

**Stage 4 Mitigation of Impacts,  
H1 (AkHd-4),  
Alma Subdivision, 31 Church St, Alma**

Part of Lots 1–8, 10, 11, 25–35 and  
Part of Lot 9, Registered Plan 134 and  
Lot 1, Concession 1 West of Grand River,  
Geographic Township of Pilkington,  
Township of Mapleton, County of Wellington

**Submitted to:**

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and

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**Submitted by:**



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PIF Number: P462-0212-2023  
CP Number: 2023-15

**ORIGINAL REPORT**

May 24, 2024

## Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Kevin Vanleeuwen of Exact Construction Ltd. ('the Proponent') to conduct a Stage 4 mitigation of developmental impacts at archaeological site H1 (AkHd-4), located on part of Lots 1–8, 10, 11, 25–35 and part of Lot 9, Registered Plan 134 and Lot 1, Concession 1 West of Grand River in the Geographic Township of Pilkington within the Township of Mapleton in the County of Wellington, Ontario (Figure 1). This investigation was conducted in advance of a proposed residential development that spans the entire property at 31 Church Street, Alma, Ontario (Figure 8).

The Stage 4 mitigation of H1 (AkHd-4) was conducted between May 9<sup>th</sup> and September 14<sup>th</sup>, 2023, resulting in the documentation of two excavation blocks and eight features. In total, the Stage 4 mitigation of H1 (AkHd-4) produced 6,208 Euro-Canadian artifacts and 5.75g of charcoal from the excavation of 19 one-metre units and eight features (six cultural and two non-cultural).

As mentioned above, the hand excavation of the 19 one-metre square units formed two excavation blocks in the vicinity of the highest yielding Stage 3 test units located at 225E, 530N and 230E, 530N. Block excavation surrounding Test Unit 225E, 530N formed Block 1 and measured 4m by 4m. A total of 13 units were dug with artifact yields ranging from 83 to 421. Block excavation surrounding Test Unit 230E, 530N formed Block 2 and measured 3m by 3m. A total of six units were dug with artifact yields ranging from 41 to 202.

The majority of the Stage 4 units featured one stratigraphic layer (Layer 1), identified as a dark brown sandy loam topsoil ranging in depth from 14 to 50cm that directly sealed a yellow brown clay loam subsoil. Six units to the west of 225E, 530N contained three stratigraphic layers. Layer 3 was identified as a dark brown sandy loam topsoil ranging in depth from 8 to 17cm sealing a fill layer (Layer 2). Layer 2 comprised a demolition layer ranging in depth from 5 to 12cm consisting of building debris and plaster, which directly sealed a layer of buried topsoil identified as the original topsoil (Layer 1). Due to their similar soil colour and consistency Layer 3 and Layer 1 are both considered the same topsoil layer with Layer 3 having been redeposited above the demolition fill (Layer 2) presumably from the demolition of the church that existed on the property in the 1860s prior to being moved in 1892. A total of 3,747 Euro-Canadian artifacts were recovered during the Stage 4 block excavation at H1 (AkHd-4).

Given the disturbance observed in the Stage 4 units as well as the lack of fatty or dark soils or high concentrations of faunal material Detritus determined that there was no midden present on site. Detritus reached out to the MCM to seek advice on changing our Stage 4 mitigation strategies, which included the request to move directly to mechanical topsoil removal ('MTR') to search for features and the foundation remains of the church that was on the property in the 1860s (see Section 4.0 of the Supplementary Documentation).

Following the advice provided, Detritus moved directly to conducting the MTR, which covered an area of 53m northwest-southeast by 42m northeast-southwest and encompassed the entire observed limits of the site. The MTR of H1 (AkHd-4) resulted in the documentation of eight features, including three small middens (Features 2, 4 and 5), one series of privies (Feature 3), the remains of the church (Feature 6), an ash pit (Feature 8), and two non-cultural features (Features 1 and 7). Five additional posts were observed to the south of the one in Unit 231E, 529N. The six posts were determined to be a fence line that was in use at the time the church was located on the property. These posts were determined to be non-cultural. A total of 2,461 artifacts were recovered from the feature excavation and float samples recovered from Feature 3.

Overall, the Stage 4 assemblage at H1 (AkHd-4) produced 6,208 Euro-Canadian artifacts from 19 units, 6 cultural features (Features 2-6 and 8), and on the surface of one non-cultural feature (Feature 1). Over 90% of the H1 (AkHd-4) Stage 4 artifact assemblage comprised the combined structural artifacts (42.20%; n=2,620), ceramic sherds (28.32%; n=1,758), and household artifacts (19.60%; 1,217), which are typical of a domestic refuse deposit. Almost half of the household artifacts were bottle glass fragments and complete glass bottles (n=603; 49.55%). The remainder of the Euro-Canadian artifacts recovered from H1 (AkHd-4) includes trace amounts of miscellaneous metal items (n=456), personal artifacts (n=133), horse tack and ammunition

(n=11), archaeobotanical remains (n=10), and 20<sup>th</sup> century plastic (n=3). In addition, 5.75g of charcoal were recovered from the float samples taken from Feature 3 (see Section 2.2 below).

Overall, the evidence recovered during the Stage 4 mitigation at H1 (AkHd-4) has been identified as primarily middle 19<sup>th</sup> to early 20<sup>th</sup> century refuse deposit and demolition event associated with the St. Andrews Presbyterian Church and possibly by the nearby Pilkington, Sylec, McRae, and Thompson families. The demolition layer was deposited as a distinct fill layer (Layer 2) above the original topsoil. The demolition layer was then filled in over the years with native topsoil.

Based on the available evidence, H1 (AkHd-4) was interpreted as a demolition event that occurred at the original church building, located at 31 Church Street, prior to or around the time of its relocation in 1892 to 8 Peel Street to meet the demands of the growing congregation. Some artifacts found at this site could also be related to the nearby occupations by the Pilkington, Sylec, McRae, and Thompson families, dumped at this location prior to the demolition event.

The Stage 4 mitigation of H1 (AkHd-4) is now complete. The CHVI of the site has been fully documented and the information will be preserved for future study. **H1 (AkHd-4) has no further CHVI**, as per Section 7.11.4 Standard 1 of the *Standards and Guidelines* (Government of Ontario 2011).

*The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.*

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## Acknowledgments

Generous contributions by the following individuals and agencies made this report possible.

- Mr. Samuel Head, Dryden, Smith & Head Planning Consultants Ltd.
- Mr. Andrew Head Dryden, Smith & Head Planning Consultants Ltd.

## 1.0 Project Context

### 1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Kevin Vanleeuwen of Exact Construction Ltd. ('the Proponent') to conduct a Stage 4 mitigation of developmental impacts at archaeological site H1 (AkHd-4), located on part of Lots 1–8, 10, 11, 25–35 and part of Lot 9, Registered Plan 134 and Lot 1, Concession 1 West of Grand River in the Geographic Township of Pilkington within the Township of Mapleton in the County of Wellington, Ontario (Figure 1). This investigation was conducted in advance of a proposed residential development that spans the entire property at 31 Church Street, Alma, Ontario (Figure 8).

Mitigation of the site was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario, 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (Government of Ontario, 1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet the conditions of this legislation, a Stage 4 mitigation of developmental impacts was conducted at H1 (AkHd-4) during the application stage of the development under archaeological consulting license P462 issued to Mr. Michael Pitul by the Ministry of Citizenship and Multiculturalism ('MCM') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario, 1990b) and the MCM's *Standards and Guidelines for Consultant Archaeologists* ('Standards and Guidelines'; Government of Ontario, 2011a).

The purpose of a Stage 4 mitigation by hand excavation is to document an archaeological site through its controlled removal in order to address archaeological concerns under land use planning and development processes. In compliance with the *Standards and Guidelines* (Government of Ontario, 2011a), the objectives of Stage 4 investigation at H1 (AkHd-4) are:

- To document the archaeological context, cultural features and artifacts for all parts of the site;
- to document the removal of the archaeological site; and
- to preserve the information recovered about the archaeological site for future study.

The licensee received permission from the Proponent to enter the Study Area and conduct all required archaeological fieldwork activities at H1 (AkHd-4), including the recovery of artifacts.

### 1.2 Historical Context

#### 1.2.1 Post-Contact Indigenous Resources

Prior to the arrival of European settlers, much of the central and southern Ontario was occupied by Iroquoian speaking linguistic groups that had united to form confederacies, including the Huron-Wendat, the Neutral (or Attawandaran), and the Petun in Ontario, as well as the Five Nations Iroquois Confederacy in Upper New York State (Warrick, 2013; Birch, 2010). Of these groups, the Huron-Wendat established themselves to the east of the Niagara escarpment and the Neutral, to the west (Warrick, 2000).

Throughout the middle of the 17<sup>th</sup> century, the Iroquois Confederacy sought to expand upon their territory and to monopolize the fur trade between the European markets and the tribes of the western Great Lakes region. A series of bloody conflicts followed known as the Beaver Wars or the French and Iroquois Wars, contested between the Iroquois Confederacy and the Algonkian speaking communities of the Great Lakes region. Many communities were destroyed including the Huron, Neutral, Susquehannock and Shawnee leaving the Iroquois as the dominant group in the region. By 1653 after repeated attacks, the Niagara peninsula and most of Southern Ontario had been vacated (Heidenreich, 1990).

At this same time, the Anishinaabeg Nation, an Algonkian-speaking community situated inland from the northern shore of Lake Huron, began to challenge the Haudenosaunee for dominance in the Lake Huron and Georgian Bay region in order to advance their own role in the fur trade (Gibson, 2006). The Algonkian-speaking groups that settled in the area bound by Lake Ontario, Lake Erie, and Lake Huron were referred to by the English as the Chippewas or Ojibwas. By 1680, the Ojibwa began expanding into the evacuated Huron-Wendat territory, and eventually into Southern Ontario. By 1701, the Haudenosaunee had been driven out of Ontario completely and were replaced by the Ojibwa (Gibson, 2006; Schmalz, 1991).

The late 17<sup>th</sup> and early 18<sup>th</sup> centuries also mark the arrival of an Ojibwa band known as the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes. 'The Mississaugas' is the name that the Jesuits had used in 1840 for the Algonquin community living near the Mississagi River on the northwestern shore of Lake Huron (Smith D. , 2002). The oral traditions of the Mississaugas, as recounted by Chief Robert Paudash and recorded in 1904, suggest that the Mississaugas defeated the Mohawk Nation, who retreated to their homeland south of Lake Ontario. Following this conflict, a peace treaty was negotiated between the two groups (Praxis Research Associates, n.d.).

From the beginning of the 18<sup>th</sup> century until the end of the Seven Year War in 1763, the Ojibwa nation, including the Mississaugas, experienced a golden age in trade holding no alliance with either the French or the British (Schmalz, 1991). At the end of the 17<sup>th</sup> century, the Mississaugas' settled permanently in Southern Ontario (Praxis Research Associates, n.d.). Around this same time, in 1722, the Five Nation Iroquois Confederacy adopted the Tuscarora in New York becoming the Six Nations (Pendergast, 1995).

The Study Area first entered the Euro-Canadian historical record on December 7<sup>th</sup>, 1792, as part of Treaty No. 3, which included land acquired in the 'Between the Lakes Purchase' dating to May 22, 1784. According to the terms of the treaty, the Mississaugas ceded to the Crown approximately 3,000,000 acres of land between Lake Huron, Lake Erie, and Lake Ontario in return for trade goods valued at £1180.

The limits of the Treaty 3 lands are documented as comprising,

*Lincoln County excepting Niagara Township; Saltfleet, Binbrook, Barton, Glanford and Ancaster Townships, in Wentworth County; Brantford, Onondaga, Tusca[r]o[r]a, Oakland and Burford Townships in Brant County; East and West Oxford, North and South Norwich, and Dereham Townships in Oxford County; North Dorchester Township in Middlesex County; South Dorchester, Malahide and Bayham Township in Elgin County; all Norfolk and Haldimand Counties; Pelham, Wainfleet, Thorold, Cumberland and Humberstone Townships in Welland County.*

Morris, 1943, pp. 17-8

One of the stated objectives of the Between the Lakes Purchase was "to procure for that part of the Six Nation Indians coming into Canada a permanent abode" (Morris, 1943, p. 17). Shortly after the transaction had been finalised in May of 1784, Sir Frederick Haldimand, the Governor of Québec, made preparations to grant a portion of land to those Six Nations who remained loyal to the Crown during the American War of Independence. More specifically, Haldimand arranged for the purchase of approximately 550,000 acres of land adjacent to the Treaty 3 limits from the Mississaugas. This tract of land, referred to as either the Haldimand Tract or the 1795 Crown Grant to the Six Nations, was provided for in the Haldimand Proclamation of October 25<sup>th</sup>, 1784 and was intended to extend a distance of six miles on each side of the Grand River from mouth to source (Weaver S. , 1978). By the end of 1784, representatives from each constituent nation of the Six Nations, as well as other allies, relocated to the Haldimand Tract with Joseph Brant (Weaver S. , 1978; Tanner, 1987).

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Aboriginal material culture began to shift with the establishment of European settlers. By 1834 it was accepted by the Crown that losses of portions of the Haldimand Tract to Euro-Canadian settlers were too numerous for all lands to be returned.

Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (Page, 1879; Weaver S. , 1978; Tanner, 1987). Following the population decline and the surrender of most of their lands along the Credit River, the Mississaugas were given 6000 acres of land on the Six Nations Reserve, establishing the Mississaugas of New Credit First Nation, now the Mississaugas of the Credit First Nation, in 1847 (Smith D. , 2002)

Despite the encroachment of European settlers on previously established Aboriginal territories, “written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought” (Ferris, 2009, p. 114). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

### 1.2.2 Euro-Canadian Resources

H1 (AkHd-4) is located within the Geographic Township of Pilkington, in the historical County of Wellington, now the Township of Mapleton (Figure 1).

The history of the area began on July 24, 1788, when Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg and Lunenburg (Archives of Ontario, 2012-2015). Further change came in December 1791 when the former Province of Québec was rearranged into Upper Canada and Lower Canada under the *Constitutional Act*. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada (Coyne, 1895, p. 33) and he introduced several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them.

In July 1792, Simcoe divided Upper Canada into 19 counties stretching from Essex in the west to Glengarry in the east. Each new county was named after a county in England or Scotland; the constituent townships were then given the names of the corresponding townships from each original British county (Powell & Coffman, 1956, pp. 17-8).

Later that year, the four districts originally established in 1788 were renamed the Western, Home, Midland, and Eastern Districts. As population levels in Upper Canada increased, smaller and more manageable administrative bodies were needed resulting in the establishment of many new counties and townships. As part of this realignment, the boundaries of the Home and Western Districts were shifted and the West Riding District was established in 1798. Under this new territorial arrangement, the Study Area became part of the West Riding District; however, this district would undergo several realignments including the Gore and Wellington Districts, until 1849 when the districts were abolished (Archives of Ontario, 2012-2015).

Wellington County was originally created in 1837 as part the larger District of Wellington, which also contained Waterloo, Grey, and part of Dufferin Counties, and went through several administrative divisions before becoming its own county in 1854. The latest realignment of the boundaries of Wellington County, which give it its present size and shape, occurred in 1883 (Weaver E. , 1913, p. 184). The county is a midland area of ideal agricultural land and includes the town of Guelph, which became the main seat of the county when it was settled by the Canada Company in 1827 (Middleton & Landon, 1927).

Pilkington Township was named in honour of Lieutenant Robert Pilkington, a general who accompanied Simcoe to Canada. Lieut. Pilkington acquired 15,000 acres of land and the township was opened for settlement in 1851. The town of Elora in neighbouring Nichol Township was the community centre. The Study Area lies just to the west of the town of Alma, which was settled as early as 1840 when pioneers began settling on the Elora Saugeen Road, now the main street of Alma. The newly formed village, originally called McCrae’s Corners, was located at the junction of

Nichol, Peel, and Pilkington townships. In 1854 it was renamed Alma (St. Andrew's Presbyterian Church, n.d.)

The 1861 *Map of the County of Wellington, Canada West* ('*Map of Wellington County*') depicts Alma at the northeastern corner of Pilkington Township bordered by Nichol Township to the west and Peel township to the north (Leslie & Wheelock, 1861; Figure 2). At this time, Pilkington Township does not boast any other visible communities, but the Grand River and its tributaries flow through the majority of the central portion of the township. Landowners are listed for every lot within the township.

The *Illustrated Historical Atlas of the County of Wellington* ('*Historical Atlas*') demonstrates the extent to which Pilkington Township had been settled by 1877 (Walker & Miles, 1877; Figure 3). The township changed very little except many of the lots had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19<sup>th</sup> century. A new railway is also shown in the southern half of the township before it turns north into Nichol Township crossing Pilkington Township again in the northeast corner as it passes through Alma. This railway forms the southwestern border of the Study Area. Originally built as a part of the T. G. & B. Railway in 1849, it was built through Alma in 1870 before becoming a part of the Georgian Bay and Wellington (G. B. &W.) Railway in 1877 (Cooper, 2014).

According to the *Map of Wellington County*, the southeast corner of the town of Alma occupied roughly one third of Lot 1, Concession 1 (Leslie & Wheelock, 1861). No names are listed for the lots within the town, but the remaining two thirds of the lot were owned by Joseph Thompson. Roughly sixteen years later, the *Historical Atlas* shows the town of Alma unchanged, except the T. G. & B. Railway, which now passes through the lot at the southwest corner of Alma (Walker & Miles, 1877). The majority of the lot is still owned by Joseph Thompson, but a small portion at the western end is now occupied by Alexander McRae. The Study Area is almost entirely within the portion belonging to J. Thompson, although some of the irregular portions in the northwest corner on the Study Area overlap with some of the lots within Alma.

Although significant and detailed landowner information is available on the current historical maps of Pilkington Township, it should be recognized that historical county atlases were funded by subscriptions fees and were produced primarily to identify factories, offices, residences and landholdings of subscribers. Landowners who did not subscribe were not always listed on the maps (Caston, 1997, p. 100). Moreover, associated structures were not necessarily depicted or placed accurately (Gentilcore & Head, 1984).

A small portion of the Study Area contained foundations of an old church, the former St. Andrews Presbyterian Church. The church was built on the south side of Church Street made of white brick from the Trask farm. In 1892, the new minister had the church rebuilt at 8 Peel Street to meet the demands of the growing congregation (St. Andrew's Presbyterian Church, n.d.). A cairn was erected on the site of the former church in 1993 by Bill Robinson, which is still present today and is inscribed with "Dedicated to the early pioneers of St. Andrews Presbyterian Church, Alma, 1854-1894" (Photos 12 and 13). A second sign is also present on the site at the corner of Church and Alexander Street that reads "Peel Historical Site, Alma Presbyterian Church" (Photo 9).

### 1.2.3 Recent Reports

Two archaeological reports (Table 1) have been written for archaeological work pertaining to H1 (AkHd-4) and an additional report pertaining to an additional assessment within the Study Area. The results of these investigations will be discussed in more detail in Section 1.3.4 below.

**Table 1: Archaeological Assessment Reports for H1 (AkHd-4)**

Year	Title	Author	PIF Numbers
2023a	<i>Stage 1-2 Archaeological Assessment, Alma Subdivision, 31 Church Street, Alma Part of Lots 1-8, 10, 11, 25-35 and Part of Lot 9, Registered Plan 134 and Lot 1, Concession 1 West of Grand River, Geographic Township of Pilkington, Township of Mapleton, County of Wellington</i>	Detritus	P389-0538-2021

Year	Title	Author	PIF Numbers
2023b	<i>Stage 3 Archaeological Assessment Alma Subdivision, 31 Church St, Alma H1 (AkHd-4) and H2 (AkHd-5) Part of Lots 1–8, 10, 11, 25–35 and Part of Lot 9, Registered Plan 134 and Lot 1, Concession 1 West of Grand River, Geographic Township of Pilkington, Township of Mapleton, County of Wellington</i>	Detritus	P389-0628-2022
2024	<i>Stage 3 Grave Search Alma Subdivision 31 Church Street, Alma Part of Lots 1–8, 10, 11, 25–35 and Part of Lot 9, Registered Plan 134 and Lot 1, Concession 1 West of Grand River, Geographic Township of Pilkington, Township of Mapleton, County of Wellington</i>	Detritus	P017-1056-2023

## 1.3 Archaeological Context

### 1.3.1 Property Description and Physical Setting

H1 (AkHd-4) was identified during a Stage 1-2 assessment of the Study Area, conducted by Detritus in July of 2022, under archaeological consulting license P389 issued to Dr. Walter McCall by the MCM (Detritus Consulting Ltd, 2023; P389-0538-2021). At the time of the Stage 2 field survey, the majority of the Study Area comprised a large agricultural field. The southwestern edge of the Study Area contains a treed and overgrown strip that was once the Toronto, Grey & Bruce Railway, now a disused railbed. A small portion of the Study Area was overgrown with trees, tall grass, and bushes and contained the foundations of an old church, the former St. Andrews Presbyterian Church, built in 1854. The congregation was moved to the present stone church at 8 Peel Street, also in Alma, in 1894. A small cemetery was known to have existed adjacent to the Study Area to the southeast of the church on property belonging to the Presbyterian Church, but all interments were exhumed and moved to Elora. This is common knowledge within the church but there are no known written records of it. There is no known plot plan and all church records prior to the 1930s were lost (Scott, 2019). The southeastern edge of the property consisted of a small creek and manicured lawns. The northernmost corner of the Study Area contained a small portion of manicured lawn. The property is accessed by Church Street and is bound to the south at a diagonal by an old rail line, to the southeast, east, and northeast by residential properties, and to the northwest by Peel Street West.

The majority of the region surrounding the Study Area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the mid-19<sup>th</sup> century. Much of the land today continues to be used for agricultural purposes.

The Study Area is situated within, the Stratford Till Plain physiographic region. According to Chapman and Putnam the region is a

*...broad clay plain of 1,370 square miles, extending from London in the south to Blyth and Listowel in the north with a projection toward Arthur and Grand Valley. It is an area of ground moraine interrupted by several terminal moraines. The moraines are more closely spaced in the southwestern portion of the region; consequently, that part resembles the Mount Elgin Ridges. Throughout the area the till is fairly uniform, being a brown calcareous silty clay whether on the ridges or the more level ground moraine. It is a product of the Huron ice lobe. Some of the silt and clay is calcareous rock flour, probably a good deal of it coming from previously deposited varved clays of the Lake Huron Basin.*

Chapman & Putnam, 1984, pp. 133

The Stratford Plain rarely has summer droughts and the soils tend to be well drained and are naturally fertile. If proper drainage systems are in place, cultivation will thrive, making it one of the more productive agricultural regions in the province (Chapman & Putnam, 1984).

The closest source of potable water is an unnamed tributary of the Grand River that runs through the southeast corner of the Study Area approximately 110 metres (‘m’) to the southeast of H1 (AkHd-4).

### 1.3.2 Pre-Contact Indigenous Land Use

H1 (AkHd-4) is located in portion of southwestern Ontario that was occupied by people as far back as 11,000 years ago as the glaciers retreated. For the majority of this time, people were practicing hunter gatherer lifestyles with a gradual move towards more extensive farming practices. Table 2 below provides a general outline of the cultural chronology of Pilkington Township (Ellis & Ferris, 1990)

**Table 2: Cultural Chronology for Pilkington Township**

Time Period	Cultural Period	Comments
9500 – 7000 BC	Paleo Indian	first human occupation hunters of caribou and other extinct Pleistocene game nomadic, small band society
7500 - 1000 BC	Archaic	ceremonial burials increasing trade network hunter gatherers
1000 - 400 BC	Early Woodland	large and small camps spring congregation/fall dispersal introduction of pottery
400 BC – AD 800	Middle Woodland	kinship based political system incipient horticulture long distance trade network
AD 800 - 1300	Early Iroquoian (Late Woodland)	limited agriculture developing hamlets and villages
AD 1300 - 1400	Middle Iroquoian (Late Woodland)	shift to agriculture complete increasing political complexity large palisaded villages
AD 1400 - 1650	Late Iroquoian	regional warfare and political/tribal alliances destruction of Huron and Neutral

### 1.3.3 Previous Identified Archaeological Work

In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario, n.d.), which is maintained by the MCM. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 kilometres (‘km’) east to west and approximately 18.5km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The site under review, H1 (AkHd-4), is within Borden Block AkHd.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario, 1990c). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MCM will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

According to the ASDB, no sites have been registered within 1km of H1 (AkHd-4) and the Study Area. To the best of Detritus’ knowledge, no sites have been observed within 50m of the Study Area and no assessments have been conducted on lands adjacent to it.

### 1.3.4 Summary of Previous Investigations

H1 (AkHd-4) was discovered during a Stage 1-2 assessment of the Study Area, conducted by Detritus on July 7, 2022 (Detritus Consulting Ltd., 2023a; P389-0538-2021). The Stage 1

## Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

background research indicated that portions of the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources and was recommended for Stage 2 assessment.

The subsequent Stage 2 assessment of the Study Area involved a typical pedestrian survey at a 5m interval of the agricultural field component of the Study Area and a typical test pit survey at a 5m interval of the manicured lawns, and overgrown greenspace. This investigation resulted in the identification of two archaeological sites identified as H1 (AkHd-4) and H2 (AkHd-5).

The Stage 2 assessment of H1 (AkHd-4) produced 130 Euro-Canadian artifacts scattered across an area of approximately 34m east to west and 38m north to south located at the edge of the agricultural field to the west of and within the overgrown greenspace of the old church foundations (Tile 4 of the Supplementary Documentation). The assemblage comprised primarily structural artifacts (n=40; 30.77%), most of which were window glass shards, and household artifacts (n=38; 29.23%), including mostly bottle glass. A fair number of ceramics (n=25; 19.23%) were recovered, as well as some miscellaneous metal (n=17; 13.08%) and personal artifacts (n=10; 7.69%). Analysis of the artifact assemblage suggests a period of occupation spanning the entire 19<sup>th</sup> century.

The Stage 2 assessment of H2 (AkHd-5) produced 63 Euro-Canadian artifacts from 30 findspots scattered across an area of approximately 9m east to west by 66m north to south located in the southeastern portion of the agricultural field (Tile 4 of the Supplementary Documentation). The majority of the assemblage comprised household artifacts (n=39; 61.90%). Ceramics, structural, and miscellaneous metal artifacts make up the remainder of the assemblage. Analysis of the artifact assemblage suggests a period of occupation dating from the middle to late 19<sup>th</sup> century.

Based on the results of the Stage 2 assessment, both H1 (AkHd-4) and H2 (AkHd-5) were identified as Euro-Canadian artifact scatters documenting a period of use spanning the 19<sup>th</sup> century, including the eventual occupations by the Pilkington, Sylec, McRae, and Thompson families in the latter half of the century. Given the identification of over 20 Euro-Canadian artifacts dating to a period of use prior to 1900, H1 (AkHd-4) and H2 (AkHd-5) fulfilled the criteria for Stage 3 Site Specific Assessments and retain further CHVI.

A Stage 3 test unit excavation was recommended for H1 (AkHd-4) and H2 (AkHd-5). Additionally, given that artifacts were recovered during the Stage 2 assessment, the Stage 3 assessment must also include the mechanical removal of all topsoil, as per Section 2.1.7, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011a), surrounding the property belonging to the Presbyterian Church, not assessed, between the agricultural field and the overgrown greenspace of the old church, in order to reveal any associated subsurface graves. This assessment will be discussed in detail below.

The Stage 3 assessment of H1 (AkHd-4) and H2 (AkHd-5) was conducted between October 11, 2022 and November 7, 2022 under archaeological consulting license P389 issued to Dr. Walter McCall by the MCM (Detritus Consulting Ltd., 2023b; P389-0628-2022).

The investigation at H1 (AkHd-4) resulted in the recovery of 1,291 Euro-Canadian artifacts from the hand excavation of 29 Stage 3 1m test units. The majority of the recovered artifacts were structural artifacts, particularly the 240 window glass fragments, which alone comprises 18.59% of the total assemblage as well as the predominance of cut nails (n=141), when considered with the 25 wire nails and one wrought nail, also supports a mid-19<sup>th</sup> century occupation at the site. The next most frequently occurring artifact type was ceramics (n=315). The majority of the ceramics comprise refined white earthenware ('RWE') and ironstone, and utilitarian wares. A lesser amount of yellowware, semi-porcelain, and Jackfield-type were also recovered. Overall, the Stage 3 ceramic assemblage from H1 (AkHd-4) suggests a period of occupation ranging from the middle to late 19<sup>th</sup> century.

