Muncaster Environmental Planning Inc.

February 27, 2020

Mr. Michael Michaud
Land Development Project Manager
Glenview Homes Ltd.
190 O'Connor Street, 11th Floor
Ottawa, Ontario
K2P 2R3

Dear Mike:

**RE: BMR Lands, South Side of Innes Road**
**EIS – Species at Risk and Mitigation Measures - Updated**

This scoped Environmental Impact Statement provides information on potential Species at Risk and other species of special interest and potential natural heritage features on a site between 3592 and 3672 Innes Road, on the south side of Innes opposite the south terminus of Boyer Road. Mitigation measures to protect specific features and the environment in general are also provided in the EIS. This report has been updated to address January 14th and February 25th comments from the Conservation Authority and City of Ottawa, respectively.

Glenview Homes intends to develop a residential subdivision consisting of single-detached and townhouse units, two blocks for future medium-density residential development at the north end of the site, and a 1.01 hectare park block in the southwest portion of the site (Figure 2).

### *Site Context*

The site is within the City's urban area and is designated *General Urban Area* on Schedule B of the Official Plan. There are no portions of the City's Natural Heritage System on or adjacent to the site, with the closest portions the Innes Pak Woods, approximately 400 metres to the east, and the Navan Road at Pagé Road Natural Area a similar distance to the south. These woods are also the closest Urban Natural Areas. There are no Provincially Significant Wetlands or Areas of Natural and Scientific Interest in proximity to the site, with Mer Bleue the closest such feature about two kilometres to the south.

Colour aerial photography (1976 - 2017) was used to assess the natural environment features in the general vicinity of the site. A site review was completed on October 25th, 2018, with an air temperature of 5° C, sunny skies, and a light breeze. Several frosts had occurred prior to the survey but no snow was present.

### *Existing Conditions*

The site is highly disturbed from a natural environment perspective. Aerial photography indicates the site was formally in agricultural fields, with a large retail operation constructed in the 1980s in the north half. Since the 1980s regenerating woody vegetation was scattered in the south half until this was cleared again in 2016 to prepare the south portion of the site for agricultural operations, although the current zoning (light industrial) does not permit agricultural use. The applicant indicates that crops were planted in 2017, 2018, and 2019. A Tree Cut Permit was obtained from the City of Ottawa for the 2017 tree removal. Lands to the west and east were agricultural fields more recently than the site itself, with urban residential development underway to the west, and small regenerating woody vegetation scattered to the east. No natural aquatic habitat potential is mapped or was observed on or adjacent to the site.

A drive-through lumber yard has been removed in the northwest portion of the site. The adjacent areas are used for surface parking, with areas of fill to the south of the parking areas. South of this the site has been stripped of topsoil or ploughed (Photo 1). Regenerating ground vegetation in the disturbed areas was dominated by invasive species such as common burdock, butter-and-eggs, Canada thistle, common yarrow, ox-eye daisy, field sow-thistle, common dandelion, Canada goldenrod, New England aster, white-sweet clover, common ragweed, wild carrot, timothy, orchard grass, European bur-reed, June meadow grass, green foxtail, common mugwort, common mullein, bird's-foot trefoil, and white clover. Scattered woody vegetation included red-osier dogwood, Bebb's willow, red raspberry, and staghorn sumac shrubs, and regenerating poplar and Manitoba maple stems.

The trees adjacent to the site were generally young (Photo 2), with trembling aspen, white elm, and bur oak up to 25cm diameter at breast height (dbh) dominant. A few larger trees were to the west of the site, including mature bur oak and smaller Manitoba maple, green ash and white elm (Photo 3). The closest of these trees appeared to be in the range of five metres west of the west site property line.

As part of the East Urban Community Design Plan, a natural environmental assessment of existing conditions was completed by Niblett Environmental Associates in 2013 and 2014. This site was included in the study area for the Community Design Plan. The natural environmental assessment included a Headwater Drainage Features Assessment component. A watercourse (labelled 'W1" by Niblett) flowing to the south was identified along the south portion of the west site periphery, with a second watercourse ('W2') in an east-west alignment leading to the first channel in the south portion of the site.

