
To:	Eric Bays Stantec - Ottawa	From:	Andrea Orr Stantec - Ottawa
File:	160410368	Date:	September 2, 2022

Reference: 1495 Heron Road Redevelopment Environmental Impact Statement Addendum, Ottawa, Ontario – SAR Bat Acoustic Monitoring Memo - FINAL

INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by the Canada Lands Company (CLC) to complete Species at Risk (SAR) Bat Maternity Roost Acoustic Monitoring at the proposed redevelopment location of 1495 Heron Road, Ottawa, Ontario (18T 448923E, 5025546N; the Site) (**Figure 1**). This memo will be an addendum to the *1495 Heron Road Environmental Impact Statement* (EIS) previously submitted by Stantec (2022).

The EIS was developed to support a Development Plan for the Site in order to guide the transformation of the property from a former institutional facility to a mixed-use community. The EIS will be used as supporting documentation in the City of Ottawa's (herein referred to as 'the City') planning applications for a Zoning By-law Amendment and a draft Plan of Subdivision.

Based on Stantec's understanding of recent guidance provided by the Ministry of Environment, Conservation and Parks' (MECP) Species at Risk Branch related to the identification of SAR bat habitat, Stantec has completed additional SAR bat acoustic monitoring within the 1495 Heron Road Study Area.

The Site is approximately 7.3 ha and includes a 1.5 ha woodland and parkland feature north of the developed areas. Located within the Guildwood Estates neighborhood in the Alta Vista community, the Site is bound to the north by naturalized parklands and existing single-family residential dwellings; bound to the south by Heron Road and medium-high density mixed residential and commercial buildings; bound to the west by St. Patrick High School and Queens of Angels School (not currently in use) as well as Orlando Park; and bound to the east by single-family residential dwellings.

The only natural feature on Site includes the woodland to the northwest of the property and was classified as a Fresh-Moist Deciduous Woodland Ecosite (WODM5). The canopy and sub-canopy of this low-lying deciduous woodland feature was abundant with green ash [either alive, declining, or dead due to emerald ash borer (*Agrilus planipennis*)], trembling aspen (*Populus tremuloides*), *Salix* species, and Manitoba maple (*Acer negundo*), and American elm (*Ulmus americana*). The understory was heavily vegetated with non-native/invasive species of European and glossy buckthorn and dog-strangling vine (*Vincetoxicum nigrum*). Red clover (*Trifolium pratense*), common burdock (*Arctium minus*), and *Carex* species occurred in the ground layer in sparse abundance. This community exhibited a high amount of invasive and pioneer species, thereby representing a disturbed vegetation community due to previous land uses.

This Study Area consisted of relatively uniform topography with lowlands and pockets of marsh, an unauthorized urbanized trail system, and meadow areas. Other areas predominately consists of urban infrastructure with landscaping of maintained grass interspersed with planted trees.

METHODS

Acoustic bat surveys were conducted using four Automatic Recording Units (ARUs), specifically Wildlife Acoustic SM4Bat FS Detectors, which were deployed throughout the Site. The four ARUs were attached to

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trees with cable ties and were installed either adjacent to potential bat roost trees, within a central location of the buildings, and adjacent to the woodland of WODM5.

- ARU-01 was placed within a cluster of individual planted trees adjacent to Heron Road;
- ARU-02 was placed in a courtyard in proximity to Buildings A, J, K, and L;
- ARU-03 was installed in proximity to Buildings A, D, and E; and
- ARU-04 was installed adjacent to the woodland feature (WODM5). ARUs were not installed within the WODM5 vegetation community as it was identified as an unsuitable SAR bat maternity roosting feature due to the dense/dominant understorey of invasive plant species and the absence of suitable SAR bat roosting trees, as mentioned above. The extensive growth of the invasive plant species throughout the woodland also made it inaccessible to install ARUs by Stantec field staff.

ARU-02 and 03 were installed in a central location amongst the majority of the buildings in order to collect representative data of SAR bats that may be using the buildings as habitat. Site selection of the ARUs followed guidance within the Ministry of Environment, Conservation and Parks (MECP) *Treed Habitats – Maternity Roost Surveys* (2022) document which references the *Bats and Bat Habitats: Guidelines for Wind Power Projects* (MNR 2011).

Bat acoustic monitoring station locations are shown on **Figure 2**.

