

Planning Rationale Report

Laurelpark Estates

Draft Plan of Subdivision and Zoning By-law Amendment



Prepared for Laurelpark Inc.
by IBI Group
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1 Introduction

IBI Group is the planning consultants to Laurelpark Inc., owners of approximately 10.38 hectares (25.63 acres) of land in the Town of Caledon. The subject lands are located on the west side of Mount Pleasant Road south of Old Church Road at the southerly terminus of Diamondwood Drive in the Palgrave Estates Residential Community. The property is legally described as Part of the East Half of Lot 19, Concession 8, Geographic Township of Albion, Town of Caledon, Regional Municipality of Peel. IBI Group has been retained to review the planning basis and justification to develop the subject lands to permit an estate residential development, protect existing natural heritage features and determine the appropriateness of advancing applications for Plan of Subdivision, Zoning By-law Amendment and Official Plan Amendment in order to give effect to the intended form of development.

In considering the foregoing, our investigations and preparations have included an extensive review and consideration of the *Planning Act, R.S.O. 1990, c.P. 13*, the Provincial Policy Statement (2014), the Greenbelt Plan (2017), the Oak Ridges Moraine Conservation Plan (2017), the Growth Plan for the Greater Golden Horseshoe (2017), the Region of Peel Official Plan, the Town of Caledon Official Plan, the Palgrave Estates Residential Community Secondary Plan, the Oak Ridges Moraine Conservation (Secondary) Plan and Town of Caledon Comprehensive Zoning By-law 2006-50. Additionally, our review and opinion has been informed by numerous site-specific studies undertaken in accordance with the requirements of the many applicable planning instruments.

2 Area and Context

This Planning Rationale Report applies to 10.38 hectares (25.63 acres) of land in a rectangular shape, located on the west side of Mount Pleasant Road south of Old Church Road, and at the southerly terminus of Diamondwood Drive (for the purposes of this report north-south will be used based on the grid of the streets, therefore north-south Mount Pleasant Road is considered to be north-south). Site topography is varied and consists of a range of gently rolling, to hilly to substantial slopes.

Depicted below in Figure 2-1, the subject lands are currently substantially agricultural in use but are also comprised of woodland and wetland communities. The subject lands are surrounded by planned estate residential development to the north and east. Rural residential, open space, natural heritage and agricultural uses surround the subject lands to the south and west.

Currently the subject lands can be accessed from both Mount Pleasant Road and from the southerly terminus from Diamondwood Drive.

Figure 2-1: Aerial View of Subject Lands



The surrounding land uses are as follows:

- **North:** Estate residential uses located along Diamondwood Drive;
- **East:** Estate residential uses located along Oak Knoll Drive and Bruno Ridge Drive. Woodland and wetland features are also found through this estate residential subdivision;
- **South:** A rural estate lot is located immediately adjacent to the south along Mount Pleasant Road with a new estate residential subdivision just beyond. Woodland, wetland and other natural heritage features, and agricultural uses are located to the south.
- **West:** Open space, woodland and wetland features, and agricultural uses are located to the west.

Photos of the subject lands and surrounding are detailed below through Figures 2-2 to 2-8.

Figure 2-2: Subject Lands from Diamondwood Drive, facing south



Figure 2-3: Rear portion of the subject lands, facing southwest



Figure 2-4: Wetland located towards the rear portion of the subject lands



Figure 2-5: Subject lands looking southeast, facing the existing residential property along Mount Pleasant Road



Figure 2-6: Middle portion of the subject lands, facing Mount Pleasant road to the east



Figure 2-7: Existing woodlot toward the front of the property, facing east



Figure 2-8: Existing water feature on the subject lands, located adjacent to Mount Pleasant Road.



3 Proposed Development

Pursuant to Figure 3-1 below, and attached in **Appendix A**, the proposed draft plan of subdivision consists of a total of 8 estate residential lots, natural heritage features, an open space block and stormwater management pond/bioretention area. The subject lands are divided into two separate estate residential pockets, which are proposed to accommodate the estate residential lots, as follows:

- **Lots 1-3:** To be accessed from Diamondwood Drive through a common element condominium road.
- **Lots 4-8:** To be accessed through a proposed new municipal road connected to Mount Pleasant Road.

These two areas are separated by identified natural heritage features, which will be enhanced and will remain undeveloped within open space blocks in accordance with prevailing planning policy. An additional open space block is comprised of the existing pond located along Mount Pleasant Road. The proposed stormwater management pond/bioretention area is located along Mount Pleasant Road, adjacent to Lot 8. Figure 3-2 provides a breakdown of each proposed lot, including the area and proposed structure envelope.

Water and wastewater services are proposed via partial services in accordance with prevailing planning policy. Municipal water will be extended from Diamondwood Drive to service Lots 1-3, and will be provided via Mount Pleasant Road to service Lots 4-8. Individual septic systems are proposed to service each lot. Policy conformance respecting partial services are outlined in Section 5.0 of this report.

Figure 3-1: Draft Plan of Subdivision

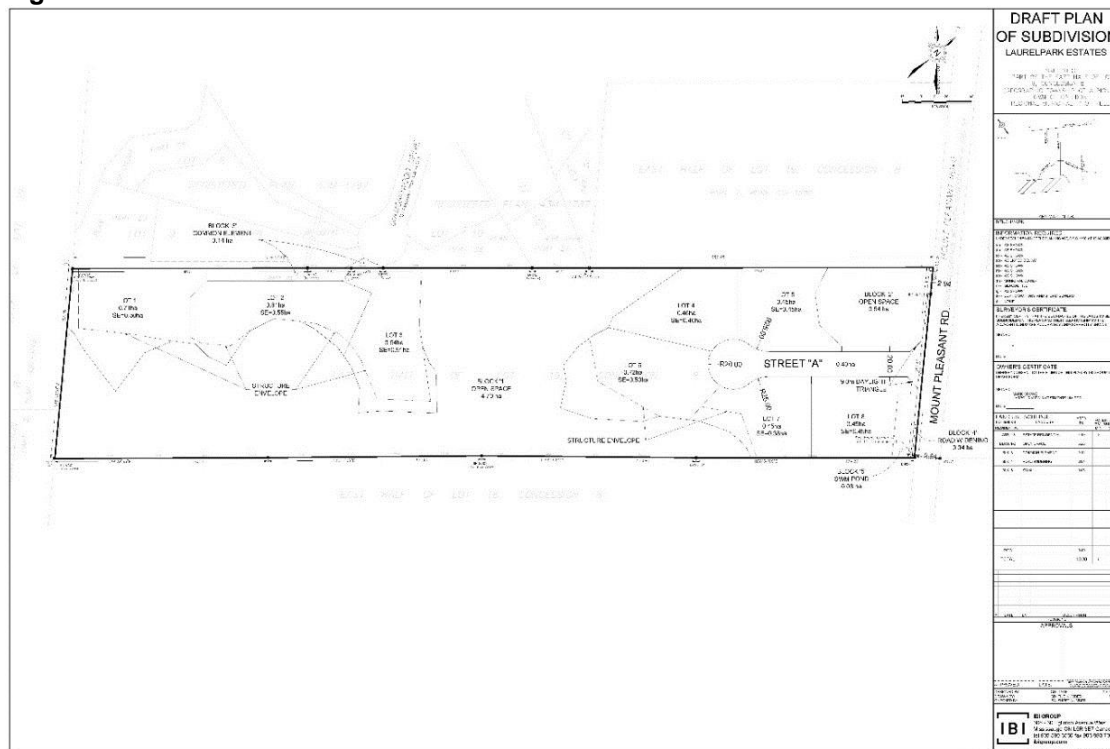


Figure 3-2: Lot Area Breakdown

LOT	LOT AREA (HA)	STRUCTURE ENVELOPE AREA (HA)
1	0.71	0.50
2	0.61	0.55
3	0.61	0.51
4	0.46	0.46
5	0.45	0.45
6	0.69	0.50
7	0.45	0.38
8	0.45	0.45

Proposed Street 'A' will comprise a hybrid rural and urban road cross-section, with a road width of 20m. The specific design contemplates a curbed road with grass swales, which will assist in accepting drainage from adjacent lots where applicable, encourage passive infiltration of storm water, provide linear storage in the conveyance system to dampen hydrologic response, and provide pre-treatment of storm water prior to discharge to the bioretention area.

4 Planning Context Overview

The following provides a review of the applicable planning policy framework of the subject lands.

In considering the planning merits of this proposal, the Provincial Policy Statement (2014), Places to Grow – Growth Plan for the Greater Golden Horseshoe (2017), Greenbelt Plan (2017), Oak Ridges Moraine Conservation Plan (2017), Region of Peel Official Plan (2016), Town of Caledon Official Plan (2016 Consolidation), Palgrave Estate Residential Community Secondary Plan and Oak Ridges Moraine Conservation Secondary Plan, and Town of Caledon Zoning By-law 2006-50 are applicable.

4.1 Provincial Policy Statement (2014)

The Provincial Policy Statement (PPS) came into effect on April 30, 2014 and was issued under Section 3 of the *Planning Act*, which requires that all land use planning decisions considered under the *Act* be consistent with the PPS. The PPS provides policy direction on matters of Provincial interest related to land use planning and development.

The PPS focuses growth within Settlement Areas and away from significant or sensitive resources and areas which may post a risk to public health and safety. It recognizes that the wise management of development may involve directing, promoting or sustaining growth. Land use must be carefully managed to accommodate appropriate development to meet the full range of current and future needs, while achieving efficient development patterns.

Section 1.1 – Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns identifies that healthy, livable and safe communities are sustained by:

- Promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;
- Accommodating an appropriate range and mix of residential (including second units, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

- c) Avoiding development and land use patterns which may cause environmental or public health and safety concerns;
- d) Avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;
- e) Promoting cost-effective development patterns and standards to minimize land consumption and servicing costs;
- f) Improving accessibility for persons with disabilities and older persons by identifying, preventing and removing land use barriers which restrict their full participation in society;
- g) Ensuring that necessary infrastructure, electricity generation facilities and transmission and distribution systems, and current public service facilities are or will be available to meet current and projected needs; and
- h) Promoting development and land use patterns that conserve biodiversity and consider the impacts of a changing climate.

Further, Section 1.1.2 of the PPS states that “sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 20 years. However, where an alternate time period has been established for specific areas of the Province as a result of a provincial planning exercise or a provincial plan, that time frame may be used for municipalities within the area.”

The subject lands are located the Palgrave Estates Residential Community – an identified settlement area under lower and upper tier planning instruments. Section 1.1.3 of the PPS provides guidance for development within identified settlement areas, which are to be the focus of growth and development. More specifically, Section 1.1.3.2 of the states that “land use patterns within settlement areas shall be based on:

- a) Densities and a mix of land uses which:
 - 1. efficiently use land and resources;
 - 2. are appropriate for, and efficient use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified or uneconomical expansion;
 - 3. minimize negative impacts to air quality and climate change, and promote energy efficiency;
 - 4. support active transportation;
 - 5. are transit-supportive, where transit is planned, exists or may be developed.

As the lands are located within an area comprising identified natural heritage features, the proposed residential development has been carefully designed to both efficiently use land while at the same time protecting these natural heritage features. Lot size, areas and structure envelopes have been designed to minimize disruption to identified natural heritage features and utilize areas which are identified and appropriate for development pursuant to local planning policy.

Section 1.6.6 of the PPS provides direction to plan for sewage, water and stormwater services. More specifically, Section 1.6.6.1 states that “planning for sewage and water services shall:

- a) direct and accommodate expected growth or development in a manner that promotes that efficient use and optimization of existing:
 - 1. municipal sewage services and municipal water services; and
 - 2. private communal sewage services and private communal water services, where municipal sewage services and municipal water services are not available.

- b) Ensure that these systems are provided in a manner that:
 - 1. Can be sustained by the water resources upon which such services rely;
 - 2. Is feasible, financially viable and complies with all regulatory requirements; and
 - 3. Protects human health and natural environment.”

As noted, the subject lands are proposed to be “partially” serviced, with municipal water and individual on-site (septic) sewage services. Section 1.6.6.5 states that “partial services shall only be permitted in the following circumstances:

- a) where they are necessary to address failed individual on-site sewage services and individual on-site water services in existing development; or
- b) within settlement areas, to allow for infilling and minor rounding out of existing development on partial services provided that site conditions are suitable for the long-term provision of such services within no negative impacts.

As municipal sewage services are not available, the PPS permits the use of individual on-site sewage services. The Region of Peel Official Plan and Town of Caledon Official Plan contains policies which permit such partial services, and are detailed in Sections 4.5 and 4.6 of this report. The proposed development includes such services for each lot, and as detailed in Section 5.4 of this report, the Functional Servicing Report submitted as part of this application details the feasibility of incorporating such on-site services to appropriately service the proposed development while avoiding any negative impact to the site and surrounding area. This is achievable through identifying structure envelopes for each proposed lot and ensuring that all on-site sewage servicing is provided within these envelopes.

Stormwater management practices will also be implemented as part of the proposed development, as detailed in Section 5.4 of this report. Section 1.6.6.7 states that “Planning for stormwater management shall:

- a) minimize, or, where possible, prevent increases in contaminant loads;
- b) minimize changes in water balance and erosion;
- c) not increase risks to human health and safety and property damage;
- d) maximize the extent and function of vegetative and pervious surfaces; and
- e) promote stormwater management best practices, including stormwater attenuation and re-use, and low impact development.

The PPS also outlines policies for the wise use and management of resources, and provides policy direction on the projection of the Province’s natural heritage resources in Section 2.1. Applicable policies include:

- 2.1.1 Natural features and areas shall be protected for the long term.
- 2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.
- 2.1.3 Natural heritage systems shall be identified in Ecoregions 6E & 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.
- 2.1.4 Development and site alteration shall not be permitted in:

- a) Significant wetlands in Ecoregions 5E, 6E and 7E; and
- b) Significant coastal wetlands.

2.1.5 Development and site alteration shall not be permitted in:

- a) Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;
- b) Significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);
- c) Significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);
- d) Significant wildlife habitat;
- e) Significant areas of natural and scientific interest; and
- f) Coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 2.1.4(b).

Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements;

2.1.7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

2.1.8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5 and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

A significant amount of analysis has been undertaken to determine that development and site alteration on the subject lands are appropriate and do not result in negative impacts on the natural heritage features or their ecological functions. These analyses are further discussed and detailed in Section 5.5 of this report.

4.2 Growth Plan for the Greater Golden Horseshoe (2017)

The *Places to Grow Act, 2005*, provides the legislative framework for the Growth Plan for the Greater Golden Horseshoe (Places to Grow). It also provides the framework for the implementation of the Provincial Growth Plans and includes the process for making and amending growth plans. The Growth Plan was released in May 2017 and came into effect on July 1, 2017, and provides land use direction to a planning horizon to the year 2041. A residential population of 1,970,000 and employment population of 970,000 has been projected for Peel Region for the year 2041.

Section 2.2.1.2.a) of the Growth Plan – Managing Growth directs the vast majority of growth towards settlement areas that:

- i. Have a delineated built boundary;
- ii. Have existing or planned municipal water and wastewater systems; and
- iii. Can support the achievement of complete communities.

Section 2.2.1.2.b) limits growth in settlement areas that:

- i. Are undelineated built-up areas;
- ii. Are not serviced by existing or planned municipal water and wastewater systems; or
- iii. Are in the Greenbelt Area.

It is worth noting that the subject lands are identified as an undelineated built-up area. As detailed in Sections 4.3 and 4.4 of this report, the Greenbelt Plan and Oak Ridges Moraine identify the subject lands within the Palgrave Estate Residential Community, which forms a component of the identified Countryside Area. The local Oak Ridges Moraine Conservation (Secondary) Plan and Palgrave Estates Residential Community Secondary Plan permit estate residential development within this identified community area subject to numerous restrictions.