Four features were observed during the Stage 3 assessment. Feature 1 is a compact layer of brick rubble layer observed within units 210E, 510N; 220E, 510N; and 215E 520N. Feature 2 was observed in unit 215E, 530N and comprised another rubble layer made up of primarily clinker, featuring a wooden beam running north-south. Feature 3 was observed 5m to the east in unit 220E, 530N. This feature included a plaster layer with miscellaneous metal scattered across the

entire unit. This plaster layer extended into the southern half of unit 230E, 535N. Finally, Feature 4 comprised a charcoal smear on top of the subsoil within in the southwestern corner of unit 200E, 520N.

Overall, the distribution of artifacts and features at H1 (AkHd-4) suggests the site was subject to a demolition event sometime in the late 19<sup>th</sup> century, pushing structural components such as brick, mortar, and slag towards the western half of the site, while the higher artifact counts stay relatively intact along the eastern half of the site.

Based on the available evidence, H1 (AkHd-4) was interpreted as a demolition event that occurred at the original church building, located at 31 Church Street, prior to or around the time of its relocation in 1892 to 8 Peel Street to meet the demands of the growing congregation. Some artifacts found at this site could also be related to the nearby occupations by the Pilkington, Sylec, McRae, and Thompson families, dumped at this location prior to the demolition event.

Based on the results of the Stage 3 assessment, H1 (AkHd-4) was interpreted as a Euro-Canadian site occupied from the middle of the 19<sup>th</sup> century until the early 20<sup>th</sup> century. Given the presence of four possible subsurface cultural features, H1 (AkHd-4) met the criteria for a Stage 4 Mitigation of Developmental Impacts.

The MCM prefers that sites recommended for Stage 4 mitigation of impacts be avoided and protected rather than excavated, as per Section 7.9.4, Standard 2 of the *Standards and Guidelines* (Government of Ontario 2011). Options to reduce or eliminate impacts to archaeological sites include redesigning the Study Area; excluding the archaeological site area from the Study Area; or incorporating the area of the archaeological site into the Study Area but without alteration, as outlined in Section 3.5 of the *Standards and Guidelines* (Government of Ontario, 2011a). If this option is not feasible, a Stage 4 archaeological mitigation by hand excavation is an alternative. In consultation with the Proponent, the Stage 4 mitigation of H1 (AkHd-4) by avoidance and protection is not a viable option. As a result, it was recommended that the Stage 4 investigation consist of a hand excavated block of 1m units surrounding the highest yielding Stage 3 test units at 215E, 520N; 220E, 515N; 225E, 510N; 230E, 510N; and 235E, 510N as well as the units containing evidence of sub-surface cultural features.

The Stage 3 assessment of H2 (AkHd-5) produced 468 Euro-Canadian Artifacts from the hand excavation of 54 test units. The artifacts at H2 (AkHd-5) were relatively evenly distributed amongst the central units, with the exception of unit 290E, 345N that had an artifact count of 22. Generally, artifacts quickly diminish in frequency towards the west, along the 280E north-south running gridline, and to the northern and southern extent of the site. Several units had creek bed gravel immediately above the subsoil, as a result of being adjacent to the existing permanently wet creek approximately 5m to 7m to the east of the 290E north-south running gridline. Unit 295E, 345N incurred minimal amounts of groundwater penetration near the subsoil interface, and was considerably deeper than the other units at H2 (AkHd-5).

No specific activity areas could be identified due to the relatively even distribution of the artifacts over the site. Furthermore, neighbours informed Detritus archaeologists at the time of the assessment that much of the H2 (AkHd-5) grid is an area that incurs seasonal flooding, as shown by its designation as a stormwater management area in the development plans. It is possible that the assemblage's provenience has been altered by the seasonal flooding and extensive agricultural use on the westerly units, also considering the 36 recent material items found in the hand excavation including plastics, and other 20<sup>th</sup> and 21<sup>st</sup> century refuse.

Given the available evidence, H2 (AkHd-5) has been interpreted as a Euro-Canadian artifact scatter documenting to a period of use spanning the 19<sup>th</sup> century, including the eventual occupations by the Pilkington, Sylec, McRae, and Thompson families in the latter half of the century. However, due to its location on a seasonal floodplain and currently cultivated agricultural field and the relative quantities of artifacts recovered, their provenance is speculative. Based on the results of the Stage 3 assessment, wherein 80% of the artifacts recovered do not predate 1870, H2 (AkHd-5) did not meet any of the criteria for a Stage 4 Mitigation of Developmental Impacts.

Additionally, a Stage 3 Grave Search was undertaken by Detritus (Detritus Consulting Ltd., 2024; P017-1056-2023) to ascertain whether any graves might exist outside the cemetery boundaries and within the Study Area. The strategy for the Stage 3 Grave Search, as determined by the MCM and presented in the Stage 2 assessment report, was for the mechanical topsoil removal ('MTR') surrounding the property belonging to the Presbyterian Church, which was historically thought to be the location of the former cemetery, in order to reveal any associated subsurface graves. Following advice given by the MCM, the Stage 3 Grave Search would be undertaken subsequent to the completion of the Stage 3 Site Specific assessments of H1 (AkHd-4) and H2 (AkHd-5) and any subsequent Stage 4 Mitigation of Impacts.

The Stage 3 Grave Search adjacent to the Presbyterian Church lot was conducted on September 21, 2023. Upon arrival at the property, the survey stakes marking the limits of the Presbyterian Church lot and the Study Area were in place and visible. A Detritus Field Director used hand tapes to measure 10m from the western, eastern and southern sides of the Presbyterian Church lot. The MTR began 10m away from the known cemetery limits along the northern and eastern sides and continued towards the known cemetery limits. No human remains, shaft graves, or any other non-human burial indicators were observed during the MTR, therefore, no additional assessment methods were employed. Based on the results of the Stage 3 Grave Search, no additional investigations are recommended for the Study Area.

## 2.0 Field and Laboratory

### 2.1 Field Methods

The Stage 4 mitigation of impacts by hand excavation and MTR was conducted at H1 (AkHd-4) between May 9<sup>th</sup> and September 14<sup>th</sup>, 2023, under archaeological consulting license P462 issued to Mr. Michael Pitul by the MCM. This investigation began with a review of all available reports of previous archaeological fieldwork as per Section 4.2.1, Standard 2 of the *Standards and Guidelines* (Government of Ontario, 2011a).

The weather during the field investigation was mostly sunny with temperatures ranging from 12° to 30° Celsius (‘C’) (Table 3). Lighting and soil conditions were suitable, and visibility was excellent. At no time were field or weather conditions detrimental to the recovery of archaeological material, as required by Section 4.2.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011a). Photos 1 to 35 illustrate field conditions during the Stage 4 mitigation. Figure 5 to 6 illustrate the Stage 4 mitigation results, including all photograph locations and directions; Tile 5 illustrates these results in relation to the current development map. Photographs of the Stage 4 excavation are provided in Section 9.1 below.

**Table 3: Field and Weather Conditions**

Date	Weather	Activity	Field Conditions
May 9, 2023	sunny, 15°C	staked in site	soil dry and screens easily
May 10, 2023	sunny, 20°C	unit excavation	soil dry and screens easily
May 11, 2023	sunny, 22°C	unit excavation	soil dry and screens easily
May 12, 2023	sunny, 26°C	unit excavation	soil dry and screens easily
September 5, 2023	sunny, 30°C	MTR	soil dry and screens easily
September 6, 2023	sunny, 30°C	MTR	soil dry and screens easily
September 8, 2023	sun and clouds, 20°C	MTR	soil dry and screens easily
September 11, 2023	sun and clouds, 20°C	feature excavation	soil dry and screens easily
September 13, 2023	cloudy, 12°C	feature excavation	soil dry and screens easily
September 14, 2023	sunny, 17°C	feature excavation and site clean up	soil dry and screens easily

Upon arrival at the site, the original Stage 3 grid was still in place and all excavated units still open and visible, thus meeting the conditions of Section 4.2.1, Standard 5 of the *Standards and Guidelines* (Government of Ontario, 2011a).

The Stage 4 mitigation of H1 (AkHd-4) included in the excavation of 19 1m square units, conducted according to Sections 4.2.1 and 4.2.2 of the *Standards and Guidelines* (Government of Ontario, 2011a). These units formed two excavation blocks in the vicinity of the highest yielding Stage 3 test units located at 225E, 530N and 230E, 530N, as per Section 4.2.2, Standard 3c of the *Standards and Guidelines* (Government of Ontario, 2011a). Block excavation surrounding Test Unit 225E, 530N formed Block 1 and measured 4m by 4m. A total of 13 units were dug with artifact yields ranging from 83 to 421. Block excavation surrounding Test Unit 230E, 530N formed Block 2 and measured 3m by 2m. A total of six units were dug with artifact yields ranging from 41 to 202.

All Stage 4 units were excavated by hand in systematic levels as per Section 4.2.1, Standards 1 and 6 of the *Standards and Guidelines* (Government of Ontario, 2011a). All units were excavated into the first five centimetres (‘cm’) of subsoil, as per Section 4.2.2, Standard 6 of the *Standards and Guidelines* (Government of Ontario, 2011a). The majority of the Stage 4 units featured one stratigraphic layer (Layer 1), identified as a dark brown sandy loam topsoil ranging in depth from 14 to 50cm that directly sealed a yellow brown clay loam subsoil. Six units to the west of 225E 530N contained three stratigraphic layers. Layer 3 was identified as a dark brown sandy loam topsoil ranging in depth from 8 to 17cm sealing a fill layer (Layer 2). Layer 2 comprised a demolition layer ranging in depth from 5 to 12cm consisting of building debris and plaster which directly sealed a layer of buried topsoil identified as the original topsoil (Layer 1). Due to their similar soil colour and consistency Layer 3 and Layer 1 are both considered the same topsoil layer with Layer 3 having been redeposited above the demolition fill (Layer 2) presumably from the demolition of the church that existed on the property in the 1860s prior to being torn down and

moved. All soil was screened through six-millimetre ('mm') hardware cloth to facilitate the recovery of small artifacts, as per Section 4.2.2, Standard 5 of the *Standards and Guidelines* (Government of Ontario, 2011a).

A total of 3,747 Euro-Canadian artifacts were recovered during the Stage 4 block excavation at H1 (AkHd-4). Most of the artifacts (76.49%; n=2,866) were recovered from Layer 1. A total of 642 artifacts were recovered from Layer 2 and 239 artifacts were recovered from Layer 3. Euro-Canadian artifact yields from Layer 2 ranged from 57 to 149, with the highest count occurring within the Stage 4 unit at 223E, 529N in the southwestern corner of the western excavation block. It was assumed that these artifacts represent contamination from the demolition of the church on the property, which was later covered by more topsoil over the years.

Once the excavation of the topsoil was complete, a number of dark stains observed within the subsoil throughout the excavation block were explored to determine whether or not they were cultural features or post holes. Most of the stains were identified as shrub boles or rodent burrows and a single post mould was observed in unit 231E, 529N. None were determined to be cultural features.

All artifacts recovered during the Stage 4 block excavation were recorded with reference to their corresponding soil layer and grid unit designation, and were retained for laboratory analysis and description, as per Section 4.2.1, Standards 8 of the *Standards and Guidelines* (Government of Ontario, 2011a).

Given the disturbance observed in the Stage 4 units as well as the lack of fatty or dark soils or high concentrations of faunal material Detritus determined that there was no midden present on site. Detritus reached out to the MCM to seek advice on changing our Stage 4 mitigation strategies, which included the request to move directly to mechanical topsoil removal ('MTR') to search for features and the foundation remains of the church that was on the property in the 1860s (see Section 4.0 of the Supplementary Documentation).

Following the advice provided, Detritus moved directly to conducting the MTR, which covered an area of 53m northwest-southeast by 42m northeast-southwest and encompassed the entire observed limits of the site. This area was subject to MTR down to the topsoil/subsoil interface. The mechanical excavation was completed by a contractor provided by the Proponent, using a Doosan DX 225LC hydraulic excavator with a straight-edged ditching bucket that pulled the soil away from the exposed subsoil surface, as per Section 4.2.3, Standards 2 and 3 of the *Standards and Guidelines* (Government of Ontario, 2011a). The subsoil surface was then shovel shined across the entire site immediately and examined for any evidence of subsurface cultural features, as per Section 4.2.3, Standards 4 and 6 of the *Standards and Guidelines* (Government of Ontario, 2011a). The MTR was bounded by a telephone pole with guide wires to the north, by the Study Area limits to the northeast and southeast, and by the Stage 3 site limits on all other sides.

The MTR of H1 (AkHd-4) resulted in the documentation of eight features, including three small middens (Features 2, 4 and 5), one series of privies (Feature 3), the remains of the church (Feature 6), an ash pit (Feature 8), and two non-cultural features (Features 1 and 7). Five additional posts were observed to the south of the one in Unit 231E, 529N. The six posts were determined to be a fence line that was in use at the time the church was located on the property. These posts were determined to be non-cultural.

Following the completion of the MTR of the site extent at H1 (AkHd-4), Features 1 to 8 were hand excavated in systematic levels, and into the first 5cm of subsoil according to Section 4.2.2, Standard 7 and Section 4.2.2, Standard 6 of the *Standards and Guidelines* (Government of Ontario, 2011a). Features 1 to 8 were fully exposed prior to excavation, as per Section 4.2.2, Standard 7d of the *Standards and Guidelines* (Government of Ontario, 2011a).

Feature 1 measured 1m east to west and 2m north to south (Photos 32 and 33). In total, 94 artifacts were recovered from the surface of Feature 1 including ceramics, brick, and faunal remains. The excavation limit to the east and north of this feature were unable to be extended farther given that a telephone pole with guide wires were located to the north of the feature and would have been directly affected by any machine activity. The property limits impeded further MTR to the east of the feature. Feature 1 was identified as a tree pull and therefore was

determined to be non-cultural. Given that this feature was determined to be non-cultural it was photographed only.

Feature 2 measured 1m east to west and 1.4m north to south and 32cm at its deepest point (Figure 9). In total, 89 artifacts were recovered from Feature 2 including bottle glass, cut nails, faunal remains, and a metal staple. A concentration of artifacts including one complete bottle and several bottle glass fragments was identified in the western central portion of the feature (Plate 7). Feature 2 was determined to be a small midden with dark soil mixed with ash, charcoal, plastic.

Feature 3 measured 7m east to west and 3.5m north to south and 33cm at its deepest point (Figure 10). Due to its irregular shape, Feature 3 was excavated in three sections a, b, and c. In total, 883 artifacts were recovered during the hand excavation of Feature 3 including window glass, faunal remains, nails, metal, ceramics, buttons, slate, white clay pipes, and a variety of other personal items. Feature 3 was determined to be a series of privies.

In order to provide a sample of floral and faunal remains from the site and to recover very small artifacts within the privy, two soil samples were collected from Feature 3, as per Section 4.4, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011a). These samples were collected using a shovel and bucket rather than by trowel, as per Section 4.4, Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011a). The soil was bagged and tagged according to provenience to be later processed in the laboratory (see Section 2.2 below).

Feature 4 measured 1.3m east to west and 0.8m north to south and 45cm at its deepest point (Figure 11). In total, 291 artifacts were recovered from Feature 4 including bottle glass, metal, brick, window glass, and ceramics (Plate 9). A concentration of artifacts was identified in the eastern portion of the feature. Feature 4 was determined to be a small midden.

Feature 5 measured 0.7 by 0.7 m and 65cm at its deepest point (Figure 12). In total, 490 artifacts were recovered from Feature 5 including the majority of the bottle glass found at the site as well as window glass, ceramics, brick, and metal. The entire feature contained artifacts, which included the highest concentration of complete bottles, 21 in total (Plate 11 to Plate 14). Feature 5 was determined to be a small midden.

Feature 6 is where the remains from the old church were located (Figure 13). A brick and rubble foundation with a central stone pier, which presumably supported the church floor, were observed. A 1m-by-1m sondage was excavated within Feature 6 and revealed a sealed topsoil layer below the destruction layer that measured 12cm deep. The unit also featured a rubble filled trench running east to west that measured 15cm deep. This trench was determined to be a possible floor beam. A total of 21 cut nails were recovered from Feature 6 within the destruction layer and the topsoil. A number of bricks were also observed on the surface of the feature, these were noted but not retained for analysis.

Feature 7 is approximately 1m by 1m and contained no artifacts. Feature 7 was determined to be non-cultural. Given that this feature was determined to be non-cultural it was photographed only.

Feature 8 measured 1m east to west and 1.3m north to south and 33cm at its deepest point (Figure 14). It contained a great deal of ash with some ceramics. In total, 593 artifacts were recovered from Feature 8 included a large amount of cut and wire nails in addition to faunal remains, bottle glass and other metal artifacts. Feature 8 was determined to be an ash pit.

A line of six fence posts runs north to south along the eastern edge of the MTR limits along the 232E line. These posts are composed of cedar logs buried in the ground and were likely part of a cedar split rail fence when the church was active. No photos were taken and no drawing done for these non-cultural posts.

The excavated soil from Features 1 to 8 was screened through 6mm hardware cloth to facilitate the recovery of small artifacts. A total of 2,461 artifacts were recovered. All of the artifacts recovered during the excavation of Feature 1 to 6, and 8 were recorded with reference to their feature number and were retained for laboratory analysis and description as per Section 4.2.1, Standard 8 of the *Standards and Guidelines* (Government of Ontario, 2011a). Features 2 to 6 and 8 were then documented by means of photographs and scale drawings as per Section 4.2.1, Standard 9 of the *Standards and Guidelines* (Government of Ontario, 2011a). The non-cultural

features, Features 1 and 7, were photo documented only. Photographs of Feature 1 to 8 are provided in Section 9.2 below (Photo 15 to Photo 31) and drawings of Feature 2, 3, 4, 5, 6, and 8 in Section 9.3 below (Figure 9 to Figure 14).

## 2.2 Laboratory Methods

The soil sample from Feature 3a and 3b was processed using the bucket method of flotation (Pearsall, 2000). Flotation processing was carried out using a 5-gallon (~19 liter) plastic bucket. Sample was placed in bucket and had water introduced to it. Sample was then stirred by hand with lumps being broken up, releasing light fraction to surface. Light fraction was then siphoned off through nylon fabric, wedding veil. This process was repeated until an adequate light fraction sample was recovered. Heavy fraction was then screened through nylon window screen mesh until all soil matrix materials were removed and only artifacts remained.

### 2.2.1 Heavy Fraction

The heavy fractions were collected using a 1.00mm Aluminum mesh. Both light and heavy fractions were dried for at least 48 and 24 hours respectively.

**Table 4: H1 (AkHd-4) Soil Samples from Feature 3**

Provenience	Float Sample Soil Volume (L)
Feature 3a	2
Feature 3c	2

Once dried, the heavy fraction was checked for the presence of large charred seeds, nuts and non-botanical cultural material. This material mainly consisted of mixed quartzite, quartz, limestone and other gravels (1-3 mm size) as well as coarse sands and silty loam. A total of ten artifacts were recovered including three cut nails, three pieces of miscellaneous metal, 1 faunal mammalian remain of unknown species, one Prosser button, one red brick fragment, and one painted RWE fragment. These specimens were included in the Stage 4 artifact catalogue and are discussed in greater detail in Section 3.1 below.

### 2.2.2 Light Fraction

The light fraction was sifted using a stainless-steel screen mesh with an aperture of 2mm. The material that fell through the screen was sorted for seeds only. The material larger than 2mm was sorted for identifiable organic materials such as charcoal, gastropods, insect parts, bone, and other identifiable organics. This strategy follows the standard practice as described by Pearsall (2000) and Sutton and Arkush (2014) in flotation processing.

A total of 5.75g of charcoal and 10 insect parts were recovered from the light fractions of Feature 3a and 3c.

**Table 5: Summary of Recovered Material from the Light Fractions**

Cat #	Feature	Type	Frequency	Weight (g)
878	3a	charcoal	n/a	3.24
879	3a	insect parts	4	<0.01
881	3c	charcoal	n/a	2.51
882	3c	gastropod parts	6	<0.01

All recovered botanical specimens were examined using a Celestron Digital Microscope Pro (Model No. 44302-C) at 5 to 50 times magnification power. Ecofacts were identified to the most specific taxonomic level possible through comparisons with published relevant literature (Cappers & Bekker, 2013; Davis, 1993; Delorit, 1970; Martin & Barkley, 2000) and a comparative macro-botanical sample collection. A description of the botanical specimens recovered from Feature 3a and 3c are discussed below in Section 3.1.7.

Light fraction contains a small amount of organic matter, mostly consisting of charcoal fragments and small flecks. The sample contained a fair amount of soil matrix (clumps of fine sand and silt). No seeds were observed and nothing of significance was identified.

### 3.0 Record of Finds

The Stage 4 mitigation of H1 (AkHd-4) was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 6 below. Maps indicating the exact location of H1 (AkHd-4) and all UTM coordinates recorded during the Stage 4 mitigation are included in the Supplementary Documentation to this report. A description of the site and the artifacts recovered during the Stage 4 excavation is provided in greater detail below. A photographic sample of the artifacts is presented in Section 9.2.

**Table 6: Inventory of Document Record**

Document Type	Current Location	Additional Comments
23 pages of field notes	Detritus office	Stored digitally in project file
1 map provided by the Proponent	Detritus office	Stored digitally in project file
2 field maps	Detritus office	Stored digitally in project file
94 photographs	Detritus office	Stored digitally in project file

All of the material culture collected during the Stage 4 mitigation is contained in one box and will be temporarily housed in the office of Detritus until formal arrangements can be made for its transfer to His Majesty the King in right of the Province of Ontario or another suitable public institution acceptable to the MCM and the Study Area's owners.

### 3.1 Cultural Material

A total of 6,208 Euro-Canadian artifacts and 5.75g of charcoal were recovered during the Stage 4 mitigation of H1 (AkHd-4). Just under half of the assemblage comprised structural artifacts. Ceramic and household artifacts were also well represented in the assemblage, although in much smaller quantities. The remainder of the Euro-Canadian artifacts recovered from H1 (AkHd-4) included trace amounts of miscellaneous metal items, personal artifacts, horse tack and ammunition, archaeobotanical remains, and recent material (Table 7).

**Table 7: Stage 4 Artifact Summary**

Artifact	Frequency	Percentage
structural	2,620	42.20
ceramic	1,758	28.32
household	1,217	19.60
miscellaneous metal	456	7.35
personal	133	2.14
horse tack and ammunition	11	0.18
archaeobotanical remains	10	0.16
recent material	3	0.05
<b>Total</b>	<b>6,208</b>	<b>100.00</b>

#### 3.1.1 Structural Artifacts (see Appendix 10.2.1)

The structural artifacts recovered from H1 (AkHd-4) comprised almost exclusively (98.86%) nails (n=1,530) and window glass pieces (n=1,060). The remainder of the structural artifacts include small amounts of slate roofing tile, red brick, cement, and mortar fragments (Table 8).

**Table 8: Structural Artifact Summary**

Structural	Freq.	%
nails, cut	1,131	43.17
window glass	1,060	40.46
nails, wire	390	14.89
slate, roofing	18	0.69
nails, roofing	8	0.31
brick	7	0.27
cement	3	0.11
mortar	2	0.08
nails, wrought	1	0.04

Structural	Freq.	%
<b>Total</b>	<b>2,620</b>	<b>100.00</b>

Most of the nails within the Stage 4 assemblage were machine cut or wire drawn, suggestive of a middle 19<sup>th</sup> to early 20<sup>th</sup> century occupation. The presence of cement fragments and roofing nails provide a more secure late 19<sup>th</sup> and early 20<sup>th</sup> century occupation corresponding with the introduction of concrete in 1889 and shingles in 1908. Most of the window glass fragments (86.9%), meanwhile, were greater than 1.6mm in thickness, suggestive of a post-1845 period of occupation.

The remainder of the structural artifacts include 18 slate roofing tiles, 7 red brick pieces, 3 pieces of cement, and 2 pieces of mortar. The red bricks were not considered diagnostic. Slate shingles first appeared in Ontario in the 1840s but remained in use well into the 20<sup>th</sup> century after the development of asphalt shingles and attained a period of popularity in the 1880s.

A single wrought nail was also documented in the Stage 4 assemblage.

### 3.1.2 Ceramics (see Appendix 10.2.2 and 10.2.3)

Most of the ceramic assemblage (86.35%) comprised a combined sherds of ironstone, RWE, and utilitarian wares. The remainder of the ceramic assemblage included trace amounts of pearlware, semi-porcelain, and porcelain. Table 9 provides a summary of the Stage 4 ceramic assemblage by ware type and Table 10, by surface decoration technique.

**Table 9: Ceramic Assemblage by Ware Type**

Artifact	Frequency	Percentage
ironstone	750	42.66
RWE	462	26.28
utilitarian	306	17.41
pearlware	158	8.99
semi-porcelain	54	3.07
porcelain	28	1.59
<b>Total</b>	<b>1,758</b>	<b>100.00</b>

**Table 10: Ceramic Assemblage by Decoration**

Artifact	Frequency	Percentage
ironstone, undecorated	689	39.19
RWE, undecorated	262	14.90
earthenware, red	215	12.23
RWE, painted	119	6.77
pearlware, undecorated	110	6.26
earthenware, white	83	4.72
RWE, transfer printed	72	4.10
ironstone, moulded	57	3.24
semi-porcelain, undecorated	53	3.02
pearlware, painted	48	2.73
porcelain, undecorated	25	1.42
stoneware	7	0.40
RWE, sponged	6	0.34
RWE, edged	3	0.17
ironstone, painted	2	0.11
porcelain, moulded	2	0.11
earthenware, yellow	1	0.06
ironstone, sponged	1	0.06
ironstone, transfer printed	1	0.06
porcelain, painted	1	0.06
semi-porcelain, moulded	1	0.06
<b>Total</b>	<b>1,758</b>	<b>100.00</b>

Ironstone sherds were encountered most often at H1 (AkHd-4). Most of the specimens were undecorated or moulded, suggestive of a middle to late 19<sup>th</sup> century occupation. The few decorated ironstone pieces include two that were painted in red and green, one that was transfer printed in purple, and one that was sponged in blue. Two of the undecorated pieces of ironstone had partial maker's marks (Cat#761; Plate 2) indicating they were fragments of Ironstone China manufactured by W & E Corn in Burslem, which date from 1864 to 1891 (The Potteries.org, 2003).

Over half of the RWE sherds within the Stage 4 assemblage were undecorated (56.83%). The majority of the decorated RWE sherds include painted and transfer printed fragments. Most of the transfer printed fragments featured grey, black, blue, brown, and green, which were common throughout the 19<sup>th</sup> century. The painted fragments featuring blue, green, red, pink, brown, black, and purple, were common post-1830 (Plate 3). The remaining decorated RWE sherds were either sponged or edged. The sponged fragments featured blue and red designs, which suggest a *terminus post quem* of 1845. Two edged fragments featured blue designs, one featuring a straight rim and a chicken foot pattern, which is indicative of a middle to late 19<sup>th</sup> century occupation.

Most of the utilitarian sherds were of red earthenware (70.26%), which was common throughout the 19<sup>th</sup> century (Plate 1). Another 83 pieces of white earthenware and one of yellow earthenware were also recovered and common throughout the 19<sup>th</sup> century (Plate 4). The remaining seven sherds of stoneware, meanwhile, suggest a post-1870 period of occupation, when stoneware vessels began to replace earthenware varieties in Ontario.

A total of 158 pieces of pearlware were encountered at H1 (AkHd-4) over two thirds of which are undecorated. The remaining pearlware fragments were painted in late palette blue, red, black, and green, which are indicative of a pre-1830 period of occupation (Plate 3).

The remaining ceramics include 53 undecorated semi-porcelain sherds and 1 moulded semi-porcelain sherd as well as 25 undecorated porcelain sherds, 2 moulded porcelain sherds, and 1 painted porcelain sherd. The semi-porcelain fragments date to a post 1890 period of occupation whereas the porcelain fragments push the date of occupation into the 20<sup>th</sup> century.

