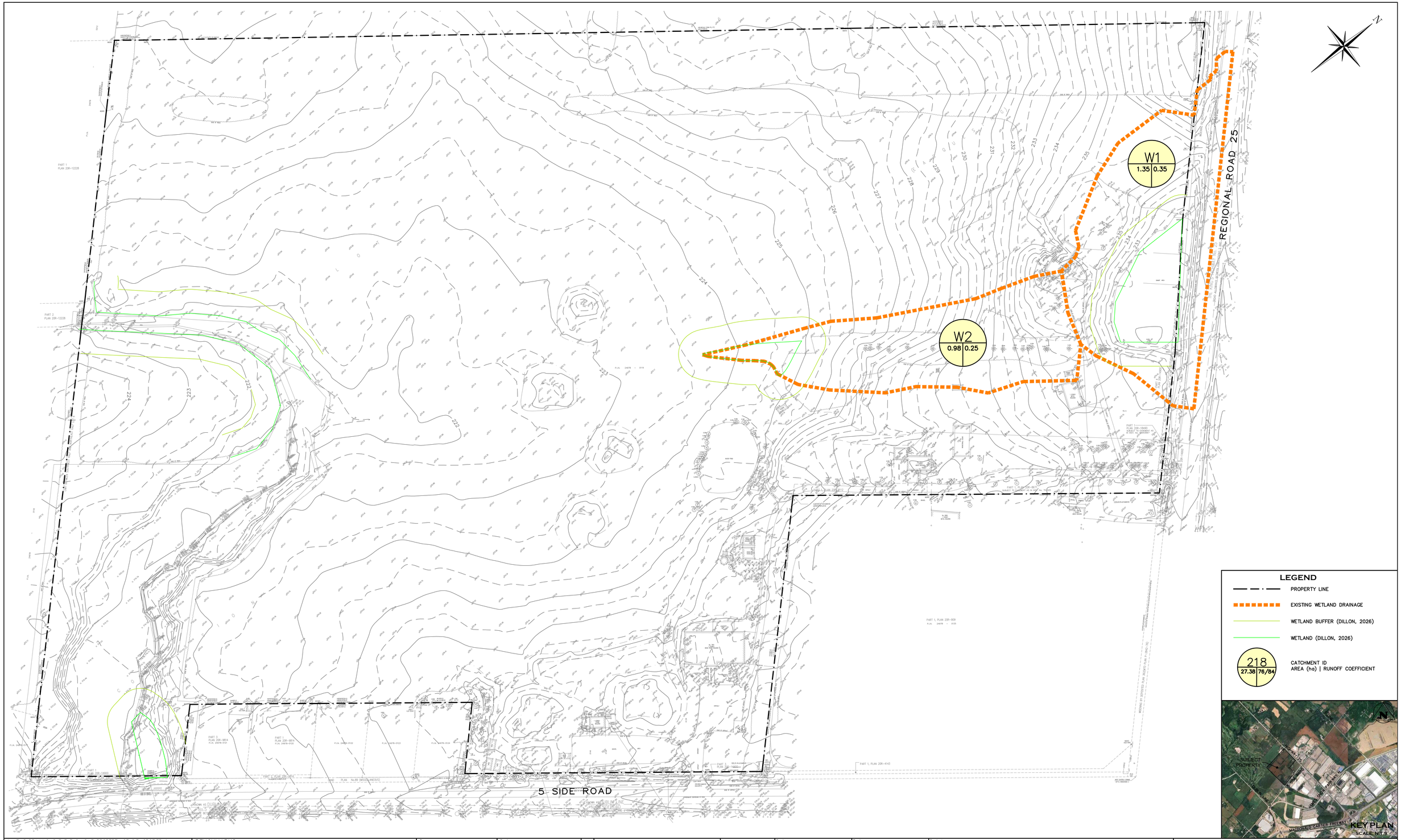
Photograph 5 2026-03-23 MASM1-1 - Cattail Mineral Meadow Marsh	
Photograph 6 2025-07-23 MAMM1-2 - Cattail Graminoid Mineral Meadow Marsh	

Photograph 7 2025-07-23 MAMM1-2 - Cattail Graminoid Mineral Meadow Marsh	
Photograph 8 2025-07-23 MAMM1-2 - Cattail Graminoid Mineral Meadow Marsh No standing water.	

Photograph 9 2025-07-23 MAMM1-2 - Cattail Graminoid Mineral Meadow Marsh Groundwater level.		

Photograph 10 2026-03-23 MAMM1-2 - Cattail Graminoid Mineral Meadow Marsh Flow within constructed channel ends at downstream point.	
Photograph 11 2026-03-23 MAMM1-2 - Cattail Graminoid Mineral Meadow Marsh Flow within constructed channel. No overland flow downstream.	

Attachment C – Wetland Catchments



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5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. DO NOT SCALE DRAWINGS.

BENCHMARKS

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO TOWN OF HALTON HILLS.
BENCHMARK NO. 00820238111 HAVING AN ELEVATION OF 215.710

BEARING ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B BY REAL TIME NETWORK (RTN), UTM ZONE 17, NAD 83 (CSRS) (2010.0)

ORP A	NORTH 4 820 846.69	EAST 586 664.74
ORP B	NORTH 4 821 205.33	EAST 586 946.53

COORDINATES ARE UTM ZONE 17, NAD 83 (CSRS) (2010.0)

SURVEY COMPLETED BY WAHBA SURVEYING. (2025/SEPT/04). REFERENCE NO. 25-052

SITE PLAN NOTES

DESIGN ELEMENTS ARE BASED ON SITE PLAN PROVIDED BY TURNER FLEISCHER ARCHITECTS INC. PROJECT NO: 25.117P01

Town: HALTON HILLS

Region: THE REGIONAL MUNICIPALITY OF HALTON

FILE NUMBER

DESIGN OF SANITARY, WATER SERVICES & REGIONAL ROAD WORKS APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATION APPROVAL FROM AREA MUNICIPALITY

LEGISLATIVE AND PLANING SERVICES DEPARTMENT

DATE

No.	ISSUE	DATE: YYYY/MM/DD
0	ISSUED FOR OPA/ZBA	2026/04/02

Engineer

Engineer

Project: 9094 REGIONAL ROAD 25
TOWN OF HALTON HILLS

Drawing: WETLAND DRAINAGE AREA PLAN

CROZIER

Drawn By	Design By	Scale	Project
K.W./V.M.	K.W./V.M.	1:1000	2022-7556
Check By	Check By	Sheet	Drawing
J.S.	J.S.		FIG 6