As detailed, the proposed residential development will be serviced through the municipal water system, and will include private wastewater services for each lot. Section 3.2.6 of the Growth Plan – Water and Wastewater Systems, provides direction permitting these services, stating that “municipal water and wastewater systems and private communal water and wastewater systems will be planned, designed, constructed, or expanded in accordance with the following:

- a) Opportunities for optimization and improved efficiency within existing systems will be prioritized and supported by strategies for energy and water conservation and water demand management;
- c) A comprehensive water or wastewater master plan or equivalent, informed by watershed planning has been prepared to:
 - i. Demonstrate that the effluent discharges and water takings associated with the system will not negatively impact the quality and quantity of water;
 - ii. Identify the preferred option for servicing growth and development, subject to the hierarchy of services provided in policies 1.6.6.2, 1.6.6.3, 1.6.6.4 and 1.6.6.5 of the PPS, 2014, which must not exceed the assimilative capacity of the effluence receivers and sustainable water supply for servicing, ecological and other needs; and
 - iii. Identify the full life cycle costs of the system and develop options to pay for these costs over the long term.
- d) In the case of large subsurface sewage disposal systems, the proponent has demonstrated attenuation capacity; and
- e) Plans have been considered in the context of applicable inter-provincial, national, bi-national, or state-provincial Great Lakes Basin agreements or provincial legislation or strategies.

A discussion of servicing is provided in Section 5.4 of this report.

Section 3.2.7.2 of the Growth Plan provides policy direction on providing stormwater management plans, stating that “proposals for large-scale development proceeding by way of a secondary plan, plan of subdivision, vacant land plan of condominium or site plan will be supported by a stormwater management plan or equivalent, that:

- a) Is informed by a subwatershed plan or equivalent;
- b) Incorporates an integrated treatment approach to minimize stormwater flows and reliance on stormwater ponds, which includes appropriate low impact development and green infrastructure;
- c) Establishes planning, design and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces and;

- d) Aligns with the stormwater master plan for settlement area, where applicable.

Proposed Block '5' of the draft plan includes a stormwater management pond/bioretenement area, which will service a portion of the subdivision, including lots 4-8. Lots 1-3 will connect to the existing infrastructure system of the subdivision to the north along Diamondwood Drive. A discussion of the proposed pond is provided in Section 5.4 of this report.

Section 4.2.4 of the Growth Plan provides policy direction for development on lands adjacent to key hydrologic features and key natural heritage features. Section 4.2.4.1 pertains to lands located outside of settlement areas. Although the Palgrave Estate Residential Community is located within an identified settlement area for new residential development, this community comprises key hydrologic and key natural heritage features, and as such, the policies of the Growth Plan relates to development adjacent to these features apply.

Specifically, Section 4.2.4.1 states that "outside of settlement areas, a proposal for new development or site alteration within 120 metres of a key natural heritage feature within the Natural Heritage System or a key hydrologic feature will require a natural heritage evaluation or hydrologic evaluation that identifies a vegetation protection zone, which:

- a) Is of sufficient width to protect the key natural heritage feature or key hydrologic feature and its functions from the impacts of the proposed change;
- b) Is established to achieve and be maintained as natural self-sustaining vegetation; and
- c) For key hydrologic features, fish habitat, and significant woodlands, is no less than 30 metres measured from the outside boundary of the key natural heritage feature or key hydrologic feature.

Evaluations undertaken in accordance with policy 4.2.4.1 will identify any additional restrictions to be applied before, during, and after development to protect the hydrologic functions and ecological functions of the feature, pursuant to Section 4.2.4.2 of the Growth Plan.

A Hydrogeological Report and Environmental Impact Study were completed as part of this application, and provides the required evaluation, pursuant to Growth Plan, and associated Provincial Greenbelt Plan and Oak Ridges Moraine Conservation (Secondary) Plan policy, and is discussed in Section 5.2 of this report.

4.3 Ontario Greenbelt Plan (2017)

The *Greenbelt Act, 2005* provides the legislative framework to designate an area of land as the Greenbelt Area and prepare the Ontario Greenbelt Plan. The 2017 Greenbelt Plan came into effect on July 1, 2017.

Section 2.1 of the Greenbelt Plan relates to lands identified within the Oak Ridges Moraine Conservation Plan (ORMCP), which form part of the identified Greenbelt Area. Section 2.1 states that "the requirements of the ORMCP (Ontario Regulation 140/02), made under the *Oak Ridges Moraine Conservation Act, 2001*, continue to apply and the Protected Countryside policies do not apply, with the exception of section 3.3". As such, the policies of the ORMCP apply the subject lands, and are discussed in Section 4.4 below.

Section 3.3 of the Greenbelt Plan focuses on the provision of Parkland, Open Space and Trails for lands within the Greenbelt Area. Policies encourage partnership between municipalities, conservation authorities, non-government organizations and other interested parties to develop a system of publicly accessible parkland, open space and trails and develop strategies to protect, enhance and expand these systems.

4.4 Oak Ridges Moraine Conservation Plan (2017)

The Oak Ridges Moraine Conservation Plan (ORMCP) is established under the *Oak Ridges Moraine Conservation Act, 2001*. The latest update to the ORMCP came into effect on July 1, 2017. The ORMCP establishes policies directed at protecting, enhancing and maintaining the ecological and hydrological integrity of the Oak Ridges Moraine, ensuring compatibility of development, and providing for continued development within existing urban settlement areas and recognizing existing rural settlements.

The subject lands are identified within the Palgrave Estates Residential Community, and is a component of the identified "Countryside Area". Section 13(1) outlines the purpose of the Countryside area to encourage agriculture and other uses that support the ORMCP's objectives by:

- a) Protecting prime agricultural areas;
- b) Promoting and protecting agricultural and other rural land uses and normal farm practices;
- c) Maintaining the rural character of the Rural Settlements;
- d) Protecting and restoring natural areas and features that sequester carbon and provide ecological functions, including water storage, to help reduce the impacts of climate change; and
- e) Maintaining existing public service facilities and adapting them, where feasible, to meet the needs of the community.

Generally, permitted uses within the Countryside Area include agricultural, home industries, low-intensity recreational uses, mineral aggregate operations and small-scale commercial industrial and institutional uses.

Residential development is permitted within the Palgrave Estates Residential Community, pursuant to Section 14(1) of the ORMCP. The following sections of the ORMCP are also applicable to the development of the subject lands, including:

1. Sections 20 to 26
2. Subsection 27(3)
3. Sections 28 and 29
4. Subsections 30(1), (12) and (13)
5. Subsections 41(1), (4) and (5)
6. Sections 42 to 47
7. The Table to Part III.

The following provides a general overview of these relevant sections, and are applicable to the development of the subject lands. Further detail of each policy and conformance with the proposed development are further detailed in the Environmental Impact Study and Management Plan (EIS & MP), submitted as part of this application.

Part III – Protecting Ecological and Hydrological Integrity provides direction to integrate environmental and land use planning in order to maintain and where possible, improve or restore the ecological integrity of the Oak Ridges Moraine. Part III – Section 21 identifies a minimum area of influence of an identified key natural heritage feature or a key hydrologic function. Minimum vegetation protection zones are identified in the Table to Part III, outlining minimum separation distances between identified features and any proposed development or site alteration. This Table is detailed below in Figure 4-1.

Section 22(1) of the ORMCP identifies the following as key natural heritage features:

1. Wetlands.
2. Habitat of endangered and threatened species.
3. Fish habitat.
4. Areas of natural and scientific interest (life science).
5. Significant valleylands.
6. Significant woodlands.
7. Significant wildlife habitat (including habitat of special concern species).
8. Sand barrels, savannahs and tallgrass prairies.

Development and site alteration associated with residential development within key natural heritage features or the identified minimum vegetation protection zone, is prohibited. Furthermore, a natural heritage evaluation is required for development or site alteration with respect to land within the minimum area of influence, but outside of the key natural heritage feature itself and the related minimum vegetation protection zone. A natural heritage evaluation is also required, pursuant to Section 23 of the ORMCP.

The proposed development remains outside of identified key natural heritage features, hydrologic features, and associated minimum vegetation protection zones, as detailed through the required supporting studies and site analyses in Sections 5, and associated discussion in Section 6 of this report. A thorough evaluation noting all key natural heritage features and the required minimum vegetation protection zone was completed, pursuant to Section 23 of the ORMCP.

Section 24 provides requirements guiding development and site alteration on lands on or adjacent to identified key hydrologic features. A Hydrogeological Study has been completed and included as part of this application, in compliance with the requirements of the ORMCP, and is detailed further in Section 5.2 of this report. Such reports must identify key hydrological features and related hydrological functions and how they will be protected, demonstrate adequate water supply is available, and provide a water budget and water conservation plan.

Section 26(1) of the ORMCP identifies key hydrologic features as follows:

1. Permanent and intermittent streams.
2. Wetlands.
3. Kettle lakes.
4. Seepage areas and springs.

Residential development is prohibited within key hydrologic features or the related minimum vegetation protection zone. An application for development or site alteration within the minimum area of influence, but is located outside they key hydrologic feature itself and the related minimum vegetation protection zone, shall be accompanied by a hydrological evaluation.

As detailed in Section 4.6 of this report, the Town of Caledon Official Plan identifies the subject lands to be located within Landform Conservation Area 2. Landform Conservation Areas are required for identification, pursuant to Section 30 of the ORMCP. Section 30(6) states that “an application for development or site alteration with respect to land in a landform conservation area (Category 2) shall identify planning, design and construction practices that will keep disturbance to landform character to a minimum, including,

- (a) Maintaining significant landform features such as steep slopes, kames, kettles, ravines and ridges in their natural undisturbed form;
- (b) Limiting the portion of the net developable area of the site that is disturbed to not more than 50 per cent of the total area of the site; and
- (c) Limiting the portion of the net developable area of the site that has impervious surfaces to not more than 20 per cent of the total area of the site.

Figure 4-1: ORMCP – Key Natural Heritage Features, Key Hydrologic Features and Areas of Natural and Scientific Interest (Earth Science): Minimum Areas of Influence and Minimum Vegetation Protection Zones

Column 1	Column 2	Column 3	Column 4
Item	Feature	Minimum Area of Influence (21)	Minimum Vegetation Protection Zone (21, 23, 26 (4), 30 (12))
1.	Wetlands	All land within 120 metres of any part of feature	All land within 30 metres of any part of feature, subject to clause 23 (1) (d) if a natural heritage evaluation is required
2.	Habitat of endangered and threatened species	None	None
3.	Fish habitat	All land within 120 metres of any part of feature	All land within 30 metres of any part of feature, subject to clause 23 (1) (d) if a natural heritage evaluation is required
4.	Areas of natural and scientific interest (life science)	All land within 120 metres of any part of feature	As determined by a natural heritage evaluation carried out under section 23
5.	Areas of natural and scientific interest (earth science)	All land within 50 metres of any part of feature	As determined by an earth science heritage evaluation carried out under subsection 30 (12)
6.	Significant valleylands	All land within 120 metres of stable top of bank	All land within 30 metres of stable top of bank, subject to clause 23 (1) (d) if a natural heritage evaluation is required
7.	Significant woodlands	All land within 120 metres of any part of feature	All land within 30 metres of the tree canopy drip line of the outermost trees within the woodland, subject to clause 23(1)(d) if a natural heritage evaluation is required
8.	Significant wildlife habitat	All land within 120 metres of any part of feature	As determined by a natural heritage evaluation carried out under section 23
9.	Sand barrens, savannahs and tallgrass prairies	All land within 120 metres of any part of feature	All land within 30 metres of any part of feature, subject to clause 23 (1) (d) if a natural heritage evaluation is required
10.	Kettle lakes	All land within 120 metres of the surface catchment area	All land within the surface catchment area or within 30 metres of any part of feature, whichever is greater, subject to clause 26 (4) (c) if a hydrological evaluation is required
11.	Permanent and intermittent streams	All land within 120 metres of meander belt	All land within 30 metres of meander belt, subject to clause 26 (4) (c) and subsection 26 (5) if a hydrological evaluation is required
12.	Seepage areas and springs	All land within 120 metres of any part of feature	All land within 30 metres of any part of feature, subject to clause 26 (4) (c) and subsection 26 (5) if a hydrological evaluation is required

Sections 41 to 47 of the ORMCP place focus on the provision of infrastructure services necessary to support development and land uses found within the Oak Ridges Moraine. Section 41(5) permits infrastructure to cross a key natural heritage feature or key hydrologic feature, subject to criteria. No infrastructure services cross identified key natural heritage features of key hydrologic features.

The ORMCP provides policy requirements respecting infrastructure and servicing. All sewage and water systems must maintain the ecological integrity of hydrological features and key natural heritage features, as well as the quantity and quality of groundwater and surface water. The

ORMCP also permits partial servicing within the Palgrave Estates Residential community, pursuant to Section 44(4).

With respect to stormwater servicing, any application for major development must provide a stormwater management plan, which has been included as part of this applications. Further detail of the stormwater management plan and conformance with the ORMCP are further detailed in Section 5.4 of this report.

As detailed through this report, the applicable “Countryside Area” designation of the ORCMP, applicable to the subject lands are consistent with Regional and municipal planning instruments, including the Region of Peel Official Plan Schedule D1 – Oak Ridges Moraine Conservation Plan Area (ORMCPA) Land use Designations, which designates the subject lands as “Palgrave Estates Residential Community (component of the Countryside Area). The ORMCP designation is further consistent with the Town of Caledon Official Plan Schedule G – Palgrave Estate Residential Community and Schedule I – Palgrave Estate Residential Community Environmental Zoning.

4.5 Region of Peel Official Plan (2016 Consolidation)

The Region of Peel Official Plan (ROP) was adopted by Regional Council in 1996 and has since undergone numerous amendments. The Region has recently completed an Official Plan Review and introduced Regional Official Plan Amendments to update the ROP. While some of these amendments form part of the latest ROP Consolidation, certain amendments remain under appeal and are not yet in effect. Policies which are currently under appeal are noted.

