Muncaster Environmental Planning Inc.

April 1, 2021

Mr. Miles Yang
Crestview Innovation Inc.
12 Escade Drive
Ottawa, ON
K2G 6R9

Dear Mr. Yang:

RE: 3200 Reids Lane, Osgoode
Tree Conservation Report and Environmental Impact Statement

This Environmental Impact Statement (EIS) and Tree Conservation Report (TCR) assesses a seven-lot residential development for an approximately 3.5 hectare site in the northwest portion of the Village of Osgoode. The municipal address is 3200 Reids Lane and the site begins about 75 metres north of Osgoode Main Street and is to the east of the Osgoode Link Pathway, a former railway line to Prescott (Map 1). For the purposes of this report Osgoode Main Street is considered to be in an east-west orientation.

Proposed Development

Seven residential lots, each between 0.4 and 0.5 hectares and to contain one detached residential unit, are proposed for the site (Map 2). Lombardy Drive will be extended south and west from the current cul-de-sac adjacent to the northeast corner of the site to provide access to the new lots. A new cul-de-sac will be in the west-central portion of the site, with a six-metre wide pathway block from the cul-de-sac to the Osgoode Link Pathway (a former rail corridor). In addition to the original property, land is to be acquired from the City in the northeast portion of the site to facilitate the extension of Lombardy Drive. Each new residence will have a private septic system and drilled water well. The stormwater from the development will be conveyed by an open ditch system, with the roadside ditches directed north to the existing roadside ditches on Lombardy Drive. Stormwater management will be provided using Best Management Practices with quantity control to predevelopment levels and enhanced quality control (80 percent total suspended sediment removal).

Site Context

The site and adjacent lands are designated *Village* on Schedule A of the City of Ottawa Official Plan. There are no lands designated *Rural Natural Features Area*, *Major Open Space*, *Natural Environment Area*, or *Significant Wetlands* in the general vicinity of the site. No components of the City's Natural Heritage System are on or adjacent to the site, as shown on the Schedule L2 overlay. There are no natural areas, as identified in the former Region's Natural Environment

System Strategy, in proximity to the site, with the closest Natural Area being the low-rated Cabin Road Woodlot approximately 800 metres to the northwest (Brownell and Blaney, 1997). No environmental constraints are shown for the site on Schedule K of the Official Plan.

No channels with aquatic habitat potential were observed or are mapped for the site. Some standing water was observed in the central-west edge during a site survey on June 12th. The water was not connected to a defined channel and was generally against the base of the recreational pathway or in ATV tracks. No unevaluated wetlands are mapped for the site or adjacent lands. The closest provincially-significant wetland is the east portion of the Cranberry Creek Wetland, about 2.8 kilometres to the west of the site, west of the Rideau River (which is approximately 2.2 kilometres west of the site).

There are no existing structures on the site, which was in agricultural use until the 1980s. All structures were removed by 1999, and since then woody vegetation has regenerated on the site. The site is generally surrounded by the developed portions of Osgoode, with now forested lands immediately to the east on former agricultural land currently owned by the City.

Methodology

This report includes an assessment of the natural environment features, including the potential for specimen trees and Species at Risk. Colour aerial photography (1976-2017) was used to assess the natural environment features in the general vicinity of the site. A survey of the site and adjacent lands was completed on June 12th, 2019 from 12:30 to 15:30. Weather conditions during the survey included a light to moderate breeze, an air temperature of 22° C, and sunny skies. A subsequent survey was completed on August 8th, 2019 from 11:20 to 13:30. Weather conditions during the August 8th survey included a light breeze, an air temperature of 24° C, and sunny skies, becoming cloudier during the survey. The site and adjacent lands were walked in a systematic manner to ensure the entire site and adjacent lands were observed.

