



Waste Management of Canada Corporation

Environmental Assessment for a New Landfill Footprint at the West Carleton Environmental Centre

ARCHEOLOGY DETAILED IMPACT ASSESSMENT

Prepared by:
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Project Number:
60242342

Date:
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ARCHEOWORKS INC.

**Stage 2 Archaeological Assessment (AA):
West Carleton Environmental Centre
Within Parts of Lots 4 and 5, Concession 3
Former Township of Huntley
County of Carleton
City of Ottawa
Ontario**

**Project #: 148-OT553-11
Licencee (#): Jessica Marr (P334)
PIF#: P334-140-2011**

Original Report

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Executive Summary

Archeoworks Inc. was retained by *AECOM* to conduct a Stage 2 archaeological assessment (AA) of the Preferred Landfill Footprint Option at the West Carleton Environmental Centre (WCEC).

The Stage 1 archaeological assessment of proposed expansion alternatives to the WCEC identified potential for the recovery of historic Euro-Canadian and Aboriginal archaeological remains within select portions of each of the alternative footprints due to the proximity of a secondary watercourse – an unnamed tributary of the Carp River. Thus, it was recommended that a Stage 2 archaeological assessment be undertaken in all undisturbed, high potential locations to be impacted by construction.

The Stage 2 archaeological assessment of the preferred landfill footprint alternative involved the confirmation of disturbed locations within the study area limits, consisting of extensive grading and aggregate removal that resulted in the absence of any topsoil, a gravel access roadway, as well as dumping activities. The remainder of the subject property, consisting of agricultural fields and woodlots, was subjected to both test pit and pedestrian investigation as appropriate. Despite careful scrutiny, no archaeological remains were encountered. The entire study area should, therefore, be considered free from any further archaeological concern.

TABLE OF CONTENTS

Executive Summary i
 Table of Contents ii
 Project Personnel iii

1.0 Project Context..... 1-3
 2.0 Field Methods 3-4
 3.0 Record of Finds..... 4
 4.0 Analysis and Conclusions 4
 5.0 Recommendations..... 4
 6.0 Advice on Compliance with Legislation..... 4-5
 7.0 Bibliography and Sources 6

Tables
 Table 1: Sites within Two Kilometres of the Stage 1 AA Study Area 2

Appendices
 Appendix A: Maps 7-10
 Appendix B: Images 11-13
 Appendix C: Site Plan of West Carleton Environmental Centre Expansion 14
 Appendix D: Inventory of Documentary and Material Record 15

Project Personnel:

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1.0 PROJECT CONTEXT

1.1 Development Context

Archaeological Services Inc. was initially contracted by *Gartner Lee Limited*, on behalf of Waste Management of Canada Corporation in 2006, to conduct a Stage 1 Archaeological Assessment (AA) of proposed expansion alternatives to the West Carleton Environmental Centre (WCEC), in the City of Ottawa, Ontario (*see Appendix A – Map 1*).

Archeoworks Inc. was retained by *AECOM* to conduct a Stage 2 AA of the preferred landfill footprint alternative at the WCEC (*see Draft Plan – Appendix C*). The footprint alternative, measuring approximately 50 hectares in size, consists of agricultural fields, wooded areas, wetlands, and select disturbed locations including roadways, aggregate extraction and grading.

The Stage 2 assessment, reported herein, was conducted under the project direction of Ms. Jessica Marr, in accordance with the *Ontario Heritage Act* (1990) and the *Ontario Environmental Assessment Act* under archaeological consulting licence number P334. Permission to investigate the study area and to collect any encountered archaeological material was granted on November 9th, 2011.