The following relevant designations apply to the subject lands, pursuant to the Schedules of the ROP:

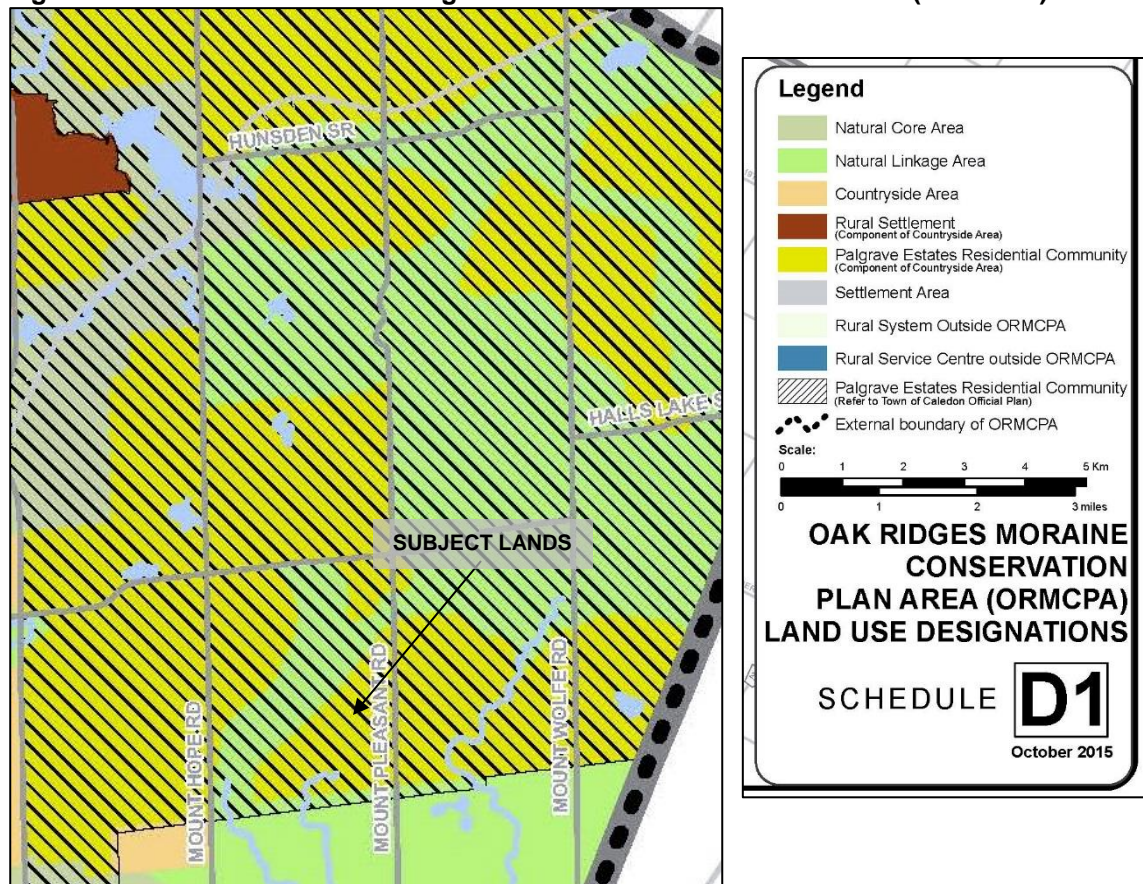
SCHEDULE	DESIGNATION
Schedule D – Regional Structure	Estate Residential Community
Schedule D1 - Oak Ridges Moraine Conservation Plan Area (ORMCPA)	Palgrave Estates Residential Community (component of Countryside Area)
Schedule D2 – Aquifer Vulnerability Areas in Peel for the Oak Ridges Moraine Conservation Plan Area (ORMCPA)	High Aquifer Vulnerability
Schedule D3 – Greenbelt Plan Area Land Use Designations	Protected Countryside
Schedule D4 – The Growth Plan Policy Areas in Peel	Palgrave Estate Residential Community
Figure 12 – Landform Conservation Areas in Peel for the Oak Ridges Moraine Conservation Plan Area (ORMCPA)	Category 2
Figure 14 – Oak Ridges Moraine Conservation Plan Area (ORMCPA) Partial Service Areas	Partial Service Area

Section 2.2.9 of the ROP provides policies which implement the ORMCP. Section 2.2.9.2.1 outlines the general objective of the OP “to implement the ORMCP in a manner that respects the Five Principles of this Plan, through Regional planning documents and decisions and refines the policies of the ORMCP to Regional and local circumstances”.

As detailed in the table above, the ROP identifies the subject lands within the Palgrave Estate Residential Community, pursuant to Schedule D1 – Oak Ridges Moraine Conservation Plan Area (ORMCPA), and detailed below in Figure 4-2. Palgrave Estates form an identified component of the Countryside Area. Residential development is permitted within the subject lands, as outlined in Section 2.2.9.3.7 c) of the ROP. Policies guiding the protection and enhancement of key natural heritage features and hydrologically sensitive features, and associated policies on development and site alteration, and infrastructure provision, within the ORMCPA, are detailed in Section 2.2.9.3 of the ROP, and echo the policy direction of the ORMCP. Further detail of policy conformance of the proposed development are provided in the accompanying environmental, hydrogeology and engineering reports, and are outlined below in Section 5.0 of this report.

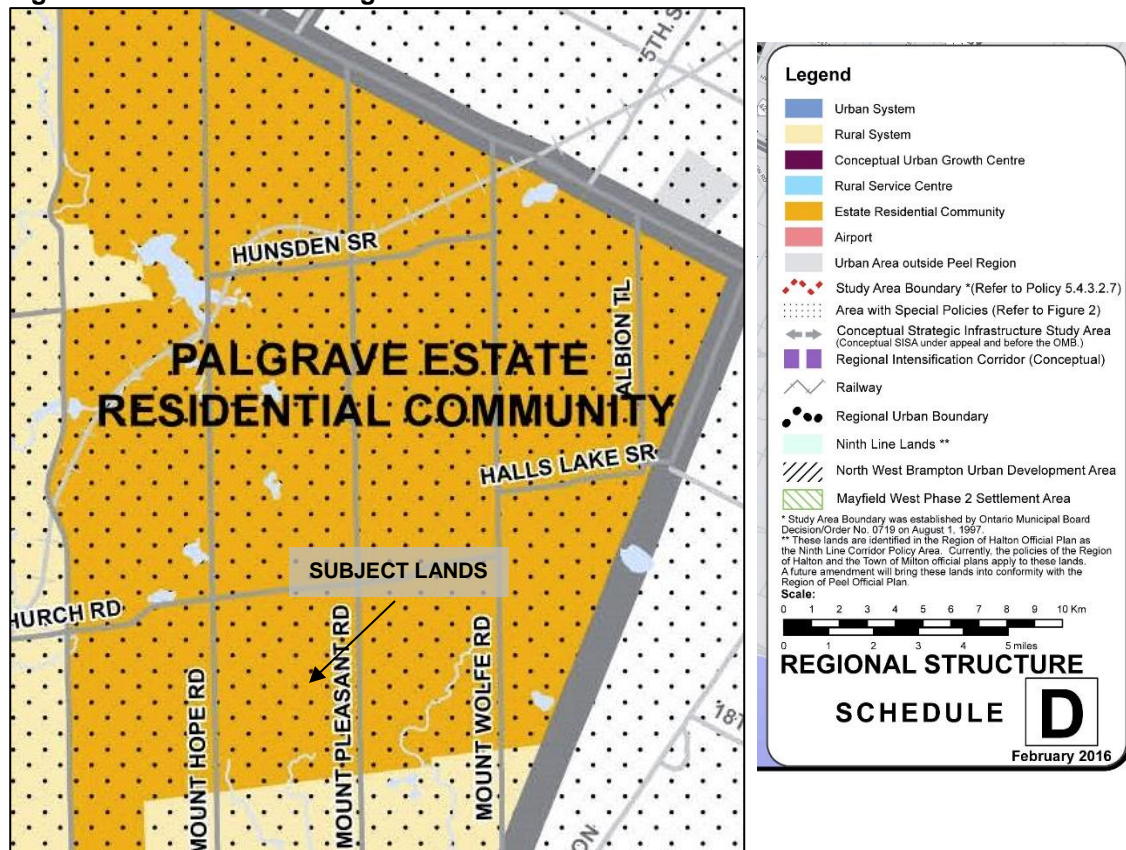
Specifically, the ROP acknowledges the infrastructure capacity for the Palgrave Estate Residential community by identifying the subject lands within a Partial Service Area, pursuant to Figure 14 of the ROP. As such, the proposed development is permitted with partial services.

Figure 4-2: Schedule D1 – Oak Ridges Moraine Conservation Plan Area (ORMCPA)



The subject lands are identified within an “Estate Residential Community”, pursuant to Schedule D – Regional Structure, and detailed below in Figure 4-3.

Figure 4-3: Schedule D – Regional Structure



Section 5.4.4.2 provides further policy direction in support of residential development within the Palgrave Estate Residential Community, as follows:

“It is policy of Regional Council to:

- 5.4.4.2.1 Consider estate residential proposals in the Palgrave Estate Residential Community consistent with the policies in this Plan, the Town of Caledon Official Plan, and the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan.
- 5.4.4.2.2 The 2031 boundary for the Palgrave Estate Residential Community is designated in this Plan on Schedule D. The need to change the 2031 boundary will be considered consistent with Section 7.9 of this Plan. Any change to the 2031 boundary will require an amendment to this Plan and shall not compromise the ability of the Region to achieve the minimum greenfield density and intensification targets, and other objectives of this Plan.
- 5.4.4.2.3 Direct the Town of Caledon to consider new estate residential development only in the Palgrave Estate Residential Community or on other lands already committed for estate residential development as identified in this Official Plan, provided that such development:
 - a) Is compatible with the rural landscape and surrounding uses;
 - b) Protects the natural environment;
 - c) Is a logical extension of an existing estate area and servicing system;
 - d) Occurs in a phased manner; and

- e) Has the necessary water and sewer services, taking into account consideration of financial and physical capabilities, and the suitability and availability of municipal servicing.”

The proposed development is characteristic of the surrounding and adjacent estate residential subdivisions which comprise the Palgrave Estate Residential Community. As outlined through the supporting documentation included with this application, and detailed in this report, the proposed estate residential development has fully assessed impacts to the natural environment, including key natural heritage and hydrologic features indicative of the Oak Ridges Moraine. It is our opinion that the proposed development is desirable and compatible and implements policies which permit suitable residential development within the Palgrave Estate Residential Community.

4.6 Town of Caledon Official Plan, the Palgrave Estate Residential Community Secondary Plan and the Oak Ridges Moraine Conservation (Secondary) Plan (2016 Consolidation)

The Town of Caledon Official Plan (TCOP) identifies the subject lands within the following designations:

SCHEDULE	DESIGNATION
Schedule A1 – Town of Caledon Town Structure	Greenbelt Plan Area, Oak Ridges Moraine Conservation Plan Area, Palgrave Estate Residential Community
Schedule G – Palgrave Estate Residential Community	Policy Area 1
Schedule H – Palgrave Estate Residential Community Water Service Area	Palgrave Estate Residential Community
Schedule I – Palgrave Estate Residential Community Environmental Zoning	Environmental Zone 1, Environmental Zone 2
Schedule P – Oak Ridges Moraine Conservation Plan – Land Use Designations	Palgrave Estate Residential Community (a component of the Countryside Area)
Schedule P-1 – Oak Ridges Moraine Conservation Plan - Aquifer Vulnerability Areas	High Aquifer Vulnerability, Low Aquifer Vulnerability
Schedule P-2 – Oak Ridges Moraine Conservation Plan – Landform Conservation Areas	Landform Conservation Area Category 2

Land uses applicable to the subject lands and surrounding area are directed to the schedules of the Palgrave Estate Residential Community Secondary Plan (PERCSP), as detailed in Schedules ‘G’, ‘I’, and ‘P’ (detailed in Figures 4-4, 4-5 and 4-6), and subject to the policy framework of Section 7.1 of the TCOP.

The policies of the PERCSP, as outlined in Section 7.1 of the TCOP, establish criteria to support estate residential development within the secondary plan area and necessary protection of identified natural and hydrologic features characteristic of the Palgrave Estate Residential Community. A number of key planning principles are provided in Section 7.1.2, and encourage estate residential development with appropriate parts of the community. These planning principles encourage retaining the rural character of the area, and the preservation and

enhancement of environmental characteristics, as well as the protection of key natural heritage features, hydrologically sensitive features and established minimum vegetation protection zones, pursuant to the requirements of the ORMCP.

Section 7.1.3 of the PERSCP outlines general development policies for development within the secondary plan area, and requires estate residential development to take place by registered plan of subdivision or condominium only. Permitted uses within lands designated Policy Area 1 and EZ 1, applicable to the subject lands pursuant to Schedules 'G' and 'I', respectively, include agriculture and associated residential uses, rural estate residential uses, conservation, open space, non-intensive recreation, intensive recreation, including golf courses, residential uses on existing lots of record and new lots created by consent, legally existing uses, home occupations, small scale institutional uses, and presently licencing extractive industrial uses.

With respect to the applicable Policy Areas, pursuant to Schedule 'G' of the TCOP, Policy Area 1 applies to the subject lands. Section 7.1.5.2 identifies lands within the Policy Area 1 designation are prime areas for future estate residential development. It is also important to note that lands located to the north and west of the subject lands, including a Policy Area 4 designation, which corresponds to the ORMCP Natural Core Area and Natural Linkage Area. Policy area 4 is identified as unsuitable for estate residential development and no density will be allocated to it, as detailed in Section 7.1.5.4 of the PERSCP.

Figure 4-4: Schedule G – Palgrave Estate Residential Community

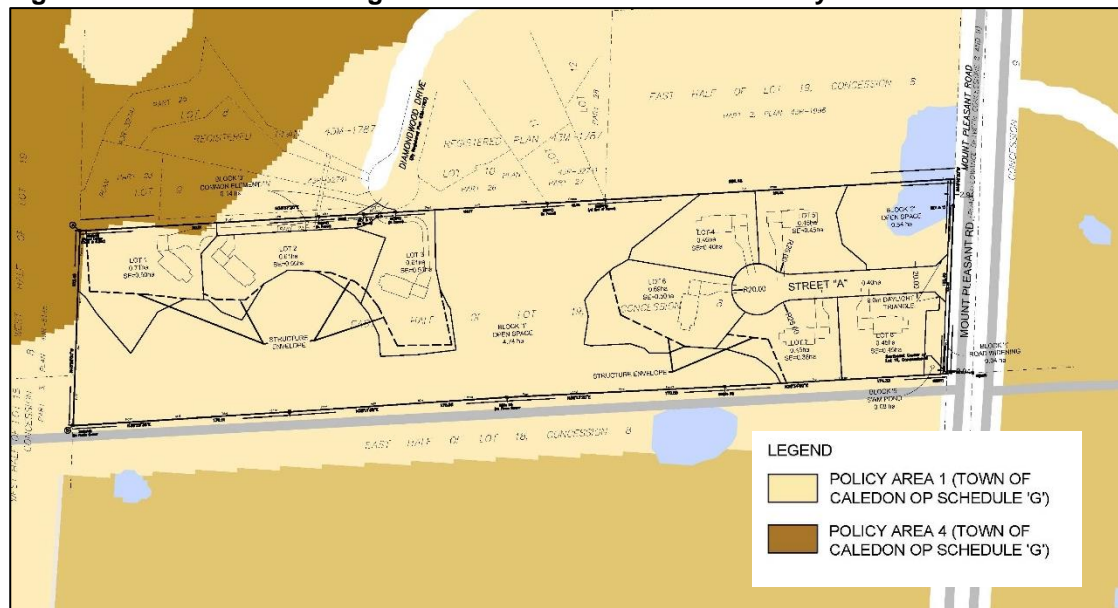


Figure 4-4, above, identifies the proposed development located within the Policy Area 1 boundaries, pursuant to Schedule 'G' of the TCOP. The overlay of the proposed development with digitized mapping of Schedule 'G' depicts the "best fit" to the subject lands and surrounding properties, and was determined based on the known natural features identified through detailed environmental studies. As detailed in Figure 4-4, and discussed above, Policy Area 4 designations remain to the north and west of the subject lands and represent the existing environmental features characteristic of the site's adjacent properties.

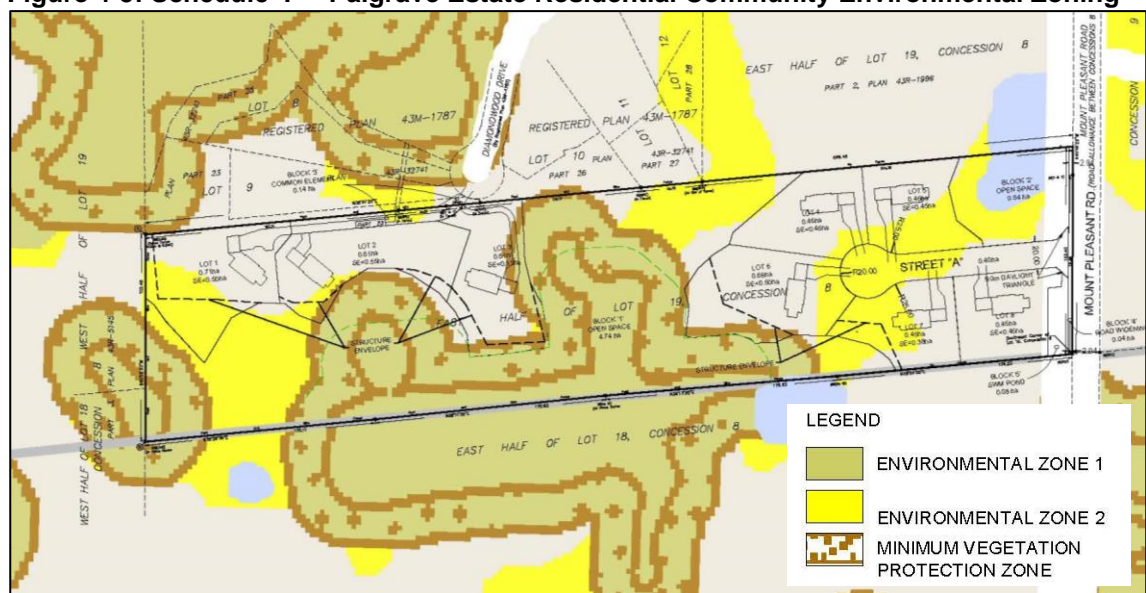
As detailed in the Environmental Impact Study (EIS), completed by Azimuth, the purpose of the Natural Linkage Area is to improve or restore the ecological integrity of the area and to maintain linkages between Natural Core Areas and along river valleys and stream corridors. As the subject lands are located adjacent to the Policy Area 4 designation, the EIS concludes that the proposed development would have no negative impact to these adjacent lands. The form and

function of the Natural Linkage Area would remain intact and function as it has prior to development. The connectivity throughout the stream corridor feature would be maintained. There are no impacts expected from the proposed development on the connectivity of the protected valley feature, associated with adjacent watercourses (Cold Creek) and fish habitat.