The field survey and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over thirty-two years of experience in completing natural environment assessments. The purpose of the Tree Conservation Report component is to establish which vegetation should be retained and protected on the site and to assess adjacent trees. The site is owned by Crestview Innovation Inc. The Applicant reports that some woody vegetation not proposed for retention was removed in 2020 before the breeding bird period to facilitate required geological and hydrogeological studies, and a terrain analysis. The balance of the trees not to be retained are anticipated to be removed in 2020 after the breeding bird season.

Potential Species at Risk

The Ministry of Natural Resources and Forestry (MNRF)'s Make a Map: Natural Heritage Areas website was reviewed on June 8th, 2019 and again on April 1st, 2021. This site allows for a search of Threatened and Endangered species covered by the 2008 *Endangered Species Act*, as well as other species of interest. A search was conducted on the 1 km squares including the site and adjacent lands (18VQ59 – 19 and - 29). No Species at Risk or species of special concern were noted for these squares. The threatened chimney swift, barn swallow, bank swallow,

eastern meadowlark and bobolink are five Species at Risk identified for the 10 km square 18VQ59, which includes the site and general area. Chimney swifts now nest almost exclusively in open chimneys while barn swallows utilize open barns, bridges and other structures for nesting. These species were not observed and no structures are present on the site that may be used for nesting by barn swallow or chimney swift. Bobolink and eastern meadowlark utilize large areas of grasslands such as hayfields for breeding. This type of habitat is not present on or adjacent to the site. Bank swallow is a colonial nester; burrowing in eroding silt or sand banks and sand pit walls, features not observed on or adjacent to the site.

Other potential Species at Risk that have been reported in the general area include eastern whip-poor-will, butternut, Blanding's turtle, little brown bat, and northern long-eared bat. Eastern whip-poor-will utilize rock or sand barrens with scattered trees, savannahs, old burns or other disturbed sites in a state of early to mid-forest succession, or open conifer plantations. The understory of the on-site forests is too thick and the overall forest too small to support eastern whip-poor-will. No butternuts were observed on or adjacent to the site, although suitable habitat is present. Although an area of reed canary grass has established adjacent to the recreational pathway to the west of the site, the isolation from other wetland habitats, small size, and lack of standing water with depth makes the area unsuitable for turtle habitat. The closest Blanding's turtle observation on the iNaturalist website is approximately five kilometres to the northwest of the site along the Stevens Creek corridor. No larger cavity trees for potential bat utilization were observed on or adjacent to the site

The potential Species at Risk historically reported for the overall City of Ottawa and their habitat requirements were also reviewed, including butternut, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, Henslow's sparrow, loggerhead shrike, eastern meadowlark, barn swallow, bobolink, eastern whip-poor-will, bald eagle, golden eagle, least bittern, little brown bat, eastern small-footed myotis, northern long-eared bat, olive hickorynut, eastern cougar, lake sturgeon, cerulean warbler, and American eel.

In summary, other than for butternut, specific habitat characteristics for potential Species at Risk were not observed on the site and adjacent lands. No butternut was observed.

Existing Conditions

The topography of the site is generally flat with a gentle slope to the west towards the base of the recreational pathway. The soils on the site are mapped as poorly-drained fine sandy loams (Schut and Wilson, 1987). This description is consistent with field observations. Areas of fill were also observed on the site. No channels with aquatic habitat potential were observed or are mapped for the site. Some standing water was observed in the central-west edge on June 12th but the water was not connected to a defined channel and was generally against the base of the recreational pathway and within ATV tracks, likely connecting to the pathway. There appeared to be no effective drainage outlet under the recreation pathway.

Areas of cultural meadow in the south portion of the site were dominated by Canada goldenrod, with orchard grass, reed canary grass, June meadow grass, field horsetail, wild carrot, common milkweed, common mugwort, thicket creeper, common yarrow, bladder campion, evening

primrose, white clover, white-sweet clover, hoary alyssum, black-eyed susan, common ragweed, heal-all, ground ivy, silvery cinquefoil, bluebell, yellow goat's-beard, bouncing bet, and common mullein also present (Photo 1). Shrubs species in the meadow habitat included tartarian honeysuckle, chokecherry, red raspberry, staghorn sumac, Bebb' willow, and glossy buckthorn, along with regenerating Manitoba maple, grey birch, and balsam poplar stems. A mature two-stem white spruce is in the meadow habitat in the southeast corner of the site (Photo 2). The largest stem was 50cm diameter at breast height (dbh). This tree is proposed for retention.

