EcoTec
ENVIRONMENTAL CONSULTANTS INC.

11537 Nassageweya-Esquesing Towline Road
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Canada L7J 2L7

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March 31, 2020

Harper Dell & Associates Inc.
Planning, Traffic and Land Development Consultants
1370 Hurontario St.
Mississauga, Ontario
L5G 3H4

ATTENTION: **Nicholas Dell, BA. H**

FROM: **Gavin Maybury, B.Sc.**
Ecologist

RE: **Scoped Environmental Assessment of 0 Bernida Road, Mississauga, Ontario**

1.0 INTRODUCTION

EcoTec Environmental Consultants Inc. (EcoTec) was retained Harper Dell & Associates Inc in order to conduct natural environment investigations related to development within the subject property located at 0 Bernida Road in Mississauga, Ontario. This study was conducted in order to document the existing environmental features within the subject property, to determine potential impacts associated with site development, and recommend mitigation measures to prevent or lessen impacts.

The following report includes an outline of the field assessment methodology, an overview of the existing biophysical environment within the study area, as well as a summary of potential impacts associated with development of this site. General recommendations for environmental protection are also presented and reflect both proposed development and the documented existing conditions of the study area.

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2.0 STUDY AREA

The study area for this evaluation is located at 0 Bernida Rd., southwest of Parkland Avenue in Mississauga, Ontario (Figure 1). The study area accounts for approximately 1.5 ha (hectares) of maintained green space, currently lacking any permanent structure or development. The land use immediately surrounding the property is predominantly, low density residential housing.

Figure 1. Map of study site at 0 Bernida Road, Mississauga Ontario.

The majority of the subject property is indicative of a cultural meadow community which abuts a riparian corridor belonging to Turtle Creek which flows toward Lake Ontario just beyond the southern property line. This corridor is part of the provincially evaluated Rattray Marsh wetland complex. Credit Valley Conservation (CVC) was onsite in October of 2018 in order to stake both the existing tree drip line and top of bank (TOB) associated with Turtle Creek to determine

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appropriate setbacks. These setbacks are shown in the preliminary site plan located in Appendix B.

2.1 Site Development Summary

The proposed project consists of a property severance which would result in two separate residential lots. Lot '1' is located at the north end of the site and comprises approximately 8,430 m^2 of the existing property. Lot '2' is located toward at the south end of the existing property and is approximately 6,767 m^2. A single, two-story residential building is proposed for each lot, and will be oriented to face a future cul-de-sac (Bernida Road) originating from the current property access-way, off Parkland Ave.

3.0 METHODOLOGY

A preliminary field inventory and assessment of the existing environmental conditions of the subject property was conducted on April 4, 2019 by D. Clark and G. Maybury of EcoTec. In general, the field surveys were conducted in order to verify and document the existing biophysical environment of the study area. A backpack electrofisher was brought to the site in order to sample for fish communities. However, it was apparent that the Turtle Creek watercourse is located completely outside the property boundaries and would not be affected by the proposed development which would be located beyond the 30 meter top-of-bank setback staked by TRCA (October 2018). As such, no fish surveys were conducted. A photographic record of the study area can be found in Appendix A.

Additional features and environmental sensitivities assessed within the study area during the field surveys included existing vegetation communities as well as resident and migratory bird and wildlife species, including any Species at Risk (SAR).

Wildlife species noted during the field investigation were identified by signs, visual observations, and vocalizations. As animal and bird migration/movement patterns may utilize areas both within

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and outside of the study area, birds and animals identified within and adjacent to the subject property were recorded and considered to be the residents or visitors of the area for the purpose of the study.

Historical background information and field data was gathered in order to determine the existing conditions of the natural resource features of the subject property. Background sources of information included the Ontario Ministry of Natural Resources and Forestry (MNRF), Ontario Nature, and the Natural Heritage Information Centre (NHIC).

4.0 EXSITING CONDITIONS

Field surveys were undertaken in order to acquire up-to-date information and a photographic record of the study area. The intent of the field surveys was to set baseline conditions of existing environmental sensitivities. The following sections provide a summary of the existing biophysical resources of the study area.