1.2 Historical and Archaeological Context

1.2.1 Stage 1 AA Summary

The pre-survey research, outlined in the “*Stage 1 Archaeological Assessment: West Carleton Environmental Centre, Environmental Assessment, City of Ottawa, Ontario*” (Archaeological Services Inc., 2006) report, identified the potential for the recovery of historic Euro-Canadian and Aboriginal archaeological resources within undisturbed portions of the preferred landfill footprint option. The background research included a review of the *Ministry of Tourism and Culture’s* archaeological site database, which revealed that nine archaeological sites had been registered within a four-kilometre radius of the WCEC, one of which is within two kilometres (*see Table 1*), thus indicating a potential for encountering archaeological resources. The Stage 1 AA established archaeological potential for the location and recovery of Aboriginal material within the study area limits due to the proximity of an unnamed tributary of the Carp River, a secondary watercourse.

The determination of historic potential was based on a review of the *1879 Illustrated Historical Atlas of the County of Carleton*, which revealed that the parts of Lots 4 and 5, Concession 3, where the preferred landfill footprint option lies, contained one historic structure and was located immediately adjacent to Carp Road, a historic transportation route (*see Map 3*).

Finally, the Stage 1 report identified areas with no archaeological potential due to their disturbed condition. These disturbances were caused by aggregate extraction and grading

associated with a kitchen factory, and residential development along Carp Road. This classification of no archaeological potential has been accepted by the *Ministry of Tourism, Culture and Sport* (Sherratt, 2008).

Table 1: Sites Within Four Kilometres of the Ottawa WMF

Borden #	Name	Cultural Affiliation	Type
BhFx-21	Feldspar Mines	Euro-Canadian	Mine
BhFx-22	--	Pre-Contact	Lithic Scatter
BhFx-23	Rockerries Tip	Euro-Canadian	Midden
BhFx-24	Huston Homestead	Euro-Canadian	Farmstead
BhFx-25	Stewart/Moore Homestead	Euro-Canadian	Farmstead
BhFx-26	Allen	Euro-Canadian	Undetermined
BhFx-27	Corelview	Archaic, Middle to Late	Lithic Scatter
BhGa-6	Cavanagh	Euro-Canadian Pre-Contact	Homestead
BhGa-7	Fall's Hay Barn	Euro-Canadian	Barn

1.2.2 Previous Archaeological Assessments

Previous archaeological fieldwork conducted in lands within and immediately adjacent (i.e., within 50 metres) to the subject area are limited to the Stage 1 AA carried out by *Archaeological Services Inc.* in 2006. Due to the nature of a Stage 1 AA, the report only addressed the potential for the location of archaeological sites in the area and not whether any were actually located. The relevant parts of that report were summarized in the previous section.

1.2.3 Past Land Conditions and Uses

A review of the *1879 Illustrated Historical Atlas of the County of Carleton* (see *Map 3*) does not lend any insight to the land conditions of the study area during that time. The index of people who lived within the study area, although vague, does indicate that Rich Kemp was a farmer who settled in the area in the 1830s. Although he only owned a small portion of the study area, it is likely that his farming activities resulted in the clearing of this land for agricultural use. The other land owners within the study area did not have a listed occupation.

The 1998 NTS Map indicates that by this time, the area was no longer used for agricultural purposes and was heavily disturbed by the WCEC, as well as the Laurysen Kitchen Company.

1.2.4 Current Land Conditions and Uses

The current subject area, consisting of a woodlot, marshlands, agricultural fields, and a graded area that has been used for aggregate extraction, measuring approximately 50 hectares in total, is situated within a largely rural setting on the outskirts of the City of Ottawa (see *Map 1*). The subject area lies within the Ottawa Valley Clay Plains physiographic region of Ontario, a region characterized as having clay plains that are interrupted by ridges of rock or sand (Chapman and Putnam, 1984). The topography within the subject area limits can be described as smooth with some sloping areas –

mainly from grading activities. The soil in the subject area varied from a dark sandy loam to a lighter clay soil.

1.2.5 Dates of Fieldwork

The Stage 2 AA of the study area, as illustrated in *Map 4*, was undertaken from November 21st thru to November 24th of 2011. The weather during the Stage 2 investigations ranged from sunny and clear to slightly overcast to snowing, with temperatures averaging 2°C. The weather and lighting conditions during the Stage 2 investigation permitted good visibility of all parts of the study area and were conducive to the identification and recovery of archaeological resources.

