

municipal clients and the development industry on the intersection of Aboriginal affairs and land use planning are also foreseen.

7.0 IMPLEMENTATION

7.1 Introduction

As discussed above, the role of municipalities in the conservation of heritage features is crucial. Planning and land use control are predominantly municipal government responsibilities and the impact of municipal land use decisions on archaeological resources is significant, especially since municipally-approved developments constitute the majority of land disturbing activities in the Province (Hansen 1984). Without adequate screening at a municipal level, the provincial government is unable to ensure protection for valued archaeological resources. Viewed from this perspective, archaeological protection cannot be implemented without municipal involvement.

The primary means by which cultural heritage resources are best protected is through the planning process. This requires the development of appropriate policies for the City of Vaughan and incorporation into the review process. The municipality also plays a crucial role in ensuring that the archaeological site protection measures of the *Ontario Heritage Act* are recognized and valued. The mapping prepared for this study is designed to be used by City of Vaughan staff to make decisions regarding requirements for archaeological resource assessments and/or monitoring in advance of development and/or site alteration.

Education is an important part of this process. While the public is generally supportive of environmental causes, we must also educate our community that the record of our cultural environment is slowly vanishing. As a science, archaeology often suffers from the attitudes and actions which result from public misconceptions about its motives, aims and methods. It is encouraging to note that when members of the public are made aware of archaeological sites, there exists a genuine interest not only in the pre-contact history and history of a City, but also in archaeology itself as an academic discipline. The City should support programs and endeavours related to involving the public in the investigation of the City's archaeological record.

7.2 Recommended Archaeological Resource Management Procedures

The archaeological review procedure, as it relates to development, requires close co-operation between the Policy Planning and Urban Design Department, the Recreation and Culture Department, and other City of Vaughan Departments, the staff of the Programs and Services Branch (Culture Programs Unit) of Ministry of Tourism and Culture, as well as both the development and the archaeological/historical research communities. In the case of all land-use alterations, the determination of whether or not there is a need for archaeological assessment will form part of the pre-consultation process between the development proponent and the City prior to the submission of an application. This will be determined by evaluating whether the application (or any part of it) is situated within the zone of archaeological potential.

This archaeological procedure should also apply to municipal development and/or infrastructure projects that involve construction, erection or placing of a building or structure. In addition, other activities such as site grading, excavation, removal of topsoil, or peat and the placing and dumping of fill; drainage works, except for the maintenance of existing municipal and agricultural drains, should be subject to the same procedures.



In order to apply the archaeological procedure on all public lands managed by the City, the Policy Planning and Urban Design and Recreation and Culture Departments should hold internal discussions with staff from other departments to establish protocols that ensure that in all appropriate circumstances, construction projects undertaken by those departments that are located in areas of archaeological potential or areas identified as being archaeologically sensitive, are subject to archaeological assessment prior to any land disturbing activity. Through such discussions, the Policy Planning and Urban Design and Recreation and Culture Departments will be better able to establish some guidelines on the kind of work that needs to be reviewed for possible archaeological concerns and work which would not require review.

7.3 The Planning Review Process: A Summary

Recommended guidelines for the approach used in the review process for all land disturbance applications within the City are summarized below.

As part of the pre-consultation process, City staff will determine if an archaeological assessment is required for a proposed application by means of review of the archaeological potential mapping. Should any portion of the property fall within a zone of archaeological potential or should the property contain a previously registered archaeological site, the City will require that the applicant undertake an archaeological assessment as a supportive document for planning application.

The development applicant will then retain a licensed archaeologist to conduct a Stage 1 or Stage 1-2 archaeological assessment of the entire subject property, not simply the portion(s) that falls within the zone of archaeological potential. All work conducted by the licensed archaeologist must conform to the standards set forth in the most current (draft or approved) Archaeological Assessment Technical Guidelines authorized by the Ministry of Tourism and Culture.

In the case of rural severances, only the land disturbance footprint need be assessed unless that footprint exceeds 50% of the area of the created lot. In the case that the footprint of land disturbance exceeds 50% of the lot area, the entire lot upon which construction is proposed will be assessed.

Once the archaeological assessment, consisting of background research and field survey (if required), has been completed, the archaeological consultant must submit a report to the Programs and Services Branch of Ministry of Tourism and Culture and to the Policy Planning and Urban Design and Recreation and Culture Departments.

The Ministry of Tourism and Culture should be requested to provide a copy to the City on any compliance letter issued to an archaeological consultant. This letter will serve to notify both parties that all provincial concerns with respect to archaeological resource conservation and archaeological licensing have been met. Upon receipt of this notification of Ministry of Tourism and Culture acceptance and supporting documentation (e.g., copies of archaeological site registration forms and reports) from the archaeological consultant, the City may then clear the planning application of any further archaeological concern.

The following wording for a standard archaeological condition should be used in planning agreements, where the need for an archaeological assessment has been identified.