4.1 Vegetation Community: Cultural Meadow

This was the predominant vegetation community found within the subject property and consisted primarily of herbaceous vegetation species typical of culturally disturbed and/or manicured areas. The majority of the property's interior was historically cleared of mature, woody species and has since been dominated by herbaceous species which included orchard grass (*Dactylis glomerata*), ragweed (*Ambrosia* sp.), common burdock (*Arctium minus*), and perennial grasses (*Calamagrostis* sp.).

Scattered woody tree and shrub species were largely limited to the periphery of the property and were indicative of the Fresh-moist Willow Lowland Deciduous Forest (FOD7-3) which surrounds the property and separates it from the Cattail Organic Shallow Marsh (MAS3-1) community which bounds the riparian corridor of Turtle Creek to the east. Existing woody species, which comprise the majority of the surrounding canopy included green ash (*Fraxinus pennsylvanica*), eastern

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cottonwood (*Populus deltoids*), black walnut (*Juglans nigra*), and silver maple (*Acer saccharinum).* Small clumps and/or specimens of white birch (*Betula papyrifera*), tamarack (*Larix laricina*), white willow (*Salix alba*) and spruce (*Picea* sp.) are dotted across the property. The woody sub-canopy of the property consisted primarily of young willow (*Salix* sp.), red-osier dogwood (*Cornus sericea*), and staghorn sumac (*Rhus typhina*).

A full inventory of existing tree species onsite is presented in the *Construction Arborist Report* (2019) completed by Tree Doctor's Inc.

4.2 Avian and Wildlife Species

During the 2019 field assessment, the following avian species were visually observed or identified by vocalization, American robin (*Turdus migratorius*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), American goldfinch (*Spinus tristis*), common crow (*Corvus brachyrhynchos*), and red-winged blackbird (*Agelaius phoeniceus*).

Mammalian species observed during the 2019 field survey were limited to eastern gray squirrel (*Sciurus carolinensis*) and eastern chipmunk (*Tamias striatus*), however, there was secondary physical evidence of the area being used by white tailed deer (*Odocoileus virginianus*).

No reptiles or amphibian wildlife species were noted in 2019.

4.3 Fisheries and Aquatic Habitat

During the 2019 field assessment, no open channels or pools of standing water were located within the study area, therefore no fisheries sampling or surveys were completed. While all, or part, of study site may be considered contributing habitat by proximity to Turtle Creek, the proposed development plan observes all appropriate setbacks and the highly disturbed nature of the property makes it unlikely to appreciably contribute to adjacent aquatic habitat.

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4.4 Species at Risk

No Species at Risk (SAR) were observed within the study area during the field survey. However, background data from the MNRF and NHIC indicated that a number of SAR may exist within the study area, these species are summarized in Table 1. Given the existing site conditions, surrounding development and previous land use within the study area it is unlikely that any of these species are present.

Table 1: Potential Species at Risk identified within the 0 Bernida Road study area.

Species at Risk	Status	Potential Location	Preferred Habitat	Habitat Presence/Absence
Avian				
Eastern Meadowlark (*Sturnella magna*)	THR	General Area (<25 km)	Pastureland, hayfields, scrubland	Suitable habitat is limited with current site conditions
Bobolink (*Dolichonyx oryzivorus*)	THR	General area (< 25 km)	Pastureland, hayfields, tall grass meadow	Suitable habitat is limited with current site conditions
Barn Swallow (*Hirundo rustica*)	THR	General area (< 25 km)	Open structures adjacent to suitable foraging	Suitable habitat is not currently present, potential foraging grounds
Bank Swallow (*Riparia riparia*)	THR	General area (< 25 km)	Areas adjacent to water w/ proximity to exposed embankments	Suitable habitat is not currently present, potential foraging grounds
Eastern Wood-Pewee (*Contopus virens*)	SC	General area (< 25 km)	Intermediate-age forest stands w/ limited understory	Suitable habitat is limited with current site conditions
Common Nighthawk (*Chordeiles minor*)	SC	General area (< 25 km)	Pastureland, hayfields, tall grass meadow	Suitable habitat is limited with current site conditions
Wood Thrush (*Hylocichla mustelina)*	SC	General area (< 25 km)	Mature conifer-deciduous forests w/ well developed undergrowth	Suitable habitat is limited with current site conditions
Chimney Swift (*Chaetura pelagica*)	THR	General area (< 25 km)	Open structures adjacent to suitable foraging	Suitable habitat is not currently present, potential foraging grounds
Peregrine Falcon (*Falco peregrinus*)	THR	General area (< 25 km)	Open structures, or rock ledges adjacent to water	Suitable habitat is not currently present
Herpetofauna				
Snapping Turtle (*Chelydra serpentina*)	SC	General area (< 10 km)	Slow moving water w/ abundant vegetation	Suitable habitat is limited with current site conditions