2.0 FIELD METHODS

This field assessment was conducted in compliance with the *2011 Standards and Guidelines for Consultant Archaeologists* ('*2011 S&G*'), published by the MTC. Photographic images of the study area are presented within *Appendix B*. Location and orientation information associated with all photographs taken in the field are provided within *Map 4*.

2.1 Identified Disturbances / Areas of Low Archaeological Potential

Identified disturbances consisted of areas of extensive grading and aggregate removal that resulted in the absence of any topsoil, a gravel access roadway, as well as dumping activities (*see Appendix B – Images 1-5*). The majority of these disturbances were documented in 2008 by ASI, and amounted to 26.2 acres (52%) of the entire study area. Due to the low archaeological potential classification of these areas, a systematic survey was not warranted, nor undertaken in these locations.

Additionally, marsh and wetland areas were not tested due to the absence of archaeological potential (*see Appendix B – Image 6*). These areas amounted to 1.0 hectares (2.0%) of the study area.

The remainder of the study area was subjected to pedestrian and test pit surveys as appropriate, described in *Sections 2.2* and *2.3* below, respectively.

2.2 Pedestrian Survey

Approximately 15.6 hectares (32%) was subjected to a pedestrian form of survey. This survey method involves systematically walking ploughed areas within the property, and mapping and collecting artifacts found on the ground surface. The lands were recently ploughed and subjected to the appropriate weathering requirements according to *Section 2.1.1, Section 3* of the *2011 S&G*. Ploughing was conducted deep enough to provide total topsoil exposure, but not deeper than previous ploughing. Greater than 80% of the ploughed ground surface was visible at the time of survey and the ploughed fields were tested at survey transects of five metres (*see Images 7-10*). No archaeological material was encountered during the pedestrian investigation.

2.3 Test Pit Investigation

The remainder of the study area, approximately 7.2 hectares (14%) of woodlot, was subjected to systematic test pit survey, performed at standard five-metre intervals. Furthermore, test-pitting was conducted until the exposed test-pit profile revealed evidence of recent ground disturbance. Test pit surveys are defined as excavating 30x30cm units at set intervals on a grid pattern in areas requiring this form of assessment. A total of approximately 2952 test pits were excavated to depths of between 10-30 centimetres, and the topsoil was screened through six-millimetre mesh in order to facilitate the recovery of artifacts (*see Images 11-12*). All test pits were examined for stratigraphy, cultural features and evidence of fill and were excavated into the first five centimetres of subsoil. All test pits were backfilled. No archaeological material was encountered during the test-pit investigation.

3.0 RECORD OF FINDS

Despite careful scrutiny, no archaeological resources were encountered during the Stage 2 AA of the study area.

4.0 ANALYSIS AND CONCLUSIONS

No archaeological sites were identified during the Stage 2 AA of the study area.

5.0 RECOMMENDATIONS

During the Stage 2 AA of the preferred landfill footprint option, at the WCEC, no archaeological resources were encountered. As a result, it is recommended that:

1. No further archaeological concern is warranted for those lands identified within this report as having been subjected to Stage 2 AA.

The above recommendation is subject to MTC approval. No excavation activities shall take place within the study area prior to the MTC (Heritage Operations Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

1. This report is submitted to the MTC as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the *Ministry of Tourism and Culture*, a letter will be issued by the ministry stating that there

- are no further concerns with regard to alterations to archaeological sites by the proposed development.
2. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
 3. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
 4. The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the *Ministry of Consumer Services*.

Under Section 6 of Regulation 881 of the *Ontario Heritage Act*, *Archeoworks Inc.* will, “keep in safekeeping all objects of archaeological significance that are found under the authority of the licence and all field records that are made in the course of the work authorized by the licence, except where the objects and records are donated to Her Majesty the Queen in right of Ontario or are directed to be deposited in a public institution under subsection 66 (1) of the Act.”