A cultural thicket is in the northwest portion of the site (Photo 3). Red raspberry, red-osier dogwood, black currant, slender willow, Bebb's willow, narrow-leaved meadowsweet, nannyberry and tartarian honeysuckle were representative of the shrub species, with regenerating trembling aspen, red maple, and green ash up to 8cm dbh also present. Ground flora species included wild carrot, meadow horsetail, blue grass, orchard grass, reed canary grass, common strawberry, tall buttercup, joe-pye-weed, Canada goldenrod, wild grape, common ragweed, and sensitive fern.

Cultural woodlands are around the periphery of the site (Photo 4). Manitoba maples were dominant in areas, with white elm, Scot's pine, sugar maple, red maple, white ash, green ash, and eastern cottonwood also present. The largest trees were cottonwoods up to 60cm dbh, with Manitoba maples and red maple cultivars up to 45cm dbh. A variety of shrubs were in the understory, including red raspberry, common buckthorn, glossy buckthorn, staghorn sumac, black currant, apple, hawthorn, serviceberry, grey dogwood, red cedar, tartarian honeysuckle, steeplebush, slender willow, and Bebb's willow. Regenerating ash, poplar, and Manitoba maple stems were also present in the understory of the cultural woodlands. Ground flora in the cultural woodlands included Canada goldenrod, June meadow grass, orchard grass, reed canary grass, wild parsnip, cow vetch, common plantain, dame's rocket, common strawberry, yellow violet, white avens, wild grape, thicket creeper, common mugwort, wild cucumber, celandine, stinging nettle, sensitive fern, wild grape, field horsetail, thicket creeper, and common dandelion.

An upland deciduous forest dominates the centre and north portions of the site (Photo 5). This forest is generally young as the site was dominated by agricultural fields in 1976 aerial photography and generally clear of trees until the 1990s. Manitoba maple and trembling aspen were dominant, with sugar maple, red maple, white ash, green ash, white cedar, pin cherry, and white elm also present (Photo 3). The largest trees were poplars up to 35cm dbh. Most of the trees appeared to be in good condition, with the white ash either dead or with reduced leaf-out from emerald ash borer impacts. Grape vine coverage was extensive on many of the lower tree branches. Common buckthorn was dominant in portions of the understory of the upland deciduous forest, with glossy buckthorn, prickly gooseberry, grey dogwood, red raspberry, tartarian honeysuckle, red-osier dogwood, staghorn sumac, and Japanese knotweed other shrub species observed. Regenerating balsam fir, ash, white elm, black walnut, and sugar maple stems were also present. The ground flora in the upland deciduous forest was generally reflective of disturbed conditions including common dandelion, garlic mustard, common ragweed, ground ivy, Canada goldenrod, wild grape, thicket creeper, blue violet, common strawberry, wild parsnip, common plantain, yellow avens, wild cucumber, field horsetail, common burdock, yellow wood sorrel, meadow horsetail, and enchanter's nightshade, with false nettle and sensitive fern also present.

An area of meadow marsh is adjacent to the west-central site edge (Photo 6). This habitat has developed on former agricultural land against the recreational pathway. There appears to be no functional drainage under the recreational pathway in this area. Reed canary grass was dominant, with purple loosestrife common in areas. Sensitive fern, broad-leaved cattail, marsh fern, water parsnip, cow vetch, lady's thumb, water horehound, common burdock, boneset, joe-pye-weed, nodding beggar's tick, soft-stem bulrush, fowl manna grass, and spotted jewelweed were also present, along with slender willow, red-osier dogwood, tartarian honeysuckle, and narrow-leaved meadowsweet shrubs.

