

# Archeological Inventory and Testing of New Pathways, Grand Portage National Monument, Minnesota.

By  
Jay T. Sturdevant

Midwest Archeological Center  
Technical Report No. 105



NATIONAL PARK SERVICE  
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**United States Department of the Interior  
National Park Service  
Midwest Archeological Center  
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This report has been reviewed against the criteria contained in 43CFR Part 7, Subpart A, Section 7.18 (a) (1) and, upon recommendation of the Midwest Regional Office and the Midwest Archeological Center, has been classified as

*Available*

Making the report available meets the criteria of 43CFR Part 7, Subpart A, Section 7.18 (a) (1).



## **ABSTRACT**

In 2006, Grand Portage National Monument (GRPO) planned to upgrade its handicapped access through resurfacing of existing graveled pathways and natural dirt paths. The pathway extends southwest from the Kitchen/Great Hall area through the west gate of the reconstructed stockade, links to the restrooms and Canoe Warehouse, and joins with a pedestrian crossing on County Road 17 leading to the new Grand Portage Visitor Center. In October 2006, the Midwest Archeological Center (MWAC) conducted exploratory testing of areas along the proposed pathway route where previous disturbances were not well documented or where potentially less disturbance has occurred. The archeological testing project was designed to address questions about the varying levels of disturbance along the path route that would either confirm that the paths would not impact undisturbed archeological resources or provide information to allow for avoidance of intact deposits.

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## ACKNOWLEDGMENTS

The Midwest Archeological Center (MWAC) would like to thank the staff at Grand Portage National Monument (GRPO) for their cooperation with this project. GRPO Superintendent Tim Cochrane and Resource Manager David Cooper provided excellent assistance and guidance on all aspects of the pathways project. Thanks to David Cooper and Brandon Seitz for their outstanding contributions during the 2006 fieldwork at GRPO. Volunteers Al and Linda Larson and Mary Vanderpoel aided our fieldwork immensely with their knowledge and enthusiasm for GRPO history. As with every archeological project, a team effort was required from start to finish ensuring that the resources at GRPO remain unimpaired for future generations.

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## 1. INTRODUCTION

Grand Portage National Monument (GRPO) is located on the north shore of Lake Superior in extreme northeastern Minnesota about 5 miles from the US-Canadian border (Figure 1). The services of the Midwest Archeological Center (MWAC) were requested by the staff at Grand Portage National Monument (GRPO) to evaluate the archeological potential of a route for a proposed pathway that will connect the new Visitor Center with the historic Northwest Company depot complex. The handicapped accessible pathway was scheduled for construction in early spring 2007. The route of the path was deliberately chosen by park planners to follow areas known to have been subjected to various levels of previous ground disturbing activities where there was thought to be a low probability of encountering undisturbed archeological resources (Figure 2).

GRPO proposes to upgrade its handicapped access through resurfacing of existing graveled pathways and natural dirt paths. The pathway extends southwest from the kitchen/Great Hall area through the west gate of the reconstructed stockade, links to the restrooms and canoe warehouse, and joins with a pedestrian crossing on County Road 17 leading to the new Grand Portage Visitor Center (Figure 2). The path runs 800 linear feet with a proposed width of six feet. Disturbance during path construction is not expected to extend more than 6-12 inches below the ground surface. The construction design will be adapted from access pathway specifications developed by Voyageurs National Park.

The current graveled pathway is not historic, although it generally follows the presumed path of historic foot traffic through the 1790s North West Company stockade. However, the pathway area has been extensively disturbed by major archaeological excavations and installation of utility lines (electricity, sewer, and water) (Figure 3). The park has designed the new pathway route to follow disturbed archeological contexts wherever possible (Figure 3), consistent with visitor flow and ADA slope/grade requirements. Few, if any, undisturbed archaeological deposits appear to be in the area of the proposed project (Noble 1990; Woolworth and Woolworth 1982). Approximately 70% of the route is believed to be heavily disturbed, with most of the remainder of the route potentially disturbed (Figure 3). Recent investigations in the area between the reconstructed depot and the canoe warehouse have confirmed that much of the archeological context within the historic core has been partially or heavily disturbed from previous archeological investigations and reconstruction activities (Volf 2002; Volf et al. 2005).

From October 9 to October 26, 2006, a four person MWAC crew, under the direction of Archeologist Jay Sturdevant, conducted exploratory testing of areas along the proposed pathway route where previous disturbances were not well documented or were potentially less disturbed. The archeological testing project was designed to address questions about the varying levels of disturbance along the path route that would either confirm that the paths would not impact undisturbed archeological resources or provide information for avoidance of intact deposits. While at the park, Archeologist Sturdevant and Resource Manager Dave Cooper also spent time mapping old datums, old excavation trenches, and

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aerial photo reference targets with the Trimble Power Pro GPS. This GPS mapping data will be used by the park for geo-referencing and control points for the park's GIS and aerial photography data.

## 2. ENVIRONMENTAL OVERVIEW

The following section was adapted from Volf et al. (2005). The historic location of the Northwest Company Depot at Grand Portage is on a remnant beach ridge along the northwest shore of Grand Portage Bay. The stockade portion of the Monument is directly adjacent to Lake Superior. Elevation ranges between 608 feet above sea level (asl) in the southeast corner to 626 feet asl in the northwest corner of the stockade. The average water level of current Lake Superior is approximately 602 feet asl (Woolworth and Woolworth 1982).

The Monument lies within the broad Canadian biotic province, which is characterized by thick stands of hardwood trees of maple, birch, aspen, and hemlock (Noble 1989). Primary tree species within the Monument are aspen, birch, fir, and spruce while black ash can be found in moist soils and white and red pines grow in the drier soils of the Monument.

The climate of the area is influenced by two factors, the northern latitude of the Monument and its proximity to Lake Superior. The average daily mean temperature in January is -11.5 C while in July the mean temperature is 15.5 C. Snowfall in the area during an average winter is 178 centimeters and often covers the ground surface between 100 and 140 days of the year. The number of frost-free day per year varies between 80 and 140 days (Woolworth and Woolworth 1982).

The area is underlain by bedrock of Middle Precambrian Rove Formation Shale. This geologic formation consists of easily erodable slates and shales and highly resistant diabasic sills and dikes (Ojakangas and Matsch 1982). The contrast in erodability is largely responsible for the dramatic topography of the area. Towering over the depot at 920 feet asl is the local landmark Mt. Rose, a remnant diabase dike.