Furthermore, all ceramic sherds within the Stage 4 assemblage were examined in order to describe the function of the item from which the ceramic sherd originated. For those sherds that were too fragmentary for a functional assignment, an attempt was made to at least provide a formal description, such as to which portion of an item the sherd belonged. For example, what used to be a porcelain teacup but now found in an archaeological context could be classified archaeologically in the artifact catalogue in a descending order of specificity depending on preservation and artifact size: a teacup (function), a cup (function), a hollowware (form), or a rim fragment (form). Hollowwares and flatwares were differentiated based on the presence or absence, respectively, of curvature in the ceramic cross-section of each sherd. The analysis provided in this report was based upon the classes established by Matthew Beaudoin (Beaudoin, 2013, pp. 78-82). If Beaudoin's classifications could not be applied, then the broader definitions established by Barbara Voss were used (Voss, 2008, p. 209). Ultimately, if sherds were small enough that even a general functional or formal ware type could not be determined, and then the sherd was simply classified as a rim fragment, a non-rim fragment, a base fragment, or indeterminate.

Over 30% of the ceramic pieces within the Stage 4 assemblage were too fragmentary to determine form (Table 11) or function (Table 12). Among the sherds that could be classified, a large number were identified as hollowware (n=737), and included sherds identified as belonging to basins, bowls, chamber pots, cups, flowerpots, storage vessels, and a tureen as well as a lid fragment, all common 19<sup>th</sup> century household vessels. The flatware comprises primarily of plate fragments as well as two platter fragments.

**Table 11: Ceramic Assemblage by Form**

Ceramic Type	Flat	Hollow	Unknown
earthenware, red	3	189	23
earthenware, white	2	80	1
earthenware, yellow		1	

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Ceramic Type	Flat	Hollow	Unknown
ironstone, moulded	26	29	2
ironstone, painted		2	
ironstone, sponged		1	
ironstone, transfer printed		1	
ironstone, undecorated	176	212	301
pearlware, painted	25	23	
pearlware, undecorated	46	45	19
porcelain, moulded			2
porcelain, painted		1	
porcelain, undecorated	2	18	5
RWE, edged	3		
RWE, painted	40	61	18
RWE, sponged	4		2
RWE, transfer printed	34	32	6
RWE, undecorated	45	30	187
semi-porcelain, moulded		1	
semi-porcelain, undecorated	48	5	
stoneware		6	1
<b>Total</b>	<b>454</b>	<b>736</b>	<b>567</b>

**Table 12: Ceramic Assemblage by Function**

Ceramic Type	Basin	Bowl	Chamber Pot	Cup	Flower Pot	Lid	Plate	Platter	Storage	Tureen	Unknown
earthenware, red		2			2		3		185		23
earthenware, white								2	3	77	1
earthenware, yellow									1		
ironstone, moulded	1	13	3	12			26				2
ironstone, painted		1								1	
ironstone, sponged		1									
ironstone, transfer printed		1									
ironstone, undecorated	7	52	141	9		1	176			2	301
pearlware, painted		19		4			25				
pearlware, undecorated		28		17			46				19
porcelain, moulded											2
porcelain, painted				1							
porcelain, undecorated				18			2				5
RWE, edged							3				
RWE, painted		54		7			40				18
RWE, sponged							4				2
RWE, transfer printed		23		9			34				6
RWE, undecorated		3		27			45				187
semi-porcelain, moulded		1									
semi-porcelain, undecorated				5			48				
stoneware		1							5		1

Ceramic Type	Basin	Bowl	Chamber Pot	Cup	Flower Pot	Lid	Plate	Platter	Storage	Tureen	Unknown
<b>Total</b>	<b>8</b>	<b>199</b>	<b>144</b>	<b>109</b>	<b>2</b>	<b>1</b>	<b>452</b>	<b>2</b>	<b>194</b>	<b>80</b>	<b>567</b>

### 3.1.3 Household (see Appendix 10.2.4)

Most of the household artifacts recovered during the Stage 4 Mitigation of H1 (AkHd-4) comprised bottle glass and complete bottles (n=603; 49.55%), faunal remains (n=315; 25.88%), or glassware (n=267; 21.94%). Eleven pieces of wall plaster, eight utensils, two porcelain medicinal spoons, two whetstones, one metal cup, and one pair of scissors rounded out the household artifacts (Table 13).

**Table 13: Household Artifact Summary**

Household	Freq.	%
glass, bottle	577	47.45
faunal remains, mammalian	295	24.18
glass, wine	118	9.70
glass, drinking	57	4.69
glass, unknown	46	3.78
glass, bottle complete	26	2.14
glass, moulded	23	1.89
faunal remains, avian	19	1.56
glass, stem	17	1.40
interior wall plaster	11	0.90
utensil	8	0.66
coal sample	4	0.33
copper oil lamp	2	0.16
glass, jug	2	0.16
glass, melted	2	0.16
porcelain, medicine spoon	2	0.16
whetstone	2	0.16
cast iron, tray	1	0.08
faunal remains, fish	1	0.08
glass, jar	1	0.08
glass, vase	1	0.08
metal, cup	1	0.08
scissors	1	0.08
<b>Total</b>	<b>1,216</b>	<b>100.00</b>

Approximately 34% of the bottle glass fragments recovered (33.67%; n=203) were clear, which are indicative of a post-1870 date of occupation. An additional 103 (18.24%) of the fragments were aqua, which is indicative of an earlier date. The remaining bottle glass fragments comprised a variety of colours including brown, blue, olive green, dark blue, forest green, purple, light green, light blue, light brown, white, and green.

Maker's marks on the bottle glass fragments include Manley's Celery Compound, which was manufactured in Toronto between 1891 and 1894 by W.J. Manley (XenForo Ltd 2010-2022). Another mark was the R.R.R. [R]adway & Co. New York, which dates from 1852 to 1877 (Bottle Pickers, n.d.). A single fragment of a Minard's Linament bottle was also recovered, which dates from 1860s to present (Stella Pharmaceutical Canada Inc., n.d.). The remaining Maker's marks observed on the bottle glass fragments were too fragmentary and unable to be dated.

While the majority of the bottle glass recovered was fragmentary (n=577) a total of 26 complete bottles were also observed. Twenty-six of the bottle glass fragments revealed whole or partial bottle finishes.

The finishes observed within the fragmentary bottle glass assemblage include nine exterior thread finishes (Cat#681), five straight brandy finishes (Cat# 659 and 662; Plate 8), three patent finishes (Cat# 74, 167, and 660; Plate 8), two prescription finishes (Cat# 423 and 516; Plate 5), two mineral finishes (Cat# 389 and 675; Plate 10), two bead finishes (Cat# 487 and 105), one brandy

finish (Cat# 270; Plate 5), one champagne finish (Cat# 339; Plate 6), and one folded finish (Cat# 424; Plate 6).

The finishes on the complete bottles include mostly patent finishes (n=21; Cat# 676-678, 808, 810-819, 821, 822, and 824; Plate 9) as well as two exterior thread finishes (Cat#820 and 823; Plate 13 and Plate 14), one bead finish (Cat#809; Plate 12), one crown finish (Cat# 658; Plate 7), and one collard ring finish (Cat# 807; Plate 11).

Table 14 details the types of finishes and their respective dates.

**Table 14: Bottle Glass Finishes (Lindsey, 2024)**

Bottle Finishes	Common on	Date range
Bead Finish	medicinal bottles but were occasionally used on other bottled products ranging from liquor to pepper sauce, foods, and condiments, to general utility bottles which were used for an array of substances	early 19th century free-blown bottles to 20th century machine-made items
Folded Finish	figures flasks, medicinal bottles, some food and sauce bottle	1830s to 1870s
Mineral Finish	used on a wide assortment of different types of bottles	1840-1880
Patent Finish	extract and patent & proprietary medicine bottles	1850-1900
Brandy Finish	liquor bottles and flasks	1860-1920
Prescription Finish	druggist, drug store, and prescription bottles	mid-1870s to the effective end of the mouth-blown bottle era in the early 1920s
Champagne finish	Wine and champagne bottles	1880 to 1920s
Straight Brandy finish	cylinder whiskey and other liquor bottles	1890-1920
Crown Finish	Beverage bottles	1892-present
Exterior Thread finish	Canning jars and food storage jars	1870-present
Collard Ring finish	Druggist or prescription bottles	20th century

Seven of the complete bottles were embossed with maker's marks as well as company names or product names. See Table 15 below for details.

**Table 15: Complete Bottle Manufacturers**

Cat#	Manufacturer	Date of use	Reference
678, 811, 812, 813	MINARD'S LINAMENT	1860s to present	Stella Pharmaceutical Canada Inc., n.d.
820	P.D. & Co.	1875-1920	Lockhart, Schriever, Lindsey, and Serr, 2018
658	The T. Milburn Co. LTD, Burdock Blood Bitters, Toronto, ONT.	1866-20th Century	University of Toronto Libraries, n.d
160	LISTERINE, LAMBERT PHARMACAL COMPANY	1860s-20th century	Lindsey, 2024

Most of the faunal remains were unidentified mammal bone fragments (n=295), however 19 avian bones and 1 fish bone were also recovered. A total of 127 fragments demonstrated evidence of butchering and 22 fragments were calcinated. The remaining mammalian, avian, and fish remains were too fragmentary to classify further, and demonstrated no evidence for butchering or cooking. None of the faunal remains were temporally significant.

### 3.1.4 Miscellaneous Metal and Hardware

A total of 456 miscellaneous metal artifacts were recovered during the Stage 4 Mitigation of H1 (AkHd-4). Over half of the metal artifacts were either too corroded or fragmentary to determine their use or were identified as generic fragments of metal sheets. The remainder resemble objects that are still in use today (Table 16).

**Table 16: Miscellaneous Metal Artifact Summary**

Artifact	Frequency	Percentage
metal, undetermined	164	36.20
metal, sheet	116	25.61
metal, wire	63	13.91
metal, can	26	5.74
metal, staple	23	5.08
metal, plate	10	2.21
metal, hook	6	1.32
metal, mesh	6	1.32
metal, machine parts	4	0.88
metal, bolt	3	0.66
metal, cotter pin	3	0.66
metal, washer	3	0.66
spike, railroad	3	0.66
metal, banding	2	0.44
metal, barbed wire	2	0.44
metal, bolt screw	2	0.44
metal, handle	2	0.44
metal, hinge	2	0.44
metal, nut	2	0.44
metal, saw blade	2	0.44
metal, screw	2	0.44
brass swivel	1	0.22
fencing wire	1	0.22
fishhook	1	0.22
gardening hoe	1	0.22
metal, bucket handle	1	0.22
metal, clamp	1	0.22
metal, door handle	1	0.22
metal, ring	1	0.22
metal, rivet	1	0.22
metal, spike	1	0.22
<b>Total</b>	<b>456</b>	<b>100.00</b>

Although the metal pieces within the Stage 4 assemblage were generally not considered to be diagnostic, most of the artifacts such as screws, washers, saw blade, rivet, spike, bolt, staples, machine parts, hinge, handle and many others represent tools or items used during building.

### 3.1.5 Personal Artifacts (see Appendix 10.2.5)

A total of 133 personal items were recovered during the Stage 4 mitigation of H1 (AkHd-4), accounting for only 2.14% of the artifact assemblage (Table 17).

**Table 17: Personal Item Summary**

Personal	Freq.	%
button, Prosser	33	25.00

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

<b>Personal</b>	<b>Freq.</b>	<b>%</b>
button, bone	16	12.12
white clay pipe, bowl	11	8.33
white clay pipe, stem	11	8.33
slate, pencil	10	7.58
slate, writing tablet	8	6.06
shoe, grommet	6	4.55
jewelry	5	3.79
button, Bakelite	4	3.03
shoe, leather	4	3.03
button, shell	3	2.27
marble, clay	2	1.52
metal, shoe heel	2	1.52
porcelain, figurine	2	1.52
timepiece	2	1.52
brass bell	1	0.76
button, glass	1	0.76
button, metal	1	0.76
clasp, copper	1	0.76
coin	1	0.76
comb, Bakelite	1	0.76
dog tag	1	0.76
false teeth	1	0.76
glass, bead	1	0.76
leather, shoe	1	0.76
marble, porcelain	1	0.76
metal cane tip	1	0.76
mouth harp	1	0.76
thimble	1	0.76
<b>Total</b>	<b>133</b>	<b>100.00</b>

Approximately 16% of the personal items recovered from H1 (AkHd-4) were fragments of white clay pipes, which were commonly used throughout the 19<sup>th</sup> century before being replaced by cigarettes just prior to the turn of the century. Three of the pipe stems featured “R. Bannerman” stamped on one side and “Montreal” stamped on the other (Cat# 515; Plate 19). The Bannerman company was operating in Montréal between 1870 and 1902 (Smith R. H., 1986). Another pipe stems featured “Henderson” stamped on one side and “Montreal” stamped on the other. The Henderson company was manufacturing clay pipes in Montréal, Québec between 1847 and 1876 (Adams, 1994).

Fifty-eight buttons were recovered during the Stage 4 excavation manufactured from a variety of materials spanning the 19<sup>th</sup> and early 20<sup>th</sup> centuries, including Prosser (n=33), bone (n=16), Bakelite (n=4), shell (n=3), metal (n=1), and glass (n=1). Bone buttons were used throughout most of the 19<sup>th</sup> century before being replaced in the final quarter of the century by vegetable ivory (Plate 20). Shell was more commonly used for shirt buttons until 1840 and the development of Prosser varieties. Metal buttons were used throughout the 19<sup>th</sup> century and beyond for military uniforms and coats. Bakelite is form of plastic that dates to the recent 20<sup>th</sup> century.

Also included among the personal artifacts were ten slate pencil pieces (Plate 17), eight slate writing tablet pieces, six shoe grommets, five pieces of jewelry (Plate 21), five leather shoes, two metal shoe heels, two clay marbles, two porcelain figurines, two timepieces, one porcelain marble, one brass bell, one copper clasp, one coin, one Bakelite comb, one dog tag, one set of false teeth, one glass bead, one metal cane tip, one mouth harp, and one thimble. Whereas the majority of these items are not considered to be diagnostic, the coin was identified as an American silver half-dime dating to 1862 (Cat# 289; Plate 18).

### 3.1.6 Horse Tack and Ammunition

Seven pieces of horse tack were recovered from H1 (AkHd-4) including six horseshoe nails and one-horse harness. Whereas horse tack is not considered diagnostic, it does demonstrate that the occupants of H1 (AkHd-4) used horses in some way.

Four artifacts were identified as ammunition including various shell casings.

### 3.1.7 Recent Material

The remainder of the Stage 4 Euro-Canadian assemblage includes two pieces of plastic and one plastic hairpin that date exclusively to the 20<sup>th</sup> century.

### 3.1.8 Archaeobotanical Remains

A total of 5.75g of charcoal and 10 insect parts were recovered from the soil samples taken from Feature 3a and 3c.

The charcoal pieces observed from Feature 3a and 3c were too small to identify species. It is more likely that these specimens represent charred lumps, also called parenchymous or processed edible tissue ('PET') in paleoethnobotanical literature (Hather 1991). The presence of charred lumps suggests that plants, not just wood, may have been processed, cooked and deposited in the feature.

The ten insect parts were too fragmentary to determine a species.

## 3.2 Artifact Distribution and Settlement Pattern

As was discussed earlier, the Stage 4 mitigation at H1 (AkHd-4) resulted in the hand excavation of the 19 one-metre square units formed two excavation blocks in the vicinity of the highest yielding Stage 3 test units located at 225E, 530N and 230E, 530N. Block excavation surrounding Test Unit 225E, 530N formed Block 1 and measured 4m by 4m. A total of 13 units were dug with artifact yields ranging from 83 to 421. Block excavation surrounding Test Unit 230E, 530N formed Block 2 and measured 3m by 3m. A total of six units were dug with artifact yields ranging from 41 to 202.

The majority of the Stage 4 units featured one stratigraphic layer (Layer 1), identified as a dark brown sandy loam topsoil ranging in depth from 14 to 50cm that directly sealed a yellow brown clay loam subsoil. Six units to the west of 225E, 530N contained three stratigraphic layers. Layer 3 was identified as a dark brown sandy loam topsoil ranging in depth from 8 to 17cm sealing a fill layer (Layer 2). Layer 2 comprised a demolition layer ranging in depth from 5 to 12cm consisting of building debris and plaster, which directly sealed a layer of buried topsoil identified as the original topsoil (Layer 1). Due to their similar soil colour and consistency Layer 3 and Layer 1 are both considered the same topsoil layer with Layer 3 having been redeposited above the demolition fill (Layer 2) presumably from the demolition of the church that existed on the property in the 1860s prior to being moved in 1892. Block 1 comprised 13 units with the six eastern most units containing Layers 1, 2, and 3. Artifact yields ranged from a total of 83 to 421 with the highest yielding unit located in the southeast corner at 226E, 529N. Block 2 was the smaller of the two excavation blocks with a total of six units excavated, all of which only contained Layer 1. Artifact yields ranged between 41 and 202 artifacts with the highest yielding unit located on the eastern side of the block at 229E, 530N.

A total of 3,747 Euro-Canadian artifacts were recovered during the Stage 4 block excavation at H1 (AkHd-4). Most of the artifacts (76.49%; n=2,866) were recovered from Layer 1. A total of 642 artifacts were recovered from Layer 2 and 239 artifacts were recovered from Layer 3. Euro-Canadian artifact yields from Layer 2 ranged from 57 to 149, with the highest count occurring within the Stage 4 unit at 223E, 529N in the southwestern corner of the western excavation block. It was assumed that these artifacts represent contamination from the demolition of the church on the property, which was later covered by additional topsoil over the years.

Once the excavation of the topsoil was complete, a number of dark stains observed within the subsoil throughout the excavation block were explored to determine whether or not they were

cultural features or post holes. Most of the stains were identified as shrub boles or rodent burrows and a single post mould was observed in unit 231E, 529N. None were determined to be cultural features.

The artifacts recovered from Layer 1 include primarily window glass measuring greater than 1.6mm as well as cut nails, undecorated ironstone, and bottle glass. Bottle glass finishes observed date from the middle 19<sup>th</sup> century to the 20<sup>th</sup> century. This date is also supported by the ceramic assemblage, which includes mostly ironstone, RWE, porcelain, and semi-porcelain. A small number of late 17<sup>th</sup> to early 19<sup>th</sup> century were observed in the form of a wrought nail, and painted pearlware fragments.

The artifacts recovered from Layer 2 include primarily cut nails. The majority of the window glass measures greater than 1.6mm indicating a post-1845 date of use. Also recovered were wire nails, bottle glass finishes dating to the late 19<sup>th</sup> and 20<sup>th</sup> century. Overall Layer 2 shows no evidence of late 17<sup>th</sup> to early 19<sup>th</sup> century artifacts, indicating this layer was in use during the middle to late 19<sup>th</sup> century, which coincides with the relocation of the church that was on the property in the 1860s and relocated to another property in 1892.

Lastly the artifacts recovered from Layer 3 include primarily cut nails, window glass measuring greater than 1.6mm, bottle glass, undecorated ironstone, and wire nails, with small amounts of modern plastic, stoneware, wall plaster. These artifacts date primarily from the middle 19<sup>th</sup> to the 20<sup>th</sup> century. No evidence of early 19<sup>th</sup> century artifacts was observed in Layer 3, which supports the determination that Layer 3 dates to after the relocation of the church to another property.

The MTR of H1 (AkHd-4) resulted in the documentation of eight features, including three small middens (Features 2, 4 and 5), one series of privies (Feature 3), the remains of the church (Feature 6), an ash pit (Feature 8), and two non-cultural features (Features 1 and 7). Five additional posts were observed to the south of the one in Unit 231E, 529N. The six posts were determined to be a fence line that was in use at the time the church was located on the property. These posts were determined to be non-cultural. A total of 2,461 artifacts were recovered from the feature excavation.

Feature 2 measured 1m east to west and 1.4m north to south and 32cm at its deepest point (Figure 9). In total, 89 artifacts were recovered from Feature 2 including 84 pieces of bottle glass, 2 cut nails, 1 animal bone, 1 complete bottle and one metal staple (Plate 7). Of the 84 bottle glass fragments five are straight brandy finishes and one is a patent finish on a bottle fragment from a Manley's Celery Compound that was produced in Toronto from 1891 to 1894. The complete bottle was clear and featured a crown finish and read "The T. Milburn Co. LTD" "Burdock Blood Bitters" "Toronto, ONT.". Feature 2 was determined to be a small midden with dark soil mixed with ash, charcoal, plastic dating from the late 19<sup>th</sup> to early 20<sup>th</sup> century.

Feature 3 measured 7m east to west and 3.5m north to south and 33cm at its deepest point (Figure 10). Due to its irregular shape, Feature 3 was excavated in three sections a, b, and c. The artifact assemblage from Feature 3a, the west side of the feature, comprised 151 pieces of ceramic, 83 household artifacts, 48 structural artifacts, 45 metal artifacts, 15 personal artifacts, and 4 archaeobotanical remains. Within the ceramic assemblage were 63 undecorated pearlware fragments, 33 pearlware painted fragments, 20 undecorated ironstone fragments, 20 painted RWE fragments, 7 pieces of red earthenware, 4 undecorated RWE fragments, 3 transfer printed RWE fragments, and 1 piece of stoneware, which are indicative of an early to late 19<sup>th</sup> century occupation. The household assemblage in Feature 3a comprised 55 animal bones, 12 bottle glass fragments, 7 wine glass pieces, 4 bird bones, 2 drinking glass fragments, 1 cast iron tray, 1 piece of moulded glass, and 1 whetstone. Although the majority of the household items are unable to be dated, half of the bottle glass was clear, which is indicative of a post-1870 date of occupation. The structural assemblage comprised 23 pieces of window glass, 20 cut nails, 2 wire nails, and 2 slate roofing nails. Almost 70% of the window glass measured greater than 1.6mm and are indicative of a post-1845 and the machine cut or wire drawn are suggestive of a middle 19<sup>th</sup> to early 20<sup>th</sup> century occupation. The personal items include seven bone buttons, two Prosser buttons, two slate pencils, one shoe heel, one shoe grommet, 1 piece of shoe leather, and 1 writing tablet. Bone buttons were used throughout the 19<sup>th</sup> century and Prosser buttons not until post-1840. The

remaining artifacts recovered from Feature 3a were 45 pieces of miscellaneous metal and 4 insect parts.

Feature 3b, the centre of the feature, comprised 113 pieces of ceramic, 68 structural artifacts, 44 household artifacts, 28 pieces of metal, and 16 personal items. The ceramic assemblage includes, 46 pieces of undecorated pearlware, 30 undecorated pieces of RWE, 16 pieces of red earthenware, 7 painted RWE fragments, 5 painted pearlware fragments, 4 undecorated ironstone fragments, 3 transfer printed RWE fragments, 1 painted ironstone fragment, and 1 piece of ironstone. The undecorated and painted pearlware recovered in this assemblage indicates the earliest date of Feature 3b to the early 19<sup>th</sup> century, whereas the ironstone extends the date range to the late 19<sup>th</sup> century. Within the structural assemblage were 46 cut nails and 22 pieces of window glass, the majority of which measured greater than 1.6mm and date to post-1845 similarly the cut nails date to the middle of the 19<sup>th</sup> century. The household assemblage comprised 22 animal bones, 7 bottle glass fragments, 6 wine glass fragments, 4 pieces of moulded glass, 2 pieces of a drinking glass, 2 glass jug fragments, and 1 bird bone. Four of the glass bottle fragments are clear, which are indicative of a post-1870 date of occupation. The 16 personal items include, four slate writing tablet fragments, two bone buttons, two pieces of shoe leather, one Prosser button, one set of false teeth, one glass bead, one piece of jewelry, one mouth harp, one slate pencil fragment, one timepiece, and one white clay pipe stem fragment. As mentioned above, Bone buttons were used throughout the 19<sup>th</sup> century and Prosser buttons not until post-1840. An additional 28 pieces of miscellaneous metal round out the assemblage of Feature 3b.

Feature 3c, the eastern portion of the feature, comprised 199 structural artifacts, 34 pieces of ceramic, 12 household artifacts, 9 personal items, 8 pieces of metal, and 6 insect parts. The structural artifacts include primarily window glass, cut nails, wire nails, and slate roofing. A total of 60% of the window glass assemblage in Feature 3c measured greater than 1.6mm thick and date to post-1845 and the machine cut or wire drawn are suggestive of a middle 19<sup>th</sup> to early 20<sup>th</sup> century occupation. Within the ceramic assemblage there were 21 painted RWE fragments, 6 pieces of red earthenware, 4 undecorated RWE fragments, 1 piece of moulded ironstone, 1 piece of undecorated pearlware, and one piece of transfer printed RWE. The pearlware recovered in this feature indicates the earliest date of Feature 3c to be the early 19<sup>th</sup> century, whereas the ironstone extends the date range into the late 19<sup>th</sup> century. The household artifact assemblage comprises five animal bones, four wine glass fragments, two bottle glass fragments, and 1 whetstone. The nine personal items include five Prosser buttons, two porcelain figurine fragments, 1 Bakelite button, and one timepiece. The remaining artifacts recovered were eight pieces of metal and six insect parts.

In total, 883 artifacts were recovered during the hand excavation of Feature 3. Feature 3 was determined to be a series of privies with the overall artifact assemblages from all three portions of Feature 3 (a, b, and c) showing evidence of use throughout the 19<sup>th</sup> century and into the early 20<sup>th</sup> century with the presence of wire drawn nails.

Feature 4 measured 1.3m east to west and 0.8m north to south and 45cm at its deepest point (Figure 11). In total, 291 artifacts were recovered from Feature 4 including 177 ceramic fragments, 77 household artifacts, 33 metal pieces, and 4 structural artifacts (Plate 9). Observed within the ceramic assemblage of Feature 4 were 124 pieces of undecorated ironstone, 41 pieces of undecorated semi-porcelain, 11 pieces of red earthenware, and 1 piece of painted RWE. Within the household assemblage were 46 pieces of unknown glass, 27 bottle glass shards, and 4 complete bottles. The structural artifacts comprise three pieces of window glass and one brick. The remainder of the Feature 4 artifact assemblage comprised 33 pieces of metal. Given the lack of pearlware and plethora of ironstone recovered from this feature it appears as though the contents of the feature date from the middle to late 19<sup>th</sup> century. This date is further supported by the mineral and patent bottle finishes as well as the Minard's Linament complete bottle and bottle fragment, which date as early as the 1860's. Further extending the feature date into the 20<sup>th</sup> century are possibly the external thread finishes, which are still manufactured today. Feature 4 was determined to be a small midden dating from the middle 19<sup>th</sup> century into the early 20<sup>th</sup> century.

Feature 5 measured 0.7 by 0.7 m and 65cm at its deepest point (Figure 12). In total, 490 artifacts were recovered from Feature 5 including 197 ceramics, 122 household artifacts, 104 pieces of

metal, and 67 structural artifacts (Plate 11 to Plate 14). The majority of the ceramics recovered were undecorated ironstone (n=94) and white earthenware (n=77) with lesser number of undecorated RWE (n=20) and undecorated semi-porcelain (n=6). The majority of the household artifacts were glass including 97 glass bottle shards, 21 complete bottles and 1 glass jar fragment. A single metal cup, metal plate, and a utensil were also recovered. The structural assemblage comprised primarily window glass (n=64), all of which measured greater than 1.6mm, and three pieces of brick. The remaining Feature 5 assemblage comprised 104 pieces of metal, none of which were diagnostic. The ceramic assemblage shows no evidence of decoration making it difficult to provide a more specific date other than the 19<sup>th</sup> century. The bottle glass assemblage includes fragments with unknown maker's marks; however, the complete bottle glass assemblage includes 17 patent finishes, three of which are on Minard's Linament bottles and one on a Listerine bottle both dating from the 1860s into the 20<sup>th</sup> century; 2 external thread finishes, 1 collar ring finish, and 1 bead finish, which when observed with the artifact assemblage as a whole indicate a date of occupation of the 20<sup>th</sup> century. Feature 5 was determined to be a small midden dating from the late 19<sup>th</sup> to 20<sup>th</sup> century.

Feature 6 is the remains of the church that was once standing on the property in the 1860s (Figure 13) and in 1892 was relocated to another location. A brick and rubble foundation with a central stone pier, which presumably supported the church floor, were observed. A total of 21 cut nails were recovered from Feature 6. A number of bricks were also observed on the surface of the feature, these were noted but not retained for analysis.