WORDING FOR THE ARCHAEOLOGICAL CONDITION

The proponent shall carry out an archaeological assessment of the entire development property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading or other soil disturbances shall take place on the subject property prior to the approval authority confirming that all archaeological resource concerns have met resource conservation requirements.

The property will be assessed by a consultant archaeologist, licensed by the Ministry of Tourism and Culture under the provisions of the *Ontario Heritage Act* (R.S.O. 1990); and any significant sites found will be properly mitigated (avoided or excavated), prior to the initiation of construction, servicing, landscaping or other land disturbances.

The consultant archaeologist will submit 1) 1:10,000 scale mapping that clearly outlines the limits of the property subject to assessment and the locations of any new archaeological site locations; and 2) a copy of the relevant assessment report(s) all to the Cultural Services Department.

In cases where there is no identified archaeological potential, the following standard clauses (amended from time to time) must be included, as required by the Ministry of Tourism and Culture:

- (a) *Should archaeological resources be found on the property during construction activities, all work must cease and both the Ontario Ministry of Tourism and Culture and the City of Vaughan's Policy Planning and Urban Design and Recreation and Culture Departments shall be notified immediately.*
- (b) *In the event that human remains are encountered during construction activities, the proponent must immediately cease all construction activities. The proponent shall contact the City of Vaughan's Police Department, the Regional Coroner and the Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Business Services.*

These clauses will also be included in every Stage 1-2 archaeological assessment report.

The following information should also be provided to applicants concerning the archaeological assessment process.

THE ASSESSMENT PROCESS

A **Stage 1** assessment consists of background research concerning registered sites on the subject lands or within close proximity, as well as the environmental character of the property and its land use history. A **Stage 2** assessment consists of field survey to document any sites that may be present on a property. It should be noted that completion of an archaeological field assessment of a particular development property, no matter how rigorous, does not fully guarantee that all significant archaeological resources on that property will be identified prior to land disturbance. This is particularly the case in areas where



processes such as filling, flooding or erosion have resulted in the burial of original ground surfaces, or with respect to isolated human burials that are typically small features that can escape detection. **Stage 3** investigations are designed to secure a detailed understanding of the nature and extent of a site and may involve complete or partial systematic surface collection and test excavation. **Stage 4** undertakings comprise extensive excavation; comparative analysis and interpretation of content and contextual information.

If one or more significant archaeological sites that will require further mitigation are documented during the course of an assessment, it is generally possible to secure partial clearance for the property, in that the archaeological requirement may be removed from the balance of the subject lands not encompassed by the archaeological site(s) and suitable protective buffer zones. Although the final report of comprehensive archaeological mitigation work may take many months to complete, final clearance for the property may be available upon the archaeological consultant completing the fieldwork, submitting a brief executive summary to Ministry of Tourism and Culture staff and the proponent providing information regarding any outstanding concerns (e.g., commitment to production of the final report).

Should a proponent choose not to proceed with all necessary assessment and/or site mitigations prior to, and in support of the application, the completion of these activities to the satisfaction of Ministry of Tourism and Culture and the Cultural Services Department must be made a condition of draft approval.

7.4 The Municipal Project Review Process

For municipal projects, whether or not they are subject to the *Environmental Assessment Act*, the same process will be followed. Should the project impact areas of archaeological potential, the completion of an assessment and any necessary mitigation, subject to the approval of Ministry of Tourism and Culture, will be required.

7.5 Assessing Resource Impacts and Identifying Mitigation Strategies

If no adverse impacts to an archaeological resource will occur, then development may proceed as planned.

Should a significant archaeological resource be discovered during the course of an assessment, the development proponent, a representative of a relevant and appropriate First Nation (in the case of precontact sites), the archaeological consultant, Ministry of Tourism and Culture, and the approval authority must assess the potential impact to an archaeological resource and arrive at rational decisions regarding integration of that resource into the site or development plan or the implementation of mitigative options.

The review process at this stage requires the input of the proponent in order to make the decisions regarding potential adverse effects to a site. Should a site be threatened, the two available options are to immediately integrate the site into the development plan such as through re-allocation of open space/community park space or provide for mitigative procedures. The decision-making process with respect to mitigative procedures may be subject, however, to a cost benefit analysis where the mitigative option involves input from all of the stakeholders (i.e., the First Nation, the City, Ministry of Tourism and Culture, the heritage community and the development proponent - either public sector or private sector).



