Muncaster Environmental Planning Inc.

July 21, 2022

A & G Olender Holdings Ltd.
4 Campbell Reid Court
Ottawa, Ontario
K2K 1X7

Dear Dr. Olender:

RE: 4 Campbell Reid Court, March and Dunrobin Roads
Tree Conservation Report and Environmental Impact Statement

This Environmental Impact Statement (EIS) and Tree Conservation Report (TCR) assesses a proposed single story veterinarian clinic for a 0.79 hectare site on the southwest side of Campbell Reid Court, to the northeast of the intersection of March and Dunrobin Roads. The site is with part of Lot 15, Concession 3 of the Geographic Township of March, City of Ottawa.

For the purposes of this report Dunrobin Road in the vicinity of the site is considered to be in a north-south alignment.

The proposed one-storey veterinarian clinic will be 5,425 sq. ft (504 m^2), constructed as slab on grade. An existing access off Dunrobin Road will be used, leading to eighteen surface parking spaces. The access will be upgraded and paved but the parking lot will be gravel. An existing residence in the northeast portion of the site, off Campbell Reid Court, will remain and the existing septic system and drill water well will service the clinic.

Site Context

The site and adjacent lands are not part of the Natural Heritage Features Overlay or other components of the Natural Heritage System, as shown on Schedule C11-A of the new City of Ottawa Official Plan. No environmental constraints are shown for the site and adjacent lands on Schedule C15 of the new Official Plan. Annex 16 showed a linkage, approximately one kilometre wide, between the South March Highlands to the west and the Shirley's Bay to the east. This mapped linkage is not shown on Schedule C11-A. The site is not part of or adjacent to a Natural Area, as identified in the former Region's Natural Environment System Strategy. There are no Provincially Significant Wetlands or Areas of Natural and Scientific Interest in the vicinity of the site, with Shirley's Bay the closest such feature approximately 1.7 kilometres to the east. No unevaluated wetlands or surface water features are mapped on geoOttawa for the site and adjacent lands.

The site is a combination of treed and open areas, including the existing residence. Tree removal occurred on the site in the 1990s, with portions of the north and south parts remaining treed. At this time and continuing into the 2000s a large amount of fill appears to have been placed on the site. Portions of the site have regenerated with woody vegetation since then, in addition to the trees in the north and south parts.

Methodology

This report follows the City's Guidelines for Environmental Impact Statements and Tree Conservation Reports, with guidance from the Natural Heritage Reference Manual (OMNR, 2010). The Environmental Impact Statement component of this report includes an assessment of the terrestrial features, including the potential for specimen trees, significant woodlands, and Species at Risk. A field survey of the site and adjacent lands was completed on May 19th, 2021 from 09:50 to 11:25. Weather conditions during the survey included a light breeze, an air temperature of 22° C, and sunny skies.

The field survey and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over thirty-three 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. It is proposed to remove the woody vegetation not identified for retention in 2022 after the breeding bird season.

Potential Species at Risk

The Ministry's Make a Map: Natural Heritage Areas website was reviewed on May 15th, 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 areas (18VR22 - 44 and -54). Two Species at Risk, bobolink and eastern meadowlark, were identified in the search, along with northern map turtle, a species of special concern. The Ontario Reptile and Amphibian Atlas also identified Blanding's turtle and snapping turtle for the overall 10km square 18VR22 that includes the overall site and general area. No potential turtle habitat was observed or are mapped on or adjacent to the site. Bobolink and eastern meadowlark utilize larger areas of grasslands, including hayfields. This habitat is also not present on or adjacent to the site.

The breeding birds listed in the Ontario Breeding Bird Atlas for the 10 km square 18VR22 include eastern whip-poor-will, barn swallow, bank swallow, eastern meadowlark and bobolink as threatened Species at Risk. Bobolink and eastern meadowlark are discussed above. Barn swallow utilizes barns and other structures with open beams for nesting and forages in open areas for flying insects. No suitable structures were observed on or adjacent to the site for barn swallow or chimney swift, which uses open brick chimneys without metal liners. Bank swallow is a colonial nester; burrowing in eroding silt or sand banks and sand pit walls; habitat not present on or adjacent to the site. Eastern whip-poor-will requires large wooded areas with open patches, and/or open woodlands or alvar. The on-site and adjacent contiguous forest to the north is too small at approximately 0.7 hectares and the understory too thick for potential use by this ground nester.