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Northern Map Turtle (*Graptemys geographica*)	SC	General area (<10 km)	Deep, slow moving water w/ open shorelines	Suitable habitat is not currently present
Blandings Turtle (*Graptemys geographica*)	THR	General area (<10 km)	Shallow water wetlands w/ extensive vegetation	Suitable habitat is limited with current site conditions
Eastern Ribbonsnake (*Thamnophis sauritus*)	SC	General area (<10 km)	Shallow water wetlands	Suitable habitat is limited with current site conditions

THR = Federally Threatened; END = Federally Endangered; SC= Special Concern; Note: there are no known occurrences of Species at Risk within the study area

5.0 POTENTIAL IMPACTS AND MITIGATION

This section of the report describes the potential impacts on the biophysical environment associated with proposed property development. This section also outlines proposed mitigation measures to prevent and minimize adverse effects of the development on the surrounding natural resource features.

5.1 Vegetation

The predominant vegetation community on the subject property consists of a cultural meadow exhibited by the abundance of grass species and herbaceous vegetation typical of disturbed areas. Due to the previous land use practices and current state of the central, manicured cultural meadow area, disturbances to this vegetation community as a result of the proposed development are not predicted to be ecologically significant and will not foreseeably impact any rare species, faunal communities, nor degrade the properties ecological value.

The majority of mature trees onsite are located around the periphery of development will not be directly affected as per the Construction Arborist Report (Tree Doctor's Inc., 2019). However, as per the proposed site plan (Appendix B) and the previously mentioned arborist report, a total of 28 trees will require removal. An ecological assessment of these identified trees, shows many to be young, infected with (or at high risk of infection) Emerald Ash Borer (*Agrilus planipennis*), or in poor health. Additionally, several of these trees marked for removal are non-native to southern

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Ontario, Norway maple (*Acer Platanoides*). The majority of these trees are located between the proposed development and Parkland Avenue in what will become the primary access route (Bernida Road). Their size and location does not currently contribute to habitat connectivity in a meaningful way; the proposed removal of these trees should result in negligible ecological impact and in the case of the multiple ash specimens with confirmed infection (EAB), aid in preventing localized spread to healthy trees. Most mature trees along the riparian corridor (Turtle creek) will be maintained in the proposed development plan and are much more critical for habitat connectivity and the maintenance of proper ecological function.

In areas where the proposed structures encroach on the 10 meter dripline setback, EcoTec proposes that tree protection barrier be installed (as per the *Tree Protection Plan,* 2019) around any singular-specimen or stands of trees being encroached upon in order to prevent inadvertent damage and mitigate the ecological impact caused by development.

5.2 Avian and Wildlife Species Habitat

The study area and surroundings contained a diversity of habitat components potentially supportive of the life processes of birds and wildlife species utilizing the area. However, no negative impacts to avian and wildlife habitat are anticipated as a result of the proposed property development. Only one tree on site (#82, *Salix babylonica*) has been identified as possessing open cavities which may provide habitat for various bird/mammal species, but this individual is not slated for removal. The prevalence of the surrounding forest community and the lack of rare or uncommon tree species within the limits of proposed development suggests habitat and forage availability should not be significantly impacted by the proposed tree clearing activities. All clearing of existing trees should occur outside the migratory bird nesting window (April 15 – August 15) in order to prevent the destruction of nests and/or the harassment of wildlife. Should clearing be required within the nesting window, EcoTec recommends a qualified avian biologist be consulted to ensure no clearing activities will negatively impact avian wildlife.