Watercourse "W1" was described by Niblett as an artificial trapezoid channel that had been historically ditched. The channel flow, likely intermittent, is south to the Mud Creek stormwater pond, terminating at a storm grate. During Niblett's July habitat assessment, the watercourse contained minimal flowing water at an average depth of 5cm. The watercourse function of "W1" has been classified as "contributing" under the headwater drainage feature guidelines.

Watercourse "W2" was described by Niblett as an artificial channel, ditched to convey overland ephemeral flow to Watercourse "W1" during the spring freshet and high precipitation events. The 0.3 metre wide channel was dry and indiscernible at times from the surrounding land cover and soils. The channel was overgrown by terrestrial shrubs and grasses. During on June 5th, 2014 review by Niblett, the watercourse was *predominantly dry with small sections of standing stagnant shallow water*. The watercourse function of "W2" was classified as "limited" under the headwater drainage feature guidelines. No fish were observed by Niblett in these watercourses.

Wildlife observations included American crow, red-tailed hawk, ring-billed gull, common redpoll, tree sparrow, and American goldfinch.

The natural environmental assessment of existing conditions completed by Niblett Environmental Associates in 2013 and 2014 as part of the East Urban Community Design Plan did not identify significant natural environmental features such wetlands, Urban Natural Areas, Species at Risk, or area sensitive bird species on the current site.

*Photo 1 –Site looking north from about 800 metres south of Innes Road*

*Photo 2 – Trees to south and east of southeast portion of the site are young. This example is to the south of centre portion of the south boundary. View looking south*

*Photo 3 – Scattered trees to west of the site are older but set a minimum of five metres from the west site edge. View looking northwest*

### *Species at Risk*

No butternuts or other Species at Risk were observed during the field survey although the survey was completed outside of the growing season. On October 21st, 2018 the Ministry of Natural Resources and Forestry's Make a Map: Natural Heritage Areas website was reviewed (www.giscoeapp.lrc.gov.on.ca/web/MNR/NHLUPS/NaturalHeritage/Viewer/Viewer.html). 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 (18VR53 - 91 and - 92). No Species at Risk were in the database for these squares, with one species of special concern, eastern wood pewee, noted. This bird utilizes larger forests with forest interior habitat. No forests are on the site and no forest interior habitat is adjacent to the site.

Five Species at Risk, chimney swift, barn swallow, bank swallow, eastern meadowlark, and bobolink, are identified for the overall 10 km square (18VR53) including the current site in the Ontario Breeding Bird Atlas. Eastern meadowlark and bobolink utilize larger grassland areas such as hay fields. Although the site is open, it is too disturbed with topsoil removal and ploughing to provide the density of grasses and other ground flora that would be utilize by these grassland Species at Risk. Bank swallows nest in open sand walls, often in association with sand pits. No open sand walls were observed on the site. Barn swallows feed in open areas and nest in structures with accessible rafters such as barns, storage sheds, and the underside of bridges. The former open structures associated with the lumber yard in the northwest portion of the site have been removed. Chimney swifts nest predominantly in open chimneys and historically in tree hollows. No structures are present on the site that may be utilized by these species, and adjacent open brick chimneys were not observed.

Snapping turtle, a species of special concern, was recorded for the overall 10 km square 18VR53 in the Ontario Reptile and Amphibian Atlas, but the endangered Blanding's turtle was not. No wetland or aquatic habitat is present on the site and no turtle utilization is anticipated for the site or adjacent lands. The northeast portion of a stormwater management facility is approximately 100 metres south of the southwest portion of the site.

As part of the East Urban Community Design Plan and associated natural environmental assessment of existing conditions was completed by Niblett Environmental Associates in 2013 and 2014 several Species at Risk were identified in the overall study area for the CDP. These included bank swallow, barn swallow, eastern meadowlark, bobolink, and least bittern, as well as wood thrush and eastern wood pewee, species of special concern. These observations were not on or adjacent to the current site. The closest example was bobolink, reported approximately 150 metres to the east of the site, as well as bank swallow and barn swallow flying in the overall study area. As described above, suitable habitat for these species is not present on the current site.

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, hickorynut, chimney swift, eastern meadowlark, barn swallow,

bank swallow, bobolink, whip-poor-will, bald eagle, golden eagle, cerulean warbler, least bittern, eastern cougar, lake sturgeon and American eel.