Section 7.1.6.2 of the PERSCP permits a maximum density of 36 units per 40.5 hectares (100 acres), for lands designated Policy Area 1. The density of the proposed subdivision is 31.2 units per 40.5 hectares, and conforms to this policy.

Section 7.1.7.1 permits a minimum net lot area for residential uses in Policy Area 1 of 0.45ha (1.1 acres). As further detailed in this report, a variety of lot sizes are provided (which is encouraged under the PERSCP) with the smallest lot size measuring 0.45ha (including Lots 5, 7 and 8), in compliance with this policy.

Figure 4-5: Schedule 'I' – Palgrave Estate Residential Community Environmental Zoning



Schedule 'I' - Palgrave Estate Residential Community Environmental Zoning, as depicted in Figure 4-5 above, identifies the subject lands within Environmental Zone 1 (EZ 1) and Environmental Zone 2 (EZ 2). These environmental zones are established based on existing natural features of the area and based on the applicable policies of the Oak Ridges Moraine Conservation Plan, and are detailed in Section 7.1.9.1 of the PERSCP, as follows:

- a) Environmental Zone 1 (EZ 1): EZ 1 includes more sensitive biological communities; valley and stream corridors and their associated floodplains; native upland and lowland woodlands; natural waterbodies; Provincially and locally significant wetlands; and, Environmentally Significant/Sensitive Areas (Note: these areas were formally identified as EZ 1, 2 and 3 on Schedule I prior to the adoption of Official Plan Amendment 186). EZ 1 also includes all ORMCP Key Natural Heritage Features and Hydrologically Sensitive Features, and their related Minimum Vegetation Protection Zones.
- b) Environmental Zone 2 (EZ 2): EZ 2 includes areas of high groundwater table (where the water table is usually within 1.5 metres or less of the ground surface); areas of seasonal flooding (not including regulated floodplains); dry swale lowlands and natural depressions which perform natural run-off, detention and groundwater recharge functions; and, smaller hedgerows and strips of native vegetation.
- d) If an area contains both EZ 1 and EZ 2 features, it shall be treated as EZ 1 and subject to all provisions applicable to EZ 1.

Section 7.1.9.2 of the PERSCP permits minor changes and refinements to EZ 1 and EZ 2, based on updated information as a result of the EIS completed by Azimuth. Such changes, which are proposed as part of the proposed development, accurately depict identified wetlands, significant woodlands and intermittent stream areas within the refined EZ 1 boundary, as well as areas of high ground water table within the proposed refined EZ 2 boundary.

Structure envelopes are also depicted on the proposed plan of subdivision, as required through Section 7.1.9.3 of the PERSCP. Structure envelopes “shall identify the optimal area of the lot for structure and shall provide ample space for estate residential and accessory uses including all associated lot grading. The proposed house and driveway locations and soil absorption area for sewage disposal shall be shown within the structure envelope”. Structure envelopes are not permitted within EZ 1 areas. No part of a structure envelope will be permitted within an EZ2 area except for short sections of driveways to provide reasonable access to a lot, pursuant to Sections 7.1.9.4 and 7.1.9.5 of the PERSCP. Individual lot services are not permitted in PA4, EZ1 or EZ2 except where contained within the driveway portion of a structure envelope crossing EZ2.

As detailed, the proposal involves the development of a stormwater management pond/bioretenion area, identified as Block 5 and located adjacent to Mount Pleasant Road. SWM ponds are not permitted within EZ 1 lands, pursuant to Section 7.1.9.27. The proposed SWM block is located outside of the EZ 1 designation.

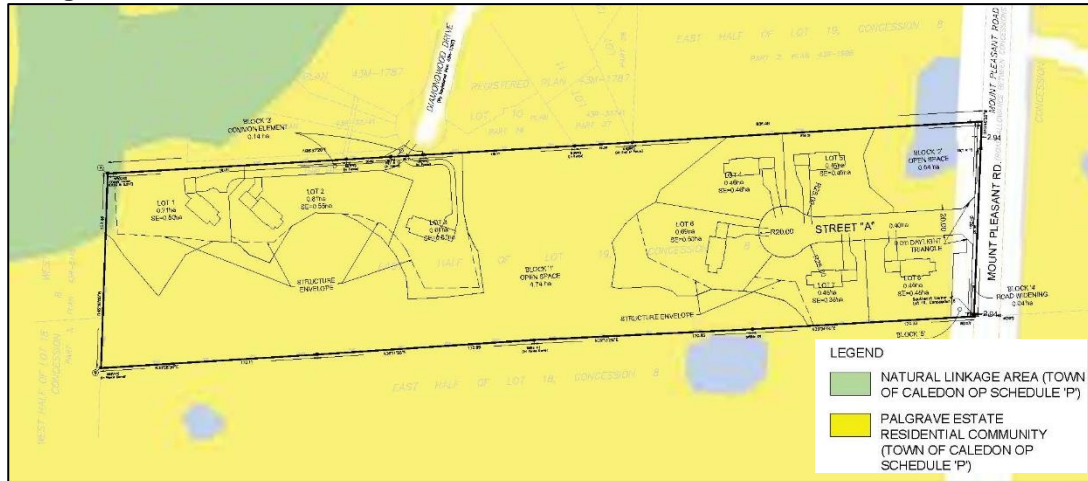
With respect to the proposed road layout, Section 7.1.9.39 states that “plans of subdivision shall be designed so as to minimize road crossings and extensions into EZ 2. Short sections of roads and associated subdivision services will be permitted to cross or extend into EZ 2 if necessary to allow economically efficient road or subdivision design, provided such road crossing is located in Policy Area 1, 2 or 3”. A short section of Street “A”, connecting the proposed residential lots to Mount Pleasant Road, is proposed to cross a small portion of EZ 2 lands as there are no other reasonable options for access to this portion of the subject lands.

Section 7.10 – Oak Ridges Moraine Conservation Plan (ORMCP), represents a component of the Town’s ORMCP conformity exercise, completed as a Secondary Plan, and provides some limited direction for lands within the PERSCP. Schedules ‘P’, ‘P-1’ and ‘P-2’ identify the subject lands within the Palgrave Estates Residential community and are consistent with the designations applicable to the ORMCP. Section 7.10.2 f) outlines an objective of the Plan “to allow for continued development within existing settlement areas that the Palgrave Estate Residential Community provided such development is consistent with all other applicable objectives and policies of this Plan”.

Of key importance is Section 7.10.5.1 (Key Natural Heritage Features and Hydrologically Sensitive Features), which provides guidance regarding wetlands, significant portions of the habitat of endangered, rare and threatened species, fish habitat, areas of natural and scientific interest (life science), significant valleylands, significant wildlife habitat and sand barrens, savannahs and tallgrass prairies, as well as hydrologically sensitive features such as intermittent streams, wetlands, kettle lakes and seepage areas and springs. Minimum Vegetation Protection Zones are also identified in this section. The policy direction provided for these features are consistent with the ORMCP.

A variety of key natural heritage features and hydrologically sensitive features have been identified on the subject lands, including wetland, fish habitat, significant wildlife habitat, intermittent stream, and significant woodlands. The assessment of these features and details regarding how these policies are addressed and mitigated are detailed in the Environmental Impact Study and Management Plan (EIS and MP), which is required pursuant to Section 7.10.5.1.4 of the TCOP, and are further detailed in Section 5.5 of this report.

Figure 4-6: Schedule ‘P’ – Oak Ridges Moraine Conservation Plan – Land Use Designations



Schedule 'P-2' - Landform Conservation Areas identifies the subject lands within Landform Conservation Area 2, in accordance with ORMCP policy. Although some policies may not be applicable to development within the Palgrave Estate Residential Community, lands located within identified Landform Conservation Areas are encouraged to maintain significant landform features, such as steep slopes, kames, kettles, ravines and ridges in the natural undisturbed form, and limit the net developable area of the site that would be disturbed. As detailed above, the required structure envelopes associated with the proposed development assist with minimizing disturbance to landform features.

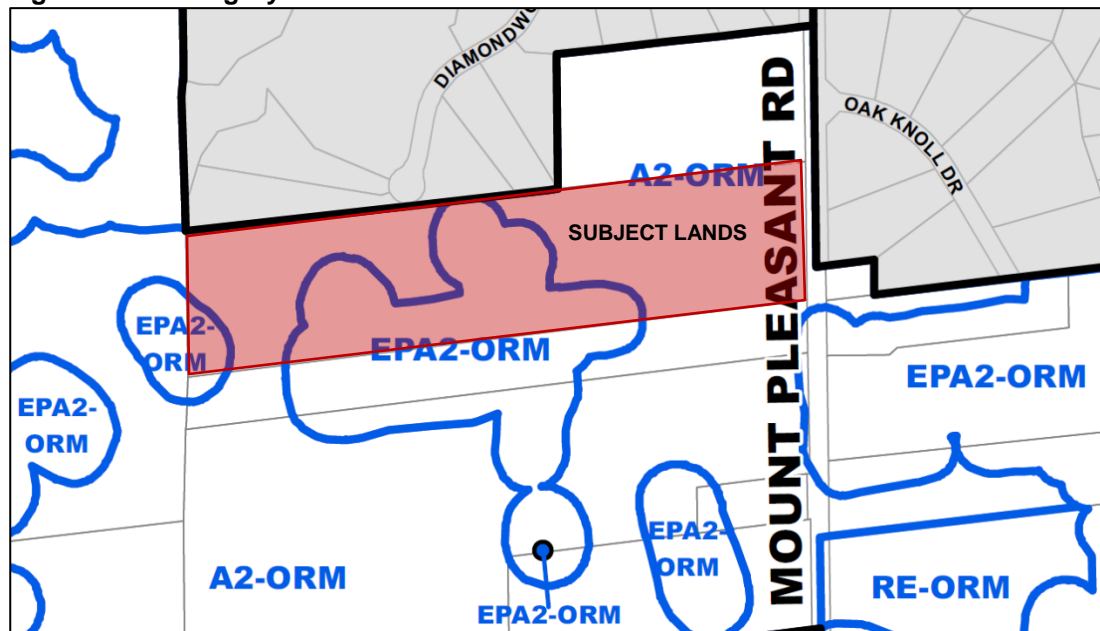
Furthermore, the Landform Conservation Plan, prepared by Calder Engineering Ltd. outlines the proposed grading for the property to involve only isolated cut and fill to facilitate building houses. General landforms are maintained.

Section 7.10.6.8 requires applications for major development to include a stormwater management plan to identify construction practices to protect water resources and limiting erosion and removal of vegetation. Further details of the stormwater management practices implemented as part of the proposed development are further outlined in Section 5.4 of this report.

4.7 Town of Caledon Zoning By-law 2006-50

The subject lands are currently zoned Rural – Oak Ridges Moraine (A2-ORM) and Environmental Policy Area 2 – Oak Ridges Moraine, pursuant to the Town of Caledon Zoning By-law 2006-50, and detailed in Figure 4-4 below.

Figure 4-7: Zoning By-law 2006-50



Permitted uses within the A2-ORM Zone include:

- Agricultural uses (ORM)
- Animal agriculture (ORM)
- Bed and breakfast establishment
- Bunkhouse, Accessory
- Dwelling, Accessory (ORM)
- Dwelling, Detached
- Environmental Management
- Farm Equipment Storage Building
- Farm Produce Outlet, Accessory
- Farm Vacation Home (ORM)
- Forest Management
- Gasoline Pump Island, Accessory
- Home Business (ORM)
- Home Industry (ORM)
- Livestock Facility
- Nursery, Horticultural
- Open Storage, Accessory
- Produce Storage Building
- Transportation, Infrastructure & Utilities

Permitted uses within the EPA 2 – ORM include:

- Agricultural uses, existing (ORM)
- Dwelling, detached
- Forest Management
- Low-intensity recreational uses
- Transportation, Infrastructure and Utilities with the exception of stormwater management ponds.

Companion to a Plan of Subdivision, a Zoning By-law Amendment (ZBLA) is required to zone the subject lands to Estate Residential, to permit the proposed residential development. Estate residential uses are not permitted within the current A2-ORM or EPA 2 – ORM Zones. The proposed ZBLA will also expand the EPA 2 – ORM Zone to reflect the identified natural heritage and hydrological features on the subject lands, and clearly demarcate the areas which are not proposed to accommodate estate residential uses. The Draft Zoning By-law Amendment is provided in **Appendix B**.

5 Draft Plan Application Requirements

Section 7.1.18 of the PERSCP details Draft Plan application requirements to permit estate residential uses on lands within the Palgrave Estate Residential Community. These items include the following:

- 7.1.18.2 Environmental Mapping and Draft Plans
 - a) Legal boundary survey
 - b) Air photo enlargement
 - c) Topographic map
 - d) Slope map
 - e) Soil and soil drainage classification map
 - f) Surface hydrology map
 - g) Vegetation and wildlife ecology map
 - h) Environmental summary map
 - i) Draft subdivision plan
 - j) Stormwater management/grading plan
 - k) Environmental management/reforestation plan
- 7.1.18.3 Geotechnical/hydrogeological investigations
- 7.1.18.4 Geotechnical Report
- 7.1.18.5 Hydrogeology Report
- 7.1.18.6 Noise/Vibration Report
- 7.1.18.7 Stormwater Management Report
- 7.1.18.8 Preliminary Engineering Report
- 7.1.18.9 Environmental Management/Reforestation Report
- 7.1.18.10 Archaeological Assessment Reports

7.1.18.11 Environmental and Engineering Summary Report

The following sections detail the required supporting studies and includes an overview of the required assessment and analysis of these required studies.

5.1 Geotechnical Report

A Geotechnical investigation was undertaken by Terraprobe in May 2017 and completed pursuant to Sections 7.1.18.3 and 7.1.18.4 of the Town's Palgrave Estate Residential Community Secondary Plan, which stipulates requirements for subsurface investigations applicable to the subject lands. The report notes that the subsurface soil conditions encountered in the boreholes and test pits advances across the site were found to be generally consistent. The boreholes encountered a topsoil layer at the ground surface underlain by a thin layer of weathered/disturbed soil zone and/or earth fill materials, which was in turn underlain by undisturbed native soil deposit extending to the full depth of investigation (up to 6.5m depth below grade) at each borehole location.

The following outlines further detail of the subsurface analysis:

- **Topsoil:** A surficial topsoil layer was encountered at all borehole locations, varying in thickness from about 250mm to 400mm. The topsoil was noted to be dark brown to black in colour and predominantly consisted of sandy silt matrix.
- **Native Soils:** Undisturbed native soil deposit was encountered in all boreholes beneath the topsoil layer. In some borehole locations, a zone of earth fill/disturbed native soils was encountered beneath the topsoil layer. The composition of the earth fill/weathered/disturbed soils was generally similar to that of the underlying undisturbed native soils (clayey silt/silt), and included a trace amount of organics.