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No herpetofauna were identified on the site during the 2019 field survey. Habitat located within or immediately adjacent to the proposed building envelope were of minimal ecological value to most reptile and amphibian species. In addition, considering the prevalence of large tracts of more preferred habitat surrounding the subject property, including the natural riparian corridor to the west, no substantial impacts to herpetofauna communities are anticipated.

5.3 Fisheries and Aquatic Habitat

No negative impacts to fisheries habitat are anticipated as there is no active watercourse within the bounds of the subject property. Additionally, the proposed development is located outside recommended watercourse setbacks in relation to Turtle Creek located just beyond the western property line which should ensure minimal effects on the watercourse and contributing floodplain.

5.4 Species at Risk

Table 1 (Section 4.4) outlines a list of Species at Risk which may be present within the study area. However, although these species have historically been observed within a given proximity (Table 1) to the study area, it should be noted that suitable habitat for the majority of these species is currently limited or completely absent from the study area. In regards to eastern meadowlark (*Sturnellla magna*) and bobolink (*Dolichonyx oryzivorus*), the existing cultural meadow does represent suitable habitat, however both species require pastoral habitat greater than 5 ha^2 to establish a breeding territory (Hekert 1994, OMNR 2013); currently the site's size and vegetative composition does not fulfill the requirements for suitable bobolink or meadowlark breeding/nesting habitat.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The following is a summary of recommendations for future development of the subject property at 0 Bernida Road in Mississauga. These recommendations have been developed in order to reduce environmental impacts as a result of potential development:

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- Trees whose dripline setback and/or Tree Protection Zone (TPZ) is encroached upon by the building envelope should be properly protected and demarcated with tree protection barriers as per the City of Mississauga's Private Tree-Protection Bylaw and the Tree Protection Plan (Tree Doctor's Inc., 2019).

- It is recommended that all clearing of existing trees should occur outside the migratory bird nesting window (April 15 – August 15) in order to prevent the destruction of nests and/or the harassment of wildlife.

- It is recommended that the MNRF be contacted immediately if any active nesting within the study area is observed during the course of site development and that a qualified avian biologist be consulted.

- It is recommended that the MNRF be contacted immediately if any Species at Risk are observed during the course of site development.

- It is recommended that exclusion fencing be installed around the periphery of the property boundary to prevent herpetofauna from entering the site; specifically, along the western property line which abuts the Turtle Creek riparian corridor. Fencing should be installed in accordance with the MNRF Reptile and Amphibian Exclusion Fencing technical bulletin (2013).

- Erosion and sediment control measures should be installed prior to site grading and maintained throughout the duration of site development.

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7.0 REFERENCES

Herkert, J.R. 1994.The effects of habitat fragmentation on midwestern grassland bird communities. Ecological Applications 4:461–71.

OMNR. General Habitat Description for the Bobolink (Dolichonyx oryzivorus). 2013.

APPENDIX A:
STUDY AREA PHOTOGRAPHS

Photo 1. Study area located at 0 Bernida Road, Mississauga. Facing northeast from Lot ‘B’. April 4, 2019.

Photo 2. Study area located at 0 Bernida Road, Mississauga. Facing north from Lot ‘B’. April 4, 2019.