Wildlife observed during the surveys included American crow**,** turkey vulture, red-tailed hawk, black-capped chickadee, yellow warbler, common yellowthroat, great-crested flycatcher, least flycatcher, grey catbird, American robin, northern cardinal, common grackle, blue jay, American goldfinch, song sparrow, red squirrel, and grey squirrel. No stone fences or larger trees with potential wildlife cavities were observed. A 20cm dbh snag with small woodpecker holes was noted in the southwest portion of the site and will be retained.

Photo 1 – Small area of cultural meadow habitat in the southeast portion of the site. View looking east (August 8th, 2019)

Photo 2 – Mature white spruce in the southeast corner of the site. View looking north (August 8th, 2019)

Photo 3 – Cultural thicket in the northwest portion of the site. View looking north (June 12th, 2019)

Photo 4 – Cultural woodland in the northeast corner of the site. Note ash tree with very little leaf-out. View looking west (August 8th, 2019)

Photo 5 – Upland deciduous forest in the central-east portion of the site. View looking west (August 8th, 2019)

Photo 6 – Reed canary grass meadow marsh, with purple loosestrife common, along the central-west edge of the site. View looking southeast from recreational pathway (June 12th, 2019)

Significant Woodlands

The criteria for significant woodlands in the rural area of Ottawa are found in OMNR (2010). The on-site forest continues to the north and east. Overall including the off-site portions, the contiguous forest is approximately eight hectares. This is less than the 20 hectares to meet the size criterion used to define significant woodlands in Table 7-2 of the Natural Heritage Reference Manual (OMNR, 2010, using a watershed forest cover of 22 percent). The forest width at its greatest, to the east of the site, is less than 200 meters and thus there is no forest interior habitat associated with the contiguous forest. The forests on and adjacent to the site are young, between 25 and 35 years. No other ecological, social, economic, or other features were observed for which the forests would be considered significant woodlands.

Significant Wildlife Habitat

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNRF (2015). No flora, fauna or ecological conditions identified in the background review or field surveys that would trigger a significant wildlife habitat designation with respect to the ELC communities present were observed. For example, the deciduous forest and cultural woodlands do not appear to support raptor wintering areas, no larger tree cavities were noted, and old growth forest is not present. Forest interior habitat is not present and thus potential nesting of species of special concern such as wood thrush and eastern wood-pewee is not expected. No stick nests, evidence of vernal pools such as soil staining, markings at the base of

tree trunks, pit-and-mound topography, fingernail clam or other small molluscs shells and insect cases, or leaf debris, or extensive areas of standing water for amphibian breeding habitat or waterfowl stopover and staging areas were observed. Stone fences or areas of broken and fissured rock for potential use by snakes were also not observed. No evidence of colonial nesting bird breeding habitat or other examples of seasonal concentration areas were noted. No rare vegetation communities as described in MNRF (2015), or rare or specialized habitat including seeps or springs, or species of special concern were observed.

The site is isolated from an environmental perspective as it is surrounded by existing residences and the commercial activity along the Osgoode Main Street corridor to the south.

Impact Analysis and Recommendations

Species at Risk and other Significant Natural Heritage Features

Based on the disturbed habitats present and lack of suitable structures, including open rafters and open, unlined brick chimneys, the only potential Species at Risk utilization on or adjacent to the site appears to be butternut. No butternut was observed on or adjacent to the site. No other significant natural heritage features, including significant wildlife habitat and aquatic habitat, as defined in the Provincial Policy Statement and MNRF (2015), were observed or are anticipated for the site.

Tree Retention

As shown on Map 2 below, extensive tree retention is proposed for the one acre lots outside of the building envelopes. The Lot Development Plan prepared by NOVATECH (March 29th, 2021) was assessed to maximize tree retention, while providing for each lot a building envelope including a house footprint, a septic system, water well, amenity area, and access off the extension of Lombardy Drive. Grading and drainage requirements are anticipated to be minimal away from the building envelopes and septic systems.