The undisturbed native soils predominantly consisted of silt deposit with trace to some sand, clay and gravel. The report notes some borehole locations consisted of sandy silt to silt and sand deposit, and clayey silt to silt and clay till deposit with trace amounts of sand and gravel.

- **Ground Water:** Observations pertaining to the depth of ground water were completed, and the report identifies the areas where subsurface water levels were detected. The report further notes that ground water levels may fluctuate seasonally depending on the amount of precipitation and surface runoff.

Overall, the existing topsoil and weathered/disturbed soils and earth fill materials are not suitable for the support of proposed housing foundations. However, based on the investigation, these soils were generally encountered within the upper zone (0.8m to 1.5m below existing grades) of the soil stratigraphy. The underlying undisturbed native soils of stiff to hard consistency or compact to very dense relative density are considered suitable for the support of proposed house foundations. The report provides recommendations for conventional spread footing foundations supported on undisturbed native soils and engineered fill materials in support of the proposed development.

Site grading design should ensure that basements are constructed at least 0.5m above the ground water level. Where basement floor level is located within 0.5m of the ground water level, a provision of subfloor drainage is required. In case a basement is designed below the ground water level, the basement must be waterproofed up to the proposed outside finish grade level and the structure should be designed to resist uplift force.

The proposed development includes a SWM Block, located at the southwest corner of Mount Pleasant Road and proposed Street 'A'. Testing for this area encountered a layer of topsoil at the grade surface underlain by a zone of fill/reworked/disturbed soils excepting up to a depth of approximately 1.5m below grade. This was, in turn, underlain by undisturbed native silt with

trace to some sand, trace to some clay and trace amounts of gravel, extending to the full depth of investigation. The soils investigated in this location consists of low permeability silt deposit which should preclude significant amount of free flow/seepage of the ground water.

Based on preliminary information of the SWM Block, it is understood that this area will be about 1.5 to 1.8m deep below existing grade. Borehole data suggests that the bioretention area base and side slopes should consist of undisturbed native silt of relatively low permeability, which should preclude significant seepage or percolation into and from the bioretention area, and therefore, a liner may not be required.

5.2 Hydrogeology Report

A Hydrogeology study was completed by Azimuth in June 2017 per the requirements of 7.1.18.5 of the Palgrave Estate Residential Community Secondary Plan and requirements of the ORMCP. The report notes that the majority of the property is composed of active and idle agricultural production. Based on site investigation work completed in 2013, a total of six (6) wetlands have been identified on the property, which are scattered throughout the extent of the site.

Although there are no watercourses located on the subject property, a small tributary of the Humber River (Cold Creek) is located just west of the subject lands. It is presumed that the majority of surface and shallow ground water from the subject property drains to this watercourse. The on-site wetlands have also been found to receive a portion of the local surface runoff and shall ground water contribution at certain periods.

In order to observe the fluctuation of the underlying upper aquifer, automatic water levels were collected using hydrostatic pressure dataloggers installed in the 12 on-site monitoring well. Azimuth conducted a long-term monitoring of the subject lands between 2012 and 2017, which has shown that seasonal ground water level fluctuation were in the range of 1.85m to 5.10m. Considering the varying climatic conditions experienced within the monitoring period, this fluctuation range should be considered normal and expected to continue in the future.

The TCOP identifies areas of high ground water table, areas of seasonal flooding, dry swale lowlands and natural depressions which perform natural run-off, detention and ground water recharge functions, and smaller hedgerows and strips of native vegetation. These areas are located within the EZ 2 designation, as detailed in 7.1.9 of the TCOP. Official Plan policies prohibit any part of a structure envelope within EZ 2 areas, with the exceptions of short sections of driveways and roads, pursuant to Sections 7.1.9.4 and 7.1.9.5 of the TCOP. As detailed, no development feature will cross an EZ 2 area within the subject property with the exception of a minor portion of the road, which is permitted.

An assessment of potential environmental impacts, based on the proposed development, was undertaken. Policies of the ORMCP and TCOP require that this Hydrogeology Report must ensure that the quantity and quality of ground and surface water is maintained, ensure that ground water recharge is maintained, ensure there is no adverse impact to hydrologically sensitive features as a result of the proposed development. Policies further require the identification of planning design and construction practices that maintain and improve or restore the health, diversity and size of key natural heritage features including connections to other features.

Data compiled during the long-term monitoring program provides sufficient evidence that impacts to surface/ground water quality and quantity will be minimal following construction of the proposed development. The report concludes that no changes to the current proposed plan are recommended and that the present hydrologic and hydrogeologic conditions upon the subject lands will not experience a significant change due to the proposed development. By incorporating the criteria described throughout the report, pre-development infiltration will

experience an approximate gain of 11%. This gain in infiltration will have no negative impact on the local ground water regime and associated natural features.

The report further concludes that the proposed development adheres to the requirements of the ORMCP. No negative post-construction impacts are predicted to occur to the quality/quantity of surface and ground water, ground water recharge, or natural sensitive features.

5.3 Noise Study

An Environmental Noise Impact Study was completed by dBA Environmental Services Inc. in March 2013 and updated in May 2017. The key purpose of the study was to determine the noise impact from Mt. Pleasant Road and Old Church Road to the proposed estate residential development. Based on the noise assessment, it was determined that mitigation measures are not required for outdoor living areas, as traffic noise levels are below the minimum noise limits. Measures related to indoor noise levels or requirements for ventilation/warning clauses are also not required.

5.4 Functional Servicing and Stormwater Management Report

A Preliminary Engineering and Stormwater Management Report was completed by Calder Engineering Ltd, in June 2017. The FSR/SWM Report was completed pursuant to 7.1.18.7 and 7.1.18.8 of the PERCSP. The purpose of this report is to describe the proposed road grades, methods for site sanitary and water servicing, plan for drainage and stormwater management, site grading, and other proposed servicing infrastructure in support of the proposed development.

The PERCSP, as detailed in Section 4.6 of this report, outline policies pertaining to the situation of infrastructure required to support the proposed estate residential lots. Specifically:

- Section 7.1.9.11 requires structure envelopes to be generally restricted to areas with slopes of 10 per cent or less and may include areas with 11 to 15 per cent slopes, and occasionally greater than a 15 per cent slope in order to permit the advantageous siting of a house designed for steep slopes. Additionally, all structure envelopes must include a well-drained area with slopes of 10 per cent or less for a sewage disposal system. The proposed development will achieve these policies through the provision of an appropriate area for sewage disposal in areas which generally include gentler slopes within the structure envelope. House siting and driveway locations generally avoid area of substantial slope.
- Section 7.1.9.23 specifies that the continuity and integrity of the lowland open space system must be maintained in estate residential plans of subdivision. The proposed development is in general conformance with this policy based on the siting of lots away from the lowland areas and outside of the Key Natural Heritage Features and associated MVPZ.
- Section 7.1.9.40 specifies that roads in estate residential development should follow the topography of the site and the depth of cut for local streets and structure envelopes will normally be restricted to 1-2 metres, pursuant to Section 7.1.9.41. The proposed development achieves this policies, with the exception of a very small area associated with the driveway access to lots 2 and 3 where the cut is approximately 2.5m.

Stormwater Management

The SWM Report is required under Section 45 (1) and 46 (3) of the ORMCP. Furthermore, Section 7.10 of the TCOP (Oak Ridges Moraine Secondary Plan) echoes the requirement for a SWM Report, through Section 7.10.6.8.1, and details objectives for a SWM Plan through Section 7.10.6.9.2. More specifically, the PERCSP contains additional policies for stormwater management, as follows:

- Section 7.1.8.9: estate residential plans will be required to minimize the amount of stormwater draining from the site and adhere to the zero increase in stormwater runoff principle in a manner acceptable to the Town and TRCA.
- Section 7.1.8.10: wherever possible the 100-year design stormwater runoff will be detained and recharged to the groundwater aquifers or slowly released from the site in an environmentally acceptable manner.

The proposed stormwater management strategy comprises a “treatment train” approach utilizing a combination of lot level controls and Low Impact Development (LID) measures, as follows:

- Recharge of residential roof and driveway stormwater by direction to grassed and naturalized areas to promote filtering and natural infiltration;
- Lot grading and direction of structure envelope drainage towards grassed and naturalized areas;
- Grassed swales are proposed for road drainage;
- Use of a bioretention area to temporarily detain and slowly release storm water to meet applicable SWM criteria;
- Use of filter strips and level spreaders to diffusely discharge storm water.

The bioretention area includes the following components:

- Provision of a filter bed surface with a mixture of sand, fines, and organic material;
- Shallow depth of flooding to contain and slowly release storm water during and following small rainfall events via infiltration and evapotranspiration;
- Outlet works comprising a multizone treatment filterstrip to diffusely discharge to the environment.

Pre-treatment of storm water prior to discharge to the bioretention area would be achieved with the grass swale conveyance system.

Based on the modelling and assessment completed by Calder, proposed stormwater management criteria for quantity control, quality control, erosion control and water balance can be achieved. The drainage system comprises grassed swales, storm sewers and has been designed to manage the 100-year design storm consistent with Town and TRCA standards.

Sanitary Servicing

Sanitary servicing for the proposed development will be by individual on-site sewage systems, which would comprise a septic tank sized twice the daily design flow, effluent filter, tertiary treatment unit, dispersal bed, and ancillary piping, pumping system(s) and controls.

Water Servicing

As detailed in this report, the proposed development will be serviced through the municipal water system via an existing 300mm diameter watermain located on the west side of Mount Pleasant Road, and a 50mm diameter watermain on the Diamondwood Drive cul-de-sac.

5.5 Environmental Management/Reforestation Plan (Environmental Impact Study and Management Plan)

An Environmental Impact Study and Management Plan (EIS & MP) was completed by Azimuth in June 2017. PERCSP policy 7.1.18.2k and 7.1.18.9 require the preparation of an Environmental Management/Reforestation Plan. The EIS was prepared primarily as the basis

for understanding the extent of restoration and reforestation areas and associated buffers for the subject lands.

Due to the significant correlation between the findings of the EIS and several key policy strands contained within the various planning instruments, which will be discussed in Section 6.0 of this report, the following detailed overview of the findings of the EIS are provided, as follows.

The following features have been identified, based on the site analysis of the subject lands, completed by Azimuth:

- Six (6) wetlands have been identified on the subject lands, each of which have been included within the Mount Wolfe Provincially Significant Wetland (PSW) Complex.
- Approximately 208 plant species were documented on the site. Of this, Butternut (END) was the only observed Species at Risk (SAR).
- Woodlot communities are connected to two of the wetland features identified on the subject lands. It is noted that the Woodland largely exists off site.
- None of the mammals observed on the property are of federal or provincial conservation concern. With respect to Herptile species, the Snapping Turtle was the only species observed which is considered to be rare federally or provincially. Six (6) bird species were identified that are considered to be rare within the TRCA watershed boundaries. No bird species observed are considered to be rare on the ORM. With the exception of the Barn Swallow (THR) and Bobolink (THR), none of the bird species observed on the property are considered rare federally or provincially.
- The subject lands are located within the Upper Main Humber subwatershed. The features on the property eventually drain into Cold Creek to the north. Cold Creek (located on the adjacent lands) is known to provide fish habitat for cold water fish species. However, no permanently flowing watercourses are present on the property. Additionally, the only fish habitat present on the property is located in the offline pond feature in the northeast corner of the subject lands.

As noted, the identified Woodland features on the subject lands do not meet the size criteria for significance, however, as these features abut two wetlands that have been identified as PSW's, the Woodland would therefore be considered to be a KNHF according to the ORMCP. Furthermore, in addition to the wetlands noted above, several wetland features exist within 120m of the proposed development, including wetlands located to the east and west of the site.

Azimuth's Environmental Impact Assessment considers the following Natural Heritage Features (NHF) and Candidate Features:

- Significant Woodland;
- Significant Wetland;
- Potential and confirmed habitat for END or THR Species; END bay species, Butternut (END), Blanding's Turtle (THR) and Barn Swallow (THR);
- Candidate SWH (Bat Maternity Colony, Turtle Overwintering, Reptile Hibernaculum, Turtle Nesting, Marsh Breeding Bird Habitat and Habitat for Species of Conservation Concern);
- Permanent and Intermittent Streams;
- Fish Habitat;
- Significant Valleylands (off-property); and
- HSF's (wetland, permanent stream (off property) and intermittent stream).

The following table outlines identified Key Natural Heritage Features (KNHF) and Hydrologically Sensitive Features (HSF) within the identified Area of Influence.

Table 7. Key Natural Heritage Feature and Hydrologically Sensitive Feature within Minimum Area of Influence

Feature	Minimum Area of Influence (MAI)	Study Area Within MAI?
Wetlands	All land within 120metres of any part of feature	Yes. Six wetlands have been identified on site. The property is within 120m of several MNRF identified wetlands that are located off-site.
Significant portions of habitat of endangered, rare or threatened species	All land within 120metres of any part of feature	Yes. Butternut (END) were identified on the property (Figure 2).
Fish Habitat	All land within 120metres of any part of feature	Yes. Wetland # 4 and 7 could provide habitat for fish. The intermittent stream could provide indirect fish habitat. The property is within 120m of fish habitat (i.e. Cold Creek).
Areas of natural and scientific interest (life science)	All land within 120metres of any part of feature	No
Areas of natural and scientific interest (earth science)	All land within 50metres of any part of feature	No
Significant Valleylands	All land within 120metres of any part of feature	Yes. There are no Significant Valleyland Features identified on the property itself, however, the property is within 120m of Significant Valleyland (i.e. Cold Creek corridor).
Significant Woodlands	All land within 120metres of any part of feature	Yes. The property in part contains Significant Woodland. Additionally, the property is within 120m of Significant Woodland off-site.
Significant Wildlife Habitat (SWH)	All land within 120metres of any part of feature	Yes. SWH has been identified on site. There is no known (i.e. mapped) significant wildlife habitat within 120m of the property.
Sand barrens, savannahs and tallgrass prairies	All land within 120metres of any part of feature	No
Kettle lakes	All land within 120metres of any part of feature	No
Permanent and intermittent streams	All land within 120metres of any part of feature	Yes. Intermittent stream identified on site. Permanent streams (i.e. Cold Creek) is located within 120m of the property.
Seepage areas and springs	All land within 120metres of any part of feature	No.

As detailed in Section 4.6 of this report, a portion of the lands immediately to the north and west are located within the Policy Area 4 designation, pursuant to Schedule 'G' of the TCOP, and corresponds to the ORMCP Natural Linkage area designation on Schedule P. This Policy Area 4 designation appears to coincide with the buffering lands adjacent to the valley feature located off-property. Azimuth's assessment concludes that the proposed development would have no negative impact to these adjacent lands. Furthermore, the form and function of the Natural Linkage area would remain intact and function as it has prior to development.

Schedule I of the TCOP identifies lands located within the Environmental Zone 1 and 2. As noted, several areas of the property have been identified as EZ 1, and are associated with the identified Significant Wetlands, Significant Woodland and other KNHF/HSF contained within these features and the associated MVPZs. No development is proposed within the EZ 1 areas of the property in accordance with PERCSP policy.

EZ 2 areas have been identified on the property and no structure envelope is proposed within this designation, pursuant to the policies of the PERCSP. EZ 2 boundaries are proposed to be refined, as permitted in Section 7.1.9.2 of the PERCSP, through further detailed ground survey elevations, water level measurements from combination of monitoring wells, geotechnical boreholes and on-site observations. The EIS notes that no development feature will cross any of the refined EZ2 areas within the property.

An Impact Assessment was completed as part of Azimuth's site investigation, concluding the following:

- **Woodland:** The Woodland on site is considered to be a KNHF and Core Woodland, according to the ORMCP and TCOP. The proposed development is located entirely outside the limits of the Significant Woodland. A 30m Minimum Vegetation Protection Zone (MVPZ)

will remain from the dripline of the significant woodland, in conformance with the requirements of the ORMCP.