Feature 8 measured 1m east to west and 1.3m north to south and 33cm at its deepest point (Figure 14). It contained a great deal of ash with some ceramics. In total, 593 artifacts were recovered from Feature 8 included primarily structural artifacts (n=500) as well as 34 metal pieces, 31 household artifacts, 21 pieces of ceramics, and 7 personal artifacts. The structural assemblage comprised primarily cut (n=289) and wire nails (n=202) in addition to eight roofing nails and 1 piece of window glass. The household assemblage comprised 19 animal bones, 6 bottle glass fragments, 4 wine glass fragments, and 2 porcelain medicine spoons. The only ceramics recovered were 20 pieces of undecorated porcelain and 1 piece of painted porcelain. The remaining artifacts were seven personal items including four shoe grommets, one dog tag, one piece of jewelry, and one white clay pipe stem. Feature 8 was determined to be an ash pit containing artifacts dating from middle 19<sup>th</sup> to early 20<sup>th</sup> century with the presence of machine cut and wire drawn nails as well as porcelain fragments and a dog tag with a date of 1924.

As mentioned above, Feature 1 and Feature 7 as well as six fence posts were determined to not be cultural. Feature 1 measured 1m east to west and 2m north to south. The limits of the MTR were unable to be extended to the east and north of this feature given that a telephone pole and guide wires were located to the north of the feature and would have been directly affected by any machine activity. The property limits impeded further MTR to the east of the feature. In total, 94 artifacts were recovered from the surface of Feature 1 including 89 pieces of red earthenware, 2 faunal remains of unknown species, 2 pieces of undecorated ironstone, and 2 red brick fragments. Of these artifacts the red earthenware can be dated to the 19<sup>th</sup> century and the ironstone to the middle of the 19<sup>th</sup> century onwards. Feature 1 was identified as a tree pull and therefore was determined to be non-cultural. Feature 7 measured approximately 1m by 1m, contained no artifacts, and was determined to be non-cultural.

A line of six fence posts runs north to south along the eastern edge of the MTR limits along the 232E grid line. These posts are composed of cedar logs buried in the ground and were likely part of a cedar split rail fence when the church was active.

Overall, the evidence recovered during the Stage 4 mitigation at H1 (AkHd-4) has been identified as primarily middle 19<sup>th</sup> to early 20<sup>th</sup> century refuse deposit and demolition event associated with the St. Andrews Presbyterian Church and possibly by the nearby Pilkington, Sylec, McRae, and Thompson families. The demolition layer was deposited as a distinct fill layer (Layer 2) above the original topsoil. The demolition layer was then filled in over the years with native topsoil.

### **3.3 Artifact Catalogue**

See Appendix in Section 10.1 below of the complete artifact catalogue from the Stage 4 investigation at H1 (AkHd-4).

## 4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 4 mitigation of developmental impacts at archaeological site H1 (AkHd-4) in advance of a proposed residential development that spans the entire property at 31 Church Street, Alma, Ontario (Figure 8).

The Stage 4 mitigation of H1 (AkHd-4) was conducted between May 9<sup>th</sup> and September 14<sup>th</sup>, 2023, resulting in the documentation of two excavation blocks and eight features. In total, the Stage 4 mitigation of H1 (AkHd-4) produced 6,208 Euro-Canadian artifacts and 5.75g of charcoal from the excavation of 19 one-metre units and eight features (six cultural and two non-cultural).

As mentioned above, the hand excavation of the 19 one-metre square units formed two excavation blocks in the vicinity of the highest yielding Stage 3 test units located at 225E, 530N and 230E, 530N. Block excavation surrounding Test Unit 225E, 530N formed Block 1 and measured 4m by 4m. A total of 13 units were dug with artifact yields ranging from 83 to 421. Block excavation surrounding Test Unit 230E, 530N formed Block 2 and measured 3m by 3m. A total of six units were dug with artifact yields ranging from 41 to 202.

The majority of the Stage 4 units featured one stratigraphic layer (Layer 1), identified as a dark brown sandy loam topsoil ranging in depth from 14 to 50cm that directly sealed a yellow brown clay loam subsoil. Six units to the west of 225E, 530N contained three stratigraphic layers. Layer 3 was identified as a dark brown sandy loam topsoil ranging in depth from 8 to 17cm sealing a fill layer (Layer 2). Layer 2 comprised a demolition layer ranging in depth from 5 to 12cm consisting of building debris and plaster, which directly sealed a layer of buried topsoil identified as the original topsoil (Layer 1). Due to their similar soil colour and consistency Layer 3 and Layer 1 are both considered the same topsoil layer with Layer 3 having been redeposited above the demolition fill (Layer 2) presumably from the demolition of the church that existed on the property in the 1860s prior to being moved in 1892.

A total of 3,747 Euro-Canadian artifacts were recovered during the Stage 4 block excavation at H1 (AkHd-4). Most of the artifacts (76.49%; n=2,866) were recovered from Layer 1. A total of 642 artifacts were recovered from Layer 2 and 239 artifacts were recovered from Layer 3. Euro-Canadian artifact yields from Layer 2 ranged from 57 to 149, with the highest count occurring within the Stage 4 unit at 223E, 529N in the southwestern corner of the western excavation block. It was assumed that these artifacts represent contamination from the demolition of the church on the property, which was later covered by additional topsoil over the years.

Once the excavation of the topsoil was complete, a number of dark stains observed within the subsoil throughout the excavation block were explored to determine whether or not they were cultural features or post holes. Most of the stains were identified as shrub boles or rodent burrows and a single post mould was observed in unit 231E, 529N. None were determined to be cultural features.

The artifacts recovered from Layer 1 include primarily window glass measuring greater than 1.6mm as well as cut nails, undecorated ironstone, and bottle glass. Bottle glass finishes observed date from the middle 19<sup>th</sup> century to the 20<sup>th</sup> century. This date is also supported by the ceramic assemblage, which includes mostly ironstone, RWE, porcelain, and semi-porcelain. A small number of late 17<sup>th</sup> to early 19<sup>th</sup> century were observed in the form of a wrought nail, and painted pearlware fragments.

The artifacts recovered from Layer 2 include primarily cut nails. The majority of the window glass measures greater than 1.6mm indicating a post-1845 date of use. Also recovered were wire nails, bottle glass finishes dating to the late 19<sup>th</sup> and 20<sup>th</sup> century. Overall Layer 2 shows no evidence of late 17<sup>th</sup> to early 19<sup>th</sup> century artifacts, indicating this layer was in use during the middle to late 19<sup>th</sup> century, which coincides with the relocation of the church that was on the property in the 1860s and relocated to another property in 1892.

Lastly the artifacts recovered from Layer 3 include primarily cut nails, window glass measuring greater than 1.6mm, bottle glass, undecorated ironstone, and wire nails, with small amounts of modern plastic, stoneware, wall plaster. These artifacts date primarily from the middle 19<sup>th</sup> to the

20<sup>th</sup> century. No evidence of early 19<sup>th</sup> century artifacts was observed in Layer 3, which supports the determination that Layer 3 dates to after the relocation of the church to another property.

Given the disturbance observed in the Stage 4 units as well as the lack of fatty or dark soils or high concentrations of faunal material Detritus determined that there was no midden present on site. Detritus reached out to the MCM to seek advice on changing our Stage 4 mitigation strategies, which included the request to move directly to mechanical topsoil removal ('MTR') to search for features and the foundation remains of the church that was on the property in the 1860s (see Section 4.0 of the Supplementary Documentation).

Following the advice provided, Detritus moved directly to conducting the MTR, which covered an area of 53m northwest-southeast by 42m northeast-southwest and encompassed the entire observed limits of the site. The MTR of H1 (AkHd-4) resulted in the documentation of eight features, including three small middens (Features 2, 4 and 5), one series of privies (Feature 3), the foundation remains of the church (Feature 6), an ash pit (Feature 8), and two non-cultural features (Features 1 and 7). In addition to the post mentioned in the paragraph above, five additional posts were observed and combined all six posts were determined to be a fence line erected at the time the church was in use. These posts were determined to be non-cultural. A total of 2,461 artifacts were recovered from the feature excavation and float samples recovered from Feature 3. Feature 2 was determined to be a small midden with dark soil mixed with ash, charcoal, plastic dating from the late 19<sup>th</sup> to early 20<sup>th</sup> century. Feature 3 was determined to be a series of privies with the overall artifact assemblages from all three portions of Feature 3 (a, b, and c) showing evidence of use throughout the 19<sup>th</sup> century and into the early 20<sup>th</sup> century with the presence of wire drawn nails. Feature 4 was determined to be a small midden dating from the middle 19<sup>th</sup> century into the early 20<sup>th</sup> century. Feature 5 was determined to be a small midden dating from the late 19<sup>th</sup> to 20<sup>th</sup> century. Feature 6 is the remains of the church that was once standing on the property in the 1860s and was relocated to another location in 1892. Feature 8 was determined to be an ash pit containing artifacts dating from middle 19<sup>th</sup> to early 20<sup>th</sup> century.

Overall, the Stage 4 assemblage at H1 (AkHd-4) produced 6,208 Euro-Canadian artifacts from 19 units, 6 cultural features (Features 2-6 and 8), and on the surface of one non-cultural feature (Feature 1). Over 90% of the H1 (AkHd-4) Stage 4 artifact assemblage comprised the combined structural artifacts (42.20%; n=2,620), ceramic sherds (28.32%; n=1,758), and household artifacts (19.60%; 1,217), which are typical of a domestic refuse deposit. Almost half of the household artifacts were bottle glass fragments and complete glass bottles (n=603; 49.55%). The remainder of the Euro-Canadian artifacts recovered from H1 (AkHd-4) includes trace amounts of miscellaneous metal items (n=456), personal artifacts (n=133), horse tack and ammunition (n=11), archaeobotanical remains (n=10), and 20<sup>th</sup> century plastic (n=3). In addition, 5.75g of charcoal were recovered from the float samples taken from Feature 3.

The structural artifacts, which comprised almost exclusively (98.86%) nails (n=1,530) or window glass pieces (n=1,060), which support a middle to late 19<sup>th</sup> century occupation. Most of the nails were machine cut (n=1,131) or wire drawn (n=390), suggestive of a middle 19<sup>th</sup> to early 20<sup>th</sup> century occupation. The presence of roofing nails (n=8) provides a more secure 20<sup>th</sup> century occupation corresponding with the introduction of shingles in 1908. Most of the window glass fragments, meanwhile, were thick, suggestive of a post-1845 period of occupation. The remainder of the structural artifacts include 18 slate shingle fragments, 7 unfrogged red brick pieces, 3 cement fragments, and 2 pieces of mortar. Whereas the red bricks were not considered to be diagnostic, slate shingles first appeared in Ontario in the 1840s, but remained in use well into the 20<sup>th</sup> century after the development of asphalt shingles with a peak period of popularity in the 1880s. A single wrought nail was also documented in the Stage 4 assemblage.

Most of the ceramic assemblage (86.35%) comprised sherds of ironstone (42.66%; n=750), RWE (26.28%; n=462), and utilitarian wares (17.41%; n=306). A lesser number of pearlware (n=158), semi-porcelain (n=54), and porcelain (n=28) were also recovered. Almost 40% of the ironstone recovered were undecorated. The remaining fragments were moulded, painted, sponged, or transfer printed. Decorative patterns on the moulded fragments include, floral, grapes, and wheat. The painted, sponged, and transfer printed fragments were decorated in red, green, blue, and purple. Although blue decorations on ironstone fragments was used from 1845 to the 20<sup>th</sup> century, green, red, and purple were not common on ironstone until after 1890.

Over half of the RWE sherds were undecorated (56.71%; n=262). A smaller number of painted (n=119), transfer printed (n=72), sponged (n=6), and edged (n=3) fragments were also recovered. Colours observed in the painted RWE assemblage comprise blue, black, brown, green, grey, red, and pink. Although blue was used throughout the 19<sup>th</sup> century, green, red, and purple were more common between 1830-1845. The transfer printed RWE fragments were decorated in grey, black, blue, brown, and green. Blue was common on RWE fragments throughout the 19<sup>th</sup> century, however, grey, black, and green are indicative of new palette colours, which were popular between 1830 and 1870. The sponged fragments were decorated in blue and red. Sponging was a popular and inexpensive design technique used between 1845 and 1870. Lastly, the RWE edged fragments were decorated in blue, with one fragment featuring a straight rim with a chicken foot pattern, which was popular between 1841 and 1884.

Most of the utilitarian sherds were of red earthenware (70.26%; n=215) an additional 83 white earthenware fragments and 1 yellow earthenware fragment were also recovered. Earthenwares were common throughout the 19<sup>th</sup> century. The remaining seven sherds of stoneware, meanwhile, suggest a post-1870 period of occupation, when stoneware vessels began to replace earthenware varieties in Ontario.

An additional 158 pieces of pearlware were recovered, which represents a late 18<sup>th</sup> to early 19<sup>th</sup> century date of occupation. The majority of the pearlware fragments were undecorated (n=110). The remaining fragments were painted in late palette (or new palette) blue, red, black, and green, which are indicative of an early 19<sup>th</sup> century date of occupation.

Lastly, 54 semi-porcelain and 28 porcelain fragments were recovered. The majority of these fragments were undecorated (n=78). Of the remaining four fragments, two were moulded porcelain fragments, one was a blue painted porcelain fragment, and one was a moulded semi-porcelain fragment. The semi-porcelain and porcelain fragments extend the date of occupation into the early 20<sup>th</sup> century.

As was noted above, most of the household artifacts comprised a combination of bottle fragments and complete glass bottles (n=603) and faunal remains (n=315). Among the bottle glass fragments and complete bottles, one third were clear (33.67%; n=203), and possibly machine manufactured in the late 19<sup>th</sup> or 20<sup>th</sup> century. Just over 18% were aqua tinted (18.24%; n=110), which suggests a period of occupation spanning the 1840s to the 1880s. The remainder of the bottle glass was brown (n=94), various shades of blue (n=96), various shades of green (n=78), purple (n=17), and white (n=5). Within the bottle glass assemblage 52 bottle finishes were observed including primarily patent and exterior thread finishes, which date from the middle 19<sup>th</sup> to the 20<sup>th</sup> century. A smaller number of straight brandy, bead, mineral, prescription, folded, brandy, champagne, crown, and collared finishes were also observed. Also included in the glass assemblage were 118 wine glass fragments, 57 drinking glass fragments, 46 unknown glass fragments, 23 moulded glass fragments, 17 glass stems (likely from wine glasses), 2 glass jug fragments, 2 melted glass fragments, 1 glass jar fragment, and 1 glass vase fragment. Eleven pieces of wall plaster, eight utensils, four pieces of coal, two copper oil lamp pieces, two porcelain medicine spoons, two whetstones, one cast-iron tray, one metal cup, and one pair of scissors rounded out the household artifacts.

Personal items were encountered infrequently at H1 (AkHd-4), accounting for only 2.14% of the artifact assemblage (n=133). Almost 60% of the personal items were a combination of buttons (43.61%; n=58) and white clay pipe fragments (16.54%; n=22). The 58 buttons recovered during the Stage 4 excavation were manufactured from a variety of materials spanning the 19<sup>th</sup> and early 20<sup>th</sup> centuries, including Prosser (n=33), bone (n=16), Bakelite (n=4), shell (n=3), metal (n=1), and glass (n=1). Bone buttons were used throughout most of the 19<sup>th</sup> century before being replaced in the final quarter of the century by vegetable ivory. Shell was more commonly used for shirt buttons until 1840 and the development of Prosser varieties. Metal buttons were used throughout the 19<sup>th</sup> century and beyond for military uniforms and coats. Bakelite is a form of plastic that dates to the recent 20<sup>th</sup> century. White clay smoking pipes were commonly used throughout the 19<sup>th</sup> century before being replaced by cigarettes just prior to the turn of the century. Three pipe stem fragments featured “R. Bannerman” stamped on one side and “Montreal” stamped on the other. The R. Bannerman company was manufacturing clay pipes in Montréal, Québec between 1858 and 1907. Another pipe stems featured “Henderson” stamped on

one side and “Montreal” stamped on the other. The Henderson company was manufacturing clay pipes in Montréal, Québec between 1847 and 1876. Also included among the personal artifacts were ten slate pencil pieces, eight slate writing tablet pieces, six shoe grommets, five pieces of jewelry, four pieces of shoe leather, two clay marbles, two metal shoe heels, two porcelain figurines, two timepieces, one brass bell, one copper clasp, one coin, one Bakelite comb, one dog tag, one set of false teeth, one glass bead, one piece of shoe leather, one porcelain marble, one metal cane tip, one mouth harp, and one thimble. Whereas the majority of these items are not considered to be diagnostic, the coin was identified as an American half dime dating to 1862 and the dog tag had a date of 1924.

The remainder of the Stage 4 artifact assemblage includes 456 miscellaneous metal items, many of which resemble hardware that is still in use today. An additional six horseshoe nails, four pieces of ammunition, one horse harness fragment, as well as two pieces of plastic and a plastic hair pin that date exclusively to the 20<sup>th</sup> century. The horse tack recovered, suggests that the occupant of the site was wealthy enough to stable a horse. Additionally, when considering the ammunition along with the metal button and the dog tag, these artifacts may indicate that the occupant was a military serviceman.

Overall, the evidence recovered during the Stage 4 mitigation at H1 (AkHd-4) has been identified as primarily middle 19<sup>th</sup> to early 20<sup>th</sup> century refuse deposit and demolition event associated with the St. Andrews Presbyterian Church and possibly by the nearby Pilkington, Sylec, McRae, and Thompson families. The demolition layer was deposited as a distinct fill layer (Layer 2) above the original topsoil. The demolition layer was then filled in over the years with native topsoil.

Based on the available evidence, H1 (AkHd-4) was interpreted as a demolition event that occurred at the original church building, located at 31 Church Street, prior to or around the time of its relocation in 1892 to 8 Peel Street to meet the demands of the growing congregation. Some artifacts found at this site could also be related to the nearby occupations by the Pilkington, Sylec, McRae, and Thompson families, dumped at this location prior to the demolition event.

## 5.0 Recommendations

The Stage 4 mitigation of H1 (AkHd-4) is now complete. The CHVI of the site has been fully documented and the information will be preserved for future study. **H1 (AkHd-4) has no further CHVI**, as per Section 7.11.4 Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011a).

## 6.0 Advice on Compliance with Legislation

This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. 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 Citizenship and Multiculturalism, 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.

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*.

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*.

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.

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## 8.0 Maps

Figure 1: Study Area Location Map

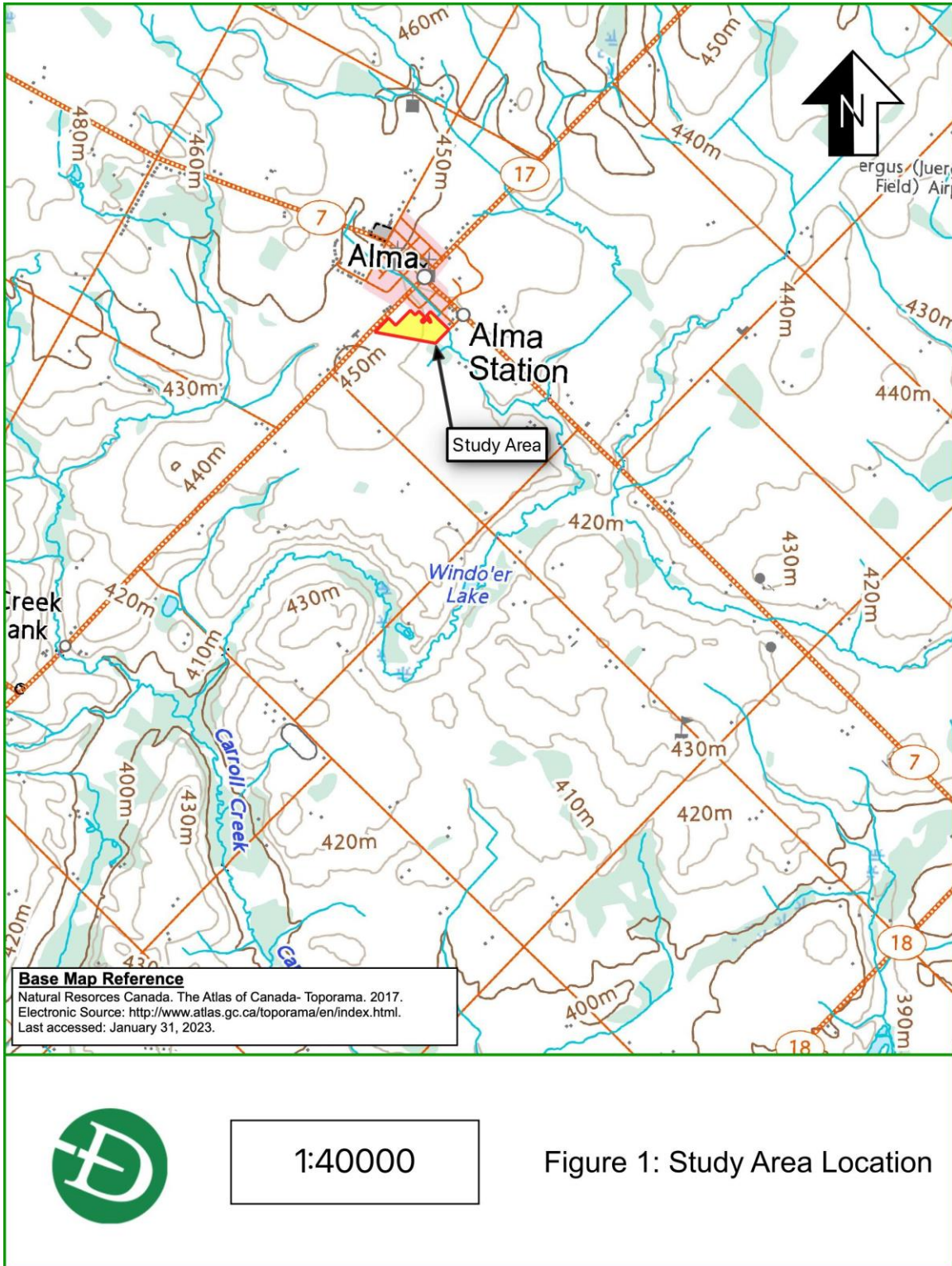
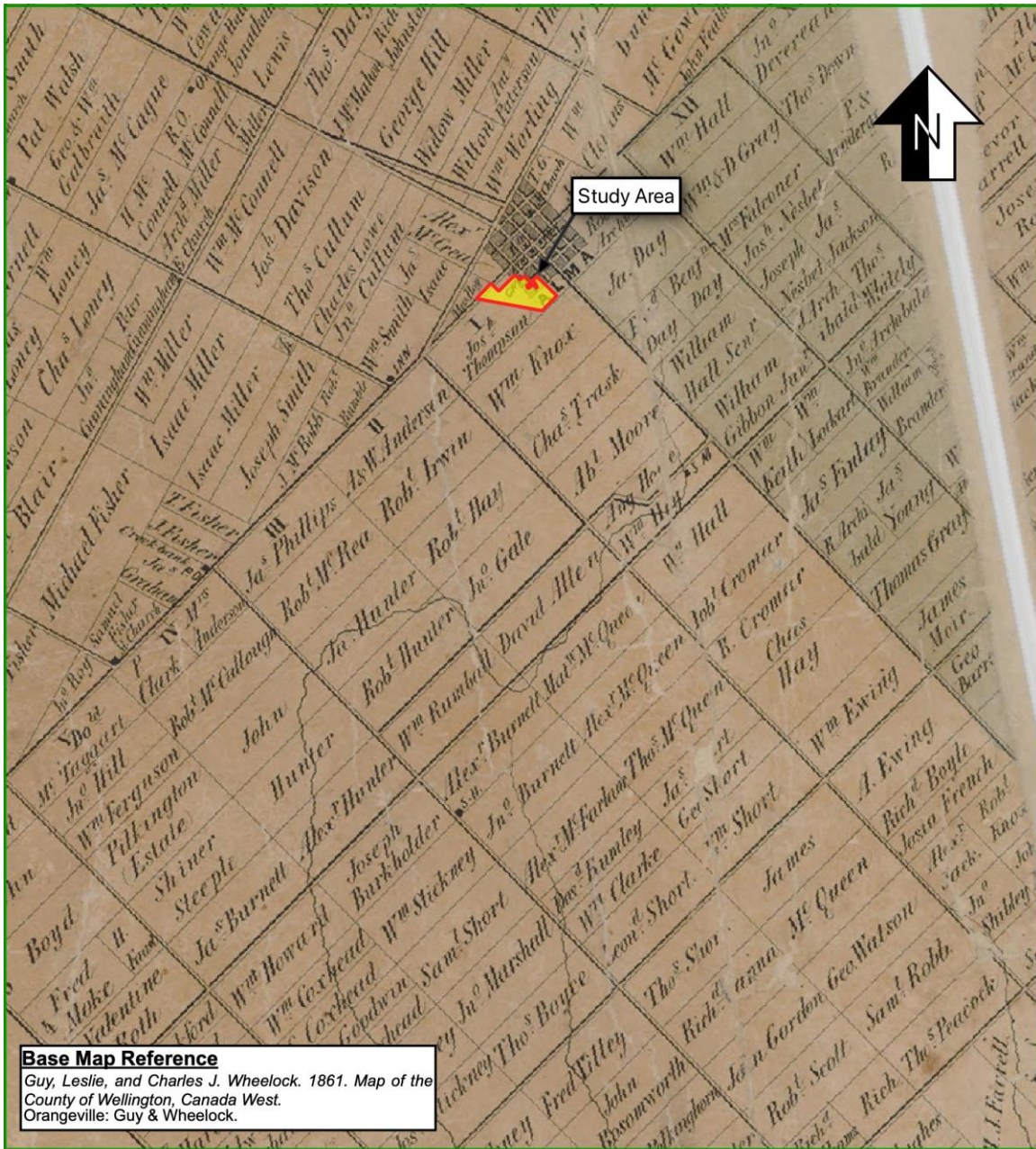


Figure 2: Historic Map Showing the Study Area Location



**Base Map Reference**  
Guy, Leslie, and Charles J. Wheelock. 1861. Map of the County of Wellington, Canada West.  
Orangeville: Guy & Wheelock.