The habitat requirements of the above species along with those listed as special concern were reviewed. The only Species at Risk considered to have the potential to be on or adjacent to the site in its current condition is butternut which is found in a variety of habitats in Ottawa. No butternuts were observed on or adjacent to the site.

### *Significant Woodlands*

A forested area is now considered significant woodlands in the urban area of the City of Ottawa if the forest is 0.8 hectares in size or larger and is 60 years of age and older at the time of evaluation. As the site and adjacent lands are all agricultural fields in 1976 aerial photography, there are no existing or former treed areas on or adjacent to the site that would be considered significant woodlands. Mitigation measures are presented below to protect trees adjacent to the site.

### *Impact Analysis and Recommendations*

The site is isolated from natural areas by existing and increasing urban development. There are no significant natural heritage features, as defined in the 2014 Provincial Policy Statement on or adjacent to the site.

Application of the headwater drainage feature guidelines as part of the East Urban Community Design Plan identified a management recommendation of mitigation for the watercourses.

The mitigation management recommendation requires:

- Replicate or enhance functions through enhanced lot level conveyance measures, such as well-vegetated swales (herbaceous, shrub and tree material) to mimic online wet vegetation pockets, or replicate through constructed wetland features connected to downstream;

- Replicate on-site flow and outlet flows at the top end of system to maintain feature functions with features such as vegetated swales and bioswales. If catchment drainage has been previously removed due to diversion of stormwater flows, restore lost functions through enhanced lot level controls (i.e. restore original catchment using clean roof drainage); or,

- Replicate functions by lot level conveyance measures (e.g. vegetated swales) connected to a natural heritage system, as feasible and/or Low Impact Development (LID) stormwater options.

Plantings of native vegetation on a lot-by-lot basis will assist in providing local habitat to offset trees that have been removed. To provide a natural appearance, trees and shrubs should be planted in a random, cluster fashion rather than in a grid system. Potential native species to plant

include nannyberry, elderberry and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, white cedar, bur oak, red oak and white spruce trees. In terms of planting sensitivities, tree and shrub species that have a high water demand are generally not recommended due to the underlying silty clay soils. These species include willows, poplars, Manitoba maple and elm. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity.

In addition to the headwater recommendations above, the follow mitigation measures are recommended:

1. To protect breeding birds, as required no additional tree or shrub 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 trees or shrubs;

2. Although not anticipated, any trees and shrubs to be retained are to be protected with sturdy orange construction fencing at least 1.2 metres in height installed from the tree trunk a minimum distance of ten times the retained tree diameter. 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 to occur within five 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. Exhaust fumes from all equipment during construction will not be directed towards the 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 trees critical root zone, the barrier should be kept in place until all site servicing and house construction has been completed;

3. As indicated above, plantings of native vegetation as part of the urban residential subdivision on a lot-by-lot basis are recommended to provide natural environment and aesthetic features. Potential native species to plant include nannyberry, elderberry and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, white cedar, bur oak, red oak and white spruce trees. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity. Only locally appropriate native species are to be used for landscaping adjacent to natural features or buffer zones;

4. To protect any trees immediately adjacent to the site, no excavations or other activities that may impact the critical root zone of these adjacent trees should be undertaken within the critical root zones. The critical root zones are identified as ten times the diameter of the tree to be protected. To be conservative, no excavations, filling, stockpiling, or other major site disturbances should occur within four metres of the property line. The park proposed for the southwest portion of the site (see Figure 2) will provide extensive protection for any remaining trees adjacent to the site in this area;

5. 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;

6. The objective with respect to erosion and sediment controls will be to ensure that the surface water runoff leaving the site is not degraded with respect to water quantity or quality. Erosion and sediment control will focus on best management practices;

7. Where groundwater must be removed, the groundwater will be pumped into a proper filter mechanism such as a sediment trap or filter bag prior to release to the environment;

8. Seepage barriers such as silt fencing, straw bale check dams and other sediment and erosion control measures will be installed as required to OPSD requirements in any temporary drainage ditches and around disturbed areas during construction and stockpiles of fine material. These control measures must be properly maintained to maximize their function during construction. An Erosion and Sediment Control Plan will be prepared during the detailed engineering analysis;

9. The contractors and other on-site workers are to be aware of potential Species at Risk in the vicinity of the site including butternut, and on appropriate measures to reduce human-wildlife conflict during the work. Appendix 1 of the City of Ottawa's Protocol for Wildlife Protection during Construction (August, 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 Environment, Conservation and Parks and activities modified to avoid impacts until further direction by the Ministry;

10. 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 south. 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;

11. To discourage wildlife from entering the work areas 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 areas;

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

13. 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.