The ARUs were deployed on May 25, 2022 and collected on June 23, 2022. Recording parameters followed guidance within: *Species at Risk Bats Survey Note* (MECP 2022), *Treed Habitats – Maternity Roost Surveys* (MECP 2022), *Use of Buildings by Species at Risk Bats Survey Methodology* (MNR 2018), and *Bats and Bat Habitats: Guidelines for Wind Power Projects* (MNR 2011). Recording commenced 30 minutes before sunset and continued for five hours after sunset. The ARUs remained on Site for at least 10 nights in June during optimal weather of warm/mild nights (i.e., ambient temperature >10°C) with low winds and no precipitation.

The recordings by the ARUs were also screened using Wildlife Acoustic's Kaleidoscope Pro Automatic ID and then visually assessed (i.e., spectrograph) by Stantec qualified professionals with experience in bat identification and monitoring to confirm identification of the calls.

RESULTS

Fifteen planted trees within the Site were observed to have bat roosting habitat characteristics. Four trees contained cavities high up in the main trunk, while the remainder of the trees only contained peeling bark (**Figure 3**). Full results of the bat maternity roost habitat assessment have been provided within the *1495 Heron Road Redevelopment EIS* (Stantec 2022).

Four non-SAR bat species were identified during Stantec's SAR Bat Maternity Roost Acoustic Monitoring efforts, with no observations of SAR bats. Species recorded include: Big Brown Bat (*Eptesicus fuscus*), Eastern Red Bat (*Lasiurus borealis*), Hoary Bat (*Lasiurus cinereus*), and Silver-haired Bat (*Lasionycteris noctivagans*).

Table 1 summarizes detection results by station and total number of bat recordings.

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Table 1: Summary of Bat Detection Results

	Total Bat Recordings
Station 1	1063
Station 2	167
Station 3	301
Station 4	836
TOTAL	2367

CONCLUSION

Based on Stantec’s understanding of recent guidance provided by the MECP Species at Risk Branch related to the identification of SAR bat habitat, Stantec has completed the additional SAR bat acoustic monitoring within the 1495 Heron Road Study Area. As such, this memo is an addendum to the *1495 Heron Road Environmental Impact Statement (EIS)* previously submitted by Stantec (2022).

The Study Area contained 15 potential SAR bat roost trees that occurred as planted individuals within the site location. One building (Building I) was identified as potential SAR bat habitat. The woodland feature to the north of the site was deemed not suitable bat habitat due to the absence of suitable bat roost trees and low-quality habitat due to the abundance of invasive plants. Four ARU’s were placed in proximity to either potential SAR bat roost trees, buildings, and the edge of the woodland.

No SAR bats were identified to occur at the time of acoustic monitoring in June 2022. Therefore, it is anticipated that SAR bats will not be impacted from the proposed redevelopment construction activities at 1495 Heron Road.

The federal recovery strategy does not identify maternity roosts as critical habitat for bats. Hibernacula, which are defined as critical habitat (Environment and Climate Change Canada 2015), were also not identified during the investigation as occurring within, or adjacent to, the Study Area.

Based on data obtained during field surveys and subsequent analysis, it is anticipated that harm to SAR bats and/or their habitat as a result of the proposed redevelopment activities will not occur. Therefore, permitting under the ESA and/or the SARA is not anticipated. For further mitigation measures for non-SAR bats, please refer to Section 7.4.1.4 of the EIS.

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REFERENCES

Environment and Climate Change Canada. 2015. Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada, Ottawa.

MECP (Ministry of Environment, Conservation, and Parks). 2022a. Species at Risk Bats Survey Note.

MECP (Ministry of Environment, Conservation, and Parks). 2022b. Treed Habitats – Maternity Roost Surveys.

MNRF (Ministry of Natural Resources and Forestry). 2018. Use of Buildings by Species at Risk Bats Survey Methodology.

MNR (Ministry of Natural Resources). 2011. Bats and Bat Habitats: Guidelines for Wind Power Projects. Queen's Printer for Ontario.

Stantec. 2022. Environmental Impact Statement – 1495 Heron Road Redevelopment.

Regards,

Stantec Consulting Ltd.