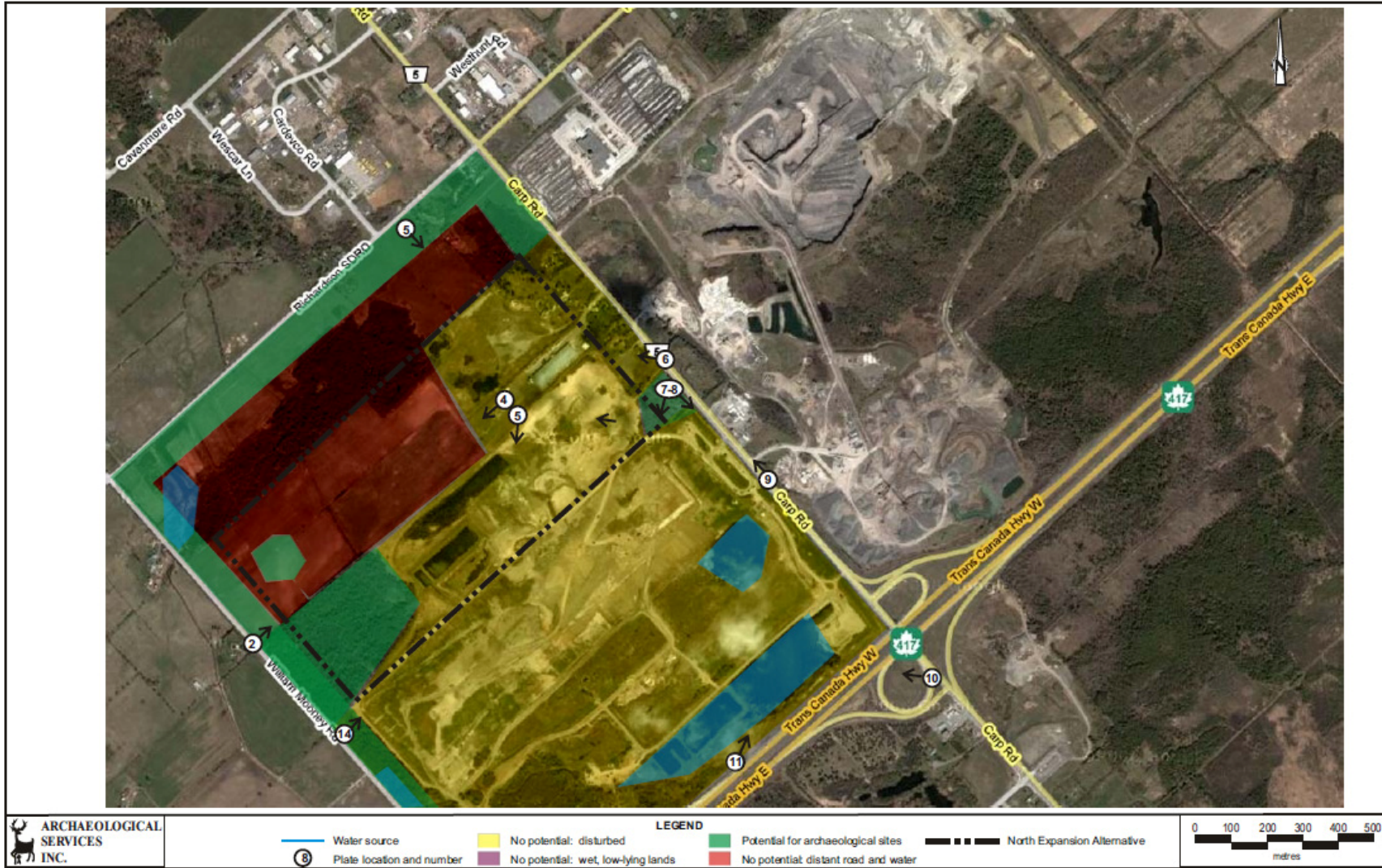
7.0 BIBLIOGRAPHY AND SOURCES

- Archaeological Services Inc.
2006 *Stage 1 Archaeological Assessment: Ottawa Waste Management Facility Environmental Assessment, City of Ottawa, Ontario.* Toronto. PIF# P057-274-2006
- Chapman, L. J. and Putnam, D. F.
1984 *The Physiography of Southern Ontario. 3rd ed. (Ontario Geological Survey Vol. 2).* Toronto: Ontario Ministry of Natural Resources.
- H. Belden & Co.
1879 *Illustrated Historical Atlas of the County of Carleton (including City of Ottawa), Ontario.* Toronto. Retrieved from <http://digital.library.mcgill.ca/countyatlas/images/maps/townshipmaps/car-m-huntley.jpg>, December 6, 2011.