Not to Scale

Figure 2: Portion of Guy Leslie's 1861 Map of the County of Wellington, Canada West

Figure 3: Additional Historic Map Showing the Study Area Location



Figure 4: Previous Archaeological Assessment



Legend

 Stage 1-2 Archaeological Assessment (Detritus 2023)



**Figure 4: Previous Archaeological Assessment**

Map Creator: Isaac Bender  
CRS: WGS 84 NAD 17N  
Baselayer: Google Satellite Imagery

Figure 5: Stage 4 Results Map

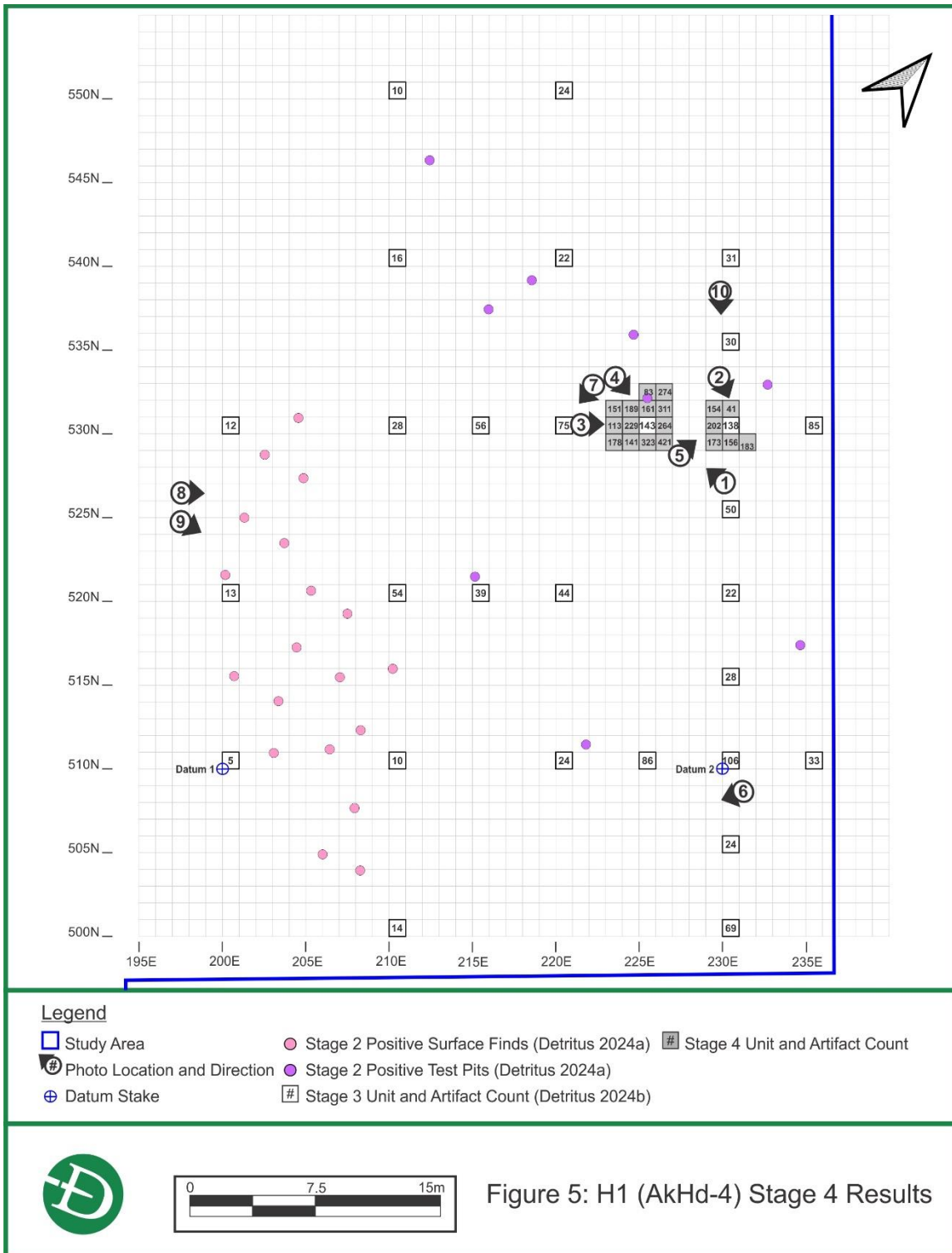


Figure 6: Stage 4 Results Map by Soil Layer

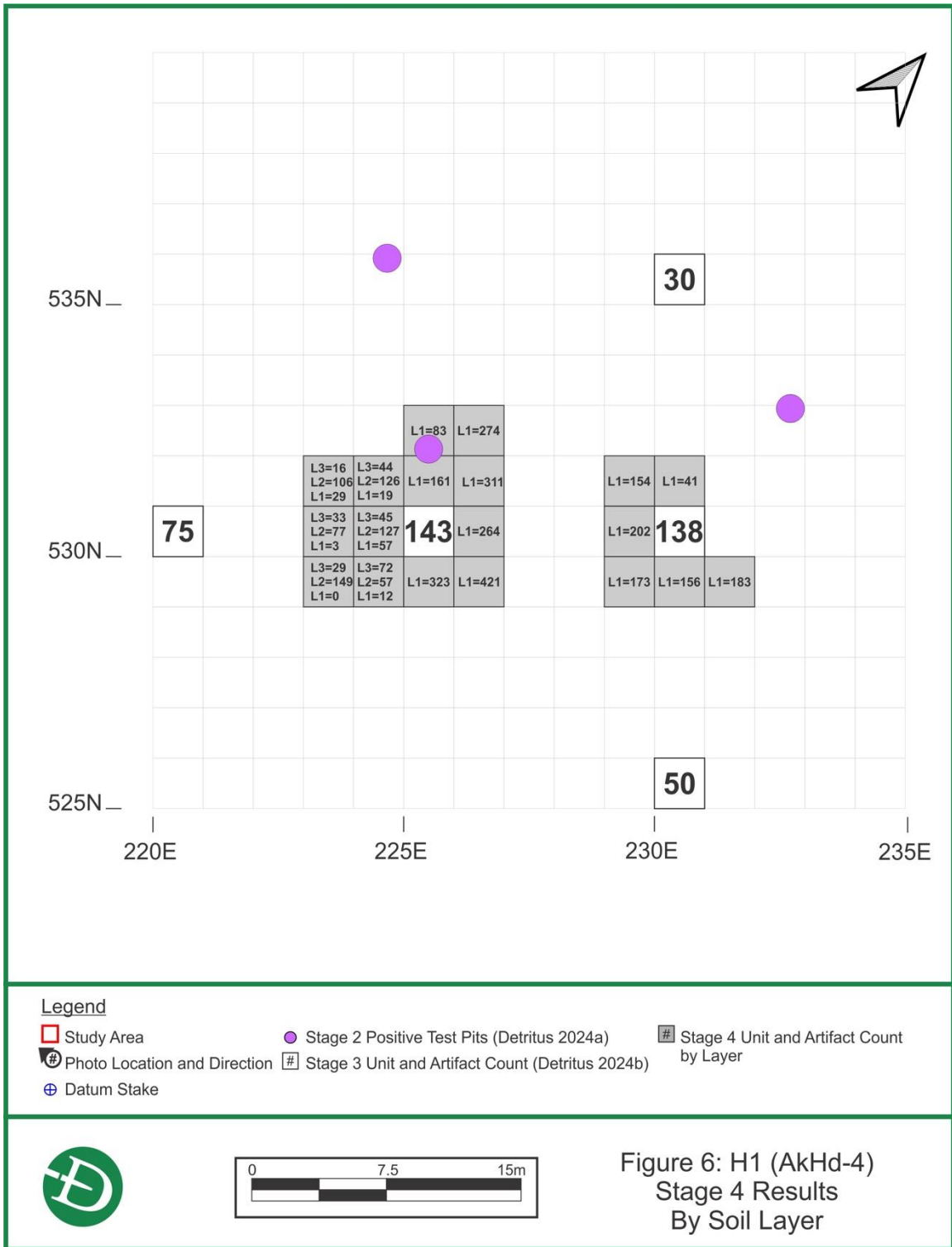
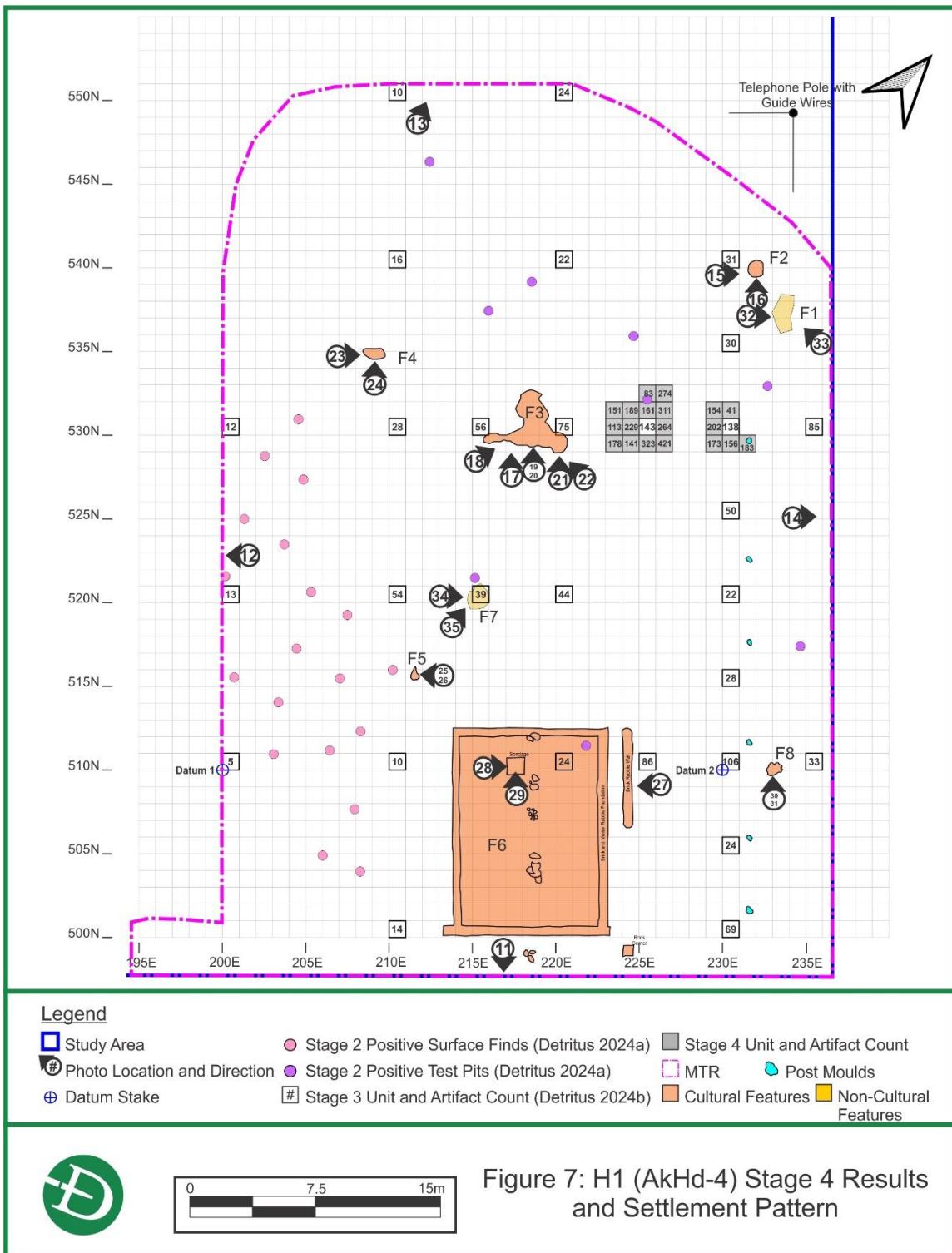


Figure 7: Stage 4 Results and Settlement Pattern





## 9.0 Images

### 9.1 Field Photos

**Photo 1: Stage 4 Block Excavation, looking northwest**



**Photo 2: Stage 4 Block Excavation, looking southeast**



**Photo 3: Stage 4 Block Excavation, looking east**



**Photo 4: Stage 4 Block Excavation, looking southeast**



**Photo 5: Stage 4 Block Excavation, looking northeast**



**Photo 6: Stage 4 MTR, looking southwest**



**Photo 7: Stage 4 Shovel Shining, looking southwest**



**Photo 8: Stage 4 Shovel Shining, looking east**



**Photo 9: Stage 4 Shovel Shining, looking southeast**



**Photo 10: Stage 4 MTR, looking south**



**Photo 11: Stratigraphy of the Southern Edge of the Stage 4 MTR Area, looking south**



**Photo 12: Stratigraphy of the Western Edge of the Stage 4 MTR Area, looking west**



**Photo 13: Stratigraphy of the Northern Edge of the Stage 4 MTR Area, looking north**



**Photo 14: Stratigraphy of the Eastern Edge of the Stage 4 MTR Area, looking east**



**Photo 15: Feature 2 Plan View, looking east**



**Photo 16: Feature 2 Profile, looking north east**



**Photo 17: Feature 3 Plan West Side, looking north**



**Photo 18: Feature 3 Profile West Side, looking northeast**



**Photo 19: Feature 3 Plan Central Portion, looking north**



**Photo 20: Feature 3 Profile Central Portion, looking north**



**Photo 21: Feature 3 East Side, looking northeast**



**Photo 22: Feature 3 Profile East Side, looking northwest**



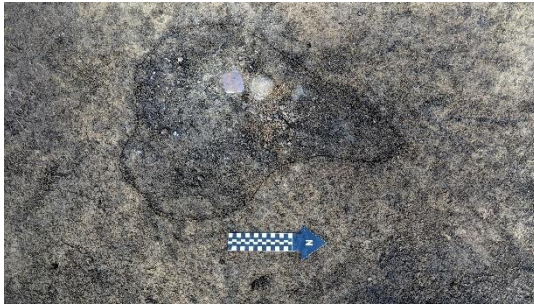
**Photo 23: Feature 4 Plan, looking east**



**Photo 24: Feature 4 Profile, looking north**



**Photo 25: Feature 5 Plan, looking west**



**Photo 26: Feature 5 Profile, looking west**



**Photo 27: Feature 6 Plan, looking west**



**Photo 28: Feature 6 Sondage Profile Showing Rubble Filled Trench, looking east**



**Photo 29: Feature 6 Sondage Stratigraphy Profile, looking north**



**Photo 30: Feature 8 Plan, looking north**



**Photo 31: Feature 8 Profile, looking north**



**Photo 32: Feature 1 (Non-Cultural) Plan, looking east**



**Photo 33: Feature 1 (Non-Cultural) Profile, looking northwest**



**Photo 34: Feature 7 (Non-Cultural) Plan, looking east**



**Photo 35: Feature 7 (Non-Cultural) Profile, looking east**



## 9.2 Artifact

**Plate 1: Red Earthenware recovered from H1 (AkHd-4) (Cat# 92, 321, 245, and 459)**



**Plate 2: Undecorated Ironstone recovered from H1 (AkHd-4); one with maker's mark (Cat# 757 and 761)**



**Plate 3: Sample ceramic fragments recovered from H1 (AkHd-4), L-R sponged RWE (Cat# 411), pearlware (Cat# 39), painted RWE (Cat# 302 and 408), edged RWE (Cat# 309)**



**Plate 4: White Earthenware recovered from H1 (AkHd-4) (Cat# 840)**



**Plate 5: Bottle Finishes recovered from H1 (AkHd-4) (L-R Cat# 270, 487, and 516)**



**Plate 6: Bottle Finishes recovered from H1 (AkHd-4) (Cat# 339 and 424)**



**Plate 7: Complete Bottle recovered from H1 (AkHd-4), Feature 2 (Cat#658)**



**Plate 8: Bottle Finishes recovered from H1 (AkHd-4) Feature 2 (L-R Cat# 659, 660, and 662)**



**Plate 9: Complete Bottles recovered from H1 (AkHd-4) Feature 4, patent finishes (Cat#677 and 678)**



**Plate 10: Bottle Finishes recovered from H1 (AkHd-4) Feature 4 (Cat#681 and 675)**



**Plate 11: Complete Bottles recovered from H1 (AkHd-4) Feature 5 (L-R Cat# 807, 808, 814)**



**Plate 12: Complete Bottle recovered from H1 (AkHd-4) Feature 5 (Cat# 809)**



**Plate 13: Complete Bottles recovered from H1 (AkHd-4) Feature 5 (L-R Cat# 820, 816, 813)**



**Plate 14: Complete Bottles recovered from H1 (AkHd-4) Feature 5 (L-R Cat# 821, 823, 824)**



**Plate 15: Miscellaneous Metal recovered from H1 (AkHd-4) (top to bottom Cat# 156, 328, 439, and 633)**



**Plate 16: Miscellaneous Metal recovered from H1 (AkHd-4) (top Cat# 876, 864, bottom Cat# 877, 867)**



**Plate 17: Slate writing tablet (Cat# 232) and slate pencil (Cat# 511) recovered from H1 (AkHd-4)**



**Plate 18: Coin recovered from H1 (AkHd-4); American half-dime (Cat# 289)**



**Plate 19: White clay pipe fragments recovered from H1 (AkHd-4) (Cat# 190, 335, 515))**



**Plate 20: Sample buttons (top Cat# 382, 607, 84, and 36; bottom Cat# 446, 158, 95, and 192)**



**Plate 21: Jewelry recovered from H1  
(AkHd-4) (L-R Cat# 475, 377, and 431)**



### 9.3 Drawings

Figure 9: Plan and Section Drawing of Feature 2

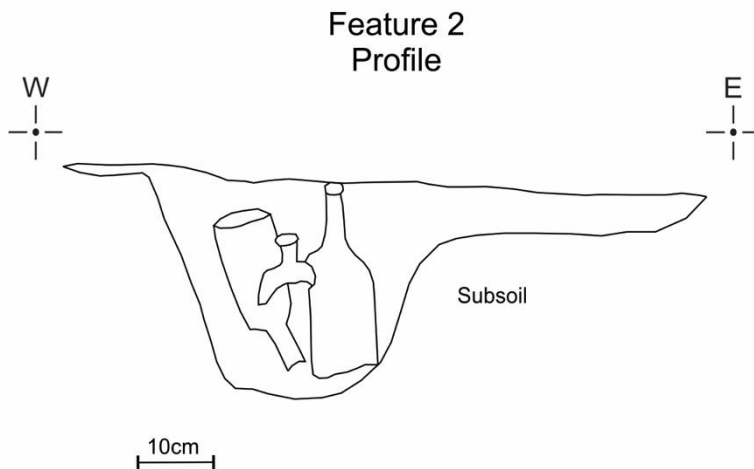
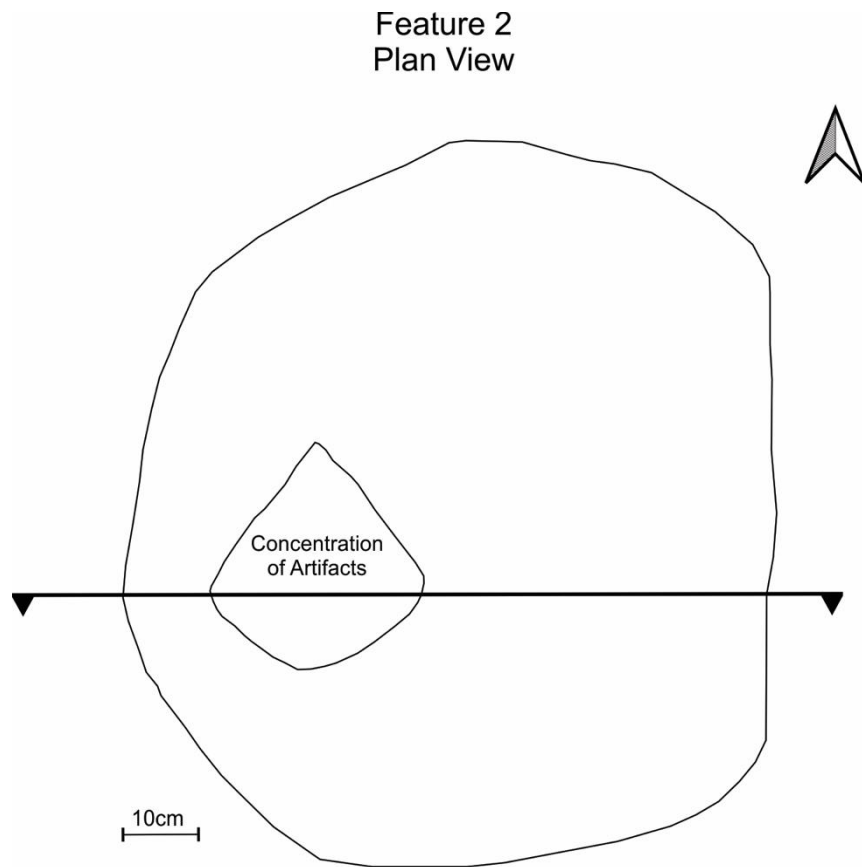


Figure 10: Plan and Section Drawing of Feature 3

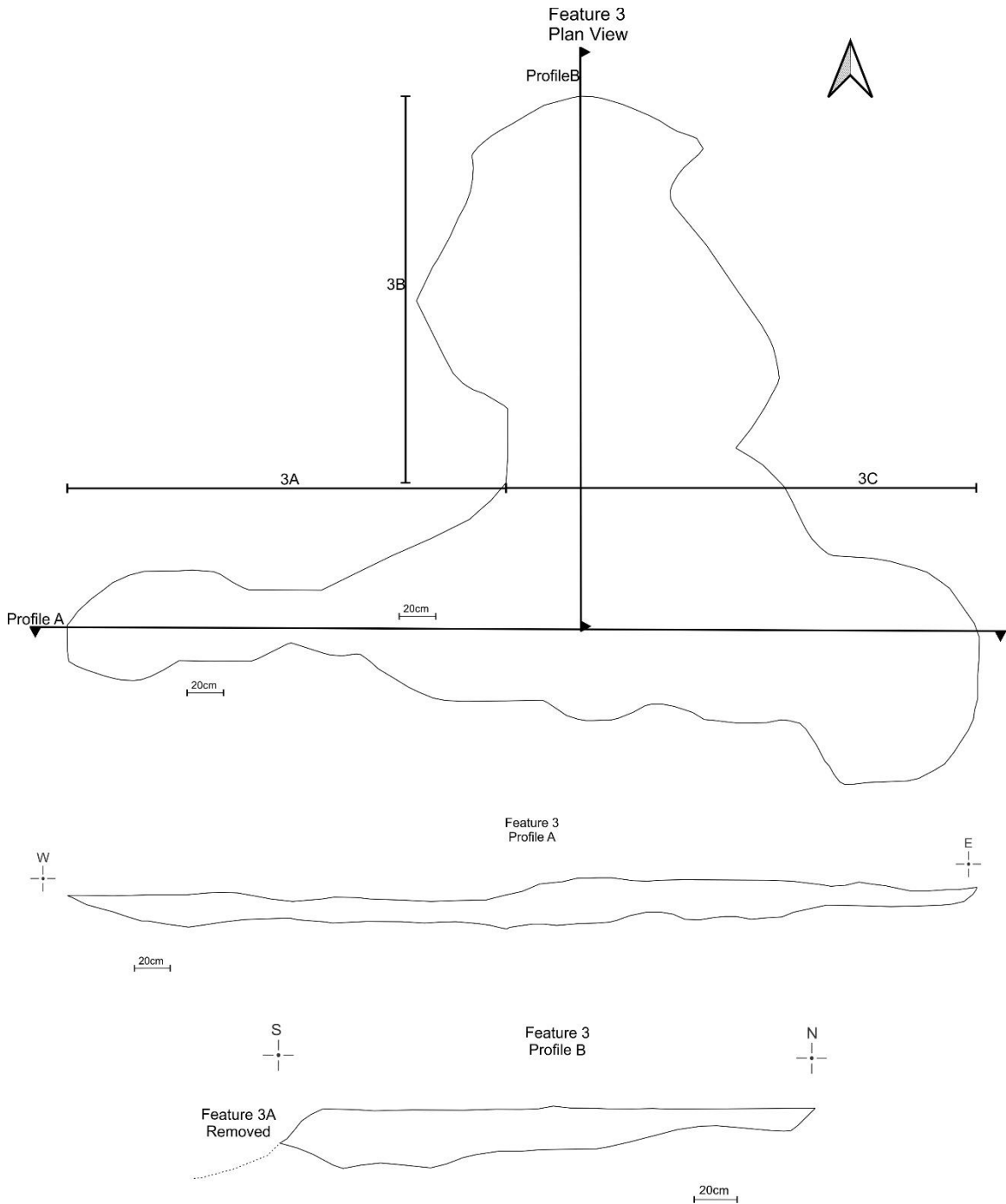
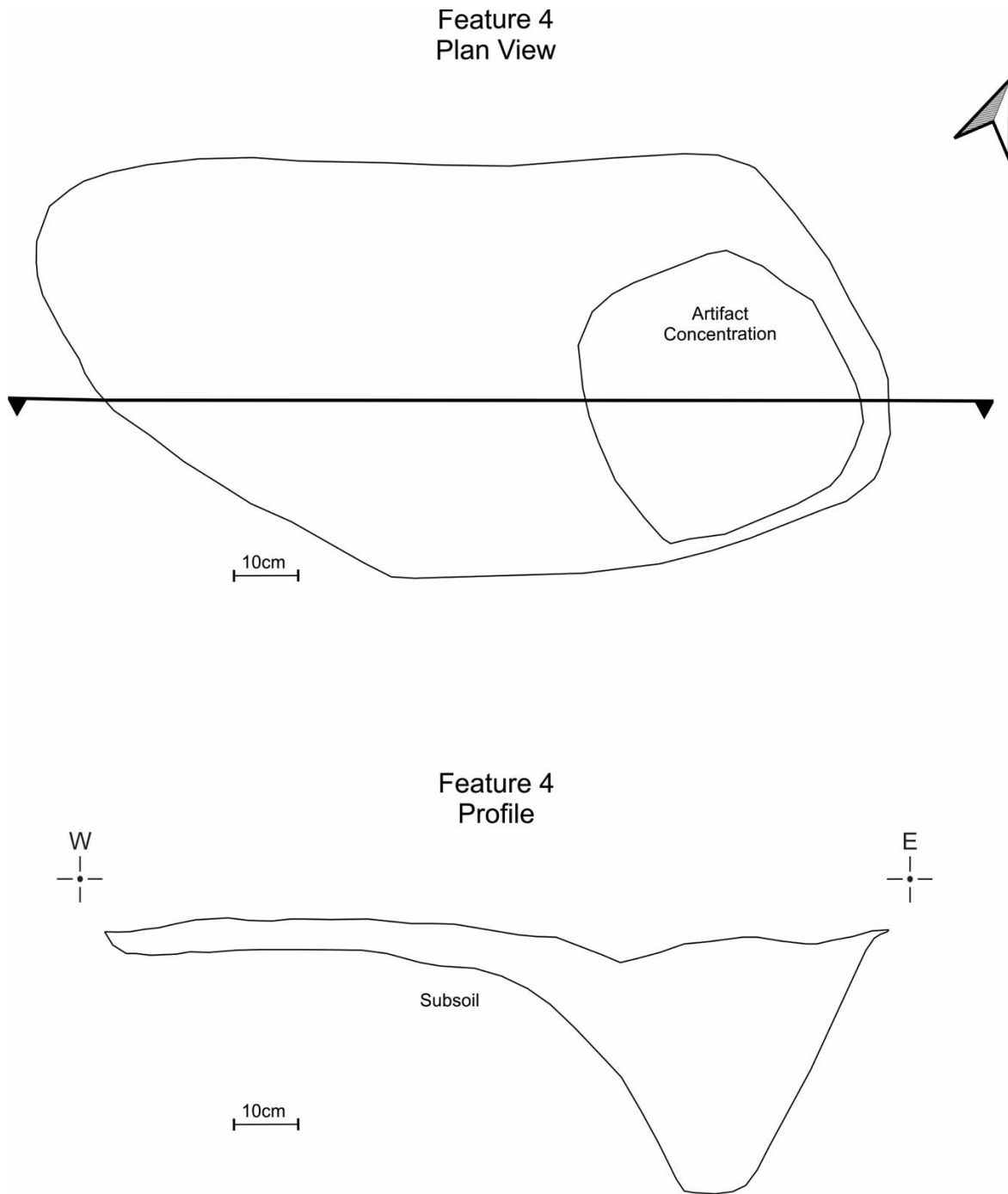
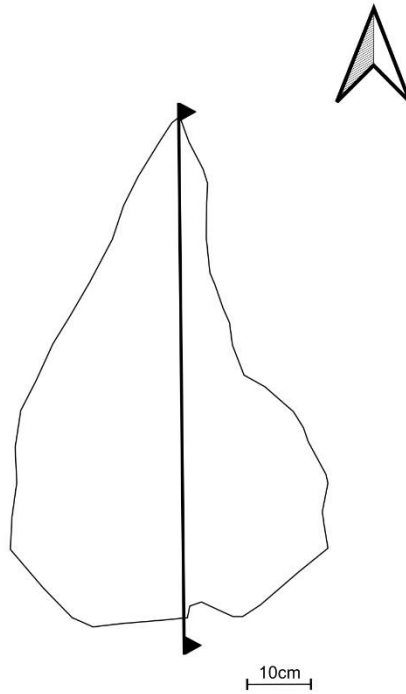