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Attachment: Attachment A – SAR Bat Acoustic Monitoring Figures (Figure 1 – 3)

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ATTACHMENT A

Figures



- Legend
- Site Boundary
 - Study Area (120m)



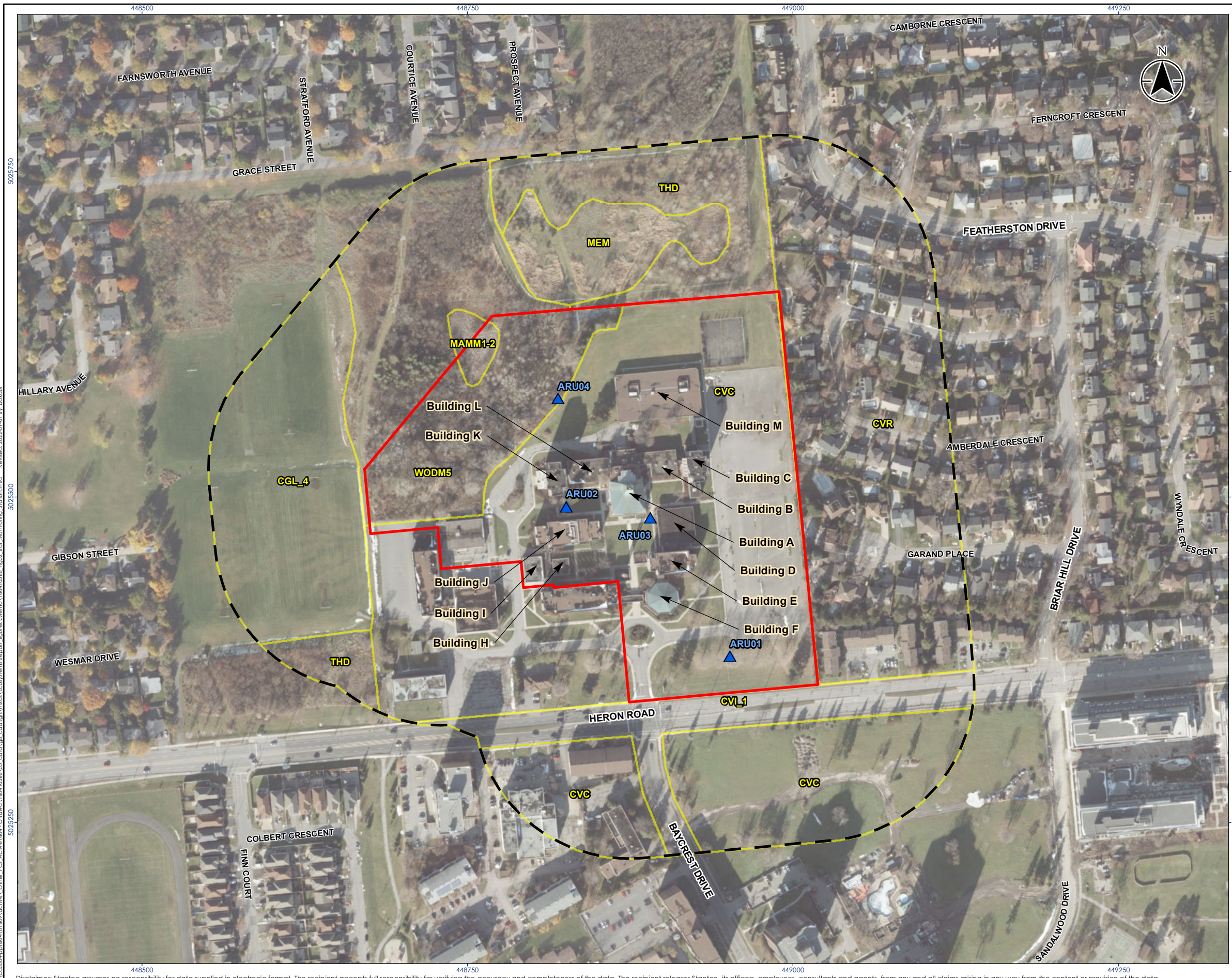
- Notes
1. Coordinate System: NAD 1983 UTM Zone 18N
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
 3. Aerial imagery from City of Ottawa, 2022. Imagery date, 2019.



Project Location: City of Ottawa
 160410368 REV4
 Prepared by KB on 2022-06-30
 Technical Review by DH on 2022-06-15

Client/Project
 CANADA LANDS COMPANY (CLC)
 1495 HERON ROAD
 SAR Bat Acoustic Monitoring

Figure No. **1**
 Title **Site Plan**
DRAFT



- Legend**
- Site Boundary
 - Study Area (120m)
 - ▲ Bat Acoustic Monitoring Station
 - ELC Boundary