Many endangered and threatened species have historically been reported in the overall City, including butternut, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, little brown myotis, northern long-eared bat, olive hickorynut, bald eagle, golden eagle, cerulean warbler, least bittern, eastern cougar, lake sturgeon, and American eel. No cavity trees that may be used by bats for potential summer maternity bat colonies were observed on or adjacent to the site.

Based on the habitat present on and adjacent to the site, butternut is the most likely Species at Risk to be found on or adjacent to the site.

Existing Conditions

The topography of the site is undulating due to the historical addition of fill. A surficial layer of uncontrolled fill material was encountered at all test pit locations by GEMTEC (2021). The fill material is variable across the site but GEMTEC (2021) described generally as dark brown/grey gravelly sandy silt with organics, rootlets, roots, cobbles, boulders, and construction debris. The thickness of the fill material ranges from 0.3 to 1.0 metres at the test pit locations (GEMTEC, 2021). A former topsoil layer and native deposits of glacial till were observed by GEMTEC (2021) at several test pit locations below the fill. Bedrock was encountered at depths ranging from about 1.0 to 1.3 metres below existing grade. Bedrock geology maps of the area show that the overburden deposits are underlain by Paleozoic aged sandstone and dolostone bedrock of the March Foundation (GEMTEC, 2021). Minor groundwater seepage was observed by GEMTEC (2021) at the bottom of one test pit at a depth of about one metre below existing grade, with all other test pits dry.

Cultural Meadow

The centre of the site, including the existing septic system, is dominated by non-native or aggressive ground flora including common dandelion, common burdock, common mullein, crown vetch, common milkweed, awnless brome grass, June meadow grass, Canada goldenrod, field horsetail, yellow rocket, and ground ivy. Scattered woody vegetation includes bur oak up to 35cm diameter at breast height (dbh), with small crabapple stems and red raspberry and common lilac shrubs.

As mentioned above, rock fill is abundant in this area.

Cultural Thicket

Regenerating poplar, Manitoba maple, white pine, white birch, pin cherry, bur oak, and white cedar stems are among a good representation of common buckthorn, staghorn sumac, and slender willow shrubs. The ground flora is also reflective of disturbed conditions, including white bedstraw, awnless brome grass, common dandelion, Canada goldenrod, wild carrot, red clover, evening primrose, and common strawberry.

Upland Deciduous – White Pine Mixed Forest

White pines up to 55cm dbh were the largest trees observed in the small areas of forest in the south and north portions of the site. Manitoba maples up to 40cm dbh are common along the forest edges, with smaller trembling aspen, white cedar, and white spruce well represented in areas. Bur oak, red oak, white ash, white elm, red maple, and black cherry are also present. Many of the ash and white elms are dead, with broken or dead major branches and yellowing of needles on some of the pines. Windthrow is common in the forest.

Common and glossy buckthorn are abundant in portions of the thick understory of the upland mixed forest, with chokecherry, red raspberry, common lilac, serviceberry, and red-osier dogwood also present. Regenerating ash, white elm, bur oak, maple, cherry, and poplar stems were also noted in the understory. Common dandelion, common burdock, poison ivy, awnless brome grass, June meadow grass, garlic mustard, ground ivy, blue violet, and eastern bracken are representative of the ground flora.

Wildlife

No Species at Risks were observed on or adjacent to the site during the field survey. Wildlife observed included American crow, black-capped chickadee, downy woodpecker, American robin, northern cardinal, common grackle, song sparrow, American goldfinch, grey squirrel, and eastern chipmunk. Woodpecker activity was noted in a couple of the pine trees with cavities in the mixed forest. No stick nests, or other evidence of raptor use were observed on or adjacent to the site. No stone fences are present. The rock fill could be used by wildlife.