Along the west portion of the site, a setback from the Osgoode Link Pathway (a former rail corridor), will retain the meadow marsh except for a small portion needed for the pathway connection from the new cul-de-sac to the pathway in a six metre wide block. Tree retention along the north and south site edges will also protect adjacent trees to the north and south and their critical root zones. There are no trees currently along the east property line due to a gravel pathway. Thus, no impacts are anticipated on the trees to the east of the south half of the site. A new forest edge will be created to the north where the study area is expanded to the east, along the east side of the extension of Lombardy Drive. The impacts of the new forest edge are anticipated to be minor given the relatively young age of the trees and open canopy in many areas.

There are no planting sensitivities for the site. Plantings of native trees and shrubs are recommended wherever possible in post-construction open areas. It is important that native trees from a local seed stock be used whenever possible. Recommended species for planting include a mix of coniferous and deciduous trees such as sugar maple, red maple, basswood, red oak, white

pine, and white spruce, along with nannyberry, elderberry, and dogwood shrubs. Use of invasive non-native plant material is strongly discouraged.

The following important mitigation measures are to be properly implemented:

1. To protect breeding birds, no tree removal is to occur between April 15th and August 15th, unless a breeding bird survey conducted by a qualified biologist within five days of the woody vegetation removal identifies no active nests in the vegetation to be removed;

2. Trees to be retained are to be protected with sturdy temporary fencing at least 1.2 metres in height installed from the tree trunk a distance of ten times the retained tree's diameter where possible. Signs, notices, or posters are not to be attached to any tree. No grading, heavy machinery traffic, stockpiling of material, machinery maintenance and refueling, or other activities that may cause soil compaction are to occur within the critical root zones of the trees to be retained and protected. The root system, trunk, or branches of the trees to be retained are to be protected and not damaged. If any roots of trees to be retained are exposed during site alterations, the roots shall be immediately reburied with soil or covered with filter cloth, burlap, or woodchips and kept moist until the roots can be buried permanently. A covering of plastic should be used to retain moisture during an extended period when watering may not be possible. Any roots that must be cut are to be cut cleanly to facilitate healing and as far from the tree as possible. A qualified arborist is to prune prior to construction any branches from retained trees on or adjacent to the site that may be damaged during construction. Exhaust fumes from all equipment during construction will not be directed towards the canopies of retained trees.

   All of the supports and bracing for the protective fencing should be placed outside of the protected area and should be installed in such a way as to minimize root damage. Also, since the desired effect of the barrier is to prevent construction traffic from entering the tree's critical root zone, the barrier should be kept in place until all site servicing and construction has been completed;

3. Where required, temporary seepage barriers such as silt fencing, straw bale check dams, and other sediment and erosion control measures are to be installed to OPSD requirements in any temporary drainage ditches, around disturbed areas during construction, and stockpiles of fine material. These control measures must be properly maintained to maximize their function during construction and will be removed at the completion of construction once the site has stabilized. Any dewatering of groundwater is to be properly treated before release. Re-vegetation of exposed, non-developed areas with native species is to be achieved as soon as possible to reduce surface erosion;

4. The contractor is to be aware of potential Species at Risk in the vicinity of the site including butternut. Appendix 1 of City of Ottawa (2015) describes these species. The project biologist for this development is Bernie Muncaster (613-748-3753). Any Species at Risk sightings are to be immediately reported to the project biologist and MECP, and activities modified to avoid the potential for impacts until further direction is received by the Ministry;

5. As recommended in City of Ottawa (2015), prior to beginning work each day, wildlife is to be checked for by conducting a thorough visual inspection of the work space and immediate surroundings. See Section 2.5 of City of Ottawa (2015) for additional recommendations on construction site management with respect to wildlife. It is the responsibility of the contractor to be familiar with all components of City of Ottawa (2015). Any turtles, snakes, or other sensitive wildlife in the work area are to be relocated to the forested area to the east. Animals should be moved only far enough to ensure their immediate safety. See Appendix 1 and the links in Section 4 of City of Ottawa (2015) for suggestions on how to effectively relocate turtles and snakes;

6. Municipal by-laws and provincial regulations for noise will be followed and utilities will be located in the vicinity of the site prior to construction;

7. Waste will be managed in accordance with provincial regulations. The contractor will have a spill kit on-hand at all times in case of spills or other accidents.