- Ontario Ministry of Tourism & Culture
2011 *Standards and Guidelines for Consulting Archaeologists.* Toronto
- Sherratt, Jim
June 19, 2008 Letter to Archaeological Services Inc. *Concurrence with Report Entitled "Stage 1 Archaeological Assessment Ottawa Waste Management Facility Environmental Assessment, City of Ottawa, Ontario," PIF/Licence No. P057-274-2006, MCL File 06WS013.* TS.

Websites Consulted:

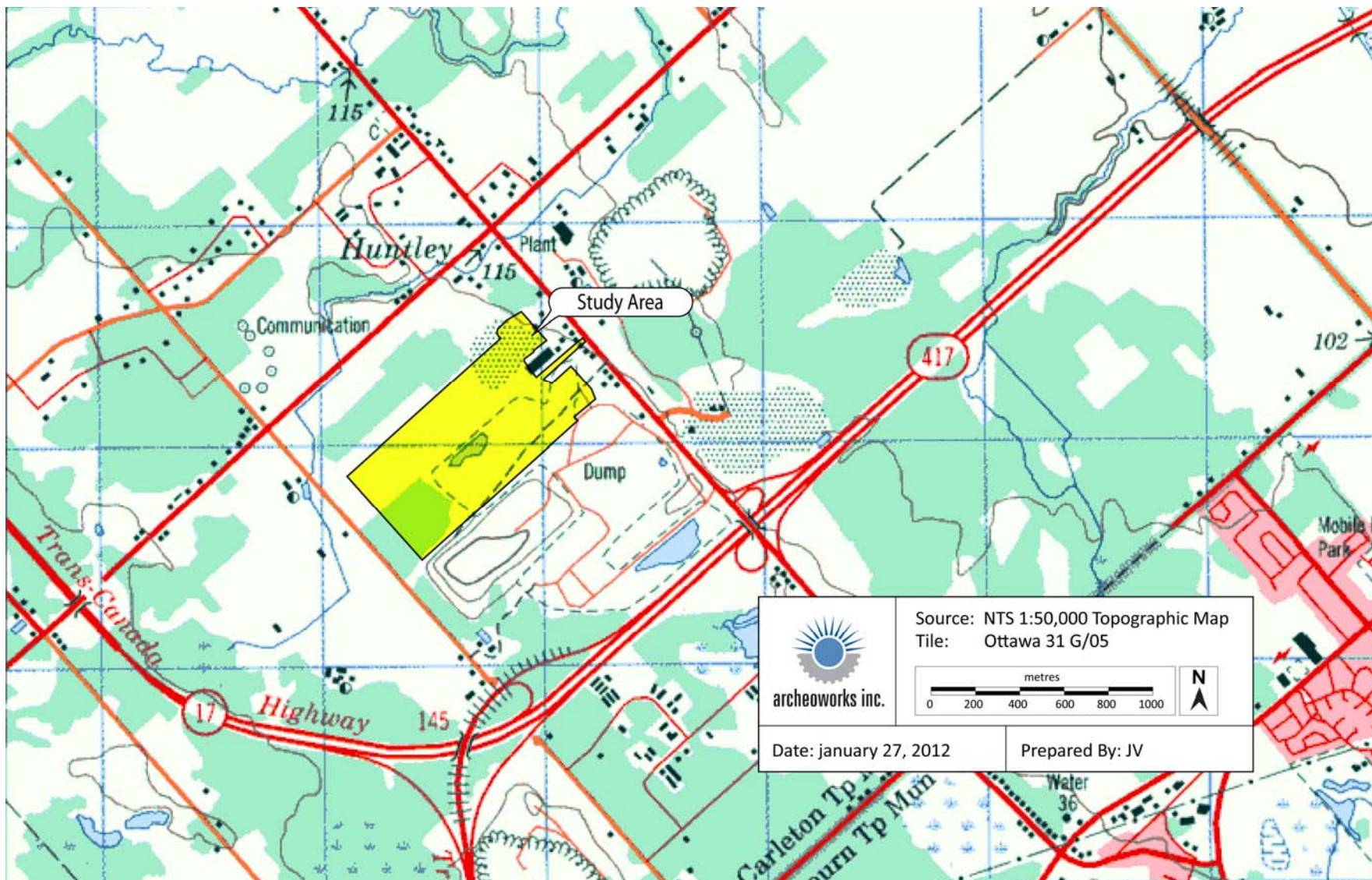
<http://www.laurysenkitchens.com/aboutlaurysen/generalinfo/>