Photo 1 – Cultural meadow habitat in the central portion of the site. View looking north

Photo 2 – Thicket habitat in the west portion of the site, east of Dunrobin Road. View looking west

Photo 3 – Upland mixed forest in the southwest portion of the site where south portion of clinic is proposed. View looking west

Photo 4 – Upland mixed forest in the north portion of the site will be retained. View looking north

Significant Woodlands

Significant woodlands in the rural portion of the City of Ottawa are determined using the criteria in Section 7.2 of OMNR (2010). As breaks in contiguous forest are provided by the adjacent public roads, the on-site and adjacent contiguous forests are too small at approximately 0.7 hectares to meet the significant woodlands criterion for size. In addition, there is no forest interior habitat and no other features were observed in the forest that would meet the criteria for significant woodlands, including a lack of larger tree structure, no apparent economic or social functions, and no rare vegetation communities.

Although the forest does not meet the criteria for significant woodlands, it does provide some ecological functions including local wildlife habitat, and an area of tree cover and associated climate, air quality, wildlife, and nature appreciation benefits. The linkage function associated with the site is reduced by the adjacent March and Dunrobin Roads and development on and adjacent to the site, including residences and agricultural activity. Important mitigation measures are outlined below to minimize impacts on the forest and linkage function of the site.

Significant Wildlife Habitat

The potential for significant wildlife habitat is assessed using the guidance in OMNR (2010) and MNRF (2015). No flora, fauna or ecological conditions identified in the background review or field survey that would trigger a Significant Wildlife Habitat designation with respect to the ELC communities present were observed on the site. For example, the cultural habitats and upland forest do not support waterfowl stopover or staging areas, colonial nesting bird breeding habitat or other examples of seasonal concentration areas, rare vegetation communities as noted in MNRF (2015), or rare or specialized habitats including seeps or springs. Wetland habitats for significant amphibian breeding and other features and functions are not present.

No forest interior habitat is present and thus potential nesting of species of special concern such as wood thrush and eastern wood-pewee is unlikely. No evidence of raptor wintering areas was noted and old growth forest is not present. The overall forest is not large enough to meet the size criterion for deer winter congregation areas and areas of fissured rock for potential use by snakes were not observed, though many rock piles are present.

Impact Analysis and Recommendations

<u>Species at Risk and other Significant Natural Heritage Features</u>

No Species at Risk were observed for the site, including no butternut observations on or adjacent to the site. No potential structures for chimney swift or barn swallow are present. No suitable turtle or other wetland habitat is present. The density of cavity trees is too small to meet the threshold of 10 per hectare for potential use as summer bat maternity colonies.

The on-site forest is not considered significant woodlands and significant wildlife habitat is not present. Most of the tree cover on the site was removed in the 1990s and the remaining forest is disturbed by windthrow and non-native species in the understory and ground flora, and no forest

interior habitat is present. The forest does not appear to provide any economic or social functions.

Regardless, the on-site forest does provide some ecological functions including local wildlife habitat, and an area of tree cover with associated climate, air quality, wildlife, and nature appreciation benefits. Potential impacts during construction of the office development and associated removal of trees and other vegetation includes impacts on wildlife, increased erosion and release of sediments and other potential contaminants from truck traffic and construction activity, harm to wildlife remaining in the work area during construction, and impacts associated with an increase in noise, dust and light. The following mitigation measures are designed to address these potential impacts.

Tree Retention

As shown on Map 2, extensive areas of the on-site forest will be retained. The retained trees will include the two cavity trees observed on the site. To improve visibility of the clinic, some selective pruning may occur on the larger trees close to the intersection of March and Dunrobin Roads. This will focus on removal of dead/dying branches and trees will not be removed in this area.

Tree retention along the north and south portions of the site will also protect any co-owned trees to the north and/or south of the site.