8. The extent of exposed soils is to be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas is to be achieved as soon as possible; and,

9. Roof runoff should be directed to grass or other permeable surfaces.

Schedule of Proposed Works

It is proposed to remove the remaining woody vegetation not identified for retention in 2020 after the breeding bird period.

Conclusion

Seven residential lots, each between 0.4 and 0.5 hectares and to contain one detached residential unit, are proposed for the site within the existing built-up portion of the Village of Osgoode. The site is disturbed from a natural environment perspective by former agricultural activity, though regenerating woody vegetation has established well following the decades since farming ceased. Due to the Village sized lots, tree and other vegetation retention is anticipated for each lot, including a setback from the Osgoode Link Pathway (a former rail corridor) immediately to the west of the site. No Species at Risk utilization or other significant natural heritage features were observed or are anticipated for the site other than butternut, which was not noted.

Planting of native trees and shrubs will add to the features and functions of the site and over time replace the limited functions of the trees to be removed. It is important that other mitigation measures outlined in this report are properly implemented and maintained.

References

Brownell, V.R. and C.S. Blaney. 1997. Summary: Natural Area Reports for Natural Areas East of the Rideau River. Prepared for the Regional Municipality of Ottawa-Carleton, Planning and Development Approvals Department. 324 pp.

City of Ottawa. 2010. City of Ottawa Official Plan. As adopted by City Council, May, 2003 and Updated 2010. Publication: 1-28. 227 pp & Sched.

City of Ottawa. 2015. Protocol for Wildlife Protection during Construction. August, 2015. 14 pp & Append.

Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. 2nd Edition. March 2010. 233 pp.

Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January, 2015. 38 pp.