While no detailed soil survey has been done for the area, a representative description of the soils at the Monument can be made from the archeological work that has taken place within the Monument. The southern portion of the stockade area is generally flat and consists of fine beach sands. Beginning about 150 feet north of the lake, a heavy brown clay soil dominates the central portion of the site. In the northwestern portion of the stockade a layer of slate lies just beneath the ground surface (Woolworth 1963). In the area of the clay and slate, Woolworth (1963:6) notes that large subsurface, and some surface, glacial boulders are present over the entire area north of the sandy area near the lakeshore. Almost dividing the stockade in half at the 620' elevation is the Algoma level lake shoreline. This prominent east-west oriented beach ridge runs through the central portion of the stockade (Woolworth 1975).

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### **3. CULTURE HISTORY**

#### **Historic Synthesis**

Grand Portage was one of the primary outposts on the Upper Great Lakes during most of the Colonial European history in America. Explored by the French in the late 17<sup>th</sup> century and settled by the British in the middle of the 18<sup>th</sup> century, Grand Portage became the principle gateway between the Great Lakes and Hudson's Bay drainages. Ojibwe, Cree, and Ottawa frequently traded with the post voyagers while the Northwest Company and later trading outfits were in operation. Numerous synthetic historical studies and archeological reports have been produced that describe the history and archeology at Grand Portage. For additional background information the reader is referred to the following publications for synthetic overviews on these topics; Birk (2002); Clark (1999); Cockrell (1983); Gilman (1992); Nickel, Finney, and Cooper (n.d.); Thompson (1969); White (2005); Woolworth (1963); Woolworth and Woolworth (1982).

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#### **4. POTENTIAL FEATURES AND PREVIOUS DISTURBANCES WITHIN THE PROJECT AREA**

This section provides a brief discussion and overview of potentially intact or semi-intact archeological features and previous disturbances along the proposed pathway route. Detailed summaries of previous archeological investigations outside the immediate project area at Grand Portage have been described in numerous synthetic volumes and are not covered in this report. For overviews and specific details about previous archeological investigations the reader is referred to the following sources Birk (2002); Cockrell (1982); Gilman (1992); Nickel, Finney, and Cooper (n.d.); Woolworth (1963); Woolworth and Woolworth (1982). In the following discussion, all directions pertinent to the orientation of architectural features, archeological grid units, and orientations refer to the Volf (2002) grid north/south and east/west and not magnetic or true compass directions.

##### **Historic Northwest Company Post Structural Features**

The primary structural feature included within the pathways project area was the central palisade wall that would have originated at the gatehouse structure, labeled G by Ralph D. Brown in 1936-1937, and oriented parallel to the Great Hall, had been constructed along a line west to the west gate (the west gate was labeled D by Brown in 1936-1937) (Figure 4) (Woolworth 1963). The central palisade wall measured roughly 256 feet (78.03 meters) in length. This internal palisade was labeled as “Central Palisade Trench #2 (CPT #2) by Woolworth and Woolworth (1982). CPT #2 also intersects the north-south interior palisade (Palisade Trench # 20) at a point labeled Y by Brown in 1936-1937 (Woolworth 1963; Woolworth and Woolworth 1982).

Palisades were constructed using cedar logs 4-10 inches in diameter and 15-18 feet in length set in a trench 2 feet wide and 3 feet deep (Woolworth 1963:65). Double rows of timbers packed with soil were used to anchor and stabilize the base of the pickets in the ground (Woolworth 1965:66). Both Brown 1936-1937 and Woolworth (1963:61) suggest that the interior palisades or portions thereof could relate to the earliest establishment of the post and in all likelihood experienced episodes of retrenching and post replacement. This seems likely since wood deterioration and corresponding stockade repair were common at northern fur trade outposts.

Other than at the intersection point Y, the majority of the north-south interior palisade (# 20) was outside of the area of potential effect (APE). Although there was some potential to locate intact portions or features related to CPT #2 and PT # 20, previous archeological excavations and the 1938 post reconstruction were thought to have removed or destroyed any intact archeological resources relating to these features. No additional structural features were known to occur within the pathways route. Other previously identified structural and archeological features were avoided by the pathways APE.

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### **1936-1937 MHS Archeological Investigations**

As the Great Depression was being felt by the Grand Portage Band of Ojibwe, a request was made for a work relief project relating to the reconstruction of the Northwest Company Depot. Following the appropriation of \$6,200 by the Depression era Civilian Conservation Corps (CCC) to the Consolidated Chippewa Agency of Minnesota, the Minnesota Historical Society (MHS) pressed for archeological research at the Grand Portage depot to determine the outlines of the palisade walls and building locations (Cockrell 1983:14-16). The initial archeological investigations began at Grand Portage in 1936. These first exploratory excavations were led by MHS Archeologist Ralph D. Brown (Woolworth 1963). Using extensive hand-dug trenches and controlled excavations in strategic locations, Brown was able to discern the orientation and size of the North West Company post, the location and outline of thirteen structures, the interior palisades, and the east and west gates. Much of this information would be used as the basis for the 1938 Civilian Conservation Corps (CCC) reconstruction of the historic trading post. Later excavations revealed that many of the features identified during the 1936-1937 work were not fully excavated and remained essentially intact.

Of particular concern to the 2006 pathways investigations was the excavations conducted along the interior palisade walls (Figure 5). The 1936-1937 excavations uncovered the east-west interior palisade (CPT #2) and the north-south interior palisade (PT # 20). At the point where the interior palisade lines intersect Brown established a 0°N-S, 0°E-W datum along the east-west palisade line northwest from the northwest corner of the Great Hall (Figure 4). This datum was probably removed and is no longer visible on the ground within the post.

### **1938 Grand Portage Reconstruction**

Beginning in 1938, the CCC began reconstructing the Northwest Company Depot at Grand Portage. The reconstruction was focused on erecting the palisade walls and constructing a replica Great Hall in their original location. Completed in 1940, the first reconstruction of the post included the entire outer palisade wall, the east-west interior palisade, the east gate area, and the Great Hall. Although based on archeological data derived from the 1936-1937 excavations, the historical accuracy of the reconstruction (especially the Great Hall) was mostly conjectural and of questionable interpretive value. With the onset of World War II, the reconstructed structures were neglected and fell into disrepair by the early 1950s (Cockrell 1982:16).

Historic photographs of the first palisade reconstruction depict the entire site walled-off by palisade pickets including the interior palisade east-west palisade line (Figures 6-7). In many places along the palisades wood braces were used to support the walls (Figures 6-7) and likely would have had some in-the-ground anchor points (i.e., stone piles or concrete) which would have resulted in additional disturbance to locations along the palisade walls. It is assumed that most of archeological resources along the interior palisade line would

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have been obscured or destroyed by the construction (and maintenance) of the wall. The reconstructed interior east-west palisade was removed prior to 1963-1964 as shown by an overview photograph of the Depot without an interior palisade wall in Woolworth's report on the 1963-1964 investigations (Woolworth 1969:Plate 1) (Figure 8).