In terms of planting sensitivities, tree and shrub species that have a high water demand are not recommended for the site due to the clay soils. c**heck Geotech to see if present** These species include willows, poplars, and elm. To ensure adaptability and longevity, it is important that native trees from a local seed stock be used for planting whenever possible. Recommended species for planting include a mix of coniferous and deciduous trees such as sugar maple, red maple, basswood, red oak, and white spruce, along with nannyberry, ninebark, native high-bush cranberry, elderberry, and dogwood shrubs

The follow important mitigation measures are to be properly implemented:

1. To protect breeding birds, no tree removal should 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. This window also applies to selective pruning of branches on some trees in the southwest corner;

2. Trees to be retained are to be protected with sturdy temporary fencing at least 1.3 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 three metres of the critical root zone 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. Overhanging branches from retained trees, including those adjacent to the site, that may be damaged during construction are to be pruned by a qualified arborist prior to construction. Exhaust fumes from all equipment during construction will not be directed towards the canopy of the adjacent 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. The extent of exposed soils is to be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas with native species is to be achieved as soon as possible to reduce surface erosion;

4. Disturbances to stone piles is to occur in early April or late August to end of October to ensure wildlife that may use these features during the winter or breeding period are not impacted;

5. Where required seepage barriers such as silt fencing, straw bale check dams, and other sediment and erosion control measures will 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 or directed to the sanitary system;

6. 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 project is Bernie Muncaster (613-748-3753). Any Species at Risk sightings are to be immediately reported to the project biologist and the Ministry of the Environment, Conservation and Parks and activities modified to avoid impacts until further direction by the Ministry;

7. 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. Any turtles, snakes, or other sensitive wildlife in the work areas are to be relocated to the north. 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. Only trained individuals can relocate Species at Risk;

8. It is recommended that no permanent fencing that may impact wildlife movements be installed;

9. To discourage wildlife from entering the work area during construction, the site should be kept clear of food wastes and other garbage, and proper drainage provided to avoid accumulation of standing water, which could attract amphibians, birds, and other wildlife to the work area;

10. 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;

11. 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;

12. Snow removal is not to be pushed into the retained forests; and,

13. Roof runoff should be directed to rain barrels, grass, or other permeable surfaces.

Schedule of Proposed Works

It is proposed to remove the woody vegetation not identified for retention in 2022 after the end of the breeding bird period.

Conclusion

No significant natural heritage features, as identified in the Provincial Policy Statement, were observed on or adjacent to the site. Many of the trees were removed in the 1990s, with the majority of existing trees in the south and north portion of the site to be retained. The linkage function associated with the site is impacted by the adjacent March and Dunrobin Roads and residences, and other disturbances on and adjacent to the site. The proposed tree retention will permit the existing linkage functions of the site to continue.

It is important that mitigation measures outlined in this report are properly implemented and maintained.

References

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

GEMTEC. 2021. Geotechnical Investigation, Proposed Commercial Building, 4 Campbell Reid Court, Ottawa, Ontario. July 21, 2021. Project 65103.01. 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.