APPENDIX A: MAPS



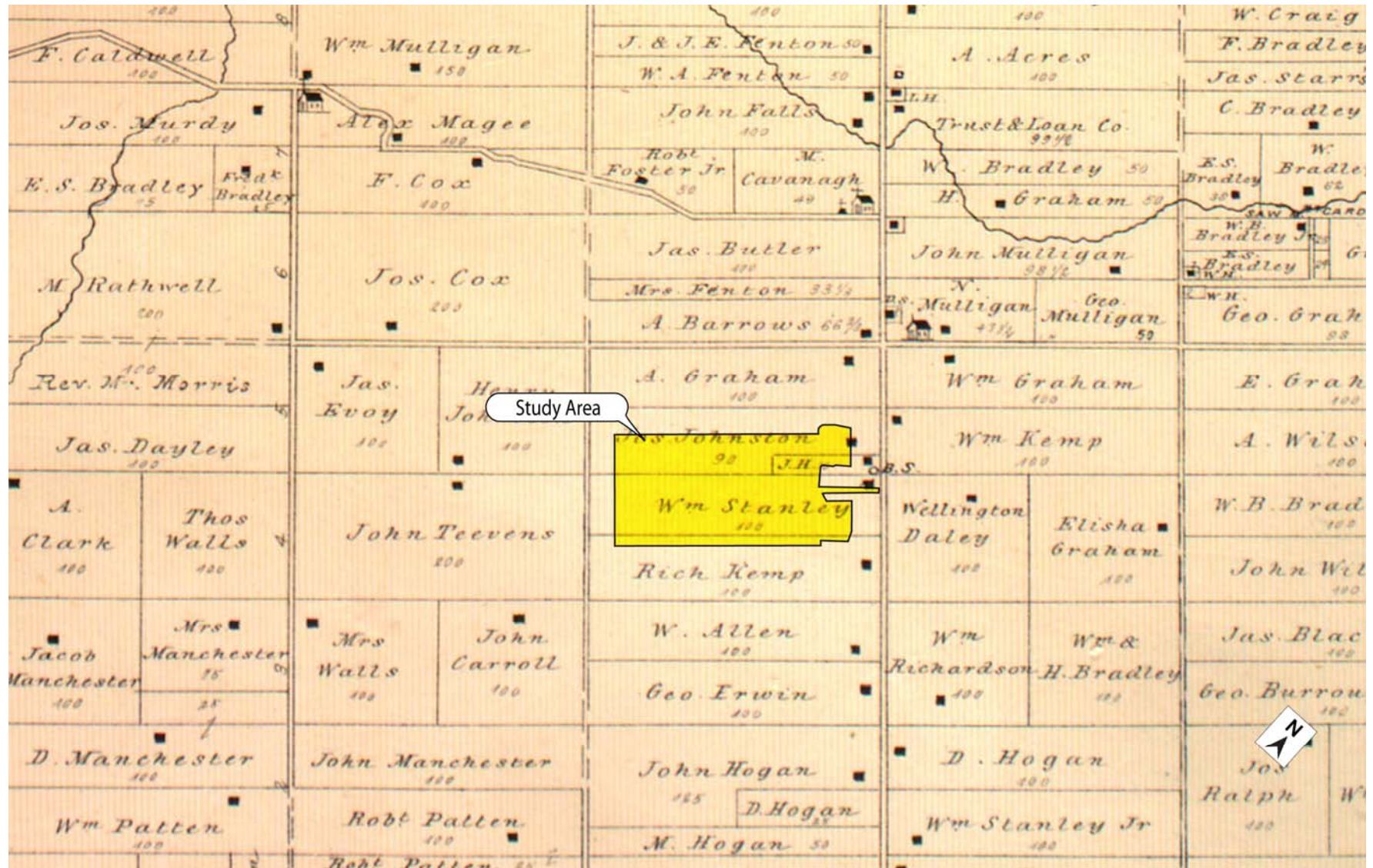
Map 1: Results of Stage 1 AA of North Expansion Alternative as reported by ASI, 2006.

