

Ministry of Citizenship and Multiculturalism (MCM)

Archaeology Program Unit
Heritage Branch
Citizenship, Inclusion and Heritage Division
5th Floor, 400 University Ave.
Toronto ON M7A 2R9
Tel.: (705) 492-1395
Email: Rebecca.Gray@Ontario.ca

Ministère des Affaires civiques et du Multiculturalisme (MCM)

Unité des programme d'archéologie
Direction du patrimoine
Division de la citoyenneté, de l'inclusion et du patrimoine
5e étage, 400 ave. University
Toronto ON M7A 2R9
Tél. : (705) 492-1395
Email: Rebecca.Gray@Ontario.ca



Sep 20, 2024

Ian Boyce (P1059)
Archeoworks Inc.
1029 - 16715-12 Yonge Newmarket ON L3X 1X4

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 3 Archaeological Assessment of the H1 (AIGs-508) Site As Part of the Proposed Development of 3225 Fifth Concession Draft Plan of Subdivision 18T-87096 Within Lot 4, Concession 5 In the Geographic Township of Pickering Now in the City of Pickering Regional Municipality of Durham Ontario", Dated Sep 29, 2022, Filed with MCM on Jan 27, 2023, MCM Project Information Form Number P1059-0114-2021, MCM File Number 0014278

Dear Mr. Boyce:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.¹ This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Map 8 and Map S7 of the supplementary documentation of the above titled report and recommends the following:

1. Per Section 3.5, Standard 1 of the 2011 S&G, the H1 (AIGs-508) has been identified by Indigenous communities to be of interest. Therefore, the following Stage 4 mitigation strategies have been formulated with feedback & approval from the interested Indigenous communities. Furthermore, the interested Indigenous communities will be invited to participate during Stage 4 excavation activities, as per the 2011 Draft Technical Bulletin for Consultant Archaeologist in Ontario – Engaging Aboriginal Communities in Archaeology.

2. The Indigenous Component of the H1 (AIGs-508) site represents a small habitation or specialized site, possibly a re-tooling station. As such, this site has significant cultural heritage value or interest, & requires Stage 4 mitigation prior to development impacts.

According to Sections 3.5 & 4.2 of the 2011 S&G, the preferred approach is avoidance & protection of the site. As such, the following options were presented & discussed with the proponent: project redesign;

excluding the area of the archaeological site; or incorporating the area of the archaeological site into the project design. It was subsequently determined that the portion of this site lying within the project area limits cannot be avoided or protected; therefore, the site must be subjected to a comprehensive Stage 4 archaeological excavation in accordance with the requirements set within Sections 4.2.1 (General Excavation Requirements), 4.2.2 (Excavation by Hand), 4.2.3 (Excavation by Mechanical Topsoil Removal), & 4.3 (Determining the Extent of Excavations), 4.4 (Collecting Soil Samples) of the 2011 S&G.

STAGE 4 EXCAVATION:

Block Excavation Recommendations

Per Section 4.2.2 of the 2011 S&G, hand excavation “is the preferred technique for documenting the full range of materials & formation processes at an archaeological site.” Additionally, Section 4.2.9, Standard 1 requires the excavation of one metre square units by hand. The Stage 4 hand excavation of contiguous one-square-metre units (“block excavation”) will follow the methods & requirements outlined in the 2011 S&G’s Sections 4.2.1 (general Stage 4 excavation requirements), 4.2.2 (general hand excavation requirements) & 4.2.9 (specific hand excavation requirements for undisturbed sites), as well as Table 4.1 (determination of hand excavation extent). Hand excavation by trowel & shovel will commence in units immediately adjacent to the four Stage 3 test units that yielded more than 10 lithic artifacts, namely: 304-495, 305-494, 305-495 & 305-497.

Block Excavation of Topsoil

Hand excavation of the plough-disturbed topsoil deposit in each unit must be screened through mesh with an aperture of no greater than six millimetres in order to facilitate artifact recovery, with no need to individually piece-plot artifacts given that the material is no longer in situ owing to decades of agricultural ploughing. All exposed subsoil surfaces under the topsoil must be cleaned by shovel (“shovel shine”) or trowel to aid in identifying subsurface cultural features. Care should be taken during block excavation to examine the exposed subsoil for faint staining or concentrations of artifacts at the surface of subsoil.

Excavation of Features Identified on Surface of Subsoil

All Indigenous cultural features clearly identified on the topsoil–subsoil interface must be hand-excavated by systematic (stratigraphic or standardized) levels & fully documented only after complete exposure, except when not possible (e.g., where full exposure is restricted by the project limits). All cultural features must be hand-excavated according to Section 4.2.2, Standard 7 of the 2011 S&G. All hand-excavated soils must be screened through mesh with an aperture of no greater than six millimetres to facilitate artifact recovery, with the exception of any samples retrieved from appropriate cultural features that are reserved for specialist analysis. Any soil samples taken for flotation & specialist analysis must be collected in accordance with Section 4.4 of the 2011 S&G. All cultural features must be documented with photographs & drawings according to Section 4.2.1, Standard 9 of the 2011 S&G, & mapped & recorded relative to the grid established during the Stage 3 AA.