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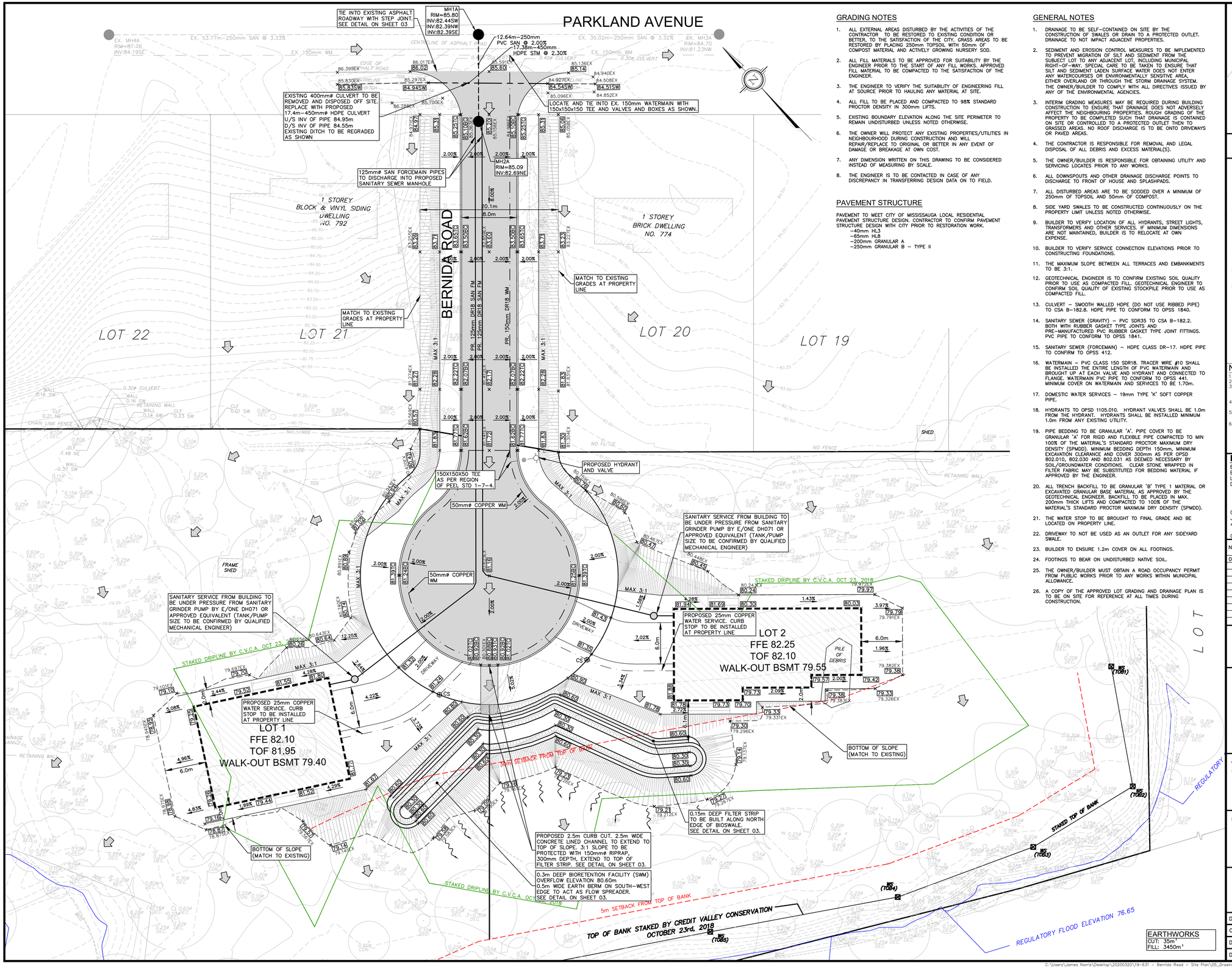
Photo 3. Study area located at 0 Bernida Road, Mississauga. Facing south from Lot ‘A’. April 4, 2019.

Photo 4. Study area located at 0 Bernida Road, Mississauga. Facing south from the central access point off Parkland Avenue. April 4, 2019.

Photo 5. Green ash stand located on the east side of Lot ‘B’, 0 Bernida Road, Mississauga Ontario. Facing southeast April 4, 2019.

Photo 6. Trees to receive located on the west side of Lot ‘a’, 0 Bernida Road, Mississauga Ontario. Facing south, April 4, 2019.