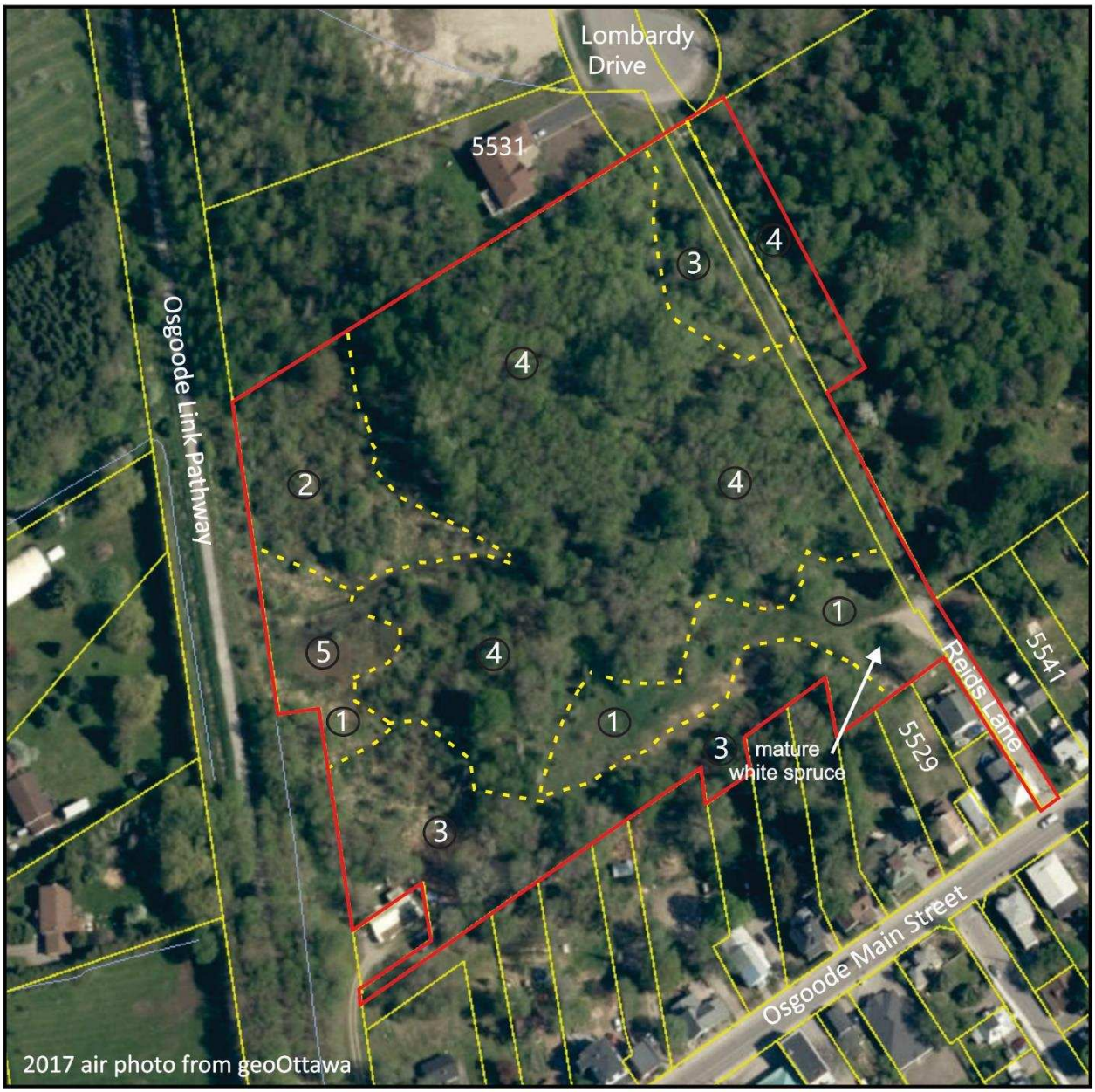
Schut, L.W. and E.A. Wilson. 1987. The soils of the Regional Municipality of Ottawa-Carleton (excluding the Ottawa Urban Fringe). Report No. 58 of the Ontario Institute of Pedology.

Please call if you have any questions or comments on this Environmental Impact Statement and Tree Conservation Report.

Yours Sincerely,
MUNCASTER ENVIRONMENTAL PLANNING INC.

Bernie Muncaster, M.Sc.
Principal

novatech\Reids Lane EISTCR



Legend

Site

Vegetation Communities

Vegetation Communities

1. Cultural meadow
2. Cultural thicket
3. Cultural woodland
4. Upland poplar-Manitoba maple deciduous forest
5. Reed canary grass meadow marsh