Excavation of Invisible Feature(s) in Subsoil

Given the site’s unusual lithic distribution pattern, wherein a substantial proportion of the debitage had been recovered from the subsoil as opposed to the plough-disturbed topsoil, while likely the cause of root disturbance it is also possible that the subsoil at the site core consists an invisible or “ghost” feature that could be defined solely by the presence of artifacts & thereby only have a form by the distribution of those artifacts (i.e. there is no staining or visible cut for a feature to define its limits). If no Indigenous features are identified at the topsoil–subsoil interface, the subsoil deposit in the core of the site must be excavated with care. Hand excavation of subsoil must be carried out per unit, within the grid system established in the Stage 3 AA, in order to determine the unit’s overall (topsoil + subsoil) artifact yield.

Per Section 4.2.2, Standard 7.b of the 2011 S&G, if a ghost feature is determined to be present, the

undisturbed subsoil deposit/invisible feature surrounding must be excavated by careful trowelling, & all recovered artifacts horizontally & vertically mapped by piece-plotting to facilitate the reconstruction of the plan & profile of the deposit. In accordance with Section 4.2.9 of the 2011 S&G, hand excavation must extend down until at least 10 cm below any artifact has proved sterile. All loose soils generated from trowelling must be screened through mesh with an aperture of no greater than six millimetres to recovery of smaller artifacts not spotted during the trowelling & recording process, with the exception of any samples retrieved from appropriate cultural features that are reserved for specialist analysis. Any soil samples taken for flotation & specialist analysis must be collected in accordance with Section 4.4 of the 2011 S&G. Subsoil excavation must be documented with photographs & drawings according to Section 4.2.1, Standard 9 of the 2011 S&G, & mapped & recorded relative to the grid established during the Stage 3 AA.

Horizontal Extent of Hand Excavation.

Block excavation must be conducted in accordance with requirements outlined for small pre-contact sites in Table 4.1 of the 2011 S&G, namely that: excavation must proceed outwardly from test units 304-495, 305-494, 305-495 & 305-497 until there are total (topsoil & subsoil) yields of fewer than 10 artifacts from the edge units; excavation must continue if units include at least two formal tools/diagnostic artifacts &/or fire-cracked rock, bone or burnt Indigenous artifacts; & excavation must extend a minimum of 2 m beyond identified Indigenous cultural features.

Mechanical Topsoil Removal Recommendations

Once block excavation is completed mechanical topsoil removal is then to be performed over the entirety of the H1 (AIGs-508) site area where feasible & not restricted by the project area limits, in accordance with Section 4.2.3 of the 2011 S&G. Topsoil stripping must be carried out using a Gradall machine or back hoe with a smooth bucket under the supervision of a licenced archaeologist. Mechanical topsoil removal must stop at or above the topsoil/subsoil interface. In accordance with Section 4.3, Table 4.1 of the 2011 S&G mechanical topsoil removal must extend a minimum of 2 metres beyond uncovered Indigenous cultural features where possible (e.g., where not restricted by the property limits).

Other Requirements

A thorough record of on-site investigations, including field notes, maps & photographs, should be maintained. Finally, a report documenting the methods & results of excavation & laboratory analysis, together with an artifact inventory, & all necessary cartographic & photographic documentation should be produced in accordance with the licensing requirements of the MCM.

3. The Euro-Canadian Component of the H1 (AIGs-508) site represents a historical domestic archaeological resource dating primarily to the 1840s-1850s period. As such, this site has significant cultural heritage value or interest, & requires Stage 4 mitigation prior to development impacts. According to Sections 3.5 & 4.2 of the 2011 S&G, the preferred approach is avoidance & protection of the site. As such, the following options were presented & discussed with the proponent: project redesign; excluding the area of the archaeological site; or incorporating the area of the archaeological site into the project design. It was subsequently determined that the portion of this site lying within the project area limits cannot be avoided or protected; therefore, the site must be subjected to a comprehensive Stage 4 archaeological excavation in accordance with the requirements set within Sections 4.2.1 (General Excavation Requirements), 4.2.2 (Excavation by Hand), 4.2.3 (Excavation by Mechanical Topsoil Removal), 4.2.7 (Excavation of 19th Century Domestic Sites), 4.3 (Determining the Extent of Excavations) & 4.4 (Collecting Soil Samples) of the 2011 S&G.

STAGE 4 EXCAVATION:

Block Excavation Recommendations...remainder of recommendation presented in Stg3 RE.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for

the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Rebecca Gray
Archaeology Review Officer

cc. Archaeology Licensing Officer
Paul Bigioni, 869547 Ontario Inc.
Felix Chau, City of Pickering

¹ *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*