### **1963-1964 MHS Archeological Investigations**

In 1963-1964, an MHS crew led by Alan Woolworth conducted a substantial archeological research program at the Northwest Company depot (Woolworth 1969). Of particular concern to the current pathways project was the nearly 5,100<sup>2</sup> meter area west of the enclosed palisade that was investigated via trenching. A series of thirteen parallel hand-dug trenches of various lengths were opened at fifteen foot intervals (Figure 9). Each trench was 18 inches in width and dug in 6 inch levels. Trench lengths varied according to the presence or absence of structural features and the presence of soils and sediments with the potential to contain archeological materials. The primary archeological feature discovered during the 1963 trenching was a rectangular structure. This building is thought to have functioned as a storage warehouse for goods and canoes. The Canoe Warehouse was reconstructed by the NPS in 1973 and is outside the pathways project area.

In addition, the western palisade wall was excavated (including the west gate area) in 1963-1964 (Figure 9). No significant archeological features were reported along the west palisade wall. However, Woolworth (1969:33) did note that the original palisade trench was visible in numerous locations along the wall.

### **1969 Great Hall Fire**

On July 15, 1969 a massive fire consumed the Great Hall (Cockrell 1982:47). Lightning struck the 1930s reconstruction causing a fire that destroyed the entire building in two hours (Cockrell 1982:47-48). The condition of the interior east-west palisade following the fire is unknown; however, Cockrell (1982:48) does note that NPS staff and local residents were able to keep the fire from "spread(ing) to the reconstructed east gate and palisades".

### **1973 MHS Archeological Investigations**

In 1973, MHS archeologist Alan Woolworth conducted several small investigations within the depot area (Woolworth 1975). Exploratory trenching was conducted at two locations that are relevant to the current pathways project including a waterline route along the east-west internal palisade line and a sewage lift station southwest of the main depot (Figure 9).

To the southwest of the main depot, near the intersection of a small two-track road and the paved County Road 17, a small area was selected for the installation of a sewage lift station. The area was thought to have contained a late 19<sup>th</sup> century log cabin residential

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structure owned by one of the Grand Portage Band members. This location was investigated for the presence of archeological resources in 1973 (Woolworth 1975) (Figure 9). Recent historic materials relating to the house were recorded during trenching. No archeological features relating to the fur trade were reported from this location and a large sewage station (still in operation) was constructed there near the pathways route.

### **1989 Kitchen Drainage Modification**

With the reconstructed buildings at Grand Portage National Monument require ongoing maintenance, small archeological projects are routinely conducted in advance of ground disturbing activities. In 1989, the reconstructed Kitchen, across from the Great Hall, was experiencing severe water drainage problems that required immediate drainage modifications. MWAC Archeologist Vergil Noble directed archeological investigations prior to these drainage modifications (Noble 1990). Of primary interest for the pathways project was the results of two controlled test units and the drainage trench between the Kitchen and the Great Hall structures (Figure 9). The test units and the monitoring of the drainage trench excavation were used to explore a short east-west stretch of drain trench before it turned south and passed the Great Hall on its way to the southern end of the depot (Figure 9) (Noble 1990:18-24).

The test units did not uncover any significant intact archeological deposits. The excavations yielded modern materials, late historic artifacts, and fur trade artifacts with little to no discernable provenance that could be used to define spatial relationships between artifacts. The upper levels of sediment are described as “recent fill” relating to the building reconstructions in the area (Noble 1990:18). The modern fill zone was underlain by large glacial cobbles followed by a dense clay layer at three feet below the surface (Noble 1990:18). No intact structural features or archeological deposits were noted during the excavation of the two test units. Monitoring of the backhoe trenching for the new drain system did not reveal any archeological resources of note.

### **2002 Fire Suppression Waterline Installation**

There are currently three main buildings reconstructed at the Northwest Company depot site: the Great Hall, Kitchen, and Canoe Warehouse. These structures were determined to have inadequate fire suppression systems to comply with the 1999 National Fire Protection Association code. An upgraded system was scheduled for installation in 2004 and included a new waterline between the Canoe Warehouse and the Great Hall. The underground waterline required trenching along the entire seventy-two meter route (Figure 9). The route of the waterline avoided undisturbed archeological resources utilizing a nearly direct path from the Great Hall to the Canoe Warehouse.

Archeological testing prior to waterline installation was conducted by an MWAC archeological crew led by Bill Volf (Volf et al. 2005). The evaluative testing and monitoring were undertaken to ensure that the waterline would pass through disturbed sediments, to

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record any small archeological features that had not been previously identified, and to collect a sample of artifacts from the waterline route. Eight 1x2 meter test units and one 1x3 meter test unit were excavated along the waterline route between the Great Hall and the Canoe Warehouse (Figure 9). Test units in the western waterline segment near the Canoe Warehouse revealed the presence of a buried "A" soil horizon below a stratum of dense clay and shale overburden (Volf, et al. 2005:17). Artifacts recovered during testing include fur trade items such as beads, fire steels, gun parts, clay pipe fragments, ceramic sherds, brass tinkling cones, hand-wrought nails, and cut nails (Volf et al. 2005). In most cases, with the exception of the buried soil horizon near the Canoe Warehouse, artifacts were collected from mixed contexts associated with modern non-historic items. The general lack of any undisturbed archeological deposits along the waterline route led Volf et al. to the conclusion that no significant archeological resources would be damaged during the waterline installation. Archeological monitoring of the waterline trenching by Bill Volf in 2004 confirmed this recommendation (Volf et al. 2005).

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## 5. ARCHEOLOGICAL METHODS

### Grid Setup and Mapping

The 2006 grid system utilized an X/Y Cartesian coordinate grid, re-established using Bill Volf's 2002 geophysical grid datum and orientation (Volf 2002) (Figure 10). The 0N/0E plastic datum marker was relocated in the northwest corner of the depot at UTM coordinates E299524.3, N5315623.1 (Volf 2002:3). In 2002, the grid was aligned roughly parallel with the west palisade wall of the depot. The grid is oriented at 25° west of magnetic north. In 2006, the orientation of the grid was re-established using an Ushikata transit compass to place a backsight stake at 10S/0E. Once the backsight stake was in place, a Sokkia EDM transit was used to set grid stakes over the project area (Figure 11). The grid was also extended outside the depot palisade to the west and south along the proposed path route. These grid stakes were used for mapping of excavation units, shovel tests, buildings, and other permanent features within the project area. Permanent grid markers were established using the Sokkia EDM at 100S/0E (backsight) and outside the palisade at 30S/20W (grid marker outside west palisade) and 40S/20W (backsight) (Figure 10). The UTM coordinates for all grid markers, shovel tests, and test units (one corner) were recorded with a Trimble Power-Pro GPS.