- Notes**
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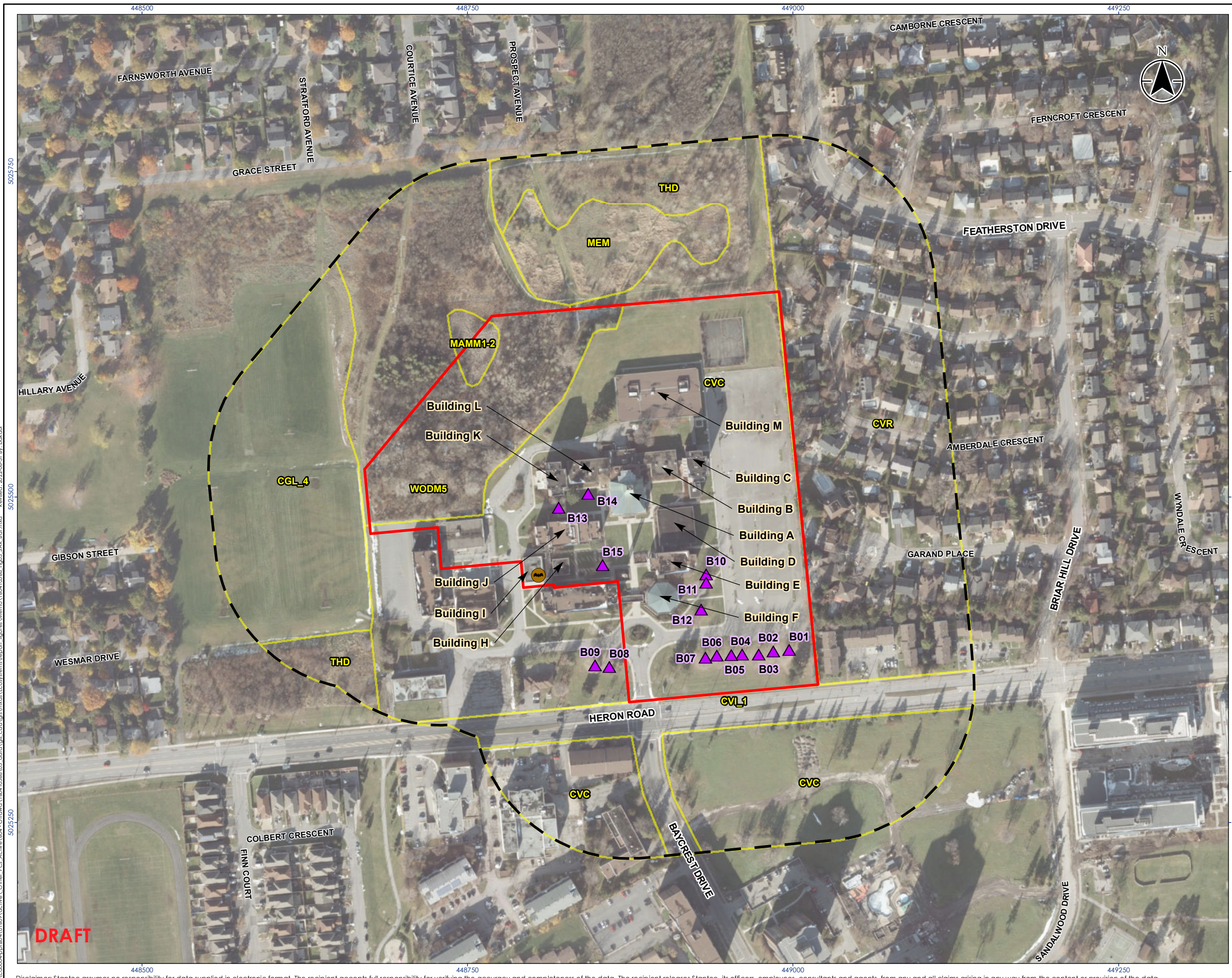


Project Location: City of Ottawa
 Prepared by KB on 2022-09-01
 Technical Review by DH on 2022-06-15
 160410368 REV4

Client/Project:
 CANADA LANDS COMPANY (CLC)
 1495 HERON ROAD
 SAR BAT ACOUSTIC MONITORING

Figure No.
2

Title
Bat Acoustic Monitoring Stations



- Legend**
- Site Boundary
 - Study Area (120m)
 - ELC Boundary
 - Potential SAR Bat Habitat Feature
 - ▲ Potential Bat Maternity Roost Tree



- Notes**
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Project Location: City of Ottawa
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Client/Project:
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 1495 HERON ROAD
 SAR BAT ACOUSTIC MONITORING

Figure No. **3** **DRAFT**
 Title: **Bat Maternity Roost Habitat Suitability Assessment**