Stage 2 AA: West Carleton Environmental Centre within Parts of Lots 4 and 5, Concession 3, City of Ottawa, Former Township of Huntley



Map 2: National Topographical System Map (1998) identifying the study area limits of the Stage 2 AA.

Stage 2 AA: West Carleton Environmental Centre within Parts of Lots 4 and 5, Concession 3, City of Ottawa, Former Township of Huntley



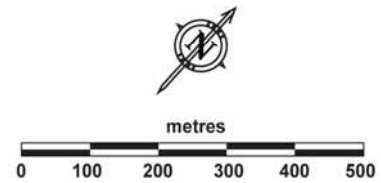
Map 3: Study area within the Illustrated Historical Atlas of the County of Carleton, Township of Huntley, 1879.

Stage 2 AA: West Carleton Environmental Centre within Parts of Lots 4 and 5, Concession 3, City of Ottawa, Former Township of Huntley



Stage 2 AA of Proposed West Carleton Environmental Centre, within parts of Lots 4 and 5, Concession 3, former Township of Huntley, County of Carleton, City of Ottawa, Ontario

- Test-pit Surveyed at 5m Intervals
- Pedestrian Surveyed at 5m Intervals
- Disturbed Area (no testing required)
- Wet area (no testing required)
- # Photo Locations



Drawn by: JM
Date: Jan 27, 2012

Map 4: Stage 2 AA with photo locations marked.

APPENDIX B: IMAGES



Image 1: Looking southwest at farmer access – gravel road disturbance.



Image 2: Looking east at disturbances in woodlot – dumping activities.



Image 3: Looking southeast at disturbances associated with grading and aggregate removal.



Image 4: Looking north at disturbances associated with grading and aggregate removal.



Image 5: Looking south at disturbances associated with grading and aggregate removal.



Image 6: Looking northeast at wet area.



Image 7: Looking northwest at pedestrian survey at 5m intervals.



Image 8: Looking at excellent visibility of ploughed fields.



Image 9: Looking northwest at pedestrian survey at 5m intervals.