### Shovel Test Inventory

Exploratory shovel testing was conducted in two separate locations along the project route; one short stretch between the Kitchen and Great Hall and the second area from the outside hydrant to near the western sewage lift station (Figure 10). Each separate set of shovel tests were dug at different intervals depending on the projected outcome at each location. For instance, in the Great Hall/Kitchen area shovel tests were laid out at 5 meter intervals. In the West Fort area, shovel tests were placed at intervals estimated to fall between the trenches dug by Woolworth in 1963-1964 (Woolworth 1969). Generally, the shovel tests were at 5 meter intervals but several were reduced or enlarged between 2-3 meters in order to avoid Woolworth's trenches. This variable shovel test interval was used to avoid the previously disturbed trenches. Shovel tests did not use arbitrary levels for vertical control. Twenty-two shovel tests were dug in two separate sections along the pathway route (Figure 10). Shovel tests were measured between 30-50 centimeters in diameter and were dug to depths between 15 and 53 centimeters. The average depth of the shovel tests was 29 centimeters below surface. The final depths of all shovel tests were recorded in addition to notes on sediment characteristics, inclusions, and colors. All excavated soil was screened using ¼ inch wire mesh. Artifacts were noted on the shovel test forms and placed in a paper bag and labeled with the specific shovel test provenience information. Locations of all shovel tests were recorded on the 2002 grid system and also with a Trimble GPS unit.

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## Controlled Test Excavations

Archeological exploration along the path route included controlled excavations in areas where the extent of previous disturbance was unknown or poorly understood and where there was some potential for the presence of intact sub-surface archeological deposits. Controlled excavations utilized test trenches or blocks of various sizes to examine areas along the path within the Depot and near the sewage lift station (Figures 13-15). Each test unit was oriented according to grid north using the 2002 grid. The grid coordinates for each trench are provided in Table 1.

Controlled excavation units were dug in 10 centimeter arbitrary levels measured from a defined corner using a line level and folding ruler for reference measurements. Each trench or block was sub-divided into 1x1 meter units which were dug individually by levels. MWAC Excavation Unit forms were used to record information from each 1 x 1 meter test unit level. Artifacts were collected and information was recorded from each level. All sediments excavated during testing were screened using ¼ inch wire mesh. Artifacts identified during testing were collected, bagged, labeled with provenience information, and entered into a field specimen log book. In some cases, a representative sample of modern materials was also collected in order to document the depths of disturbance and mixing of sediments.

## Storage

All artifacts, photographs, documents, and other materials related to this project are being temporarily stored at the Midwest Archeological Center, National Park Service, Lincoln, Nebraska. Facilities at MWAC meet all NPS standards for housing collections and museum property as defined in the Midwest Archeological Center's *Laboratory Manual* (NPS 2002) and the *Museum Handbook, Museum Records, Part II* (NPS 1984). Artifacts are stored in accordance with the instructions on *Packaging and Storage of Collections, Handling of Archeological Collections, and Packaging Paper Archives and Photographs* (NPS 2002). Identifying information is recorded on acid free provenience cards and maintained with the artifacts. Artifacts were cataloged into the Re:Discovery database. After cataloging, items were placed in a climate controlled storage environment. The MWAC Accession Number assigned to this project is 1158. The corresponding GRPO Accession Number is 440. At a date to be determined, all materials will be returned to GRPO for permanent storage. All materials related to the project remain the property of the National Park Service, Grand Portage National Monument.

## 6. ARCHEOLOGICAL RESULTS

### Shovel Test Inventory

#### Great Hall/Kitchen Area

Five shovel tests were dug between the Kitchen and Great Hall (Figure 10). The tests ranged between 53 and 26 centimeters below surface with an average depth of 41 centimeters. The sedimentary profile included brown sandy loam mixed with gravel in the upper 25-30 centimeters. Generally, below thirty to thirty-five centimeters, shovel tests encountered denser clay and large glacial boulders. No archeological features were identified during shovel testing in the Great Hall/Kitchen area. Four artifacts were collected from shovel tests 2 and 4 including one piece of ferrous metal wire, one wire nail, one piece of colorless flat glass, and one undecorated whiteware sherd (Table 1).

#### West Fort Area

Seventeen shovel tests were dug along the pathway route in the West Fort area (Figure 10). Shovel tests began at ST6 located 6.1 meters and 265° from grid stake 60S 15W. One shovel test was dug outside the pathway route to the southeast to investigate the sedimentary profile in this low-lying area (Figure 10). Shovel test depths ranged between 15 and 35 centimeters below surface with an average depth of 26 centimeters. Between shovel tests ST 6 and ST 18, the upper soil profile included brown sandy clay loam mixed with shale and some gravel. The profile along most of the West Fort area was interpreted as mixed deposits since much of the area had been previously disturbed and the shale had originated from the lower levels of the soil profile near the bedrock formations. No archeological features were identified during shovel testing in the West Fort area. One shovel test contained a piece of amber bottle glass (Figure 10, Table 1).

### Controlled Test Excavations

#### Interior Post Area

##### *Trenches 1-2*

Trenches 1 and 2 were excavated at the west end of the Interior Post area (Figure 13). These trenches were placed in locations that bisected the current pathway and also the estimated location of the interior palisade trench (CPT #2). These test trenches were used to evaluate the level of disturbance resulting from the existing pathway and to possibly identify the location of the interior palisade line and assess the previous disturbances associated with CPT #2.

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Trench 1, a 1x3 meter test unit, was excavated to a depth of 30 centimeters below surface. Just northwest of Trench 1 is the partially excavated historic structure #18. No part of this structure was within the pathway project area. The southern end of the trench bisected a portion of the existing gravel walkway. Trench 1 contained predominately disturbed sediments with a mix of clay and gravel. Small pockets of brown loam and sandy loam were also encountered during excavation of Trench 1. Large boulders and cobbles were uncovered in the northern portion of Trench 1. A small area in the southern portion of Trench 1 was not excavated past Level 1 because of the potential to encounter a buried utility line that is located in that vicinity. One hundred forty-five artifacts were collected and cataloged from Trench 1 (Table 1). All items were collected from 10-30 centimeters below surface (Levels 2-3). Modern materials (e.g., aluminum foil, wire nails) were identified into Level 3 (20-30 centimeters below surface). The majority of historic items such as wrought and cut nails, beads, ceramics, and a tobacco pipe stem fragment were found in Level 3. This indicates that most of the historic archeological deposits within Trench 1 are mixed. However, excavators did notice small pockets of sediment between the large boulders that may have been undisturbed and contained small numbers of historic objects such as trade beads.