Figure 11: Plan and Section Drawing of Feature 4



**Figure 12: Plan and Section Drawing of Feature 5**

Feature 5  
Plan View



Feature 5  
Profile

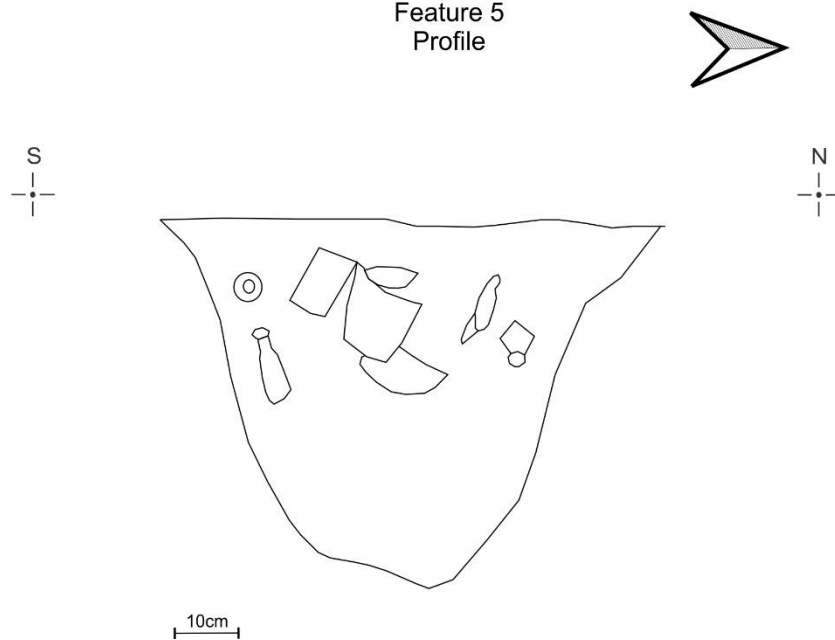
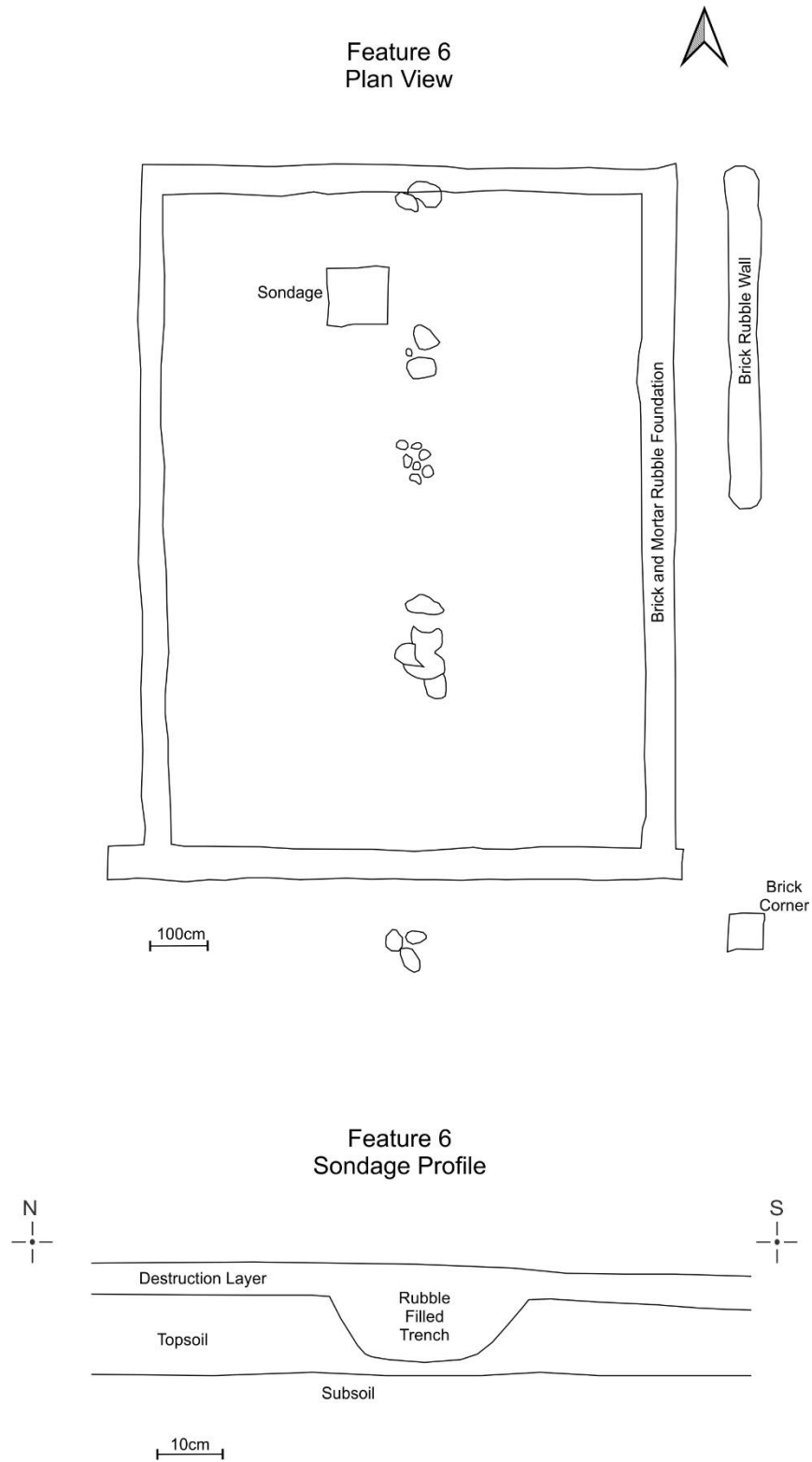
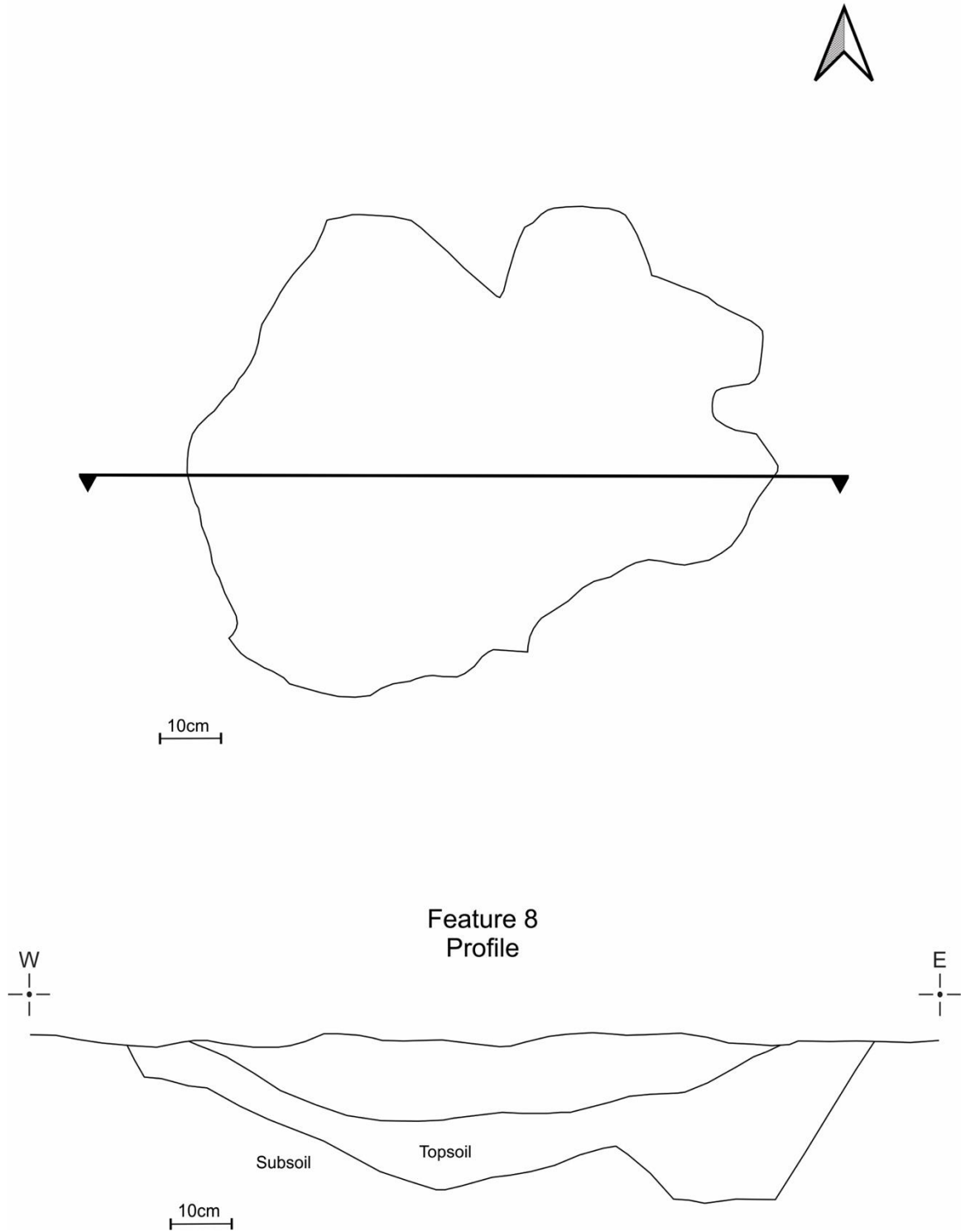


Figure 13: Plan and Section Drawing of Feature 6



**Figure 14: Plan and Section Drawing of Feature 8**

Feature 8  
Plan View



## 10.0 Appendix

### 10.1 H1 (AkHd-4) Stage 4 Artifact Catalogue

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
1	224	531	1	-	nails, cut	9	0.18				
2	224	531	1	-	faunal remains, avian	1	0.18				unknown species
3	224	531	1	-	window glass	6	0.18				>1.6 mm
4	224	531	1	-	glass, drinking	1	0.18			clear	ribbed
5	224	531	1	-	glass, stem	2	0.18			clear	
6	224	531	3	-	nails, cut	23	0.11				
7	224	531	3	-	nails, wire	3	0.11				
8	224	531	3	-	ironstone, moulded	1	0.11	hollow	basin		
9	224	531	3	-	ironstone, undecorated	4	0.11	unknown	unknown		
10	224	531	3	-	fencing wire	1	0.11				
11	224	531	3	-	glass, bottle	1	0.11			aqua	frosted
12	224	531	3	-	window glass	5	0.11				>1.6 mm
13	224	531	3	-	glass, vase	1	0.11			clear	
14	224	531	3	-	glass, stem	3	0.11			clear	
15	224	531	3	-	faunal remains, mammalian	1	0.11				unknown species; rib fragment
16	224	531	3	-	earthenware, red	1	0.11	hollow	storage		
17	224	530	3	-	earthenware, red	1	0.12	hollow	storage		
18	224	530	3	-	nails, cut	23	0.12				
19	224	530	3	-	glass, bottle	2	0.12			aqua	
20	224	530	3	-	plastic, modern	1	0.12			black	
21	224	530	3	-	window glass	10	0.12				>1.6 mm
22	224	530	3	-	glass, stem	1	0.12			clear	

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
23	224	530	3	-	ironstone, undecorated	5	0.12	unknown	unknown		
24	224	530	3	-	ironstone, moulded	1	0.12	flat	plate		
25	224	530	3	-	interior wall plaster	1	0.12				not decorated
26	223	531	3	-	earthenware, yellow	1	0.08	hollow	storage		
27	223	531	3	-	glass, bottle	1	0.08			olive green	
28	223	531	3	-	window glass	1	0.08				>1.6 mm
29	223	531	3	-	nails, cut	10	0.08				
30	223	531	3	-	metal, spike	1	0.08				"35" embossed on top of striking platform
31	223	531	3	-	nails, wire	2	0.08				
32	223	530	1	-	nails, cut	2	0.14				
33	223	530	1	-	glass, stem	1	0.14			clear	
34	223	531	1	-	marble, porcelain	1	0.16				
35	223	531	1	-	faunal remains, mammalian	2	0.16				unknown species
36	223	531	1	-	button, Bakelite	1	0.16			black	single shank, fish motif
37	223	531	1	-	button, bone	2	0.16				four holes
38	223	531	1	-	button, Prosser	1	0.16			white	four holes, prosser
39	223	531	1	-	pearlware, painted	1	0.16	hollow	cup	red, blue, green	late palette
40	223	531	1	-	glass, bottle	1	0.16			olive green	
41	223	531	1	-	glass, bottle	2	0.16			clear	
42	223	531	1	-	glass, stem	1	0.16			clear	
43	223	531	1	-	window glass	6	0.16				>1.6 mm
44	223	531	1	-	utensil	1	0.16				large spoon
45	223	531	1	-	nails, cut	8	0.16				
46	223	531	1	-	slate, pencil	2	0.16				
47	223	531	2	-	glass, bottle	1	0.06			light blue	"R.R.R. [R]adway & Co. New York" on

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
											back, "Accord To" on side.
48	223	531	2	-	faunal remains, mammalian	2	0.06				unknown species
49	223	531	2	-	porcelain, undecorated	1	0.06	unknown	unknown		
50	223	531	2	-	RWE, painted	1	0.06	unknown	unknown	blue, green	
51	223	531	2	-	ironstone, undecorated	1	0.06	unknown	unknown		
52	223	531	2	-	button, shell	2	0.06				2 holes
53	223	531	2	-	button, Prosser	3	0.06			white	4 holes, prosser
54	223	531	2	-	clasp, copper	1	0.06				possible jewelry piece
55	223	531	2	-	brass swivel	1	0.06				
56	223	531	2	-	glass, bottle	3	0.06			light blue	
57	223	531	2	-	glass, stem	5	0.06			clear	
58	223	531	2	-	window glass	3	0.06				>1.6 mm
59	223	531	2	-	nails, cut	62	0.06				
60	223	531	2	-	nails, wire	11	0.06				
61	223	531	2	-	interior wall plaster	9	0.06				underpainted pink
62	224	530	1	-	faunal remains, mammalian	4	0.17				unknown species
63	224	530	1	-	faunal remains, avian	2	0.17				unknown species
64	224	530	1	-	nails, cut	13	0.17				
65	224	530	1	-	metal, undetermined	5	0.17				
66	224	530	1	-	white clay pipe, stem	1	0.17				
67	224	530	1	-	marble, clay	1	0.17				
68	224	530	1	-	button, bone	1	0.17				4 holes
69	224	530	1	-	button, Prosser	1	0.17			white	4 holes
70	224	530	1	-	RWE, painted	1	0.17	flat	plate	red	
71	224	530	1	-	RWE, undecorated	6	0.17	unknown	unknown		

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
72	224	530	1	-	interior wall plaster	1	0.17				
73	224	530	1	-	window glass	6	0.17				>1.6 mm
74	224	530	1	-	glass, bottle	1	0.17			clear	patent finish
75	224	530	1	-	glass, bottle	3	0.17			blue	
76	224	530	1	-	glass, bottle	9	0.17			clear	
77	224	530	1	-	glass, bottle	1	0.17			aqua	
78	224	530	1	-	glass, bottle	1	0.17			olive green	
79	223	530	2	-	nails, wire	11	0.08				
80	223	530	2	-	nails, cut	47	0.08				
81	223	530	2	-	metal, undetermined	2	0.08				
82	223	530	2	-	faunal remains, avian	1	0.08				unknown species
83	223	530	2	-	faunal remains, mammalian	1	0.08				unknown species
84	223	530	2	-	button, shell	1	0.08				2 holes
85	223	530	2	-	white clay pipe, stem	1	0.08				
86	223	530	2	-	glass, bottle	4	0.08			aqua	
87	223	530	2	-	glass, bottle	2	0.08			clear	
88	223	530	2	-	window glass	1	0.08				>1.6 mm
89	223	530	2	-	window glass	3	0.08				>1.6 mm
90	223	530	2	-	glass, bottle	1	0.08			white	milk glass
91	223	530	2	-	ironstone, moulded	1	0.08	hollow	chamber pot		
92	223	530	2	-	earthenware, red	1	0.08	hollow	storage		salt glaze
93	224	529	2	-	faunal remains, mammalian	6	0.17				unknown species
94	224	529	2	-	faunal remains, avian	1	0.17				unknown species
95	224	529	2	-	button, bone	1	0.17				4 holes
96	224	529	2	-	mortar	2	0.17				
97	224	529	2	-	copper oil lamp	1	0.17				

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
98	224	529	2	-	nails, cut	4	0.17				
99	224	529	2	-	nails, wire	3	0.17				
100	224	529	2	-	RWE, undecorated	2	0.17	unknown	unknown		
101	224	529	2	-	window glass	17	0.17				>1.6 mm
102	224	529	2	-	window glass	3	0.17				>1.6 mm
103	224	529	2	-	glass, bottle	6	0.17			aqua	
104	224	529	2	-	glass, bottle	10	0.17			clear	
105	224	529	2	-	glass, bottle	1	0.17			clear	Bead finish
106	224	529	3	-	faunal remains, avian	1	0.17				unknown species
107	224	529	3	-	coal sample	2	0.17				
108	224	529	3	-	copper oil lamp	1	0.17				
109	224	529	3	-	nails, cut	15	0.17				
110	224	529	3	-	nails, wire	4	0.17				
111	224	529	3	-	window glass	21	0.17				>1.6 mm
112	224	529	3	-	glass, bottle	2	0.17			forest green	
113	224	529	3	-	glass, bottle	2	0.17			aqua	
114	224	529	3	-	glass, bottle	5	0.17			olive green	
115	224	529	3	-	glass, bottle	4	0.17			clear	
116	224	529	3	-	glass, bottle	2	0.17			purple	
117	224	529	3	-	stoneware	1	0.17	hollow	storage	brown	ink well
118	224	529	3	-	RWE, painted	3	0.17	flat	plate	red, green, blue	
119	224	529	3	-	ironstone, undecorated	2	0.17	flat	plate		
120	224	529	3	-	ironstone, undecorated	3	0.17	hollow	bowl		
121	224	529	3	-	ironstone, undecorated	4	0.17	unknown	unknown		
122	230	531	1	-	plastic, modern	1	0.38			clear	
123	230	531	1	-	nails, cut	5	0.38				

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
124	230	531	1	-	button, Prosser	2	0.38			white	4 holes
125	230	531	1	-	stoneware	1	0.38	hollow	storage	brown	ink well
126	230	531	1	-	semi-porcelain, moulded	1	0.38	hollow	bowl		
127	230	531	1	-	ironstone, moulded	1	0.38	hollow	bowl		
128	230	531	1	-	ironstone, undecorated	2	0.38	unknown	unknown		
129	230	531	1	-	RWE, undecorated	12	0.38	unknown	unknown		
130	230	531	1	-	glass, bottle	1	0.38			light green	
131	230	531	1	-	glass, bottle	1	0.38			dark blue	
132	230	531	1	-	glass, bottle	5	0.38			clear	
133	230	531	1	-	glass, bottle	4	0.38			aqua	
134	230	531	1	-	window glass	5	0.38				>1.6 mm
135	225	532	1	-	RWE, painted	5	0.38	flat	plate	red, green	
136	225	532	1	-	RWE, sponged	1	0.38	flat	plate	blue	
137	225	532	1	-	ironstone, painted	1	0.38	hollow	bowl	red	
138	225	532	1	-	ironstone, moulded	1	0.38	hollow	bowl		wheat sheaf motif
139	225	532	1	-	ironstone, moulded	11	0.38	hollow	bowl		
140	225	532	1	-	ironstone, moulded	2	0.38	hollow	chamber pot		
141	225	532	1	-	ironstone, undecorated	5	0.38	unknown	unknown		
142	225	532	1	-	ironstone, undecorated	1	0.38	flat	plate		
143	225	532	1	-	RWE, undecorated	1	0.38	flat	plate		
144	225	532	1	-	faunal remains, mammalian	10	0.38				unknown species
145	225	532	1	-	glass, bottle	1	0.38			brown	
146	225	532	1	-	glass, bottle	1	0.38			olive green	
147	225	532	1	-	glass, bottle	1	0.38			light green	
148	225	532	1	-	glass, wine	2	0.38			clear	
149	225	532	1	-	window glass	5	0.38				>1.6 mm

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
150	225	532	1	-	window glass	21	0.38				>1.6 mm
151	225	532	1	-	glass, melted	1	0.38			clear	
152	225	532	1	-	marble, clay	1	0.38				
153	225	532	1	-	spike, rail road	1	0.38				
154	225	532	1	-	metal, handle	1	0.38				
155	225	532	1	-	nails, cut	4	0.38				
156	225	532	1	-	nails, wrought	1	0.38				
157	225	532	1	-	metal, undetermined	5	0.38				
158	231	529	1	-	button, Prosser	1	0.35			white	4 holes
159	231	529	1	-	slate, pencil	1	0.35				
160	231	529	1	-	faunal remains, mammalian	7	0.35				unknown species
161	231	529	1	-	faunal remains, fish	1	0.35				unknown species
162	231	529	1	-	metal, banding	2	0.35				
163	231	529	1	-	metal, undetermined	3	0.35				
164	231	529	1	-	metal, bolt screw	1	0.35				
165	231	529	1	-	spike, rail road	1	0.35				
166	231	529	1	-	nails, cut	23	0.35				
167	231	529	1	-	glass, bottle	1	0.35			aqua	patent finish
168	231	529	1	-	glass, bottle	1	0.35			blue	
169	231	529	1	-	glass, bottle	9	0.35			aqua	
170	231	529	1	-	glass, bottle	9	0.35			dark blue	
171	231	529	1	-	glass, bottle	26	0.35			clear	
172	231	529	1	-	window glass	5	0.35				>1.6 mm
173	231	529	1	-	glass, stem	4	0.35			purple	
174	231	529	1	-	RWE, transfer printed	8	0.35	flat	plate	green	
175	231	529	1	-	RWE, transfer printed	22	0.35	hollow	bowl	brown	
176	231	529	1	-	ironstone, moulded	8	0.35	flat	plate		

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
177	231	529	1	-	RWE, undecorated	2	0.35	flat	plate		
178	231	529	1	-	RWE, undecorated	14	0.35	unknown	unknown		
179	231	529	1	-	ironstone, undecorated	15	0.35	unknown	unknown		
180	231	529	1	-	ironstone, undecorated	7	0.35	hollow	basin		
181	231	529	1	-	RWE, painted	2	0.35	flat	plate	red, green, blue	
182	231	529	1	-	stoneware	1	0.35	hollow	bowl	brown	Albany slip
183	231	529	1	-	earthenware, red	4	0.35	unknown	unknown		
184	231	529	1	-	earthenware, red	1	0.35	hollow	storage		
185	231	529	1	-	earthenware, red	2	0.35	unknown	unknown		
186	231	529	1	-	earthenware, white	2	0.35	hollow	storage		
187	225	529	1	-	window glass	153	0.38				>1.6 mm
188	225	529	1	-	window glass	17	0.38				<1.6 mm
189	225	529	1	-	window glass	2	0.38				<1.6 mm
190	225	529	1	-	white clay pipe, bowl	1	0.38				ribbed
191	225	529	1	-	button, Prosser	3	0.38			white	4 holes
192	225	529	1	-	button, glass	1	0.38			black	single shank, cross motif
193	225	529	1	-	button, bone	1	0.38				4 holes
194	225	529	1	-	button, metal	1	0.38				single shank
195	225	529	1	-	comb, Bakelite	1	0.38			black	
196	225	529	1	-	glass, bottle	3	0.38			olive green	
197	225	529	1	-	glass, bottle	4	0.38			forest green	
198	225	529	1	-	glass, bottle	11	0.38			clear	
199	225	529	1	-	glass, bottle	1	0.38			brown	
200	225	529	1	-	glass, bottle	1	0.38			blue	
201	225	529	1	-	glass, drinking	6	0.38			clear	
202	225	529	1	-	earthenware, red	8	0.38	hollow	storage		

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
203	225	529	1	-	ironstone, undecorated	1	0.38	hollow	bowl		
204	225	529	1	-	ironstone, undecorated	9	0.38	unknown	unknown		
205	225	529	1	-	ironstone, undecorated	22	0.38	flat	plate		
206	225	529	1	-	ironstone, moulded	1	0.38	flat	plate		wheat sheaf
207	225	529	1	-	ironstone, moulded	1	0.38	flat	plate		floral
208	225	529	1	-	ironstone, moulded	1	0.38	flat	plate		leaves
209	225	529	1	-	ironstone, moulded	1	0.38	hollow	cup		
210	225	529	1	-	semi-porcelain, undecorated	1	0.38	flat	plate		
211	225	529	1	-	RWE, painted	1	0.38	flat	plate	green	
212	225	529	1	-	RWE, painted	1	0.38	flat	plate	blue, red	
213	225	529	1	-	RWE, painted	1	0.38	flat	plate	green, red	
214	225	529	1	-	RWE, painted	2	0.38	flat	plate	red	
215	225	529	1	-	RWE, transfer printed	3	0.38	flat	plate	black	
216	225	529	1	-	faunal remains, mammalian	16	0.38				unknown species
217	225	529	1	-	faunal remains, mammalian	7	0.38				unknown species; teeth
218	225	529	1	-	nails, cut	33	0.38				
219	225	529	1	-	nails, wire	2	0.38				
220	225	529	1	-	metal, wire	4	0.38				
221	225	529	1	-	nails, horseshoe	1	0.38				
222	225	529	1	-	gardening hoe	1	0.38				
223	229	529	1	-	glass, bottle	2	0.40			dark blue	
224	229	529	1	-	glass, bottle	1	0.40			light green	
225	229	529	1	-	glass, bottle	3	0.40			brown	
226	229	529	1	-	glass, bottle	4	0.40			aqua	
227	229	529	1	-	glass, bottle	1	0.40			purple	
228	229	529	1	-	glass, bottle	10	0.40			clear	

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
229	229	529	1	-	glass, drinking	5	0.40			clear	
230	229	529	1	-	window glass	7	0.40				>1.6 mm
231	229	529	1	-	window glass	5	0.40				<1.6 mm
232	229	529	1	-	slate, writing tablet	1	0.40				
233	229	529	1	-	ironstone, undecorated	41	0.40	unknown	unknown		
234	229	529	1	-	ironstone, undecorated	15	0.40	flat	plate		
235	229	529	1	-	ironstone, moulded	2	0.40	hollow	cup		wheat sheaf
236	229	529	1	-	faunal remains, mammalian	9	0.40				unknown species
237	229	529	1	-	faunal remains, mammalian	2	0.40				unknown species; teeth
238	229	529	1	-	utensil	2	0.40				bone handle
239	229	529	1	-	RWE, painted	2	0.40	hollow	bowl	red, blue, green	
240	229	529	1	-	RWE, painted	1	0.40	flat	plate	blue	
241	229	529	1	-	RWE, painted	2	0.40	hollow	bowl	blue, green	
242	229	529	1	-	RWE, painted	2	0.40	flat	plate	green, black	
243	229	529	1	-	RWE, transfer printed	1	0.40	unknown	unknown	blue	
244	229	529	1	-	RWE, transfer printed	1	0.40	unknown	unknown	black	
245	229	529	1	-	earthenware, red	9	0.40	hollow	storage		
246	229	529	1	-	earthenware, white	1	0.40	unknown	unknown		
247	229	529	1	-	earthenware, red	1	0.40	unknown	unknown		
248	229	529	1	-	metal, wire	10	0.40				
249	229	529	1	-	nails, wire	3	0.40				
250	229	529	1	-	nails, cut	17	0.40				
251	229	529	1	-	metal, undetermined	10	0.40				
252	229	529	1	-	metal, hook	2	0.40				"S" hook
253	229	529	1	-	metal, shoe heel	1	0.40				
254	226	531	1	-	earthenware, red	9	0.38	unknown	unknown		

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
255	226	531	1	-	RWE, sponged	2	0.38	unknown	unknown	blue	
256	226	531	1	-	RWE, painted	1	0.38	unknown	unknown	green	
257	226	531	1	-	RWE, painted	1	0.38	hollow	bowl	green, red	
258	226	531	1	-	ironstone, undecorated	41	0.38	unknown	unknown		
259	226	531	1	-	ironstone, undecorated	3	0.38	hollow	cup		
260	226	531	1	-	ironstone, undecorated	11	0.38	flat	plate		
261	226	531	1	-	ironstone, moulded	1	0.38	flat	plate		wheat sheaf
262	226	531	1	-	ironstone, moulded	1	0.38	hollow	cup		wheat sheaf
263	226	531	1	-	ironstone, moulded	1	0.38	flat	plate		
264	226	531	1	-	ironstone, undecorated	2	0.38	flat	plate		unknown partial maker's mark
265	226	531	1	-	porcelain, undecorated	1	0.38	unknown	unknown		
266	226	531	1	-	utensil	2	0.38				bone handles
267	226	531	1	-	button, bone	1	0.38				4 holes
268	226	531	1	-	button, Prosser	2	0.38			white	4 holes
269	226	531	1	-	white clay pipe, bowl	2	0.38				
270	226	531	1	-	glass, bottle	1	0.38			blue	brandy finish
271	226	531	1	-	glass, bottle	4	0.38			blue	"CHEMIST"
272	226	531	1	-	glass, bottle	1	0.38			light green	
273	226	531	1	-	glass, bottle	4	0.38			forest green	
274	226	531	1	-	glass, bottle	1	0.38			brown	
275	226	531	1	-	glass, drinking	8	0.38			clear	
276	226	531	1	-	glass, moulded	6	0.38			clear	
277	226	531	1	-	glass, bottle	1	0.38			clear	
278	226	531	1	-	glass, melted	1	0.38			clear	
279	226	531	1	-	window glass	104	0.38				>1.6 mm