APPENDIX B:
PROPOSED SITE DEVELOPMENT PLAN



GRADING NOTES

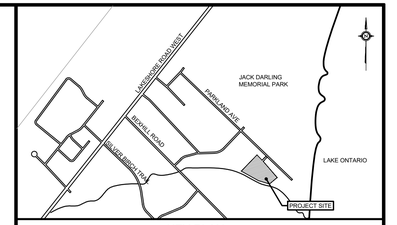
1. ALL EXTERNAL AREAS DISTURBED BY THE ACTIVITIES OF THE CONTRACTOR TO BE RESTORED TO EXISTING CONDITION OR BETTER, TO THE SATISFACTION OF THE CITY. GRASS AREAS TO BE RESTORED BY PLACING 250mm TOPSOIL WITH 50mm OF COMPOST MATERIAL AND ACTIVELY GROWING NURSERY SOD.
2. ALL FILL MATERIALS TO BE APPROVED FOR SUITABILITY BY THE ENGINEER PRIOR TO THE START OF ANY FILL WORKS. APPROVED FILL MATERIAL TO BE COMPACTED TO THE SATISFACTION OF THE ENGINEER.
3. THE ENGINEER TO VERIFY THE SUITABILITY OF ENGINEERING FILL AT SOURCE PRIOR TO HAULING ANY MATERIAL AT SITE.
4. ALL FILL TO BE PLACED AND COMPACTED TO 98% STANDARD PROCTOR DENSITY IN 300mm LIFTS.
5. EXISTING BOUNDARY ELEVATION ALONG THE SITE PERIMETER TO REMAIN UNDISTURBED UNLESS NOTED OTHERWISE.
6. THE OWNER WILL PROTECT ANY EXISTING PROPERTIES/UTILITIES IN NEIGHBOURHOOD DURING CONSTRUCTION AND WILL REPAIR/REPLACE TO ORIGINAL OR BETTER IN ANY EVENT OF DAMAGE OR BREAKAGE AT OWN COST.
7. ANY DIMENSION WRITTEN ON THIS DRAWING TO BE CONSIDERED INSTEAD OF MEASURING BY SCALE.
8. THE ENGINEER IS TO BE CONTACTED IN CASE OF ANY DISCREPANCY IN TRANSFERRING DESIGN DATA ON TO FIELD.

PAVEMENT STRUCTURE

PAVEMENT TO MEET CITY OF MISSISSAUGA LOCAL RESIDENTIAL PAVEMENT STRUCTURE DESIGN. CONTRACTOR TO CONFIRM PAVEMENT STRUCTURE DESIGN WITH CITY PRIOR TO RESTORATION WORK.
- –40mm HL3
- –65mm HL8
- –200mm GRANULAR A
- –250mm GRANULAR B – TYPE II