Trench 2 was located approximately 6 meters northwest of Trench 1 (Figure 13). Trench 2 was a 1x2 meter test unit that was excavated to a depth of 45 centimeters below surface. The upper 35 centimeters of sediment in this trench was a mix of very dark brown (10YR 2/2) sandy clay loam mixed with reddish brown (5YR 4/4) clay and small gravel. The lower 35 to 45 centimeters was predominately a sandy clay loam (10YR2/2) overlying and surrounding medium to large sized cobbles with a reddish brown clay (5YR 4/4) at the base of the cobbles (Figure 16a). The majority of historic “fur trade era” objects collected from Trench 2, including beads and whiteware, were found within small pockets of sandy clay loam between and surrounding the cobbles near the base of the trench. These may be small remnant pockets of original deposit that have not been previously disturbed or may represent the downward movement through time of the smaller sized artifacts from the upper deposits. The twenty-three artifacts collected from Trench 2 included five white glass beads, whiteware (1 blue transfer printed), flat glass, curved bottle glass, brick fragments, a cut nail, and a wire nail (Table 1).

In the central portion of Trench 1 and the southern portion of Trench 2 was a zone of mottled clay mixed with gravel that was devoid of the large cobbles found in the other areas of these trenches. This cobble free zone was interpreted as potentially the former trench for the interior palisade line CPT #2. However, the identification was inconclusive based on the limited area of excavation.

### *Trenches 3 and 7*

Although initially labeled a trench, Trench 3 was excavated as a 2 x 2 meter block, located north from the northwest corner of the Great Hall (Figure 13). While excavating Trench 3, complex deposits were discovered that relate to multiple past disturbances in

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this area. Evidence of disturbance was heavy in the upper portions of Trench 3 including large amounts of gravel mixed in the upper sediments. The eastern half of Trench 3 (Units 6 and 7) was excavated to a depth of 20 centimeters below surface. The western portion of Trench 3 (Units 8 and 9) was dug to 40 centimeters below surface. The upper 0-20 centimeters in Trench 3 contained dark brown (10YR 3/3) and dark grayish brown (10YR 3/2 and 10YR 4/2) sandy loam mixed with gravel, small to medium cobbles, pockets of clay, and a concentration of concrete in the northeast corner of the block. Remnants of a wood beam, oriented east-west, were uncovered at 20 centimeters below surface in the northern portion of the block (Figure 17). The portion of the wood beam, measuring 92 centimeters in length and between 8-17 centimeters in width, was interpreted as a remnant of the first reconstruction of the Interior Palisade. The western half of Trench 3 contained sandy clay mixed with small gravel to a depth of 40 centimeters below surface (Figure 16b). Excavations were halted at 40 centimeters below surface in the western portion and 20 centimeters below surface in the eastern half of Trench 3. Modern items such as plastic and wire nails were recovered from between 30-40 centimeters below surface demonstrating the disturbed nature of the deposits in Trench 3. The deposits excavated in Trench 3 reflect the archeological record surrounding the Great Hall and Interior Palisade have been grossly disturbed by previous excavations and reconstruction of the NW Company depot buildings. The excavation of Trench 3 yielded 295 artifacts (Table 1). The majority of items were curved glass (n = 156), flat glass (n = 40), and wire nails (n = 27). Other artifacts in small quantities included whiteware sherds (n = 3), kaolin tobacco pipe fragments (n = 6), cut nails, brick fragments, bone fragments, mortar, and a porcelain sherd (Table 1).

Trench 7 was located west of Trench 3 and on the north side of the gravel walkway (Figure 13). This was a 1x2 meter trench excavated to 20 (south half) and 30 (north half) centimeters below surface. Sediments throughout the excavation of Trench 7 were a dark grayish brown sandy clay loam mixed with gravel and small to large cobbles. Two large wood beams were found at 17 centimeters below surface in the northern portion of Trench 7 (Figure 18). The beams were laid side by side and oriented east-west. A small piece of wood with an embedded cut nail (cat. # GRPO 17412) was also found in the southwest quarter of Trench 7 (Figure 18). Numerous large cobbles were also uncovered throughout Trench 7. The wood beams and fragments from Trench 7 are interpreted as remnants from the earlier reconstruction of the Northwest Company depot that was destroyed in the late 1960s. One-hundred forty-five artifacts were collected from Trench 7. The most numerous item collected is curved glass fragments (n = 60), followed by wire nails, and flat glass (Table 1). Other artifacts collected in small quantities include whiteware sherds (blue transfer printed and undecorated), concrete fragments, cut nails, wrought nails, tobacco pipe fragments, flat glass, stoneware sherds, and one pearlware sherd (Table 1). The co-association of modern and historic artifacts throughout Trench 7 demonstrates the disturbed nature of the archeological deposits in this area.

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### Sewage Station Area

#### *Trenches 4-6*

Trenches 4-6 are located in the far southwest portion of the project area near the sewage lift station (Figure 13). These trenches were used to examine a landform that was thought to have potential for the presence of prehistoric archeological resources and to assess previous impacts such as the installation of the sewage lift station. Prehistoric site # 51 (Woolworth and Woolworth 1982) is located on a similar landform east of the Northwest Company depot which suggested that prehistoric materials may be located in the area of the lift station. However, Trenches 4-6 revealed no evidence of prehistoric activities in the area of the sewage lift station.

Deposits in Trenches 4-6 were characterized by shallow, dark brown to dark-grayish-brown sandy loam intermixed with small pockets of clay, small to large cobbles, and pieces of angular shale bedrock (Figure 16c). Excavations were halted in each trench when the bedrock or near bedrock shale was encountered at depths between 20 and 45 centimeters below surface. Evidence of previous disturbance in Trenches 4-6 was visible in the form of mixed sedimentary deposits and large amounts of angular shale mixed within the upper sediments.

Fifty-nine artifacts were collected from Trenches 4 and 6 (Table 1). No artifacts were collected from Trench 5. Artifacts include curved glass, brick fragments, concrete fragments, mortar fragments and one .30 caliber lead shot (Table 1). The most numerous items were curved glass and brick fragments (Table 1). Most of the items collected from Trenches 4 and 6 date to the early 20<sup>th</sup> century or later.