Image 10: Looking at excellent visibility of ploughed fields

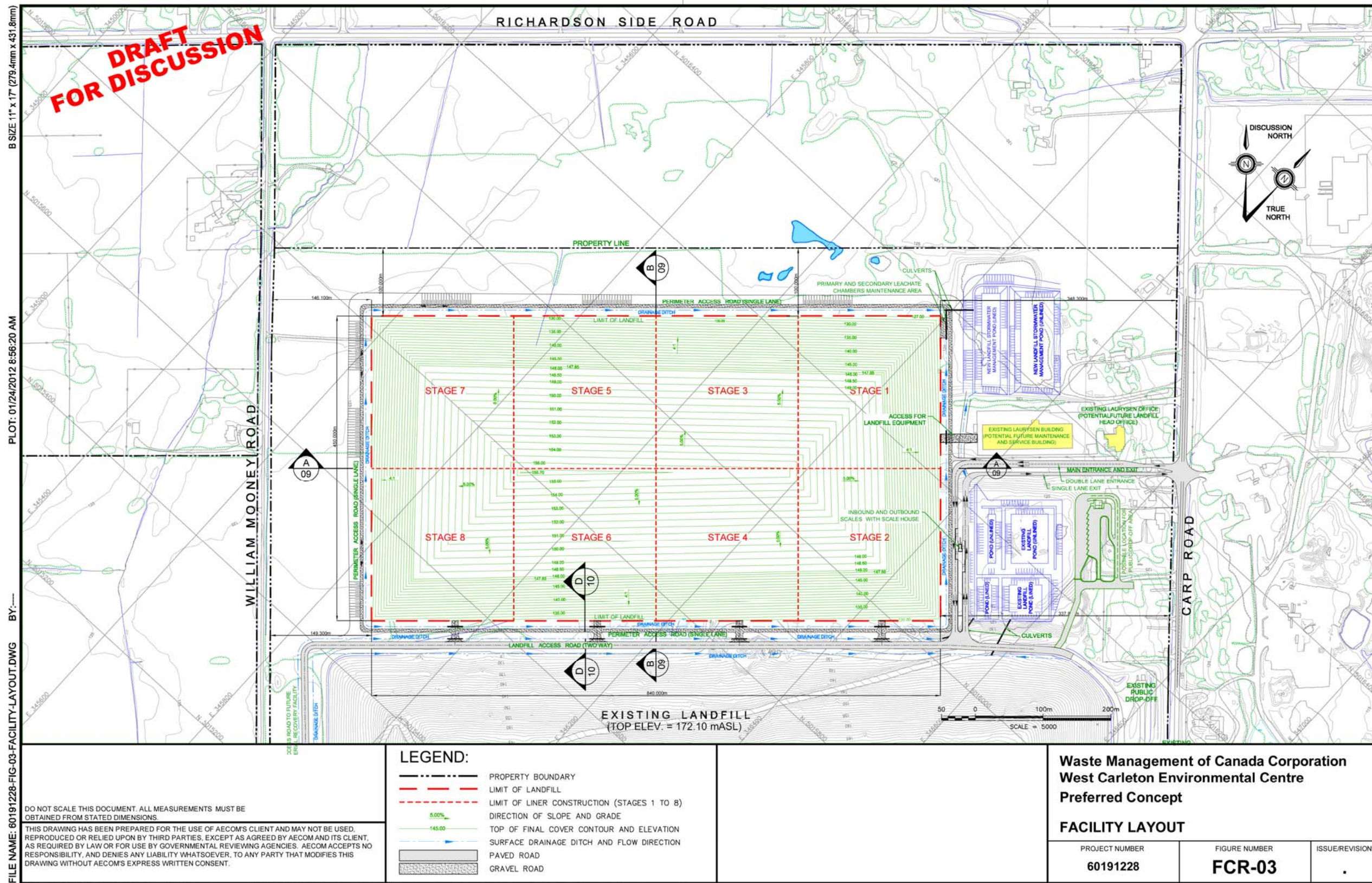


Image 11: Looking west at test pit survey at 5m intervals within the woodlot.



Image 12: Looking east at test pit survey at 5m intervals in the Woodlot at the access road.

APPENDIX C: SITE PLAN OF WEST CARLETON ENVIRONMENTAL CENTRE EXPANSION



Stage 2 AA: West Carleton Environmental Centre within Parts of Lots 4 and 5, Concession 3, City of Ottawa, Former Township of Huntley

APPENDIX D: INVENTORY OF DOCUMENTARY AND MATERIAL RECORD

Project Information:			
Project Number:		148-OT553-11	
Licensee:		Jessica Marr	
MTC PIF:		P334-140-2011	
Document/ Material		Location	Comments
1.	Written Field Notes, Annotated Field Maps	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4	Stored on Archeoworks network servers
2.	Field (Digital)	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4	Stored on Archeoworks network servers
3.	Research/ Analysis/ Reporting Material	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4	Stored on Archeoworks network servers

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