Approx. Scale 1: 2,000

0 25 50 75 METRES

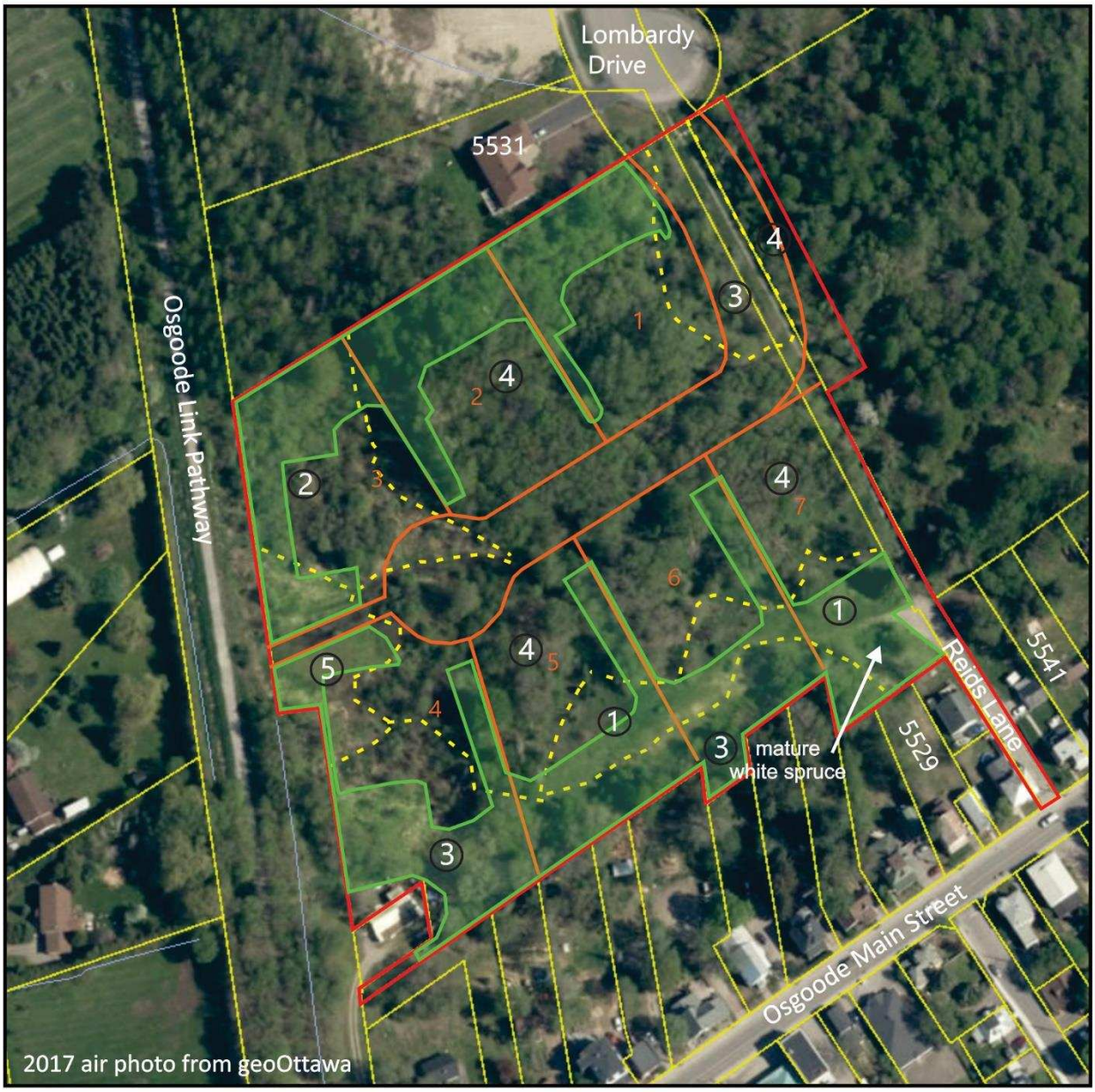
FILE: 18 - 32	Map 1	April 14, 2020

CURRENT VEGETATION

3200 Reids Lane
Osgoode, City of Ottawa

Prepared for: **Crestview Innovation Inc.**

Prepared by: Muncaster Environmental Planning Inc.



Legend

- Site
- Vegetation Communities
- 1 - 7 Lot numbers
- Proposed Tree Retention

Vegetation Communities

1. Cultural meadow
2. Cultural thicket
3. Cultural woodland
4. Upland poplar-Manitoba maple deciduous forest
5. Reed canary grass meadow marsh

Approx. Scale 1: 2,000

0 25 50 75 METRES

FILE: 18 - 32	Map 2	April 1, 2021

PROPOSED CONSERVED VEGETATION

3200 Reids Lane
Osgoode, City of Ottawa

Prepared for: **Crestview Innovation Inc.**

Prepared by: Muncaster Environmental Planning Inc.