- **Wetland:** The wetlands on the property are considered to be a KNHF, HSF and Core Wetland, according to the ORMCP and TCOP. The proposed development is located entirely outside of the limits of the Significant Wetland. A 30m MVPZ will remain adjacent to the wetland limit. No direct impacts are expected to occur to the wetland as a result of the proposed development. Furthermore, present hydrological and hydrogeologic conditions, including the surface/ground water quality and quantity, will not experience a significant change due to the proposed development.

The proposed construction involves the local grading for individual houses and general matching of the existing site grading along lot boundaries. The roadways will have a rural cross-section and there is no proposed stormwater collection system, and lots are independently serviced. Runoff from rooftops, driveways and roadways is directed to adjacent lawn and natural areas. The future development will not affect local infiltration and runoff regimes. Thus, no negative post-construction impacts are expected to occur to the quality / quantity of surface and ground water, ground water recharge, or natural sensitive features. The quality and quantity of water entering into the natural heritage features, including the wetlands will be maintained post-development.

- **Potential and Confirmed Habitat for Endangered or Threatened Species:** Potential habitat for species have been identified on the subject lands. With respect to the identified Butternut trees, compensation in the form of planting will be required for the 4 Butternut individuals removed from the property through historical farming activities, and to register the removal of a fifth tree to facilitate the development. Compensation will conform to compensation protocols, per Ontario regulation. A compensation planting plan for Butternut trees will be prepared at the detailed design stage for the subdivision. The remainder of the Butternut trees identified as retainable will remain on the property post-development. There will be no development within approximately 25m of the remaining retainable trees

Potential habitat features existing within the property which could meet the definition of habitat for Blanding's Turtle, specifically, the PSW units that contain water for a large portion of the growing season. The natural MVPZ will remain adjacent to the PSW post-development, resulting in the habitat of the Blanding's Turtle to be generally protected within the PSW and associated MVPZ.

All of the Significant Wetland, in addition to a 30m MVPZ will remain post-development and the property would still be utilized for foraging by Barn Swallow.

- **Significant Wildlife Habitat:** Additional identified Significant Wildlife Habitat will be protected due to the natural 30m MVPZ and the protection PSW identified on the subject lands.
- **Permanent and Intermittent Streams:** An intermittent stream has been identified on the property that traverses through two identified wetlands on the subject lands. The present hydrologic and hydrogeologic conditions, including the surface/ground water quality and quantity, upon the property will not experience a significant change due to the proposed development.
- **Fisheries:** Potential fish habitat resides within one identified wetland feature that contains water throughout the year. This feature in addition to the MVPZ of 30m will remain adjacent to the Fishery Resource area which is sufficient in protecting the form and function of the feature.

- **Significant Valleyland:** The proposed development is located at least 30m away from the Significant Valleyland associated with Cold Creek. There will be no impact to the form or function of this valley feature.

In summary, the proposed development poses no direct impact to KNHF's, EZ1 areas or HSF hence no direct impact to components of the EPA as recommended by the EIS & MP. In addition, the potential minor indirect impacts to ground water can be completely mitigated using standard mitigation procedures, as outlined in the report.

The self-sustaining Minimum Vegetative Protection Zone (MVPZ), required pursuant to the ORMCP, will be maintained throughout the proposed development. The lands proposed to be zoned Environmental Protection Area – Oak Ridges Moraine (EPA – ORM) encompass all of the identified KNHF and HSF, in addition to the 30m MVPZ.

5.6 Archaeological Assessment Reports

A Stage 1 and Stage 2 Archaeological Assessment was completed by Archaeoworks in 2013 and 2014, respectively, required pursuant to 7.1.18.7 of the PERSCP. The Stage 1 Archaeological Assessment concluded that, based on background research of the subject lands, no extensive disturbance resulting in the removal of archaeological potential has occurred. The report recommended the completion of a Stage 2 assessment requiring further study of any archaeological potential on the site.

The Stage 2 Archaeological Assessment was completed in March 2014 and included a more thorough test pit and pedestrian forms of survey. The assessment concluded that no archaeological resources were encountered, and recommend that the entire subject lands be considered free of further archaeological concern. Both Stage 1 and Stage 2 reports have received confirmation from the Ministry of Tourism, Culture and Sport that the reports have been entered into the Ontario Public Register of Archaeological Reports and therefore no further investigation will be required.

5.7 Environmental and Engineering Summary Report

As detailed in this report, requirements for an Environmental and Engineering Summary Report include preparing a legal survey, topographic map, scaled air photo enlargement, soil and drainage classification map, surface hydrology map, vegetation and wildlife ecology map, environmental summary map, draft plan of subdivision, stormwater management plan and grading plan, and environmental management/reforestation plan, pursuant to Section 7.1.18.2 of the Palgrave Estate Residential Community Secondary Plan.

All mapping aforementioned are provided as part of the appended applications for Plan of Subdivision and Zoning By-law Amendment. The Draft Plan of Subdivision as well as the legal survey have been submitted separately, however the remaining required mapping can be found in the Functional Servicing & Stormwater Management Report, outlined below.

6 Additional Supporting Studies

In addition to the supporting studies outlined in Section 5 of this report, the following additional studies were completed in support of this application, and detailed in the DART Meeting held on January 12, 2017.

6.1 Phase One Environmental Site Assessment

A Phase One Environmental Site Assessment (ESA) was completed by Terraprobe in June 2013. The purpose of the assessment was to identify potential environmental concerns associated with the proposed residential development and determine any likelihood that the environmental quality of the soil and ground water and site the may have been adversely affected by past and present practices on the subject lands or surrounding properties.

No Areas of Potential Environmental Concern were identified on the subject lands. No further investigation was deemed necessary as a result of the assessment.

6.2 Headwater Drainage Feature Assessment

A Headwater Drainage Feature (HDF) Assessment was completed by Azimuth Environmental in June 2017. The purpose of the report is to outline any potential impacts to the identified HDF on the property, in accordance with CVC and TRCA guidelines, pursuant to the Evaluation, Classification and Management of Headwater Drainage Features Guidelines (2014) document.

The assessment report determines that the proposed development will not have a significant impact on headwater features on the property. If the appropriate mitigation measures are followed during construction. More specifically, the proposed development will not alter the identified Central and South drainage features, which are designated for Conservation in accordance with the TRCA/CVC guidelines (2014). The key natural heritage features on these drainage features (i.e. breeding amphibian habitat) should not be impacted as a result of the development.

The northern drainage feature will be altered to accommodate the proposed development. Flow will continue to be conveyed in a vegetated swale between the new subdivision lots. Therefore, the function of this feature will be maintained.

Construction mitigation measures include:

- **Timing Restrictions:** Swale construction is recommended for completion between July – September of any given year to minimize the risk of sedimentation and seasonal high water conditions.
- **Isolation of Construction Area:** All construction work should be completed outside of the existing and proposed new drainage swale to avoid impacts to the northern drainage feature.
- **Sediment and Erosion Control:** Application of the recommended erosion and sediment control measures must be installed prior to the commencement of any construction activities.
- **Monitoring:** All construction activities are required to be monitored at key stages of the project to ensure all protection measures are functioning properly.
- **Site Restoration:** All areas disturbed during construction must be restored immediately following the completion of earthworks.
- **Operations:** All equipment maintenance activities required during construction must be conducted away from drainage features to protect the downstream habitats from any accidental spillage of deleterious substances that may hard the aquatic environment.

6.3 Minimum Distance Separation Report

A Minimum Distance Separation (MDS) Report was completed by Orion Environmental Solutions in April 2017. The purpose of the report was to determine the presence of any

potential conflict between the proposed residential development and any existing farm developments within the surrounding context.

The proposed development is subject to MDS I and Type B land use which includes the creation of up to three lots either by consent or plan of subdivision for rural residential, residential or other similar zoning. As part of this assessment, all farm properties which had barns that appeared to be structurally sound and are either currently used for livestock or have the potential to be used for livestock operation, were investigated.

The assessment determined that a large dairy operation with Holstein cattle was located to the northwest of the subject lands. This facility represent the largest and closest of the two livestock operations in proximity to the site, both of which are dairy. The barn associated with the milking operation is approximately 100m x 35m in size, with an uncovered manure tank external to the barn, located at the southeast corner of the barn. Based on the barn size, the maximum number of cattle was estimated using the MDS program at 369. The minimum distance from the manure storage was calculated at 720m with the distance to the closest dwelling being 735m. The minimum distance of the site to the barn is 689m, and the actual distance to the closest dwelling is 775m. The report determined that the proposed development is in full compliance with the MDS setback requirements.

6.4 Screening for Species at Risk

Identification of Species at Risk was undertaken through the Environmental Impact Study and Management Plan, detailed in Section 5.5 of this report.

6.5 Visual Impact Report / Urban Design Brief

An Urban Design Brief was completed by John G. Williams Limited in June 2017, to outline the design vision, lotting patterns, built form, streetscaping and compatibility matters in relation to the proposed development on the subject lands. The following outlines the key design elements considered in support of the proposed development:

- **Neighbourhood Safety:** Site planning and building design will allow visual overlook of public spaces, such as streets and open spaces. The presence of terraces, porches or other similar outdoor features will help promote natural surveillance and interface between private and public realms. Main entrances to the buildings should be visible from public streets and clearly defined. Lighting provided along Street 'A' and the common element access will be provided to illuminate vehicular routes and ensure pedestrian comfort and safety.
- **Open Space System:** As detailed, the open space system and natural heritage features will be preserved and enhanced as part of the proposed development. Existing identified natural heritage features and habitats will be protected through the use of the required 30m buffer areas. Homeowner education and stewardship should be encouraged by distributing a homeowner's information pamphlet, which includes information on using native plants and avoiding waste dumping, as well as the potentially harmful impacts of human and animal encroachment within sensitive natural areas. The proposed SWM pond/bioretention facility shall enhance the open space character of the neighbourhood in addition to achieving the functional water quality and quantity objectives.
- **Streetscape Elements:** The streetscape involves the combination of landscape elements including street trees, entry features, community mailboxes, lighting and utilities elements, in addition to built form elements. The provision of these features will help to create visual interest and complement the built form.

- **Built Form:** The proposed estate residential dwellings will comprise detached bungalow and/or two storey home designs. Each home should be designed and sited to appropriately respond to its location within the proposed development and local site conditions. Given the large lot sizes, a variety of design options should be employed to diminish visual dominance and massing of the garage within the streetscape. Garages should be located to face away from the street (either through a side-loaded garage or be located behind the front wall of the main dwelling).
- **Architectural Character, Materials and Colour Palette:** The use of heritage-inspired, transition-based residential architecture is recommended to suit the rural site context and to respect the existing built form context of the area. Main cladding materials will include brick, stone, stucco and siding.

7 Key Policy Strands and Planning Analysis

As indicated through Section 4 of this report, there is an extensive, inter-connected web of Provincial, Regional and local planning instruments and policies that have direct implication on our consideration of the planning merits of the development proposal for the subject lands. Due to the duplicity involved with each layer, the formulated intent of same to build upon the preceding, and in an effort to provide the reader with as succinct of a planning report as possible, we have assembled our planning analysis into six key themes or “strands” of policy that weave through each layer of planning instrument – in some cases each replicating the policy intent taking precedent, in other words, building upon that upper-tier document.

7.1 Strand 1 – Land Use Designations

As discussed in Section 4 of this report, the ORMCP, Region of Peel Official Plan and the Town of Caledon Official Plan and Palgrave Estate Residential Community Secondary Plan identify the subject lands as “Palgrave Estate Residential Community (component of the Countryside Area)”.

Policies on creating and developing new lots in designated Countryside Areas are generally very restrictive. However, exceptions are permitted in the Palgrave Estate Residential Community subject to key criteria established through Provincial, Regional and municipal planning policy.

Firstly, the ORMCP permits residential development within the Palgrave Estate Residential Community pursuant to Section 14(1). The ORMCP sets out the framework and necessary requirements to ensure that appropriate residential development takes place. The ROP reinforces this framework and intent to permit estate residential development on the subject lands. The TCOP provides further details and specific development objectives associated with residential development in the Palgrave Estate Residential Community.

The proposed development is consistent with the ROP definition of estate residential within the Town of Caledon, pursuant to Section 5.4.4.2.3 of the ROP. Specifically, estate residential development is permitted within the Palgrave Estate Residential Community, provided that development ensure compatibility with surrounding uses, protects the natural environment and represents a logical extension of the existing estate area and servicing system. The proposed development represents a suitable location to permit additional estate residential uses within the Palgrave Estate Residential Community. Lots 1-3 connect directly to Diamondwood Drive, which forms the terminus of an existing estate residential subdivision. Lots 4-8 remain directly adjacent to this existing residential community along Mount Pleasant, and both can utilize existing servicing infrastructure already in place to service the surrounding residential developments.

Furthermore, while the subject lands form only a very small portion of the total housing stock identified within the Region of Peel, the proposed development will nevertheless make an important contribution to achieving the variety of housing forms and lifestyle options available in the Region of Peel and Town of Caledon. In parallel, the proposal will provide a significant cultural landscape through the retention of natural heritage features and landforms. These natural features, including identified wetlands, intermittent creeks, habitats, natural heritage and hydrologically sensitive features, remain protected.

The subject lands are located within a Policy Area 1 (PA 1) designation. The proposed development achieves the vision for permitted land uses within the PA 1 designation, which are identified as prime areas for future estate residential development. Additionally, the proposed estate residential development meets the required density and lot sizes required, applicable to the PA 1 designation. Further discussion of lot size and density are detailed in Section 7.6 of this report.

Additionally, Section 7.1.9.1 of the PERSCP provides two environmental zones (EZ 1 and EZ 2) applicable to the subject lands. EZ 1 and EZ 2 designations are important in identifying Key Natural Heritage Features and Hydrologically Sensitive Features and the related Minimum Vegetative Protection Zones, per ORMCP policy. Structure envelopes are not permitted within EZ 1 areas and no part of a structure envelope is permitted within an EZ 2 area, except for short sections of driveways to provide reasonable access to a lot. A short section of Street "A", connecting the proposed residential lots to Mount Pleasant Road, is proposed to cross a small portion of EZ 2 lands as there are no other reasonable options for access to this portion of the subject lands. The proposed structure envelopes do not cross EZ 1 or EZ 2 boundaries.

Based on the EIS and MP completed by Azimuth, minor refinements to the EZ 1 and EZ 2 boundaries have been proposed, and accurately reflect the environmental features located on site. These refinements will ensure protection of these features and their associated buffer areas while reflecting those portions site which can appropriately accommodate estate residential development. The rationale for these refinements are included in the EIS & MP, submitted as part of this development application.

Structure envelopes are also depicted on the proposed plan of subdivision, as required through Section 7.1.9.3 of the PERSCP. Structure envelopes "shall identify the optimal area of the lot for structure and shall provide ample space for estate residential and accessory uses including all associated lot grading. The proposed house and driveway locations and soil absorption area for sewage disposal shall be shown within the structure envelope". Structure envelopes are not permitted within EZ 1 areas. No part of a structure envelope will be permitted within an EZ2 area except for short sections of driveways to provide reasonable access to a lot, pursuant to Sections 7.1.9.4 and 7.1.9.5 of the PERSCP. Individual lot services are not permitted in PA4, EZ1 or EZ2 except where contained within the driveway portion of a structure envelope crossing EZ2.

As detailed, the proposal involves the development of a stormwater management pond/bioretenention area, identified as Block 5 and located adjacent to Mount Pleasant Road. SWM ponds are not permitted within EZ 1 lands, pursuant to Section 7.1.9.27. The proposed SWM block is located outside of the EZ 1 designation.

With respect to the proposed road layout, Section 7.1.9.39 states that "plans of subdivision shall be designed so as to minimize road crossings and extensions into EZ 2. Short sections of roads and associated subdivision services will be permitted to cross or extend into EZ 2 if necessary to allow economically efficient road or subdivision design, provided such road crossing is located in Policy Area 1, 2 or 3". A short section of Street "A", connecting the proposed residential lots to Mount Pleasant Road, is proposed to cross a small portion of EZ 2 lands as there are no other reasonable options for access to this portion of the subject lands.