## 7. ARTIFACTS

This chapter presents a limited discussion of the archeological materials recovered during the 2006 testing program. Six hundred seventy-five artifacts were collected, analyzed, and cataloged as part of this project (Table 1). The majority of items offer minimal analytical value and likely post-dates the Fur Trade era activities at Grand Portage. Curved glass fragments (n = 301) made up nearly half the artifacts collected in 2006. Flat glass fragments (n = 60) and whiteware sherds (n = 44) had relatively higher counts than other classes of artifacts. Artifacts that can provide some chronological or unique information are presented below with additional narrative descriptions.

### Ammunition

One small caliber (.30 cal.) round ball was recovered from Trench 4 (Figure 19). Lead round ball of this caliber are described as buckshot or small bore pistol shot (Hunt 1989:393, 397). This type of ammunition would have been used with smooth bore musket, shotgun, or small pistol.

### Ornamentation

Fourteen glass beads were collected during the 2006 testing program. The beads are all typed as Monochrome, Cylindrical Undecorated, Hot-Tumbled Drawn as defined by Ross (2000:28-30). Ross (2000) separated the different bead varieties in this category by color and size. The 2006 collection contains twelve Variety 6 white beads and two Variety 137 blue beads (Figure 19). The white and blue trade beads were a popular trade item during the 19<sup>th</sup> century (Ross 2000:191) and presumably the 18<sup>th</sup> century as well.

One cuprous (brass or copper) tinkling cone was recovered from Trench 1 (Figure 19). Tinkling cones made from scraps of copper or brass cut from trade kettles were a common Native American modification of European trade materials. The cones would be fastened to clothing as items of adornment that would shimmer and rattle making a “tinkling” sound with the persons’ movement. Tinkling cones are a relatively common artifact found on fur trade era sites throughout the Great Lakes and Border Lakes regions (Birk and Richner 2004; Gilman 1984:94; Wagner 2001).

### Ceramics

Fifty historic ceramic sherds were collected from Shovel Test 4 and Trenches 1, 2, 3, and 7 (Table 1). The ceramic category includes pearlware, whiteware, stoneware, and porcelain vessel fragments. Twenty-eight whiteware and pearlware fragments were undecorated. Decorated sherds include blue transfer printed whiteware (n = 15), black glazed whiteware (n = 1), and annular ware (n = 1) (Figure 19, Table 1). All of the blue transfer printed whiteware sherds were too small in size to permit identification of the decorative pattern. The majority of ceramics recovered during the 2006 testing project

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post-date the Northwest Company post at Grand Portage, with the possible exception of the two small pearlware sherds, which may date to the late 18<sup>th</sup> and early 19<sup>th</sup> centuries (Majewski and O'Brien 1987).

### Nails

Nails are the most common construction-related items in the 2006 Pathways collection. One hundred twenty-two nails were collected from Shovel Test 4 and Trenches 1, 2, 3, and 7 (Table 1). Fifty-four nails are of machine-cut manufacture and four are hand wrought. Hand wrought nails are the predominate type of nails used for construction of the Northwest Company buildings at Grand Portage. Many of the machine-cut nails may relate to post-Northwest company construction activities since the manufacture of machine-cut nails did not become common until after the early 19<sup>th</sup> century (Wells 1998). There are sixty-three Late 19<sup>th</sup> - 20<sup>th</sup> century wire nails in the 2006 collection.

### Tobacco Pipes

Nine fragments of kaolin tobacco pipes were collected from Trenches 1, 3, and 7 (Table 1). Seven fragments are pipe stems and two are pipe bowl fragments. All the pipe fragments lacked evidence of decoration and were not readily assigned a definitive age estimate. Kaolin tobacco pipes are a common artifact on most Fur Trade era sites and were used into the late 19<sup>th</sup> century.

## **8. RECOMMENDATIONS AND CONCLUSIONS**

The new GRPO pathway was designed to follow previously disturbed areas and avoid any intact archeological resources. In addition, ground disturbance during path construction will be limited to the upper 6-12 inches of sediment. Based on the extensive level of previous excavations, Volf's 2002 geophysical inventory, and the 2006 testing project, it can be concluded that there are no significant archeological resources along the proposed area of potential effect (APE). Therefore, the construction of a handicapped accessible pathway from the new GRPO visitor center to the reconstructed Northwest Company Depot would not adversely impact any significant archeological resources. Additional archeological investigations are not recommended prior to the installation of the proposed pathway.

The 2006 Pathways testing program provided useful information on the level of previous disturbance within and surrounding the Northwest Company depot at Grand Portage. Historic and modern disturbance to the archeological record at GRPO has been extensive making information about fur trade activities inaccessible to contemporary and future generations. However, many archeological resources still exist within the park, including building remnants and other features, which may be used to provide additional information on the lives of the European and Native American inhabitants at Grand Portage. The extant archeological resources remaining relatively undisturbed at GRPO are enhanced and preserved by utilizing the kind of preparation and planning employed during the 2006 Pathways project. By focusing future developments on areas that have been grossly disturbed by past activities GRPO staff will ensure the preservation of the intact archeological resources at the park and make these resources available to future generations.

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## TABLES

Table 1. Artifacts collected during the 2006 Pathways Project.

Catalog #	Object	Description	Count	Within Site
GRPO 17355	BATTERY ROD FRAGMENT	carbon battery rod	1	"Trench 3, Unit 9, Level 2, 20-30 cm below surface, Field Specimen #21.010"
GRPO 17240	BEAD	"white glass bead, monochrome, cylindrical, undecorated, hot-tumbled, drawn bead (Ross 2000:108)"	1	"Trench 1, Unit 1, Level 3, 20-30 cm below surface, Field Specimen #6.003"
GRPO 17283	BEAD	"blue glass beads, monochrome, cylindrical, undecorated, hot-tumbled, drawn glass (Ross 2000:108)"	2	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.011"
GRPO 17285	BEAD	"white glass beads, monochrome, cylindrical, undecorated, hot-tumbled, drawn beads (Ross 2000:108)"	6	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.013"
GRPO 17300	BEAD	"white glass beads, monochrome, cylindrical, undecorated, hot tumbled, drawn beads (Ross 2000:108)"	5	"Trench 2, Unit 5, Level 4, 30-40 cm below surface, Field Specimen #11.002"
GRPO 17243	BOLT	ferrous metal bolt	1	"Trench 1, Unit 1, Level 3, 20-30 cm below surface, Field Specimen #6.006"
GRPO 17245	BONE FRAGMENT	"unidentified bone fragment, burned"	1	"Trench 1, Unit 2, Level 2, 14-20 cm below surface, Field Specimen #3.001"
GRPO 17261	BONE FRAGMENT	unidentified bone fragment	1	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.012"
GRPO 17281	BONE FRAGMENT	unidentified bone fragment	6	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.009"
GRPO 17327	BONE FRAGMENT	unidentified bone fragment	2	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.008"
GRPO 17428	BONE FRAGMENT	unidentified bone fragment	3	"Trench, 7 Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.004"
GRPO 17299	BRICK FRAGMENT	brick fragment	6	"Trench 2, Unit 5, Level 4, 30-40 cm below surface, Field Specimen #11.001"
GRPO 17312	BRICK FRAGMENT	brick fragment	1	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.008"
GRPO 17333	BRICK FRAGMENT	brick fragment	2	"Trench 3, Unit 8, Level 3, 20-30 cm below surface, Field Specimen #20.002"

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Table 1. Continued.