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
280	226	531	1	-	faunal remains, mammalian	39	0.38				unknown species
281	226	531	1	-	faunal remains, mammalian	1	0.38				unknown species; tooth
282	226	531	1	-	nails, wire	4	0.38				
283	226	531	1	-	nails, cut	45	0.38				
284	226	531	1	-	nails, horseshoe	1	0.38				
285	226	531	1	-	scissors	1	0.38				
286	226	531	1	-	metal, plate	2	0.38				
287	226	531	1	-	metal, undetermined	5	0.38				
288	226	531	1	-	cement	1	0.38				grate cover
289	226	530	1	-	coin	1	0.42				USA, Half Dime, 1862
290	226	530	1	-	glass, bottle	4	0.42			olive green	
291	226	530	1	-	glass, bottle	1	0.42			brown	
292	226	530	1	-	glass, bottle	7	0.42			clear	
293	226	530	1	-	glass, bottle	5	0.42			aqua	
294	226	530	1	-	glass, bottle	5	0.42			light blue	
295	226	530	1	-	glass, drinking	3	0.42			aqua	
296	226	530	1	-	glass, drinking	5	0.42			light blue	
297	226	530	1	-	glass, drinking	8	0.42			clear	
298	226	530	1	-	glass, bottle	2	0.42			light green	
299	226	530	1	-	glass, drinking	1	0.42			purple	
300	226	530	1	-	window glass	5	0.42				<1.6 mm
301	226	530	1	-	window glass	36	0.42				>1.6 mm
302	226	530	1	-	RWE, painted	1	0.42	flat	plate	purple	
303	226	530	1	-	RWE, painted	2	0.42	flat	plate	red, green	
304	226	530	1	-	RWE, painted	3	0.42	flat	plate	red	
305	226	530	1	-	RWE, painted	2	0.42	flat	plate	green	
306	226	530	1	-	RWE, painted	3	0.42	hollow	bowl	red, blue, green	

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
307	226	530	1	-	RWE, painted	1	0.42	unknown	unknown	red	
308	226	530	1	-	porcelain, undecorated	1	0.42	unknown	unknown		
309	226	530	1	-	RWE, edged	2	0.42	flat	plate	blue	curved lines
310	226	530	1	-	RWE, painted	1	0.42	unknown	unknown	blue	
311	226	530	1	-	RWE, transfer printed	1	0.42	unknown	unknown	black	
312	226	530	1	-	ironstone, undecorated	8	0.42	hollow	bowl		
313	226	530	1	-	ironstone, moulded	1	0.42	flat	plate		
314	226	530	1	-	ironstone, undecorated	1	0.42	flat	plate	black	partial unknown maker's mark
315	226	530	1	-	ironstone, undecorated	13	0.42	flat	plate		
316	226	530	1	-	ironstone, undecorated	39	0.42	unknown	unknown		
317	226	530	1	-	slate, writing tablet	1	0.42				
318	226	530	1	-	white clay pipe, bowl	1	0.42				
319	226	530	1	-	earthenware, red	3	0.42	hollow	storage		
320	226	530	1	-	earthenware, red	1	0.42	hollow	storage		
321	226	530	1	-	earthenware, red	5	0.42	hollow	storage		
322	226	530	1	-	earthenware, red	10	0.42	hollow	storage		
323	226	530	1	-	faunal remains, mammalian	11	0.42				unknown species
324	226	530	1	-	metal, plate	2	0.42				
325	226	530	1	-	metal, bolt screw	1	0.42				
326	226	530	1	-	metal, undetermined	8	0.42				
327	226	530	1	-	metal, wire	2	0.42				
328	226	530	1	-	nails, horseshoe	3	0.42				
329	226	530	1	-	nails, cut	45	0.42				
330	226	530	1	-	nails, wire	9	0.42				
331	226	532	1	-	leather, shoe	1	0.40				
332	226	532	1	-	button, Prosser	2	0.40			white	4 holes

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
333	226	532	1	-	thimble	1	0.40				
334	226	532	1	-	white clay pipe, bowl	2	0.40				
335	226	532	1	-	white clay pipe, stem	1	0.40				"Henderson" "Montreal"
336	226	532	1	-	white clay pipe, stem	1	0.40				
337	226	532	1	-	glass, bottle	1	0.40			brown	
338	226	532	1	-	glass, bottle	3	0.40			light green	
339	226	532	1	-	glass, bottle	1	0.40			light green	Champagne type finish
340	226	532	1	-	glass, bottle	1	0.40			dark blue	
341	226	532	1	-	glass, bottle	2	0.40			light blue	
342	226	532	1	-	glass, bottle	4	0.40			olive green	
343	226	532	1	-	glass, bottle	1	0.40			white	milk glass, moulded
344	226	532	1	-	glass, moulded	2	0.40			clear	
345	226	532	1	-	glass, drinking	2	0.40			clear	
346	226	532	1	-	glass, wine	17	0.40			clear	
347	226	532	1	-	slate, roofing	2	0.40				
348	226	532	1	-	slate, pencil	1	0.40				
349	226	532	1	-	earthenware, red	1	0.40	unknown	unknown		
350	226	532	1	-	earthenware, red	4	0.40	unknown	unknown		
351	226	532	1	-	ironstone, transfer printed	1	0.40	hollow	bowl	purple	
352	226	532	1	-	ironstone, sponged	1	0.40	hollow	bowl	blue	
353	226	532	1	-	RWE, painted	1	0.40	flat	plate	purple	
354	226	532	1	-	RWE, transfer printed	1	0.40	flat	plate	green	
355	226	532	1	-	window glass	39	0.40				>1.6 mm
356	226	532	1	-	window glass	6	0.40				<1.6 mm
357	226	532	1	-	RWE, undecorated	28	0.40	unknown	unknown		
358	226	532	1	-	RWE, undecorated	5	0.40	hollow	cup		
359	226	532	1	-	RWE, undecorated	1	0.40	hollow	cup		handle

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
360	226	532	1	-	porcelain, undecorated	1	0.40	unknown	unknown		
361	226	532	1	-	ironstone, undecorated	15	0.40	flat	plate		
362	226	532	1	-	ironstone, undecorated	8	0.40	unknown	unknown		
363	226	532	1	-	ironstone, moulded	3	0.40	hollow	cup		
364	226	532	1	-	ironstone, moulded	9	0.40	flat	plate		wheat sheaf
365	226	532	1	-	ironstone, undecorated	1	0.40	hollow	cup		
366	226	532	1	-	ironstone, undecorated	3	0.40	hollow	bowl		
367	226	532	1	-	ironstone, moulded	1	0.40	unknown	unknown		flower
368	226	532	1	-	faunal remains, mammalian	41	0.40				unknown species; butchered
369	226	532	1	-	cement	2	0.40				grate cover
370	226	532	1	-	metal, wire	1	0.40				
371	226	532	1	-	metal, sheet	3	0.40				
372	226	532	1	-	nails, wire	3	0.40				
373	226	532	1	-	nails, cut	47	0.40				
374	226	532	1	-	metal, plate	1	0.40				
375	226	532	1	-	metal, undetermined	2	0.40				
376	226	529	1	-	coal sample	1	0.47				
377	226	529	1	-	jewelry	1	0.47				copper ring
378	226	529	1	-	slate, roofing	3	0.47				
379	226	529	1	-	white clay pipe, bowl	2	0.47				
380	226	529	1	-	button, bone	1	0.47				4 holes
381	226	529	1	-	button, Prosser	2	0.47			white	4 holes
382	226	529	1	-	button, Bakelite	1	0.47			black	2 holes
383	226	529	1	-	ammunition	3	0.47				shell casings; shotgun shell, rim fire pistol, bar fire rifle; no markings

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
384	226	529	1	-	glass, bottle	5	0.47			blue	
385	226	529	1	-	glass, bottle	6	0.47			olive green	
386	226	529	1	-	glass, bottle	6	0.47			clear	
387	226	529	1	-	glass, bottle	3	0.47			brown	
388	226	529	1	-	glass, bottle	2	0.47			light green	
389	226	529	1	-	glass, bottle	1	0.47			blue	Mineral finish, broken
390	226	529	1	-	glass, moulded	1	0.47			blue	
391	226	529	1	-	glass, wine	2	0.47			aqua	
392	226	529	1	-	glass, wine	18	0.47			clear	
393	226	529	1	-	glass, drinking	7	0.47			clear	
394	226	529	1	-	window glass	2	0.47				<1.6 mm
395	226	529	1	-	window glass	139	0.47				>1.6 mm
396	226	529	1	-	faunal remains, mammalian	15	0.47				butchered; unknown species
397	226	529	1	-	earthenware, red	3	0.47	hollow	storage		
398	226	529	1	-	earthenware, red	4	0.47	hollow	storage		
399	226	529	1	-	earthenware, red	3	0.47	hollow	storage		
400	226	529	1	-	earthenware, red	1	0.47	unknown	unknown		
401	226	529	1	-	RWE, undecorated	3	0.47	hollow	bowl		
402	226	529	1	-	RWE, undecorated	10	0.47	flat	plate		
403	226	529	1	-	RWE, undecorated	40	0.47	unknown	unknown		
404	226	529	1	-	porcelain, moulded	1	0.47	unknown	unknown		
405	226	529	1	-	RWE, transfer printed	4	0.47	flat	plate	grey/black	
406	226	529	1	-	RWE, transfer printed	5	0.47	flat	plate	grey	burnt, great buildings
407	226	529	1	-	RWE, transfer printed	1	0.47	flat	plate	black	
408	226	529	1	-	RWE, painted	3	0.47	hollow	bowl	green	
409	226	529	1	-	RWE, painted	1	0.47	hollow	bowl	red, black	
410	226	529	1	-	RWE, painted	1	0.47	hollow	bowl	red, green	burnt

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
411	226	529	1	-	RWE, sponged	3	0.47	flat	plate	red	
412	226	529	1	-	ironstone, undecorated	8	0.47	hollow	bowl		
413	226	529	1	-	ironstone, undecorated	1	0.47	unknown	unknown		handle
414	226	529	1	-	ironstone, undecorated	13	0.47	flat	plate		
415	226	529	1	-	nails, cut	67	0.47				
416	226	529	1	-	nails, wire	4	0.47				
417	226	529	1	-	nails, horseshoe	1	0.47				
418	226	529	1	-	metal, bolt	1	0.47				
419	226	529	1	-	metal, wire	11	0.47				
420	226	529	1	-	metal, hook	1	0.47				"S" hook
421	226	529	1	-	spike, rail road	1	0.47				
422	226	529	1	-	metal, sheet	9	0.47				
423	224	531	2	-	glass, bottle	1	0.12			clear	Prescription finish
424	224	531	2	-	glass, bottle	1	0.12			aqua	Folded finish
425	224	531	2	-	glass, bottle	9	0.12			clear	
426	224	531	2	-	glass, bottle	1	0.12			aqua	
427	224	531	2	-	glass, bottle	1	0.12			olive green	
428	224	531	2	-	glass, wine	7	0.12			clear	
429	224	531	2	-	window glass	5	0.12				>1.6 mm
430	224	531	2	-	button, Prosser	1	0.12			white	4 holes
431	224	531	2	-	jewelry	1	0.12				brooch; mother of pearl inlay
432	224	531	2	-	faunal remains, avian	2	0.12				unknown species
433	224	531	2	-	faunal remains, mammalian	1	0.12				unknown species
434	224	531	2	-	ironstone, undecorated	2	0.12	unknown	unknown		
435	224	531	2	-	ironstone, undecorated	2	0.12	flat	plate		

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
436	224	531	2	-	RWE, painted	2	0.12	hollow	bowl	blue, red, green	
437	224	531	2	-	RWE, painted	1	0.12	flat	plate	blue, green	
438	224	531	2	-	nails, wire	5	0.12				
439	224	531	2	-	nails, cut	45	0.12				
440	224	531	2	-	metal, hook	1	0.12				"S" hook
441	224	531	2	-	metal, handle	1	0.12				
442	224	531	2	-	metal, bolt	2	0.12				
443	224	531	2	-	metal, wire	2	0.12				
444	224	531	2	-	metal, sheet	33	0.12				
445	224	530	2	-	button, Prosser	3	0.09			white	4 holes
446	224	530	2	-	button, Bakelite	1	0.09			black	single shank
447	224	530	2	-	glass, moulded	1	0.09			clear	
448	224	530	2	-	glass, bottle	2	0.09			clear	
449	224	530	2	-	glass, bottle	3	0.09			aqua	
450	224	530	2	-	glass, wine	9	0.09			clear	
451	224	530	2	-	glass, wine	3	0.09			aqua	
452	224	530	2	-	window glass	1	0.09				<1.6 mm
453	224	530	2	-	window glass	5	0.09				>1.6 mm
454	224	530	2	-	ironstone, undecorated	2	0.09	hollow	bowl		
455	224	530	2	-	ironstone, undecorated	1	0.09	unknown	unknown		
456	224	530	2	-	RWE, undecorated	1	0.09	flat	plate		
457	224	530	2	-	ironstone, undecorated	2	0.09	flat	plate		
458	224	530	2	-	porcelain, moulded	1	0.09	unknown	unknown		
459	224	530	2	-	earthenware, red	4	0.09	hollow	storage		
460	224	530	2	-	RWE, painted	1	0.09	hollow	bowl	red, blue	
461	224	530	2	-	faunal remains, avian	4	0.09				unknown species

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
462	224	530	2	-	faunal remains, mammalian	3	0.09				butchered; unknown species
463	224	530	2	-	plastic, hairpin	1	0.09				
464	224	530	2	-	nails, cut	65	0.09				
465	224	530	2	-	nails, wire	5	0.09				
466	224	530	2	-	metal, hinge	1	0.09				
467	224	530	2	-	metal, sheet	2	0.09				
468	224	530	2	-	metal, plate	1	0.09				
469	224	530	2	-	metal, wire	4	0.09				
470	224	530	2	-	slate, pencil	1	0.09				
471	229	531	1	-	faunal remains, mammalian	1	0.50				burnt, butcher tooth; unknown species
472	229	531	1	-	faunal remains, mammalian	1	0.50				unknown species
473	229	531	1	-	faunal remains, mammalian	1	0.50				unknown species
474	229	531	1	-	shoe, grommet	1	0.50				
475	229	531	1	-	jewelry	1	0.50				lapel pin; "G" "GALT A. A. A. 1921" "J.D. Bailey"
476	229	531	1	-	horse harness	1	0.50				large buckle
477	229	531	1	-	brass bell	1	0.50				hand ringer
478	229	531	1	-	ammunition	1	0.50				bar fire rifle shell
479	229	531	1	-	metal cane tip	1	0.50				
480	229	531	1	-	button, Prosser	1	0.50			white	4 holes
481	229	531	1	-	white clay pipe, bowl	1	0.50				
482	229	531	1	-	glass, bottle	7	0.50			olive green	
483	229	531	1	-	glass, bottle	3	0.50			dark blue	
484	229	531	1	-	glass, bottle	3	0.50			brown	
485	229	531	1	-	glass, bottle	5	0.50			aqua	
486	229	531	1	-	glass, bottle	6	0.50			clear	

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
487	229	531	1	-	glass, bottle	1	0.50			clear	Bead finish
488	229	531	1	-	glass, moulded	3	0.50			blue	
489	229	531	1	-	glass, wine	6	0.50			clear	
490	229	531	1	-	window glass	24	0.50				>1.6 mm
491	229	531	1	-	window glass	5	0.50				<1.6 mm
492	229	531	1	-	RWE, undecorated	7	0.50	unknown	unknown		
493	229	531	1	-	RWE, undecorated	1	0.50	hollow	cup		
494	229	531	1	-	RWE, undecorated	4	0.50	flat	plate		
495	229	531	1	-	RWE, transfer printed	1	0.50	flat	plate	blue	
496	229	531	1	-	RWE, transfer printed	1	0.50	flat	plate	brown	
497	229	531	1	-	RWE, transfer printed	4	0.50	flat	plate	green	
498	229	531	1	-	RWE, painted	1	0.50	unknown	unknown	red	
499	229	531	1	-	RWE, painted	2	0.50	unknown	unknown	blue	
500	229	531	1	-	ironstone, undecorated	17	0.50	unknown	unknown		
501	229	531	1	-	ironstone, undecorated	3	0.50	hollow	bowl		
502	229	531	1	-	ironstone, undecorated	5	0.50	flat	plate		
503	229	531	1	-	earthenware, red	1	0.50	hollow	storage		
504	229	531	1	-	metal, wire	7	0.50				
505	229	531	1	-	metal, undetermined	9	0.50				
506	229	531	1	-	nails, cut	16	0.50				
507	229	531	1	-	metal, plate	1	0.50				
508	229	530	1	-	faunal remains, avian	2	0.32				unknown species
509	229	530	1	-	faunal remains, mammalian	1	0.32				unknown species
510	229	530	1	-	faunal remains, mammalian	2	0.32				teeth; unknown species
511	229	530	1	-	slate, pencil	1	0.32				
512	229	530	1	-	button, Prosser	2	0.32			white	4 holes

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
513	229	530	1	-	slate, roofing	1	0.32				
514	229	530	1	-	metal, undetermined	1	0.32				copper backing
515	229	530	1	-	white clay pipe, stem	3	0.32				"R. Bannerman" "Montreal"
516	229	530	1	-	glass, bottle	1	0.32			blue	Prescription finish
517	229	530	1	-	glass, bottle	7	0.32			clear	
518	229	530	1	-	glass, bottle	3	0.32			olive green	
519	229	530	1	-	glass, bottle	1	0.32			dark blue	
520	229	530	1	-	glass, bottle	4	0.32			aqua	
521	229	530	1	-	glass, moulded	3	0.32			clear	
522	229	530	1	-	glass, moulded	1	0.32			blue	
523	229	530	1	-	glass, wine	6	0.32			clear	
524	229	530	1	-	glass, wine	3	0.32			aqua	
525	229	530	1	-	window glass	14	0.32				<1.6 mm
526	229	530	1	-	window glass	19	0.32				>1.6 mm
527	229	530	1	-	ironstone, undecorated	9	0.32	flat	plate		
528	229	530	1	-	ironstone, undecorated	2	0.32	hollow	bowl		
529	229	530	1	-	ironstone, undecorated	49	0.32	unknown	unknown		
530	229	530	1	-	porcelain, undecorated	1	0.32	unknown	unknown		
531	229	530	1	-	RWE, painted	1	0.32	hollow	bowl	red, green	
532	229	530	1	-	RWE, painted	1	0.32	flat	plate	green	
533	229	530	1	-	RWE, painted	1	0.32	flat	plate	blue, green	
534	229	530	1	-	RWE, transfer printed	1	0.32	unknown	unknown	black	
535	229	530	1	-	RWE, transfer printed	1	0.32	hollow	bowl	blue	
536	229	530	1	-	earthenware, red	1	0.32	unknown	unknown		
537	229	530	1	-	earthenware, red	3	0.32	hollow	storage		
538	229	530	1	-	stoneware	1	0.32	hollow	storage	brown	ink well; Albany slip

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
539	229	530	1	-	nails, cut	46	0.32				
540	229	530	1	-	nails, wire	1	0.32				
541	229	530	1	-	metal, wire	8	0.32				
542	229	530	1	-	metal, plate	1	0.32				
543	230	529	1	-	metal, wire	2	0.38				
544	230	529	1	-	metal, sheet	7	0.38				
545	230	529	1	-	metal, plate	1	0.38				
546	230	529	1	-	metal, hinge	1	0.38				
547	230	529	1	-	nails, cut	18	0.38				
548	230	529	1	-	metal, hook	1	0.38				
549	230	529	1	-	faunal remains, mammalian	5	0.38				unknown species
550	230	529	1	-	slate, roofing	9	0.38				
551	230	529	1	-	earthenware, white	2	0.38	flat	platter		
552	230	529	1	-	stoneware	1	0.38	hollow	storage	brown	ink well; Albany slip
553	230	529	1	-	ironstone, undecorated	1	0.38	flat	plate	black	maker's mark "RONSTONE CHINA W & E CORN BURSLEM"
554	230	529	1	-	RWE, painted	1	0.38	flat	plate	green	
555	230	529	1	-	RWE, transfer printed	7	0.38	hollow	cup	brown	
556	230	529	1	-	ironstone, undecorated	5	0.38	unknown	unknown		
557	230	529	1	-	RWE, undecorated	39	0.38	unknown	unknown		
558	230	529	1	-	ironstone, undecorated	11	0.38	flat	plate		
559	230	529	1	-	ironstone, undecorated	2	0.38	hollow	tureen		
560	230	529	1	-	glass, bottle	11	0.38			clear	
561	230	529	1	-	glass, bottle	8	0.38			blue	
562	230	529	1	-	glass, bottle	1	0.38			dark blue	
563	230	529	1	-	window glass	14	0.38				>1.6 mm

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
564	230	529	1	-	window glass	7	0.38				<1.6 mm
565	230	529	1	-	white clay pipe, bowl	2	0.38				
566	225	531	1	-	slate, writing tablet	1	0.43				
567	225	531	1	-	white clay pipe, stem	1	0.43				
568	225	531	1	-	faunal remains, mammalian	2	0.43				unknown species
569	225	531	1	-	glass, bottle	1	0.43			brown	
570	225	531	1	-	glass, bottle	1	0.43			olive green	
571	225	531	1	-	glass, bottle	3	0.43			aqua	
572	225	531	1	-	glass, bottle	6	0.43			clear	
573	225	531	1	-	glass, moulded	1	0.43			clear	
574	225	531	1	-	glass, wine	7	0.43			clear	
575	225	531	1	-	window glass	7	0.43				<1.6 mm
576	225	531	1	-	window glass	41	0.43				>1.6 mm
577	225	531	1	-	earthenware, red	1	0.43	hollow	bowl		
578	225	531	1	-	pearlware, painted	8	0.43	hollow	bowl	red, blue, green	late palette
579	225	531	1	-	RWE, painted	1	0.43	hollow	cup	blue, red, green	
580	225	531	1	-	RWE, painted	6	0.43	hollow	bowl	red, blue, green	
581	225	531	1	-	RWE, painted	1	0.43	hollow	bowl	green	
582	225	531	1	-	RWE, painted	3	0.43	hollow	bowl	purple	
583	225	531	1	-	RWE, edged	1	0.43	flat	plate	blue	
584	225	531	1	-	ironstone, undecorated	10	0.43	unknown	unknown		
585	225	531	1	-	ironstone, undecorated	6	0.43	flat	plate		
586	225	531	1	-	ironstone, undecorated	2	0.43	hollow	bowl		
587	225	531	1	-	ironstone, moulded	1	0.43	hollow	cup		
588	225	531	1	-	RWE, undecorated	12	0.43	flat	plate		

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
589	225	531	1	-	RWE, transfer printed	2	0.43	unknown	unknown	black	
590	225	531	1	-	nails, cut	25	0.43				
591	225	531	1	-	metal, wire	2	0.43				
592	225	531	1	-	metal, sheet	7	0.43				
593	225	531	1	-	nails, wire	1	0.43				
594	225	531	1	-	brick	1	0.43			red	handstruck
595	223	529	3	-	shoe, leather	1	0.13				
596	223	529	3	-	nails, wire	2	0.13				
597	223	529	3	-	metal, hook	1	0.13				"S" hook
598	223	529	3	-	metal, sheet	1	0.13				
599	223	529	3	-	nails, cut	7	0.13				
600	223	529	3	-	utensil	1	0.13				knife
601	223	529	3	-	utensil	1	0.13				fork
602	223	529	3	-	window glass	5	0.13				>1.6 mm
603	223	529	3	-	window glass	5	0.13				<1.6 mm
604	223	529	3	-	glass, wine	1	0.13			clear	
605	223	529	3	-	ironstone, undecorated	2	0.13	hollow	bowl		
606	223	529	3	-	ironstone, undecorated	2	0.13	flat	plate		
607	223	529	2	-	button, Prosser semi-porcelain, undecorated	1	0.05			white	4 holes
608	223	529	2	-	semi-porcelain, undecorated	4	0.05	hollow	cup		
609	223	529	2	-	semi-porcelain, undecorated	1	0.05	hollow	cup		handle
610	223	529	2	-	RWE, painted	1	0.05	hollow	cup	pink	handle
611	223	529	2	-	RWE, undecorated	11	0.05	flat	plate		
612	223	529	2	-	RWE, undecorated	3	0.05	unknown	unknown		
613	223	529	2	-	RWE, painted	1	0.05	hollow	cup	green	
614	223	529	2	-	RWE, transfer printed	1	0.05	flat	plate	black	

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Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
615	223	529	2	-	ironstone, moulded	4	0.05	hollow	cup		
616	223	529	2	-	ironstone, moulded	1	0.05	flat	plate		grapes
617	223	529	2	-	ironstone, undecorated	4	0.05	flat	plate		
618	223	529	2	-	ironstone, moulded	1	0.05	unknown	unknown		handle
619	223	529	2	-	earthenware, red	3	0.05	flat	plate		
620	223	529	2	-	earthenware, red	1	0.05	hollow	storage		
621	223	529	2	-	earthenware, white	1	0.05	hollow	storage		
622	223	529	2	-	glass, bottle	2	0.05			olive green	
623	223	529	2	-	glass, bottle	1	0.05			dark blue	
624	223	529	2	-	glass, bottle	2	0.05			clear	
625	223	529	2	-	glass, bottle	1	0.05			light blue	
626	223	529	2	-	glass, wine	13	0.05			clear	
627	223	529	2	-	glass, wine	2	0.05			aqua	
628	223	529	2	-	glass, drinking	1	0.05			blue	
629	223	529	2	-	glass, drinking	6	0.05			clear	
630	223	529	2	-	glass, bottle	3	0.05			white	milk glass
631	223	529	2	-	window glass	22	0.05				>1.6 mm
632	223	529	2	-	metal, wire	1	0.05				
633	223	529	2	-	nails, wire	6	0.05				
634	223	529	2	-	nails, cut	49	0.05				
635	223	529	2	-	coal sample	1	0.05				
636	223	529	2	-	slate, pencil	1	0.05				
637	223	530	3	-	metal, machine parts	1	0.09				
638	223	530	3	-	nails, cut	13	0.09				
639	223	530	3	-	nails, wire	1	0.09				
640	223	530	3	-	metal, sheet	1	0.09				
641	223	530	3	-	metal, rivet	1	0.09				

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
642	223	530	3	-	glass, bottle	2	0.09			aqua	
643	223	530	3	-	glass, bottle	2	0.09			clear	
644	223	530	3	-	glass, bottle	1	0.09			dark blue	
645	223	530	3	-	window glass	6	0.09				>1.6 mm
646	223	530	3	-	glass, wine	1	0.09			clear	
647	223	530	3	-	ironstone, undecorated	1	0.09	flat	plate		
648	223	530	3	-	ironstone, undecorated	1	0.09	hollow	cup		
649	223	530	3	-	RWE, undecorated	2	0.09	unknown	unknown		
650	224	529	1	-	white clay pipe, stem	1	0.22				yellow glazed on mouth piece
651	224	529	1	-	RWE, painted	1	0.22	flat	plate	red, green, blue	
652	224	529	1	-	pearlware, painted	1	0.22	flat	plate	red, green, blue	late palette
653	224	529	1	-	nails, cut	3	0.22				
654	224	529	1	-	window glass	6	0.22				>1.6 mm
655	-	-	-	2	faunal remains, mammalian	1	0.32				unknown species
656	-	-	-	2	nails, cut	2	0.32				
657	-	-	-	2	metal, staple	1	0.32				
658	-	-	-	2	glass, bottle complete	1	0.32			clear	crown finish, "The T. Milburn Co. LTD" "Burdock Blood Bitters" "Toronto, ONT."
659	-	-	-	2	glass, bottle	2	0.32			brown	Straight Brandy finish
660	-	-	-	2	glass, bottle	1	0.32			blue	Patent finish, "Manley's COMP" visible; should read as "Manley's Celery Compund" produced in Toronto 1891 - 1894 by W.J. Manley.
661	-	-	-	2	glass, bottle	26	0.32			blue	