GENERAL NOTES

1. DRAINAGE TO BE SELF-CONTAINED ON SITE BY THE CONSTRUCTION OF SWALES OR DRAIN TO A PROTECTED OUTLET. DRAINAGE TO NOT IMPACT ADJACENT PROPERTIES.
2. SEDIMENT AND EROSION CONTROL MEASURES TO BE IMPLEMENTED TO PREVENT MIGRATION OF SILT AND SEDIMENT FROM THE SUBJECT LOT TO ANY ADJACENT LOT, INCLUDING MUNICIPAL RIGHT-OF-WAY. SPECIAL CARE TO BE TAKEN TO ENSURE THAT SILT AND SEDIMENT LADEN SURFACE WATER DOES NOT ENTER ANY WATERCOURSES OR ENVIRONMENTALLY SENSITIVE AREA, EITHER OVERLAND OR THROUGH THE STORM DRAINAGE SYSTEM. THE OWNER/BUILDER TO COMPLY WITH ALL DIRECTIVES ISSUED BY ANY OF THE ENVIRONMENTAL AGENCIES.
3. INTERIM GRADING MEASURES MAY BE REQUIRED DURING BUILDING CONSTRUCTION TO ENSURE THAT DRAINAGE DOES NOT ADVERSELY AFFECT THE NEIGHBOURING PROPERTIES. ROUGH GRADING OF THE PROPERTY TO BE COMPLETED SUCH THAT DRAINAGE IS CONTAINED ON SITE OR CONTROLLED TO A PROTECTED OUTLET THEN TO GRASSED AREAS. NO ROOF DISCHARGE IS TO BE ONTO DRIVEWAYS OR PAVED AREAS.
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND LEGAL DISPOSAL OF ALL DEBRIS AND EXCESS MATERIAL(S).
5. THE OWNER/BUILDER IS RESPONSIBLE FOR OBTAINING UTILITY AND SERVICING LOCATES PRIOR TO ANY WORKS.
6. ALL DOWNSPOUTS AND OTHER DRAINAGE DISCHARGE POINTS TO DISCHARGE TO FRONT OF HOUSE AND SPLASHPADS.
7. ALL DISTURBED AREAS ARE TO BE SODDED OVER A MINIMUM OF 250mm OF TOPSOIL AND 50mm OF COMPOST.
8. SIDE YARD SWALES TO BE CONSTRUCTED CONTINUOUSLY ON THE PROPERTY LIMIT UNLESS NOTED OTHERWISE.
9. BUILDER TO VERIFY LOCATION OF ALL HYDRANTS, STREET LIGHTS, TRANSFORMERS AND OTHER SERVICES. IF MINIMUM DIMENSIONS ARE NOT MAINTAINED, BUILDER IS TO RELOCATE AT OWN EXPENSE.
10. BUILDER TO VERIFY SERVICE CONNECTION ELEVATIONS PRIOR TO CONSTRUCTING FOUNDATIONS.
11. THE MAXIMUM SLOPE BETWEEN ALL TERRACES AND EMBANKMENTS TO BE 3:1.
12. GEOTECHNICAL ENGINEER IS TO CONFIRM EXISTING SOIL QUALITY PRIOR TO USE AS COMPACTED FILL. GEOTECHNICAL ENGINEER TO CONFIRM SOIL QUALITY OF EXISTING STOCKPILE PRIOR TO USE AS COMPACTED FILL.
13. CULVERT – SMOOTH WALLED HDPE (DO NOT USE RIBBED PIPE) TO CSA B-182.8. HDPE PIPE TO CONFORM TO OPSS 1840.
14. SANITARY SEWER (GRAVITY) – PVC SDR35 TO CSA B-182.2. BOTH WITH RUBBER GASKET TYPE JOINTS AND PRE-MANUFACTURED PVC RUBBER GASKET TYPE JOINT FITTINGS. PVC PIPE TO CONFORM TO OPSS 1841.
15. SANITARY SEWER (FORCEMAIN) – HDPE CLASS DR-17. HDPE PIPE TO CONFIRM TO OPSS 412.
16. WATERMAIN – PVC CLASS 150 SDR18. TRACER WIRE #10 SHALL BE INSTALLED THE ENTIRE LENGTH OF PVC WATERMAIN AND BROUGHT UP AT EACH VALVE AND HYDRANT AND CONNECTED TO FLANGE. WATERMAIN PVC PIPE TO CONFORM TO OPSS 441. MINIMUM COVER ON WATERMAIN AND SERVICES TO BE 1.70m.
17. DOMESTIC WATER SERVICES – 19mm TYPE 'K' SOFT COPPER PIPE.
18. HYDRANTS TO OPSD 1105.010. HYDRANT VALVES SHALL BE 1.0m FROM THE HYDRANT. HYDRANTS SHALL BE INSTALLED MINIMUM 1.0m FROM ANY EXISTING UTILITY.
19. PIPE BEDDING TO BE GRANULAR 'A'. PIPE COVER TO BE GRANULAR 'A' FOR RIGID AND FLEXIBLE PIPE COMPACTED TO MIN 100% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD). MINIMUM BEDDING DEPTH 150mm, MINIMUM EXCAVATION CLEARANCE AND COVER 300mm AS PER OPSD 802.010, 802.030 AND 802.031 AS DEEMED NECESSARY BY SOIL/GROUNDWATER CONDITIONS. CLEAR STONE WRAPPED IN FILTER FABRIC MAY BE SUBSTITUTED FOR BEDDING MATERIAL IF APPROVED BY THE ENGINEER.
20. ALL TRENCH BACKFILL TO BE GRANULAR 'B' TYPE 1 MATERIAL OR EXCAVATED GRANULAR BASE MATERIAL AS APPROVED BY THE GEOTECHNICAL ENGINEER. BACKFILL TO BE PLACED IN MAX. 200mm THICK LIFTS AND COMPACTED TO 100% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
21. THE WATER STOP TO BE BROUGHT TO FINAL GRADE AND BE LOCATED ON PROPERTY LINE.
22. DRIVEWAY TO NOT BE USED AS AN OUTLET FOR ANY SIDEYARD SWALE.
23. BUILDER TO ENSURE 1.2m COVER ON ALL FOOTINGS.
24. FOOTINGS TO BEAR ON UNDISTURBED NATIVE SOIL.
25. THE OWNER/BUILDER MUST OBTAIN A ROAD OCCUPANCY PERMIT FROM PUBLIC WORKS PRIOR TO ANY WORKS WITHIN MUNICIPAL ALLOWANCE.
26. A COPY OF THE APPROVED LOT GRADING AND DRAINAGE PLAN IS TO BE ON SITE FOR REFERENCE AT ALL TIMES DURING CONSTRUCTION.