Catalog #	Object	Description	Count	Within Site
GRPO 17346	BRICK FRAGMENT	brick fragment	1	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.001"
GRPO 17365	BRICK FRAGMENT	brick fragment	3	"Trench 4, Unit 10, Level 2, 15-25 cm below surface, Field Specimen #22.001"
GRPO 17373	BRICK FRAGMENT	brick fragment	7	"Trench 4, Unit 11, Level 2, 10-20 cm below surface, Field Specimen #23.002"
GRPO 17375	BRICK FRAGMENT	brick fragment	4	"Trench 4, Unit 11, Level 3, 20-30 cm below surface, Field Specimen #24.002"
GRPO 17381	BRICK FRAGMENT	brick fragment	1	"Trench 6, Unit 15, Level 2, 10-20 cm below surface, Field Specimen #31.002"
GRPO 17382	BRICK FRAGMENT	brick fragment	1	"Trench 6, Unit 15, Level 3, 20-30 cm below surface, Field Specimen #34.001"
GRPO 17396	BRICK FRAGMENT	brick fragment	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.012"
GRPO 17326	CAN KEY	ferrous metal can key fragment	1	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.007"
GRPO 17353	CAN KEY	ferrous metal can key	1	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.008"
GRPO 17291	CARTRIDGE CASE	"brass cartridge case, .30 Luger, centerfire"	1	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.019"
GRPO 17330	CARTRIDGE CASE	"brass cartridge case, .22 rimfire, ""HI U..."""	1	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.011"
GRPO 17411	CHARCOAL	wood charcoal fragment	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.013"
GRPO 17345	COAL	coal	1	"Trench 3, Unit 9, Level 2, 10-20 cm below surface, Field Specimen #17.005"
GRPO 17368	CONCRETE FRAGMENT	concrete fragment	1	"Trench 4, Unit 10, Level 2, 15-25 cm below surface, Field Specimen #22.004"
GRPO 17397	CONCRETE FRAGMENT	concrete fragment	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.013"
GRPO 17406	CONCRETE FRAGMENT	concrete fragment	4	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.008"
GRPO 17418	CONCRETE FRAGMENT	concrete fragment	1	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.006"

**TABLES**

Table 1. Continued.

<b>Catalog #</b>	<b>Object</b>	<b>Description</b>	<b>Count</b>	<b>Within Site</b>
GRPO 17266	COPPER FRAGMENT	unidentified copper fragment	1	"Trench 1, Unit 3, Level 2, 10-20 cm below surface, Field Specimen #5.001"
GRPO 17244	CURVED GLASS	amber curved glass fragments including 1 embossed bottle base fragment and 7 body sherds	8	"Trench 1, Unit 1, Level 3, 20-30 cm below surface, Field Specimen #6.007"
GRPO 17246	CURVED GLASS	colorless curved glass body sherd	1	"Trench 1, Unit 2, Level 2, 14-20 cm below surface, Field Specimen #3.002"
GRPO 17247	CURVED GLASS	green curved glass body sherd	1	"Trench 1, Unit 2, Level 2, 14-20 cm below surface, Field Specimen #3.003"
GRPO 17256	CURVED GLASS	green curved glass body sherd	1	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.006"
GRPO 17257	CURVED GLASS	"amber curved glass including 4 body sherds, 1 of which is embossed"	4	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.007"
GRPO 17258	CURVED GLASS	amethyst curved glass body sherd	3	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.008"
GRPO 17259	CURVED GLASS	"colorless curved glass including 3 body sherds, 1 of which is embossed"	3	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.010"
GRPO 17267	CURVED GLASS	colorless curved glass fragment	1	"Trench 1, Unit 2, Level 2, 10-20 cm below surface, Field Specimen #5.002"
GRPO 17270	CURVED GLASS	amber curved glass body sherd	1	"Trench 1, Unit 3, Level 2, 10-20 cm below surface, Field Specimen #5.005"
GRPO 17273	CURVED GLASS	"amber curved glass including 1 finish fragment, and 13 body sherds, 1 of which is embossed ("NO...")"	14	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.001"
GRPO 17275	CURVED GLASS	amethyst curved glass body sherd	1	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.003"
GRPO 17276	CURVED GLASS	colorless curved glass body sherd	7	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.004"
GRPO 17284	CURVED GLASS	aqua curved glass body sherds	2	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.012"
GRPO 17293	CURVED GLASS	amber curved glass body sherd	1	"Trench 2, Unit 4, Level 3, 35-45 cm below surface, Field Specimen #7.002"
GRPO 17297	CURVED GLASS	colorless curved glass body sherd	1	"Trench 2, Unit 5, Level 2, 30 cm below surface, Field Specimen #8.001"

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Table 1. Continued.

Catalog #	Object	Description	Count	Within Site
GRPO 17303	CURVED GLASS	"amber curved glass body sherds including 1 embossed ("NO...")"	2	"Trench 3, Unit 6, Level 1, 0-10 cm below surface, Field Specimen #13.002"
GRPO 17309	CURVED GLASS	"amber curved glass including 1 finish fragment and 7 body sherds, 1 one of which is embossed ("NO D...")"	8	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.005"
GRPO 17311	CURVED GLASS	"colorless curved glass including 5 body sherds, 3 of which are embossed"	5	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.007"
GRPO 17314	CURVED GLASS	"amber curved glass fragments including 1 bottle base fragment and 1 body sherd, both of which are embossed"	2	"Trench 3, Unit 7, Level 1, 0-10 cm below surface, Field Specimen #12.001"
GRPO 17317	CURVED GLASS	"colorless curved glass body sherds, 1 of which is embossed surface, Field Specimen #12.004"	2	"Trench 3, Unit 7, Level 1, 0-10 cm below surface, Field Specimen #12.004"
GRPO 17323	CURVED GLASS	"colorless curved glass fragments including 11 body sherds, 3 of which are embossed"	11	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.004"
GRPO 17329	CURVED GLASS	"amber curved glass including 1 finish fragment, 2 bottle base fragments (1 is embossed), 1 Owens-Illi base fragment is embossed with "Duraglas," made by (7 are embossed)."	30	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.010"
GRPO 17332	CURVED GLASS	amber curved glass body sherd	1	"Trench 3, Unit 8, Level 3, 20-30 cm below surface, Field Specimen #20.001"
GRPO 17335	CURVED GLASS	green curved glass body sherd	1	"Trench 3, Unit 8, Level 4, 30-40 cm below surface, Field Specimen #32.001"
GRPO 17338	CURVED GLASS	colorless curved glass body sherd	7	"Trench 3, Unit 8, Level 4, 30-40 cm below surface, Field Specimen #32.004"
GRPO 17343	CURVED GLASS	"amber curved glass body sherds, 1 of which is embossed"	3	"Trench 3, Unit 9, Level 2, 10-20 cm below surface, Field Specimen #17.003"
GRPO 17347	CURVED GLASS	amber curved glass including 2 embossed bottle base fragments and 15 body sherds	17	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.002"
GRPO 17348	CURVED GLASS	colorless curved glass body sherd	10	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.003"