It is often assumed that the First Nation that is geographically closest to the project is the most suitable group with whom to consult, particularly when the issues at stake are those of archaeological resources and human remains. However, the complex histories of the First Nations of southern Ontario, both before and after European contact and settlement, means that such assumptions can be simplistic and detrimental to the success of the entire consultation process. Under all circumstances there should be an effort to identify the group or more likely groups that are the most appropriate (on cultural-historical grounds) to act as the designated descendants of those who occupied the project area in the past, and who are willing to participate and ensure that cultural heritage remains are treated in an appropriate and seemly manner. This identification process is best achieved through negotiation with a variety of communities in order that they may themselves arrive at the final decision. It should also be noted that the Ministry of Tourism and Culture has issued new draft Standards and Guidelines for Archaeological Assessment, which includes a requirement for Aboriginal Engagement between Stages 3 and 4 archaeological investigations on Aboriginal sites and recommended consultation before Stage 2 and 3. While these guidelines have not yet been finalized, such consultation is now expected by most First Nations.

In any situation, there are a number of mitigative options, including avoidance, modifications to construction techniques, and various degrees of documentation and/or excavation, as discussed below. Similarly, in all cases, thought should be given to the interpretive and educational potential of the site.

Detailed information regarding a site is frequently required in order to make a more accurate assessment of significance and to determine the potential for adverse effects. This may involve different levels of on-site investigations.

Many of the sites routinely encountered will prove to be of little or no significance and will not require further investigation, beyond the mapping, measuring and photographing of the surface attributes of the archaeological site that has already occurred during the course of the initial archaeological assessment.

Where more extensive archaeological mitigation is required, recommended mitigative options may take numerous forms, including:

- *Preservation*: the preferred mitigative option. Preservation may involve long-term protective measures such as project design changes (site avoidance) that integrate the resource within the overall development plan. To further avoid both accidental impact and intentional vandalism and looting, additional protective measures may include fencing, screening, or capping (only in special circumstances). The City must determine whether preservation is to occur on the landscape scale (i.e., areas of high cultural landscape heritage integrity combined with high archaeological potential are to be preserved as a whole), or at the scale of individual sites that are deemed to be particularly significant or sensitive (e.g., Late Woodland settlements that may contain human burials).
- *Stabilization*: may be required in the case of eroding archaeological deposits. This may involve the salvage excavation of the eroding area and/or the construction of retaining walls or barriers.
- *Systematic Data Recovery*: involves the recovery of data from significant archaeological sites, when other mitigative options are not feasible. It includes a complete or partial systematic surface collection, excavation, or both; a comparative analysis and interpretation of content and contextual information; and production of an investigative report. This mitigation strategy ultimately results in the destruction of the archaeological site.



- *Monitoring*: monitoring may be undertaken (only in specific circumstances) to ensure that adverse impacts on archaeological sites which could not be predicted or evaluated prior to construction are addressed. Monitoring requires the presence of a licensed archaeologist during the construction phase of a project. This takes the form of scheduled site visits and on-call availability during a long term project.

All decisions regarding mitigative options or preservation strategies are subject to Ministry of Tourism and Culture review and approval.

The site preservation/avoidance option has both short- and long-term components. The short-term component involves both the redesign of the development plan (e.g., lot layouts, parkland, road, and service alignments) and ensuring that the resource(s) in question are physically protected during construction by means of fencing or other visible barriers. The long-term protective measures can include the use of zoning by-laws or other conditions or orders for development that prohibit any future land use activities that might result in soil disturbance. For information regarding the preparation of a *Conservation Plan*, which is a document that details how an archaeological site can be conserved, the proponent and their consultant might consult with *InfoSheet #5, Heritage Impact Assessments and Conservation Plans*, Ministry of Culture, 2005. Such a plan could only be prepared after a detailed Stage 3 investigation of the site that is necessary to define the nature and extent of the site.

8.0 PLANNING RECOMMENDATIONS

In light of the preceding considerations, the following recommendations are made:

- 1) That the policies attached as Appendix A be incorporated into the Official Plan.
- 2) It is recommended that the archaeological potential mapping be used in making requirements for archaeological assessments in advance of development.
- 3) It is recommended that the Policy Planning and Urban Design and Recreation and Culture Departments work with City departments to establish protocols that ensure that in all appropriate circumstances, construction projects undertaken by developers, ratepayers and the City of Vaughan that may impact archaeological resources on public lands (e.g., trail, playground, playing field, public washroom, parking lot construction, road widening/extension, trunk sewer and watermain construction, stormwater management facility construction, municipal building and structure construction, etc.) and which are located in areas of archaeological potential, are subject to archaeological assessment prior to any land disturbing activity.
- 4) All Late Woodland village sites should be removed from developable lands. The boundaries of such villages must be established through comprehensive Stage 3 mitigations in accordance with the *Standards and Guidelines for Consultant Archaeologists* (final draft 2009).
- 5) No Stage 4 archaeological investigations on Aboriginal sites should be undertaken within the City of Vaughan without first filing a First Nations consultation report with the Policy Planning and Urban Design and Recreation and Culture Departments.
- 6) Archaeological assessment reports should contain the statement that should deeply buried archaeological remains be found on a property during construction activities, all work must cease and the Ministry of Tourism and Culture should be notified immediately. It should further specify