In summary, with respect to the proposed estate residential land use, it is our opinion that the proposal is consistent with the PPS and the requirements of the ORMCP and maintains the intent of the Region of Peel Official Plan, Town of Caledon Official Plan and PERSCP. The proposal gives effect to the use of the subject lands for estate residential purposes, and has sufficiently demonstrated that this land use can be accommodated and supported on the subject lands. Through detailed site investigation, the portions of the property which are planned to accommodate residential uses are suitable to accommodate such uses. All other portions of the property will remain within the EZ 1 and EZ 2 designations, and include all natural heritage and hydrologically sensitive features to ensure the continued natural function of the site and surrounding area. Furthermore, the proposal does not require an Official Plan Amendment, and all designations will continue to apply to the subject lands

7.2 Strand 2 – Efficient Development and Land Use Patterns

The PPS and Growth Plan place importance on planning for efficient development which promotes healthy, livable and safe communities. The PPS encourages development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term, accommodate a range and mix of housing and avoid development and land use patterns which may cause environmental or public health and safety concerns. The PPS further encourages development of lands which require logical extensions of necessary infrastructure. The subject lands are located immediately adjacent to an estate residential subdivision, and a portion of these lands will be accessed through the adjacent subdivision along Diamondwood Drive, further representing the logical extension of this form of development.

The ROP further supports efficient use of land as it is the goal of the Region to:

- Recognize the importance of a vital, competitive and diverse economy and a sound tax base, and manage and stage growth and development in accordance with the financial goals and overall fiscal sustainability of the Region (Section 1.3.6.3)
- Support growth and development which takes place in a sustainable manner, and which integrates the environmental, social, economic and cultural responsibilities of the Region and the Province.

The TCOP identifies rural estate land use patterns as an important form of housing in the Town. Section 5.3.2.2 of the TCOP outlines that the Palgrave Estate Residential Community is planned in order to provide for a variety of housing types and living styles within the Town of Caledon and recognizing the demand for Rural Estate Residential housing choice.

One of the key planning principles of the PERSCP, as detailed in Section 7.1.2.18, states that the “market should determine the phasing of estate residential development in terms of location, but the rate of development should be governed by the capability of the Town and Region to supply services and absorb development and by the prevailing population policies of the Plan.”

The ROP allocates a 2031 population for the Town of Caledon of 108,000, with a projected 33,500 households. Although the development of 8 estate residential lots represents a minimal contribution to these projections, the proposal will assist in achieving the population and household allocations for the Town while providing opportunities for logical estate residential development.

As detailed in Section 4.6 of this report, the TCOP identifies the subject lands within Landform Conservation Area 2. Section 7.10.5.6.10 of the TCOP, relating to policies implementing the ORMCP, states “with respect to land within the Palgrave Estate Residential Community and the Caledon East Secondary Plan Area, in considering applications for major development within landform conservation areas (Category 1 and 2) the Town of Caledon shall encourage applicants to adopt planning, design and construction practices that will keep disturbance to landform character to a minimum.

The proposed development meets a number of planning, design and construction practices encouraged for Landform Conservation Areas, including:

- Significant portions of the subject lands are located in EZ 1 and EZ 2 areas, which prohibit the development of estate residential units in an effort to preserve existing key natural heritage features and hydrologically sensitive features, and other environmental features identified by the Town and TRC. The proposed development will remain outside of these areas.
- The proposed road alignment has been designed to avoid protected areas, including the Minimum Vegetation Protection Zone. This will minimize grading within Landform Conservation Areas.
- The proposed locations of the residential dwellings avoid protected areas, therefore minimize lot grading, and concentrating development on portions of the site that are not as significant and identified to accommodate this form of development, pursuant to the Policy Area 1 designation applicable to the subject lands.

As noted above, the Landform Conservation Plan prepared by Calder Engineering Ltd. outlines the proposed grading for the property to involve only local cut and fill to facilitate building houses. General landforms are maintained, achieving the policy direction of the PERCSP.

In our opinion, the proposed development of the subject lands represent a logical and efficient form of development within the Palgrave Estate Residential Community. The proposed estate residential uses are permitted and reflect the land uses and development patterns characteristic of the surrounding community. Based on extensive study and assessment of the subject lands, this form of development can be accommodated by maintaining and enhancing existing key natural heritage features and hydrologically sensitive features, as well as other environmental features identified on the subject lands. Furthermore, the estate residential lots contribute to a range and mix of housing choices particular to the needs of Caledon, as contemplated by the PPS, Growth Plan and ROP, and avoids development within identified natural heritage features and associated buffers. The proposed development recognizes and responds to the need and demand for estate residential housing choices recognizing that there are only limited opportunities within Caledon and the Region for such land uses.

7.3 Strand 3 – Natural Heritage and Hydrological Features

Section 2.1 of the PPS provides policy direction on protecting the Province's natural heritage resources. Development and site alteration is not permitted in identified natural heritage features unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Additionally, Section 4.2.4 of the Growth Plan does not permit new development or site alteration within 120 metres of a key natural heritage feature within the natural heritage system or a key hydrologic feature unless a natural heritage evaluation or hydrologic evaluation is completed which identified a vegetation protection zone.

Section 20 of the ORMCP states that "every application for development or site alteration shall identify planning, design and construction practices that ensure that no buildings or other site alterations impede any hydrological functions or the movement of plants and animals among key natural heritage features, key hydrologic features, and adjacent land within Natural Core Areas and Natural Linkage Areas". The subject lands are not located within an identified Natural Core Area or Natural Linkage Area, however, adjacent lands fall within these designations. The EIS & MP completed by Azimuth has determined that there will be no negative impact to these adjacent features.

As detailed in EIS & MP, outlined in Section 5.5 of this report, six wetland features have been identified on the subject lands, and the MNRF has designated these wetlands as being Provincially Significant and have been included into the Mount Wolfe PSW Complex. One of

these wetlands offer potential marginal direct fish habitat, and the identified intermittent stream offers indirect fish habitat. As identified in the EIS & MP completed by Azimuth, these features are protected by the 30m MVPZ and all development will remain outside of these features.

Section 7.10.5.2 of the TCOP, pertaining to the Oak Ridges Moraine, requires every application for major development to identify planning, design and construction practices that ensure no buildings or other site alterations impede the movement of plants and animals among KNHF or HSFs. Development or site alteration will not be occurring within these features and Azimuth's findings determine that the proposed development poses no direct impact to the identified in these features.

The PERSCP provides the most detailed direction on land development of the subject lands and outlines key objectives related to environmental features and implementing the direction of the ORMCP, pursuant to Section 7.1.2, as follows:

- 7.1.2.3 Woodlots and wetlands and other ecologically significant areas, including valley and stream corridors, shall be protected from development.
- 7.1.2.10 Innovative environmental planning should be encouraged to preserve and enhance the environmental characteristics of the Palgrave Estate Residential Community.
- 7.1.2.11 The environmental impacts of construction and development should be minimized.
- 7.1.2.12 ORMCP Key Natural Heritage Features and Hydrologically Sensitive Features, and their Minimum Vegetation Protection Zones shall be protected from development and rehabilitated as necessary in an environmentally acceptable manner.
- 7.1.2.13 Mount Wolfe, lowland landforms and ORMCP Natural Core and Natural Linkage areas shall not be developed.

Protecting the natural features of the subject lands has been a primary component in assessing the development configuration and layout for the proposed estate residential uses. The extensive pre-submission research, site investigation and analysis of the subject lands has determined that the integrity of the environmental features and associated functions can be maintained without any negative impact. As detailed in this report, and Environmental Impact and Management Plan, Hydrological Assessment, Geological Study, and Functional Servicing and Stormwater Management Report identify key environmental features, hydrologically sensitive features and outline appropriate buffering through Minimum Vegetation Protection Zones and development best practices including Low Impact Development (LID) recommendations.

It is the opinion of the qualified professionals that the identified Natural Heritage Features and Hydrological Functions will be unaffected by the proposed development. Furthermore, it has been determined that the proposed development will not negatively impact adjacent lands. Adjacent Natural Linkage Areas and Natural Core Areas will not be impacted by the proposed development. The Hydrogeology Report, completed by Azimuth, determined that the present hydrologic and hydrogeology conditions on the subject lands will not experience a significant change due to the proposed development. A number of measures will be incorporated as part of the development, which was determined to result in an increased gain of pre-development infiltration by approximately 11%, which will have no impact on the local ground water regime or associated natural features.

It is noted that lands located to the north and west of the subject lands fall within a Policy Area 4 designation. Based on our interpretation of Schedule 'G' of the TCOP, the Policy Area 4 designation falls wholly outside of the subject lands, and therefore does not apply to the proposed development. The Policy Area 4 designation corresponds to the ORMCP Natural Core Area and Natural Linkage Area. Development is not permitted within these areas.

As detailed in the Environmental Impact Study (EIS) completed by Azimuth, the purpose of the Natural Linkage Area is to improve or restore the ecological integrity of the area and to maintain linkages between Natural Core Areas and along river valleys and stream corridors. As the subject lands are located adjacent to the Policy Area 4 designation, the EIS concluded that the proposed development would have no negative impact to these adjacent lands. The form and function of the Natural Linkage Area would remain intact and function as it has prior to development. The connectivity throughout the stream corridor feature would be maintained. There are no impacts expected from the proposed development on the connectivity of the protected valley feature, associated watercourse (Cold Creek) and fish habitat.

Additionally, as detailed in Section 4.6 of this report, both EZ 1 and EZ 2 areas have been identified on the property. Section 7.1.9.2 of the PERSCP permits minor changes and refinements to EZ 1 and EZ 2, based on updated information as a result of the EIS completed by Azimuth. Such changes, which are proposed as part of the proposed development, accurately depict identified wetlands, significant woodlands and intermittent stream areas within the refined EZ 1 boundary, as well as areas of high ground water table within the proposed refined EZ 2 boundary. Development will remain outside of all EZ 2 areas, and the minor refinements to the EZ 2 boundaries accurately reflect the environmental features identified on the subject lands.

Section 4.2 of this report identifies the entire property is classified as Landform Conservation Area – Category 2. ORMCP policy encourages planning, design and construction practices to keep disturbance to landform character to a minimum. The engineering and grading assessment notes the preservation of the majority of the site grades, with small local changes for building envelopes and road grades. Thus, the overall landform is not being subjected to significant alteration.

A Landform Conservation Plan has been included as part of this application submission, which identifies the proposed slopes and grades. As detailed in Section 4.6 of this report, Section 7.1.9.11 requires structure envelopes to be generally restricted to areas with slopes of 10 per cent or less and may include areas with 11 to 15 per cent slopes, and occasionally greater than a 15 per cent slope in order to permit the advantageous siting of a house designed for steep slopes. Additionally, all structure envelopes must include a well-drained area with slopes of 10 per cent or less for a sewage disposal system. The proposed development will achieve these policies through the provision of an appropriate area for sewage disposal in areas which generally include gentler slopes within the structure envelope.

Based on the analysis provided by the qualified professionals, it is our opinion that the proposal conforms and/or complies with applicable planning instruments in that the ecological integrity of the subject lands will be maintained, and in many cases, enhanced through the incorporation of new vegetation, trees (i.e. Butternut Trees) and through the provision of the MVPZ surrounding all natural heritage features. Existing policies of the ORMCP, ROP and TCOP encourage preservation and enhancement of environmental features. Lands within EZ 1, EZ 2 and Landform Conservation Area - Category 2 are appropriately protected, and significant environmental study and assessment of these features have affirmed that the proposed development will not negatively impact these features.

7.4 Strand 4 – Infrastructure and Public Services

As detailed, the proposed development will be serviced with municipal water and private on-site sewage disposal systems. Partial services are permitted under the applicable planning instruments and in particular pursuant to Section 44(4) of the ORMCP, which permits partial services specifically for development in the Palgrave Estate Residential Community. The ROP also includes a policy in Section 6.3.2.3, stating:

"It is policy of Regional Council to provide municipal water services to accommodate growth in the Palgrave Estate Residential Community, the rural settlements and the rural area, as appropriate, consistent with the policies of this Plan. Communal sewage disposal systems will be the preferred means of servicing multiple new lots where site conditions are suitable over the long term. If a communal sewage disposal system is not feasible, individual on-site sewage disposal facilities may be considered, where site conditions are suitable over the long term." This policy is echoed in Section 7.1.8.1 of the PERCSP.

The PPS permits the incorporation of on-site sewage services, pursuant to Section 1.6.6.4. The PPS further contemplates that there will be limited instances where partial services will be implemented. With respect to sewage and water services, the ORMCP provides clear direction for sewage and water services, as follows:

- (1) An application for major development shall be accompanied by a sewage and water system plan that demonstrates,
 - a. That all ecological integrity of hydrological features and key natural heritage features will be maintained;
 - b. That the quantity and quality of groundwater and surface water will be maintained;
 - c. That stream baseflows will be maintained;
 - d. That the project will comply with any applicable watershed plan, water budget, water conservation plan, water and wastewater master plan or subwatershed plan;
 - d.1 that the assimilative capacity of receiving lakes, rivers or streams with respect to sewage from surrounding areas will not be exceeded and that attenuation capacity of groundwater with respect to subsurface sewage service system s will not be exceeded; and
 - e. that the water use projected for the development will be sustainable.
- (2) Water and sewer service trenches shall be planned, designed and constructed so as to keep disruption of the natural groundwater flow to a minimum.

The proposal is considered a major development, per the definition of the ORMCP.

The FSR, completed by Calder Engineering and detailed in Section 5.4 of this report, demonstrates that on-site sewage systems are feasible and can be incorporated for each lot within the proposed development. Proposed services will be shallow in depth and will not impact the local and regional groundwater regime.

The TCOP provides additional policy direction related to infrastructure and servicing. Specifically, Section 7.1.8.1 of the PERCSP provides direction for "every lot in an estate residential plan of subdivision must be serviced with a private sewage disposal system for the treatment of domestic wastes. Each system must conform to the standards of and be approved by the Ministry of the Environment and Climate Change or its designated agents."

Furthermore, Section 7.1.8.4 of the PERCSP states that "municipal water service will be provided to the Palgrave Estate Residential Community by orderly expansion of the existing Palgrave water supply system". Section 7.1.8.5 states that "water services will be made available by the applicant to the lot boundaries of existing adjacent and nearby rural residences as development proceeds".

Section 7.10.6.7.3 of the TCOP implements the servicing policies of the ORMCP, stating that"

"The construction or expansion of partial services is prohibited. Notwithstanding this general prohibition, the construction or expansion of partial services is permitted, subject to the servicing policies in the Regional Official Plan, the servicing capabilities of the Region of Peel and meeting all applicable requirements of the ORMCP, in each of the following circumstances:

- a) Within the Palgrave Estate Residential Community as identified on Schedule G...”

The servicing proposed for the subject lands adheres to the PPS, ORMCP, ROP and TCOP policies through the provision of individual on-site sewage services and connection to municipal water services. The site’s adjacency to existing estate residential subdivisions allow for efficient expansion of existing municipal services through Mount Pleasant Road and Diamondwood Drive.

Based on the analysis completed by the qualified professionals, it is our opinion that the proposed municipal water and private individual septic system servicing (partial services) is there preferred means of providing services to the subject lands. The PPS contemplates that there will be limited instances where partial services will be implemented, the OMCP provides for the expansion and implementation of partial services within the Palgrave Estate Residential community. The ROP and TCOP apply the same permissions respecting the Palgrave community. The implementation of water and sewer services are further subject to the environmentally-based “test” as provided for under the ORMCP and, as detailed above and the requirements of the PERCSP, it is the professional opinion of the consulting civil engineers and hydrogeologists that the proposed means of servicing the subject lands can be implemented in accordance with those requirements.