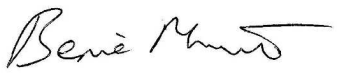
### *Conclusion*

In summary, no significant habitat for the potential Species at Risk and other species of special interest is present on or adjacent to the site, and the site and adjacent lands do not represent any other significant natural heritage features, as identified in the Provincial Policy Statement.

Important mitigation measures are provided in this report to protect the natural environment in general.

Please call if you have any questions on this updated Environmental Impact Statement.

Yours Sincerely,
**MUNCASTER ENVIRONMENTAL PLANNING INC.**



Bernie Muncaster, M.Sc.
Principal

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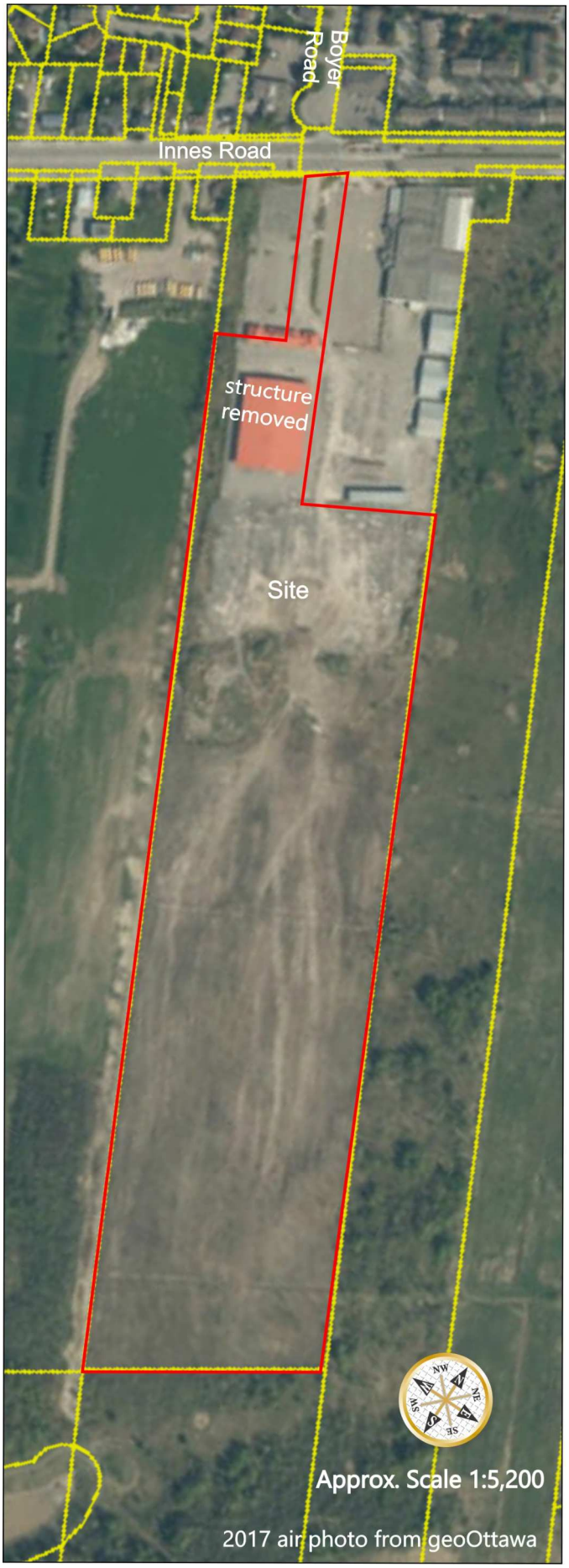
**FIGURE 1 - SITE and ADJACENT LANDS**



## FIGURE 2 – PLAN of SUBDIVISION (from NOVATECH)