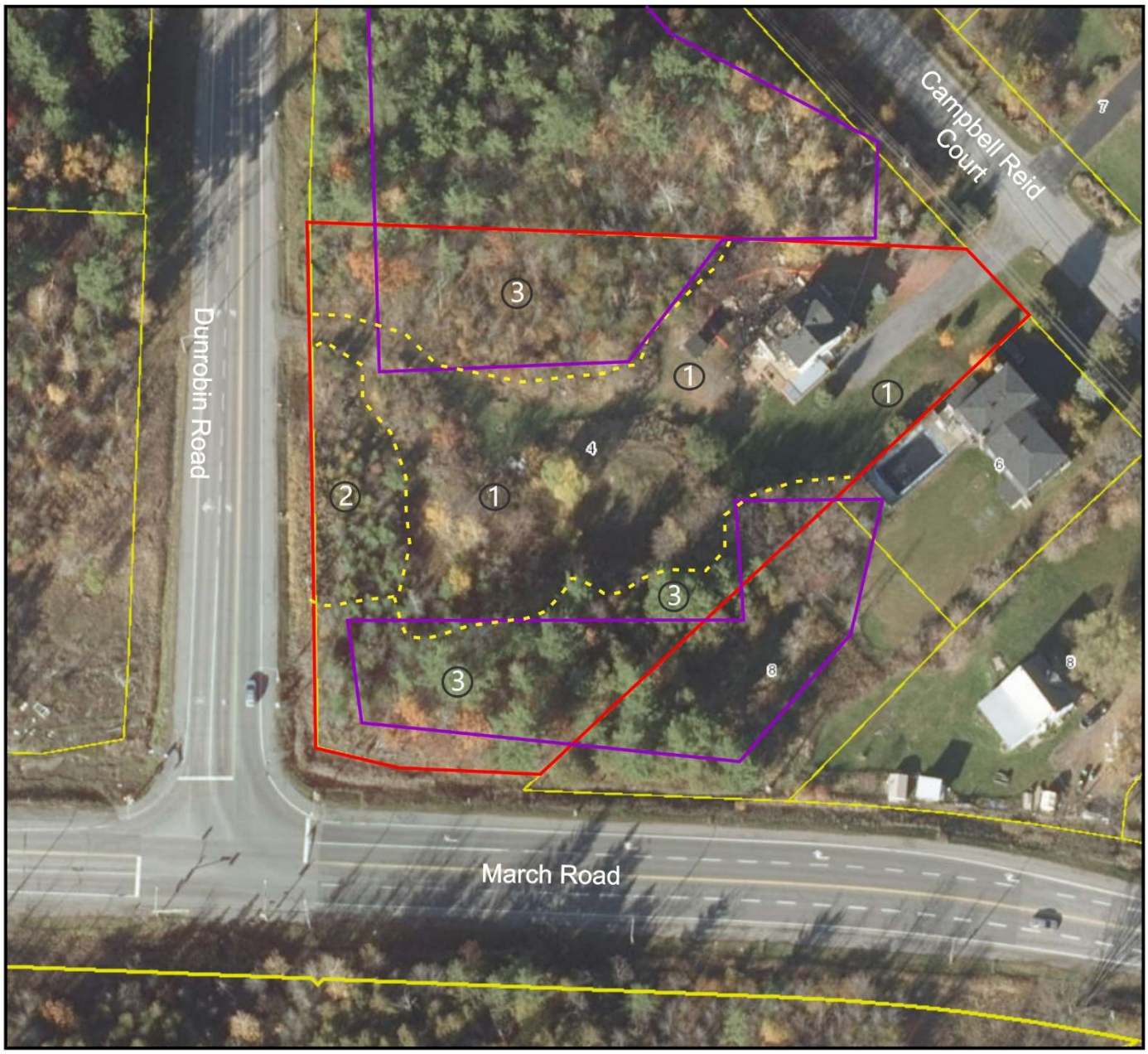
Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January, 2015. 38 pp.