Furthermore, as detailed in Section 5.4 of this report, stormwater management has been analyzed, designed and detailed per the policies of the PPS, ORMCP, ROP, TCOP and PERCSP. The completion of a stormwater management analysis also satisfies Provincial, Region and Town policy. Drainage and storm water is proposed to be managed using an adaptive stormwater management approach and application of Low Impact Development (LID) practices.

7.5 Strand 5 – Transportation

The proposed road network has been designed to carefully consider the topography and avoid all identified natural heritage features and hydrologic functions. Section 41(4) of the ORMCP states that “except as permitted in subsection (5), with respect to land in a key natural heritage feature, the development of new infrastructure and the upgrading or extension of existing infrastructure, including the opening of a road within an unopened road allowance, is prohibited.”

Subsection (5) states that “infrastructure may be permitted to cross a key natural heritage feature or a key hydrologic feature if the applicant demonstrates that,

- a) The need for the project has been demonstrated and there is no reasonable alternative;
- b) The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum;
- c) The design practices adopted will maintain, and where possible improve or restore, key ecological and recreational linkages, including the trail system referred to in Section 39;
- d) The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way; and
- e) The long-term landscape management approaches will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the key natural heritage feature or a key hydrologic feature.

Subsection (6) states that “service and utility trenches for infrastructure shall be planned, designed and constructed so as to keep disruption of the natural groundwater flow to a minimum.

The proposed road configuration does not cross any identified key natural heritage feature or key hydrologic feature. The PERCSP, through Section 7.1.9.39, does permits short sections of

roads and associated subdivision services to cross into identified EZ 2 boundaries, if necessary. As detailed, lands found within EZ 2 areas do not include key natural heritage features or hydrologically sensitive features and their minimum vegetation protection zones.

Further to PERCSP policy, a short section of proposed Street 'A' does cross an ephemeral swale between the pond at Mount Pleasant Road and the adjacent property. As indicated within the Hydrogeologic Assessment completed by Azimuth, site grading for the purpose of road construction will increase the existing grade and this area would not be considered EZ 2, however, the same drainage function would continue. Significant impacts to EZ 2 lands will not occur and the function for ground water flow and surface water runoff will remain unchanged.

The proposed common element driveway, which will provide access to Lots 1-3 through Diamondwood Drive, will remain outside of identified environmental features, as well as lands within the EZ 2 zone. This access will be in the form of a common element to provide mutual access to these three lots. This configuration is desirable in that it removes the need to extend the Diamondwood Drive right-of-way, which in turns avoids significant re-grading and site alteration of this area, which is a key objective in planning for new development within the Palgrave Estate Residential community.

Section 7.1.9.40 of the PERCSP states that "roads in estate residential developments should follow the topography of the site". It is our opinion that the proposed road network, including Street 'A' and the mutual access from Diamondwood Drive, respect the topography of the site and minimize impact to the landforms and environmental features of the subject lands. Through the preparation of the FSR and SWM report, Calder has undertaken a preliminary design for the road profile and has confirmed that it can be constructed in accordance with current Town of Caledon requirements.

7.6 Strand 6 – Urban Form

The Palgrave Estate Residential Community Secondary Plan provides a vision for estate residential development within the community.

Section 7.1.6 of the PERCSP stipulates the calculation for the basic density requirements on an individual plan of subdivision basis. The subject lands are located within Policy Area 1. The maximum density permitted within this designation is 36 units per 40.5 hectares (100 acres). The density of the proposed subdivision is 31.2 units per 40.5 hectares, which is permitted.

Section 7.1.7.1 of the PERCSP permits a minimum net lot area for residential uses in Policy Area 1 of 0.45ha (1.1 acres). The smallest lot size proposed totals 0.45ha, thus the proposed lots conform to the lot requirements of the PERCSP. The lot sizes range from

Furthermore, Section 7.1.7.9 encourages a variety of lot sizes in a plan of subdivision. Section 7.1.7.10 further states that "lot areas and dimensions must reflect the topographic and environmental characteristics of the site in accordance with Section 7.1.9. Lot areas larger than the minimum applicable in a Policy Area will be required in specific instances where the topographic and environmental characteristics of the site warrant a larger area".

The EIS & MP, Hydrogeological Study and Functional Servicing Report assess potential impacts to topographic features and environmental characteristics. As detailed, structure envelopes have been determined for each proposed lot which not only remain outside of all identified EZ 2 areas, but have been configured to minimize disruption to topographic and environmental features.

8 Conclusion

In conclusion, it is our opinion that the proposed development is consistent with applicable planning instruments, including the Provincial Policy Statement, Growth Plan for the Greater Golden Horseshoe, Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Region of Peel Official Plan, Town of Caledon Official Plan and the Palgrave Estate Residential Community Secondary Plan and Oak Ridges Moraine Conservation Secondary Plan.

From a broader perspective, the intended use of the subject lands for estate residential development is consistent with the overall vision contained within multiple layers of policy from the Provincial, Regional and municipal levels, to achieve modest residential growth while maintaining, protecting and enhancing the critical environmental features associated with the Oak Ridges Moraine and surrounding Palgrave Estate Residential Community.

Exhaustive supporting studies have concluded that the proposed development is achievable, and will not negatively impact the surrounding and existing natural heritage features and key hydrologic functions. The retention of these features and the establishment of natural area buffers will further assist in their protection.

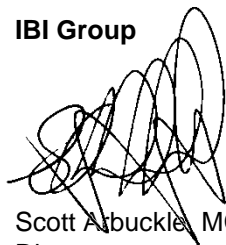
The proposed development has been designed in accordance, specifically with the detailed guidelines of the ORMCP and PERSCP. The policies of the Province, Region of Peel and Town of Caledon provide objectives to maintain the natural environment of the subject lands and surrounding area. Permissions allow for estate residential development on the condition that the environmental and rural setting is maintained and preserved. In our opinion, the proposed development will maintain and enhance the natural environment and maintain its rural settling and surrounding estate residential character while providing for desirable development within the Town of Caledon.

Based on our review of the subject lands, the surrounding lands, supporting studies, and the applicable planning policy framework, it is our opinion that the application represents good planning, will facilitate the appropriate development of the subject lands, and ensure appropriate and suitable protection of identified environmental features.

Respectfully submitted on this 11th day of July, 2017.

Regards,

IBI Group



Scott Abuckley, MCIP, RPP
Director

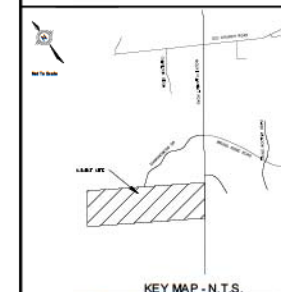
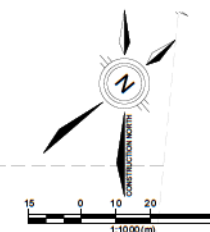


Michael Lipkus, MCIP, RPP
Senior Planner

I hereby certify that this Planning Justification Report was prepared by a Registered Professional Planner, within the meaning of the Ontario Professional Planners Institute Act, 1994 and is for this property only.

Appendix A – Draft Plan

SKETCH OF
PART OF THE EAST HALF OF LOT
19, CONCESSION 8
(GEOGRAPHIC TOWNSHIP OF ALBION)
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEEL



BENCHMARK

INFORMATION REQUIRED

UNDER SECTION 61(17) OF THE PLANNING ACT, R.S.O. 1990, c.P.13 AS AMENDED

- (a) - AS SHOWN
- (b) - AS SHOWN
- (c) - AS SHOWN
- (d) - AS LISTED BELOW
- (e) - AS SHOWN
- (f) - AS SHOWN
- (g) - AS SHOWN
- (h) - MUNICIPAL WATER
- (i) - GLACIAL TILL
- (j) - AS SHOWN
- (k) - SEPTIC SANITARY AND STORM SEWERS
- (l) - NONE

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

SIGNED

DATE _____

OWNER'S CERTIFICATE

OWNER'S CERTIFICATE
I HEREBY CONSENT TO THE FILING OF THIS PLAN BY IBI GROUP, INC.
DRAFT FORM

SIGNED

MARK CROWE
HARBOUR VIEW INVESTMENTS LIMITED

DATE _____

[illegible][illegible]

1			
#	DATE	BY	DESCRIPTION
REVISIONS			
APPROVALS			

APPROVALS	

APPROVED:		DATE:	
DESIGNED BY:		GD	DATE: 2017061
DRAWN BY:		GD	FILE NUMBER: 3047
CHECKED BY:		SA	SHEET NUMBER: DP



Appendix B – Draft Zoning By-law Amendment

THE CORPORATION OF THE TOWN OF CALEDON
BY-LAW NO. 20xx-xxx

Being a by-law to amend Comprehensive Zoning By-law 2006-50, as amended,
with respect to Part East Half of Lot 19, Concession 8 (ALB),
Town of Caledon, Regional Municipality of Peel,
municipally known as 0 Mount Pleasant Road

WHEREAS Section 34 of the Planning Act, as amended, permits the councils of local municipalities to pass zoning by-laws for prohibiting the use of land or the erecting, locating or using of buildings or structures for or except for such purposes as may be set out in the by-law;

AND WHEREAS the Council of The Corporation of the Town of Caledon considers it desirable to pass a zoning by-law to permit the use of Part East Half of Lot 19, Concession 8 (ALB), Town of Caledon, Regional Municipality of Peel, for Estate Residential (RE) and Environmental Policy Area (EPA 2 – ORM) Zones.

NOW THEREFORE the Council of The Corporation of the Town of Caledon enacts that By-law 2006-50, as amended, being the Comprehensive Zoning By-law for the Town of Caledon, shall be and is hereby amended as follows:

1. Schedule “A”, Zone Map #32 of By-law 2006-50, as amended, is further amended for the lands legally described as Part East Half of Lot 19, Concession 9 (ALB), Town of Caledon, Regional Municipality of Peel, from Rural (A2-ORM) and Environmental Protection Area – Oak Ridges Moraine (EPA 2-ORM) Zones to Estate Residential (RE) and Environmental Protection Area – Oak Ridges Moraine (EPA 2-ORM) Zone in accordance with Schedule “A” attached hereto;
2. Notwithstanding the provisions of the Estate Residential (RE) Zone, the following provisions shall apply to the lands legally described as Part East Half of Lot 19, Concession 8 (ALB), Town of Caledon, Region of Peel:

Zone Prefix	Exception Number	Permitted Uses	Special Standards
RE			<ol style="list-style-type: none">a. the minimum lot area shall be 0.45 ha;b. the minimum lot frontage shall be in accordance with Schedule “A” attached hereto.c. the structural envelopes shall be in accordance with Schedule “B” attached hereto.

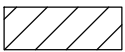
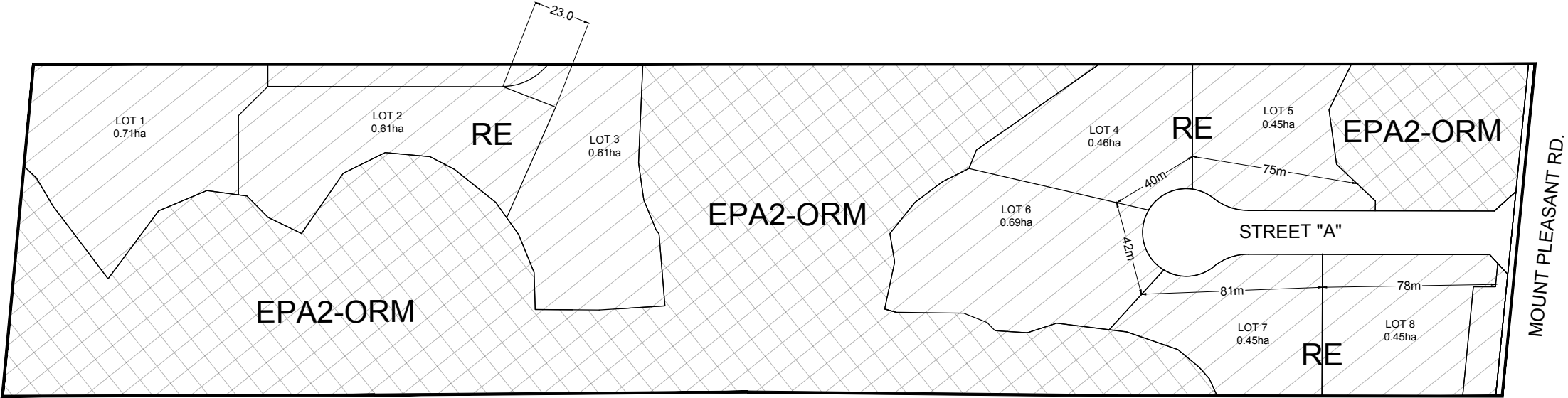
3. Notwithstanding the provisions of the contrary, the lot frontage for lots 1, 2, and 3, in accordance with Schedule "A" attached hereto, shall be calculated from the shared common element access.
4. Notwithstanding the provisions of the contrary, Lots 1, 2 and 3 on Schedule "A" attached hereto are not required to have frontage on a public street.

Read three times and finally
passed in open Council on the
XX day of XXXXXX, 2017.

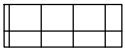
Allan Thompson, Mayor

Carey deGorter, Clerk

SCHEDULE "A" TO ZONING BY-LAW AMENDMENT NO. XX

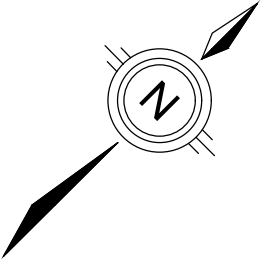


LANDS TO BE REZONED TO RE - 'RESIDENTIAL ESTATE'



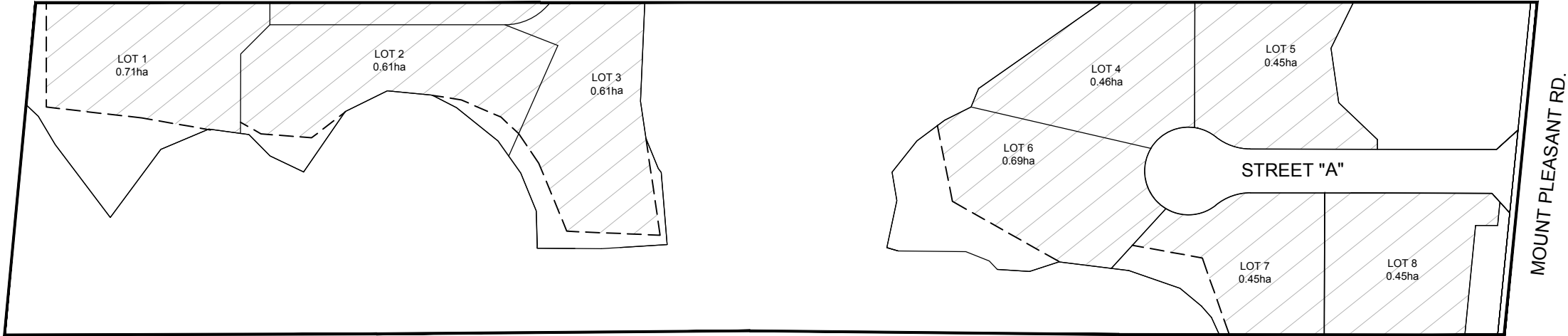
LANDS TO BE REZONED TO EPA2-ORM 'ENVIRONMENTAL PROTECTION AREA 2 - OAK RIDGES MORaine'

DRAWING NOT TO SCALE AND NOT TO BE SCALED

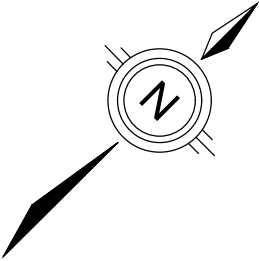


Not To Scale

SCHEDULE "B" TO ZONING BY-LAW AMENDMENT NO. XX



 STRUCTURE ENVELOPE



DRAWING NOT TO SCALE AND NOT TO BE SCALED

Not To Scale