KEY PLAN
N.T.S.

LEGEND

EXISTING		PROPOSED	
MH1A	SANITARY MANHOLE	MH1A	SANITARY MANHOLE
HYD&V	FIRE HYDRANT	HYD&V	FIRE HYDRANT
VB	VALVE & BOX	VB	VALVE & BOX
	SANITARY SEWER		STORM SEWER
	WATERMAIN		SANITARY SEWER (GRAVITY)
	EASEMENT		SANITARY SEWER (FORCEMAIN)
	RIGHT OF WAY		WATERMAIN
	LOT LINE	CS	WATER SERVICE WITH CURB STOP
	FENCE LINE		LIMIT OF SUBJECT PROPERTY
	EDGE OF PAVEMENT		RIGHT OF WAY
x265.22EX	ELEVATION		EDGE OF PAVEMENT
	BUILDING	x265.22	ELEVATION
	RETAINING WALL	2.00%	GRADED SLOPE
	MAJOR CONTOUR LABEL		PONDING FACILITY (MAX 3:1 SLOPE)
	MINOR CONTOUR LABEL		OVERLAND FLOW
	TREE		

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
2. CONTOUR INTERVAL IS 0.25m.
3. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION, AND ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
4. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF MISSISSAUGA STANDARD SPECIFICATIONS AND DRAWINGS UNLESS OTHERWISE NOTED HEREIN.
5. ORDER OF PRECEDENCE OF STANDARDS DRAWINGS IS FIRSTLY CITY OF MISSISSAUGA, AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).
6. THE CONTRACTOR TO BE RESPONSIBLE FOR LOCATION OF ALL EXISTING U/G AND OVERHEAD UTILITIES. CONTRACTOR IS REQUIRED TO OBTAIN ALL LOCATIONS & NOTIFY THE VARIOUS UTILITY COMPANIES 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK. THE CITY OF MISSISSAUGA AND CONSULTANT ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATIONS OF EXISTING UTILITIES AS INDICATED ON THIS DRAWING.

BENCHMARK

BENCHMARK No. 710
ELEVATION = 93.663m
LOCATION: CITY OF MISSISSAUGA
DESCRIPTION:

COMPLETED BY:
J. H. GELBLOOM SURVEYING LIMITED – ONTARIO LAND SURVEYORS
476 MORDEN ROAD, UNIT 102, OAKVILLE, ON L6K 3W4 (905) 336-8210

COMPLETED ON: JANUARY 20, 2019

NO.	REVISION	DATE	BY	APPROVED
01	ISSUED FOR APPROVAL	2020/03/25	E.G.	

Greck
5770 Highway 7, Woodbridge, Ontario, L4L 1T8 www.greck.ca

LICENSED PROFESSIONAL ENGINEER
March 25, 2020
E. J. GRECK
100068911
PROVINCE OF ONTARIO

CLIENT NAME:
GEORGE PACLIK

PROJECT NAME:

BERNIDA ROAD SUBDIVISION

0 BERNIDA ROAD MISSUSSAUGA, ON

SITE SERVICING AND GRADING PLAN

DESIGNED BY:	J.N.	SCALES:	
CHECKED BY:	E.G.	HORIZONTAL:	1:250
DRAWN BY:	J.N.	VERTICAL:	
DATE:	MAR 20, 2020	SHEET SIZE:	24"x36"

PROJECT No. 19-631
DRAWING No. C1
SHEET No. 01

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Date Plotted: Mar 21, 2020 – 1:41 PM