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
662	-	-	-	2	glass, bottle	3	0.32			green	Straight Brandy finish
663	-	-	-	2	glass, bottle	52	0.32			brown	
664	-	-	-	1	faunal remains, mammalian	2	surface				unknown species
665	-	-	-	1	ironstone, undecorated	2	surface	flat	plate		
666	-	-	-	1	earthenware, red	1	surface	hollow	storage		
667	-	-	-	1	earthenware, red	88	surface	hollow	storage		
668	-	-	-	1	brick	1	surface			red	
669	-	-	-	4	metal, sheet	30	0.45				
670	-	-	-	4	metal, ring	1	0.45				
671	-	-	-	4	metal, barbed wire	2	0.45				
672	-	-	-	4	brick	1	0.45			red	machine made
673	-	-	-	4	glass, unknown	46	0.45			light blue	
674	-	-	-	4	glass, bottle	13	0.45			purple	
675	-	-	-	4	glass, bottle	1	0.45			purple	Mineral finish
676	-	-	-	4	glass, bottle complete	1	0.45			brown	Patent finish, "8, 9." on bottom
677	-	-	-	4	glass, bottle complete	1	0.45			brown	Patent finish, "541" on bottom
678	-	-	-	4	glass, bottle complete	2	0.45			clear	Patent finish, "Minard's Linament"
679	-	-	-	4	glass, bottle	1	0.45			clear	"Minard's Linament"
680	-	-	-	4	glass, bottle	3	0.45			clear	
681	-	-	-	4	glass, bottle	9	0.45			dark blue	exterior thread finish
682	-	-	-	4	earthenware, red	11	0.45	hollow	storage		
683	-	-	-	4	window glass	3	0.45				>1.6 mm
684	-	-	-	4	RWE, painted semi-porcelain, undecorated	1	0.45	hollow	bowl	blue	
685	-	-	-	4	ironstone, undecorated	41	0.45	flat	plate		
686	-	-	-	4	ironstone, undecorated	16	0.45	hollow	bowl		

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
687	-	-	-	4	ironstone, undecorated	13	0.45	flat	plate		
688	-	-	-	4	ironstone, undecorated	42	0.45	unknown	unknown		
689	-	-	-	4	ironstone, undecorated	53	0.45	hollow	chamber pot		
690	-	-	-	3b	button, bone	2	0.33				4 holes
691	-	-	-	3b	faunal remains, mammalian	22	0.33				unknown species
692	-	-	-	3b	faunal remains, avian	1	0.33				unknown species
693	-	-	-	3b	false teeth	1	0.33				
694	-	-	-	3b	slate, pencil	1	0.33				
695	-	-	-	3b	slate, writing tablet	4	0.33				
696	-	-	-	3b	button, Prosser	1	0.33			white	4 holes
697	-	-	-	3b	jewelry	1	0.33				cuff link
698	-	-	-	3b	glass, bead	1	0.33				green, striped
699	-	-	-	3b	white clay pipe, stem	1	0.33				undecorated
700	-	-	-	3b	timepiece	1	0.33				fob and winding stem ink well with Albany Slip
701	-	-	-	3b	stoneware	1	0.33	hollow	storage		
702	-	-	-	3b	glass, bottle	2	0.33			olive green	
703	-	-	-	3b	glass, bottle	1	0.33			aqua	
704	-	-	-	3b	glass, bottle	4	0.33			clear	
705	-	-	-	3b	glass, moulded	4	0.33			clear	
706	-	-	-	3b	glass, drinking	2	0.33			clear	
707	-	-	-	3b	glass, wine	2	0.33			clear	
708	-	-	-	3b	glass, wine	4	0.33			aqua	
709	-	-	-	3b	glass, jug	2	0.33			clear	handle
710	-	-	-	3b	window glass	19	0.33				>1.6 mm
711	-	-	-	3b	window glass	3	0.33				<1.6 mm
712	-	-	-	3b	shoe, leather	2	0.33				

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
713	-	-	-	3b	earthenware, red	16	0.33	hollow	storage		
714	-	-	-	3b	pearlware, undecorated	6	0.33	hollow	cup		
715	-	-	-	3b	pearlware, undecorated	14	0.33	hollow	bowl		
716	-	-	-	3b	pearlware, undecorated	26	0.33	flat	plate		
717	-	-	-	3b	RWE, painted	1	0.33	hollow	cup	red, green	
718	-	-	-	3b	RWE, painted	4	0.33	flat	plate	red, green, blue	
719	-	-	-	3b	RWE, painted	2	0.33	hollow	bowl	red, green	
720	-	-	-	3b	pearlware, painted	2	0.33	hollow	bowl	red, green, blue	late palette
721	-	-	-	3b	pearlware, painted	3	0.33	flat	plate	red, green	late palette
722	-	-	-	3b	RWE, transfer printed	3	0.33	flat	plate	black	
723	-	-	-	3b	ironstone, painted	1	0.33	hollow	tureen	red, green	burnt
724	-	-	-	3b	ironstone, undecorated	2	0.33	hollow	bowl		
725	-	-	-	3b	ironstone, undecorated	2	0.33	flat	plate		
726	-	-	-	3b	RWE, undecorated	30	0.33	unknown	unknown		
727	-	-	-	3b	mouth harp	1	0.33				
728	-	-	-	3b	metal, sheet	9	0.33				
729	-	-	-	3b	metal, undetermined	19	0.33				
730	-	-	-	3b	nails, cut	46	0.33				
731	-	-	-	6	nails, cut	21	surface				
732	-	-	-	3a	whetstone	1	0.28				
733	-	-	-	3a	slate, roofing	2	0.28				
734	-	-	-	3a	slate, pencil	2	0.28				
735	-	-	-	3a	slate, writing tablet	1	0.28				
736	-	-	-	3a	button, Prosser	1	0.28			white	4 holes
737	-	-	-	3a	button, bone	7	0.28				4 holes

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
738	-	-	-	3a	faunal remains, mammalian	48	0.28				unknown species; butchered
739	-	-	-	3a	faunal remains, mammalian	3	0.28				unknown species; teeth
740	-	-	-	3a	faunal remains, avian	4	0.28				unknown species
741	-	-	-	3a	faunal remains, mammalian	3	0.28				unknown species; calcine
742	-	-	-	3a	shoe, leather	1	0.28				
743	-	-	-	3a	shoe, grommet	1	0.28				
744	-	-	-	3a	glass, bottle	2	0.28			olive green	
745	-	-	-	3a	glass, bottle	3	0.28			aqua	
746	-	-	-	3a	glass, bottle	1	0.28			blue	
747	-	-	-	3a	glass, bottle	6	0.28			clear	
748	-	-	-	3a	glass, moulded	1	0.28			clear	
749	-	-	-	3a	glass, drinking	2	0.28			clear	
750	-	-	-	3a	glass, wine	7	0.28			clear	
751	-	-	-	3a	window glass	16	0.28				>1.6 mm
752	-	-	-	3a	window glass	7	0.28				<1.6 mm
753	-	-	-	3a	stoneware	1	0.28	unknown	unknown		
754	-	-	-	3a	earthenware, red	4	0.28	hollow	storage		
755	-	-	-	3a	earthenware, red	2	0.28	hollow	flower pot		
756	-	-	-	3a	earthenware, red	1	0.28	hollow	bowl		
757	-	-	-	3a	pearlware, undecorated	11	0.28	hollow	cup		maker's mark, "J.T."
758	-	-	-	3a	pearlware, undecorated	14	0.28	hollow	bowl		
759	-	-	-	3a	pearlware, undecorated	19	0.28	flat	plate		
760	-	-	-	3a	pearlware, undecorated	19	0.28	unknown	unknown		
761	-	-	-	3a	ironstone, undecorated	1	0.28	flat	plate	black	maker's mark, "Imperial STONE CHINA"

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
762	-	-	-	3a	RWE, undecorated	4	0.28	flat	plate		
763	-	-	-	3a	ironstone, undecorated	17	0.28	flat	plate		
764	-	-	-	3a	ironstone, undecorated	2	0.28	flat	plate		burnt
765	-	-	-	3a	RWE, transfer printed	1	0.28	flat	plate	black	
766	-	-	-	3a	RWE, painted	1	0.28	hollow	bowl	purple	
767	-	-	-	3a	pearlware, painted	21	0.28	flat	plate	red, green, blue	late palette
768	-	-	-	3a	pearlware, painted	9	0.28	hollow	bowl	red, green, blue	late palette
769	-	-	-	3a	RWE, painted	2	0.28	flat	plate	green, blue, black	
770	-	-	-	3a	RWE, painted	2	0.28	hollow	bowl	red, blue	
771	-	-	-	3a	RWE, transfer printed	1	0.28	hollow	cup	blue	
772	-	-	-	3a	RWE, transfer printed	1	0.28	flat	plate	blue	
773	-	-	-	3a	RWE, painted	3	0.28	hollow	cup	red, blue	
774	-	-	-	3a	pearlware, painted	3	0.28	hollow	cup	blue, red, black	late palette
775	-	-	-	3a	RWE, painted	11	0.28	unknown	unknown	red, green, blue	
776	-	-	-	3a	cast iron, tray	1	0.28				
777	-	-	-	3a	metal, saw blade	2	0.28				
778	-	-	-	3a	metal, shoe heel	1	0.28				
779	-	-	-	3a	metal, door handle	1	0.28				
780	-	-	-	3a	metal, machine parts	1	0.28				
781	-	-	-	3a	metal, bucket handle	1	0.28				
782	-	-	-	3a	nails, cut	19	0.28				
783	-	-	-	3a	nails, wire	2	0.28				
784	-	-	-	3a	metal, undetermined	37	0.28				
785	-	-	-	3c	metal, machine parts	2	0.30				
786	-	-	-	3c	whetstone	1	0.30				
787	-	-	-	3c	slate, roofing	1	0.30				

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
788	-	-	-	3c	button, Prosser	5	0.30			white	4 holes
789	-	-	-	3c	button, Bakelite	1	0.30			black	single shank
790	-	-	-	3c	porcelain, figurine	2	0.30				porcelain doll legs
791	-	-	-	3c	glass, bottle	2	0.30			aqua	
792	-	-	-	3c	glass, wine	3	0.30			clear	
793	-	-	-	3c	glass, wine	1	0.30			aqua	
794	-	-	-	3c	window glass	51	0.30				<1.6 mm
795	-	-	-	3c	window glass	77	0.30				>1.6 mm
796	-	-	-	3c	faunal remains, mammalian	5	0.30				unknown species
797	-	-	-	3c	RWE, painted	21	0.30	hollow	bowl	brown	
798	-	-	-	3c	ironstone, moulded	1	0.30	flat	plate		grapes
799	-	-	-	3c	RWE, transfer printed	1	0.30	hollow	cup	blue	
800	-	-	-	3c	pearlware, undecorated	1	0.30	flat	plate		
801	-	-	-	3c	RWE, undecorated	4	0.30	unknown	unknown		
802	-	-	-	3c	earthenware, red	6	0.30	hollow	storage		
803	-	-	-	3c	timepiece	1	0.30				watch chain
804	-	-	-	3c	metal, mesh	6	0.30				
805	-	-	-	3c	nails, wire	19	0.30				
806	-	-	-	3c	nails, cut	49	0.30				
807	-	-	-	5	glass, bottle complete	1	0.65			clear	Collard Ring finish, fluid scale along corners of bottle.
808	-	-	-	5	glass, bottle complete	1	0.65			aqua	Patent finish
809	-	-	-	5	glass, bottle complete	1	0.65			light green	Bead finish, cloth bundle inside bottle, diamond mark on bottom of bottle
810	-	-	-	5	glass, bottle complete	1	0.65			clear	Patent finish, triangle mark with "2" on base

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
811	-	-	-	5	glass, bottle complete	1	0.65			clear	Patent finish, "MINARD'S LINAMENT" on side, triangle mark on base
812	-	-	-	5	glass, bottle complete	1	0.65			aqua	Patent finish, "MINARD'S LINAMENT" on side, "364" on base
813	-	-	-	5	glass, bottle complete	1	0.65			aqua	Patent finish, "MINARD'S LINAMENT" on side, "119" on base
814	-	-	-	5	glass, bottle complete	1	0.65			clear	Patent finish, "LISTERINE, LAMBERT PHARMACAL COMPANY"
815	-	-	-	5	glass, bottle complete	2	0.65			brown	Patent finish, square mark on base
816	-	-	-	5	glass, bottle complete	1	0.65			brown	Patent finish
817	-	-	-	5	glass, bottle complete	1	0.65			brown	Patent finish, "1280" on base
818	-	-	-	5	glass, bottle complete	1	0.65			brown	Patent finish, "1281" on base
819	-	-	-	5	glass, bottle complete	1	0.65			brown	Patent finish, "52A" on base
820	-	-	-	5	glass, bottle complete	1	0.65			brown	Exterior thread finish, "P.D. & Co. 1331 - B" on base
821	-	-	-	5	glass, bottle complete	1	0.65			clear	Patent finish, "A.B. Petrie" on side, "831" on base"
822	-	-	-	5	glass, bottle complete	1	0.65			clear	Patent finish, "A.B. Petrie" on side, "830" on base"
823	-	-	-	5	glass, bottle complete	1	0.65			clear	Exterior thread finish, "E Co" on side. Metal cap in place. Likely perfume bottle.
824	-	-	-	5	glass, bottle complete	3	0.65			clear	Patent finish, small vials

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
825	-	-	-	5	glass, bottle	33	0.65			clear	
826	-	-	-	5	glass, bottle	7	0.65			light brown	
827	-	-	-	5	glass, bottle	3	0.65			brown	
828	-	-	-	5	glass, bottle	2	0.65			dark blue	
829	-	-	-	5	glass, bottle	8	0.65			forest green	
830	-	-	-	5	glass, jar	1	0.65			clear	
831	-	-	-	5	glass, bottle	1	0.65			clear	"Dr. CHA...YR of Linseed & T.... Edmanson Bat..."
832	-	-	-	5	glass, bottle	34	0.65			aqua	
833	-	-	-	5	glass, bottle	2	0.65			aqua	"OUND" on sides, "1080" on base
834	-	-	-	5	glass, bottle	3	0.65			aqua	"COMPOUND" on side
835	-	-	-	5	glass, bottle	1	0.65			aqua	"LERY COM" on side
836	-	-	-	5	glass, bottle	1	0.65			aqua	"PAIN" on side
837	-	-	-	5	glass, bottle	1	0.65			aqua	"AYER" on base
838	-	-	-	5	glass, bottle	1	0.65			aqua	"INE" on side
839	-	-	-	5	window glass	64	0.65				>1.6 mm
840	-	-	-	5	earthenware, white	77	0.65	hollow	tureen		
841	-	-	-	5	RWE, undecorated	20	0.65	hollow	cup		
842	-	-	-	5	semi-porcelain, undecorated	6	0.65	flat	plate		
843	-	-	-	5	ironstone, undecorated	1	0.65	flat	plate	black	maker's mark, "IRONSTONE CHINA W> & E> Corn BURSLEM"
844	-	-	-	5	ironstone, undecorated	4	0.65	hollow	cup		
845	-	-	-	5	ironstone, undecorated	1	0.65	hollow	lid		
846	-	-	-	5	ironstone, undecorated	88	0.65	hollow	chamber pot		
847	-	-	-	5	brick	3	0.65			red	machine made

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
848	-	-	-	5	metal, can	26	0.65				
849	-	-	-	5	metal, sheet	14	0.65				
850	-	-	-	5	utensil	1	0.65				spoon
851	-	-	-	5	metal, plate	1	0.65				
852	-	-	-	5	metal, cup	1	0.65				
853	-	-	-	5	metal, wire	9	0.65				
854	-	-	-	5	metal, undetermined	55	0.65				
855	-	-	-	8	porcelain, medicine spoon	2	0.33				
856	-	-	-	8	porcelain, undecorated	2	0.33	flat	plate		
857	-	-	-	8	porcelain, undecorated	18	0.33	hollow	cup		
858	-	-	-	8	porcelain, painted	1	0.33	hollow	cup	blue	
859	-	-	-	8	jewelry	1	0.33				press stamped copper brooch in shape of leaf, "SALVATION ARMY" with beaver motif
860	-	-	-	8	dog tag	1	0.33				"DOG TAG, 118, 1924"
861	-	-	-	8	glass, bottle	6	0.33			brown	
862	-	-	-	8	window glass	1	0.33				<1.6 mm
863	-	-	-	8	glass, wine	4	0.33			clear	
864	-	-	-	8	white clay pipe, stem	1	0.33				undecorated
865	-	-	-	8	faunal remains, mammalian	1	0.33				unknown species; butchered
866	-	-	-	8	faunal remains, mammalian	18	0.33				unknown species; butchered, calcined
867	-	-	-	8	shoe, grommet	4	0.33				
868	-	-	-	8	metal, clamp	1	0.33				
869	-	-	-	8	metal, washer	3	0.33				
870	-	-	-	8	metal, nut	2	0.33				

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
871	-	-	-	8	metal, screw	2	0.33				
872	-	-	-	8	nails, cut	202	0.33				
873	-	-	-	8	nails, wire	289	0.33				
874	-	-	-	8	nails, roofing	8	0.33				
875	-	-	-	8	metal, staple	22	0.33				
876	-	-	-	8	fish hook	1	0.33				
877	-	-	-	8	metal, cotter pin	3	0.33				
878	-	-	-	Feature 3a	nails, cut	1	soil sample heavy fraction				
879	-	-	-	Feature 3a	metal, undetermined	3	soil sample heavy fraction				
880	-	-	-	Feature 3a	faunal remains, mammalian	1	soil sample heavy fraction				
881	-	-	-	Feature 3a	button, Prosser	1	soil sample heavy fraction				four holes
882	-	-	-	Feature 3a	brick	1	soil sample heavy fraction			red	
883	-	-	-	Feature 3a	RWE, painted	1	soil sample heavy fraction	flat	plate	red	
884	-	-	-	Feature 3c	nails, cut	2	soil sample heavy fraction				
885	-	-	-	Feature 3a	insect parts	4	soil sample light fraction				

Stage 4 Mitigation of Impacts, H1 (AkHd-4), Alma Subdivision, 31 Church St, Alma

Cat#	Unit Easting	Unit Northing	Layer	Feature #	Artifact	Frequency	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
886	-	-	-	Feature 3c	insect parts	6	soil sample light fraction				
887	-	-	-	Feature 3a	charcoal	3.24g	soil sample light fraction				
888	-	-	-	Feature 3c	charcoal	2.51g	soil sample light fraction				

## 10.2 Euro Canadian Artifact Descriptions

### 10.2.1 Structural Artifacts

#### Nails

Originally all nails were handmade and required skill, as well as a forge to manufacture. As a result, early nails were relatively expensive, and methods were sought to have them machine made. Whereas machine cut, or square nail manufacture began in the late 1790s, cut nails only become readily available in Upper Canada by the 1830s. Cut nails revolutionized house framing and were common for a long period, from approximately 1830 to 1890 by which time they had been largely supplanted by wire nails. Wire drawn nails are identical to the type of nails used today, with their round heads and wire shafts (Adams, 1994).

#### Window Glass

Window glass can be temporally diagnostic in a limited manner, but only if at least ten specimens are available. In the 1840s, window glass thickness changed dramatically, in large part due to the lifting of the English import tax on window glass in 1845. This tariff taxed glass by weight and encouraged manufacturers to produce thinner panes. Most window glass manufactured before 1845 tended to be thinner, measuring less than 1.6mm; later window glass was thicker. Because window glass thickness varied even within a single pane an assemblage of at least ten specimens is required to provide an adequate sample (Kenyon, 1980).

### 10.2.2 Ceramic Ware Types

#### Ironstone

Ironstone is a variety of RWE that was designed by the Turner family in the late 1700s (Tharp, n.d.). Like its contemporaries, it featured a white surface, but with a bluish tint. Furthermore, ironstone vessels were usually thicker than earlier whiteware varieties with a dense, heavy paste. The impetus behind their development was a desire among Staffordshire potters to find a cheap alternative to imported porcelain. By 1813 James Mason had reworked and patented 'ironstone China.' The patent lasted only fourteen years; by that time a variety of Staffordshire potteries were producing a similar product. Nevertheless, the Mason's brand name had become associated with all the various stone China ceramics that were in production. Ironstone began to be imported from England to Canada during the 1840s and came to dominate the ceramic trade during the middle part of the century (The Potteries.org, 2003). In terms of appearance, ironstone vessels were commonly left plain with infrequent applied surface decoration, although moulded designs were common (Adams, 1994).

#### RWE

In the 1820s, the blue-tinted pearlware glaze gave way to a whiter variety that some archaeologists have taken to calling whiteware; like pearlware, however, this term was not used by manufacturers. According to Miller, the white appearance of whiteware was caused by reducing the amount of cobalt added to the glaze and adding it instead to the paste (Miller, 1980a). Because whiteware was manufactured by many different recipes it can be difficult to distinguish from other ceramics in the period, including sherds of pearlware, especially when examining small sherds. As Miller suggests,

*...if an assemblage of ceramics from the first half of the 19th Century is placed before six archaeologists and they are asked for counts of creamware, pearlware, whiteware, and stone china wares, the results will probably be six different enumerations.*

Miller G. L., 1980a, p. 2

Accordingly, the term RWE is used in this report to identify whiteware sherds as well as any sherds that are too small to distinguish between whiteware, pearlware or ironstone, noting that this approach gives a conservative date to any pearlware sherds not correctly identified.

### Red and Yellow Earthenware

Red and yellow earthenware are utilitarian wares that are manufactured from a more porous and coarse paste than that used for more refined RWE varieties. Earthenware vessels were also fired at a lower temperature. The presence of earthenware cannot be used to date an archaeological assemblage since they were in use throughout the entirety of the 19<sup>th</sup> century. Their frequency on sites began to decline slowly, however, from the 1850s onwards with the importation of stoneware from the United States, and then dramatically after 1890 when they were replaced by glass jars (Miller, 1980b, p. 9). Earthenware vessels were also less expensive than other, more refined tableware. As a result, an abundance of earthenware pieces relative to other ware types, especially on a late 19<sup>th</sup> century site, may indicate lower economic status.

### Pearlware

The term pearlware denotes an early variety of refined white tableware that was first produced in 1779 by Josiah Wedgwood. It remained popular on Euro-Canadian sites in Southern Ontario until the 1830s, when it was supplanted by later RWE varieties such as whiteware and ironstone. Pearlware can be easily identified by a bluish glaze that appears along footing crevices due to the addition of cobalt to the glaze in an attempt to imitate Chinese porcelain (Adams, 1994).

### Semi-Porcelain

Semi-porcelain is also a variety of RWE featuring a thick body and hard, opaque paste. It was developed by English potters during the first half of the 19<sup>th</sup> century in an attempt to create a less expensive alternative to imported porcelain. By the latter half of the century, semi-porcelain vessels became widespread throughout North America. Decoration with hand-painted lustrous gold over glaze or 'gilding' became popular in the 1880s and persisted until the 1940s (Hughes, 1961).

### Porcelain

Porcelain is a variety of RWE that was first manufactured in China in the 16<sup>th</sup> century. Porcelain wares are produced using very high firing temperatures resulting in a partial vitrification of the paste. Vessel bodies tend to be translucent and can be very thin. Because of its prohibitive cost, porcelain is rare on 19<sup>th</sup> century sites in Ontario, but became relatively common by the 20<sup>th</sup> century as less expensive production techniques were developed in England, Germany, and Holland (Kenyon, 1980).

Throughout the 19<sup>th</sup> century, potters in Staffordshire, England, sought to replicate Chinese porcelain resulting in the creation of many variations of RWE including creamware, pearlware, whiteware, and ironstone. English porcelain, also known as 'bone China' or 'English soft-paste porcelain', was the most common variety of porcelain represented in Euro-Canadian sites throughout the 19<sup>th</sup> century. It was a vitreous ceramic with high silicon oxide content, although not as high as Chinese porcelain, that maintained glass-like sharpness on breakage (Majewski & O'Brien, 1987). Given its cost, its presence of porcelain in large numbers on Euro-Canadian sites in Southern Ontario usually indicates a higher economic status.

## 10.2.3 Ceramic Decorative Styles

### Hand Painting

Hand painted floral tea and dinner ware sets were a staple ceramic item in the 1800s. From 1785 to 1815, potters used metal oxide colours that produced subdued, earth tones including brownish orange, olive-green, raw umber, and a limited use of blue. Cobalt blue, often referred to as Early Palette Blue, was the most dominant colour observed between 1815 and 1830, and typically featured large brushstrokes. Between 1830 and 1870, a growing variety of chrome colours, often referred to as Late Palette colours, were popular for RWE and ironstone dinner and tea sets. By the end of the century, blue had once again emerged as the most popular colour for hand painted vessels (Adams, 1994).

### Transfer Printing

The technique of transferring a pattern from an engraved metal plate to the surface of a ceramic vessel is thought to have developed in the middle of the 18<sup>th</sup> century (Jervis, 1911); it became more widely used among Staffordshire potteries in the 1790s (Shaw, 1968). In Southern Ontario, transfer printing was popular through the first half of the 19<sup>th</sup> century before simpler techniques, or no decoration whatsoever, became popular. It underwent a revival after 1870 until the end of the Century (Majewski & O'Brien, 1987). Blue was the dominant colour available for printed ceramics before 1830, although blue transfer printed designs remained popular on various ware types throughout the 19<sup>th</sup> century. Brown, black, and green transfer printed wares were popular between 1830 and 1870. Green transfer printing experienced a revival after 1890 (Adams, 1994).

### Sponging and Stamping

Sponging and stamping were inexpensive ways of decorating ceramics by using a sponge to transfer ink to the vessel giving it a mottled effect. All over sponging and stamping became popular in the 1840s. A lack of sponged and stamped vessels on a site often indicates the occupants could afford more expensive decorated ceramics (Adams, 1994).

### Edging

Edging is used to describe ceramics where decoration is concentrated on moulding or colouring the rim of the vessel, most commonly plates and other flatware. The earliest edged vessels bore asymmetrical, rococo shell-edging and date from roughly 1775. Over time, the style of the edge design changed, becoming symmetrical scalloping from around 1800, to straight-edged with feathering by 1840 and non-embossed, straight edges by 1860 (Hunter & Miller, 2009). Dates vary somewhat for the popularity of the dominant colours – blue and green – but blue scalloped edged vessels date from 1820 to 1840, blue unscalloped edged vessels from after 1860.

## 10.2.4 Household Artifacts

### Bottle Glass

Bottle glass fragments are generally not diagnostic and are often simply categorized according to colour. Clear, or colourless glass was uncommon prior to the 1870s. Until 1880, clear glass bottles often displayed an aqua tinge that resulted from the iron additives used to de-colourise it. Clear or colourless glass came into much more widespread use after the development of automatic bottle manufacturing machines in the early 20<sup>th</sup> century (Lindsey, 2021).

## 10.2.5 Personal Artifacts

### White Clay Pipes

White clay pipes were popular throughout the 19<sup>th</sup> century, with a decline in use around 1880 due to the rise in popularity of briar pipes and cigarettes. Most white clay pipes were manufactured in either Québec or Scotland, with occasional examples from English, Dutch, French, and American manufacturers. The maker's name is commonly impressed on one side of the stem with the city of manufacture on the opposite side, although this did not become common practice until after 1840 (Kenyon, 1980).

### Buttons

Buttons fashioned from freshwater or tropical shells were commonly used as shirt buttons in the 1840s until they were replaced by more affordable varieties such as Prosser buttons (Adams, 1994). The patent for the Prosser button method provides a *terminus post quem* of 1840. The method involves pressure moulding powdered minerals common in the recipe of ceramics, such as clay, flint, and feldspar, and firing them at high temperatures to achieve a vitrified finish. While the Prosser buttons were moulded in various patterns or embossed and decorated with transfer and hand-painted glazes, the most common are simple white, sew-through, dish type varieties used on men's shirts (Sprague, 2002). They were the most inexpensive buttons available in the 19<sup>th</sup> century and remained popular through to the 1920s. Prosser buttons were still being produced in France until the 1960s (Venovcevs, 2013).

### **Slate Tablets and Pencils**

The value of paper, especially writing quality paper, in the 1800s prevented its use for junior schoolwork and everyday household use. Instead, both adults and children commonly used slate boards and pencils. Boards comprised a flat sheet of fine quality slate (typically 2.5mm thick) bounded in a wood frame. The pencils were typically 3-5mm thick and composed of slate or shale softer than the board. There were several methods of pencil manufacture, from reducing slices it by forcing them through tubes (the evidence of which can be seen as flat facets along the pencil length); turning slices of slate (Davies, 2005, p. 64), or by grinding slate or shale to a powder to then compress it in moulds (Evening Standard, 1891). Given the expense of slate for roofing purposes, most thin slate fragments on historic sites are likely to be from writing boards.