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

\4 Campbell EISTCR



2019 airphoto base from geoOttawa website

Legend

- Site
- Vegetation Communities
- Natural Heritage System per Annex 16 & Sch. L3

Vegetation Communities

1. Cultural meadow
2. Cultural thicket
3. Upland deciduous - white pine mixed forest

Approx. Scale 1:1,100

0 20 40 60 METRES

Map 1

FILE: 21 - 06

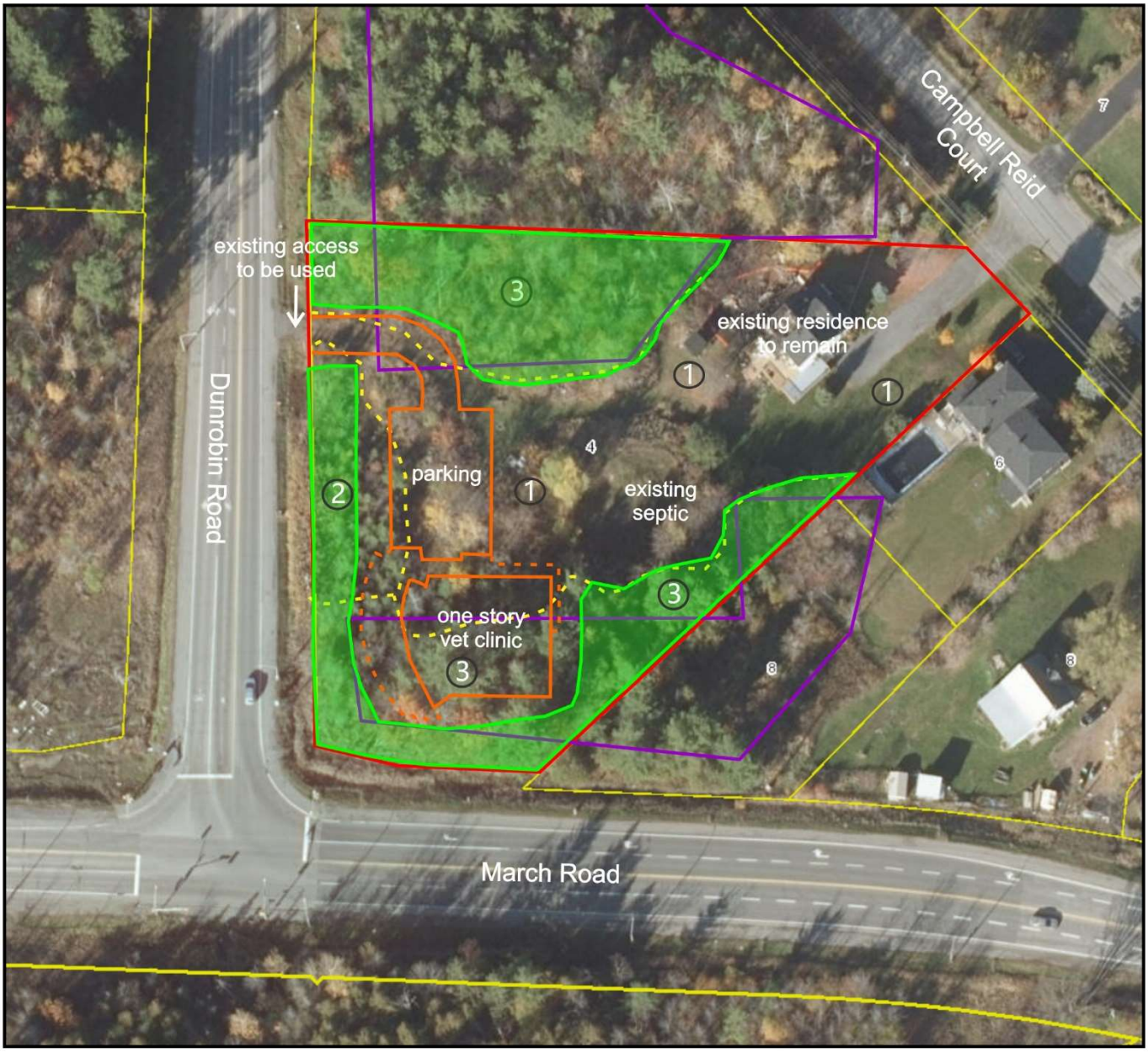
July 10, 2021

NATURAL ENVIRONMENT FEATURES

4 Campbell Reid Court
March, City of Ottawa

Prepared for: Dr. Olender

Prepared by: Muncaster Environmental Planning Inc.



2019 airphoto base from geoOttawa website

Legend

- Site
- Vegetation Communities
- Natural Heritage System per Annex 16 & Sch. L3
- Potential Areas of Tree Retention

Vegetation Communities

1. Cultural meadow
2. Cultural thicket
3. Upland deciduous - white pine mixed forest

Approx. Scale 1:1,100

0 20 40 60 METRES

Map 2

FILE: 21 - 06

July 21, 2021

PROPOSED CONSERVED VEGETATION

4 Campbell Reid Court
March, City of Ottawa

Prepared for: Dr. Olender

Prepared by: Muncaster Environmental Planning Inc.