**TABLES**

Table 1. Continued.

<b>Catalog #</b>	<b>Object</b>	<b>Description</b>	<b>Count</b>	<b>Within Site</b>
GRPO 17360	CURVED GLASS	colorless curved glass body sherd	8	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.005"
GRPO 17364	CURVED GLASS	"amber curved glass including 2 bottle base fragments (both are embossed), 5 finish fragments, and embossed). 1 bottle base fragment is embossed with 42 body sherds (8 are Duraglas, made by the O"	49	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.009"
GRPO 17366	CURVED GLASS	colorless curved glass body sherd	1	"Trench 4, Unit 10, Level 2, 15-25 cm below surface, Field Specimen #22.002"
GRPO 17367	CURVED GLASS	amber curved glass including 1 bottle base fragment (embossed) and 7 body sherds (3 are embossed)	8	"Trench 4, Unit 10, Level 2, 15-25 cm below surface, Field Specimen #22.003"
GRPO 17369	CURVED GLASS	colorless curved glass body sherd	2	"Trench 4, Unit 10, Level 3, 25-35 cm below surface, Field Specimen #28.001"
GRPO 17370	CURVED GLASS	"amber curved glass body sherds, 1 embossed"	2	"Trench 4, Unit 10, Level 3, 25-35 cm below surface, Field Specimen #28.002"
GRPO 17371	CURVED GLASS	amber curved glass body sherd	3	"Trench 4, Unit 10, Level 4, 35-45 cm below surface, Field Specimen #27.001"
GRPO 17372	CURVED GLASS	amber curved glass body sherd	5	"Trench 4, Unit 11, Level 2, 10-20 cm below surface, Field Specimen #23.001"
GRPO 17377	CURVED GLASS	amber curved glass body sherd	1	"Trench 4, Unit 11, Level 3, 20-30 cm below surface, Field Specimen #24.001"
GRPO 17378	CURVED GLASS	amber curved glass body sherd	2	"Trench 6, Unit 14, Level 2, 10-20 cm below surface, Field Specimen #18.001"
GRPO 17379	CURVED GLASS	"amber curved glass body sherd, embossed"	1	"Trench 6, Unit 14, Level 3, 20-30 cm below surface, Field Specimen #29.001"
GRPO 17380	CURVED GLASS	"amber curved glass body sherds, 2 are embossed"	6	"Trench 6, Unit 15, Level 2, 10-20 cm below surface, Field Specimen #31.001"
GRPO 17383	CURVED GLASS	amber curved glass body sherd	4	"Trench 6, Unit 15, Level 3, 20-30 cm below surface, Field Specimen #34.002"
GRPO 17385	CURVED GLASS	colorless curved glass body sherds	3	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.001"

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Table 1. Continued.

Catalog #	Object	Description	Count	Within Site
GRPO 17386	CURVED GLASS	amber curved glass body sherds	3	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.002"
GRPO 17387	CURVED GLASS	aqua curved glass body sherd	2	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.003"
GRPO 17399	CURVED GLASS	colorless curved glass body sherd	9	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.001"
GRPO 17400	CURVED GLASS	amber curved glass body sherd	2	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.002"
GRPO 17419	CURVED GLASS	green curved glass body sherd	3	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.007"
GRPO 17420	CURVED GLASS	colorless curved glass including 1 bottle base fragment and 14 body sherds	15	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.008"
GRPO 17424	CURVED GLASS	amber curved glass including 3 bottle base fragments (2 are embossed) and 11 body sherds (2 are embossed). 1 bottle base fragment is embossed with the mark of the Owens-Illinois Glass Co. The mar	14	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.012"
GRPO 17427	CURVED GLASS	green curved glass bottle base fragment	1	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.003"
GRPO 17430	CURVED GLASS	amber curved glass body sherd	3	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.006"
GRPO 17433	CURVED GLASS	colorless curved glass including 1 embossed bottle base fragment and 4 body sherds	5	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.009"
GRPO 17440	CURVED GLASS	amber curved glass body sherd	1	"Shovel Test 17, 0-30 cm below surface, Field Specimen #16.001"
GRPO 17239	CUT NAIL	ferrous metal cut nail	1	"Trench 1, Unit 1, Level 3, 20-30 cm below surface, Field Specimen #6.002"
GRPO 17251	CUT NAIL	ferrous metal cut nail	4	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.001"
GRPO 17252	CUT NAIL	ferrous metal cut nail	2	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.002"

**TABLES**

Table 1. Continued.

<b>Catalog #</b>	<b>Object</b>	<b>Description</b>	<b>Count</b>	<b>Within Site</b>
GRPO 17272	CUT NAIL	ferrous metal cut nail	2	"Trench 1, Unit 3, Level 2, 10-20 cm below surface, Field Specimen #5.007"
GRPO 17288	CUT NAIL	ferrous metal cut nail fragment	6	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.016"
GRPO 17296	CUT NAIL	ferrous metal cut nail fragment	1	"Trench 2, Unit 5, Level 1, 25 cm below surface, Field Specimen #4.001"
GRPO 17313	CUT NAIL	ferrous metal cut nail	6	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.009"
GRPO 17328	CUT NAIL	ferrous metal cut nail	20	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.009"
GRPO 17337	CUT NAIL	ferrous metal cut nail	1	"Trench 3, Unit 8, Level 4, 30-40 cm below surface, Field Specimen #32.003"
GRPO 17352	CUT NAIL	ferrous metal cut nail fragment	2	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.007"
GRPO 17390	CUT NAIL	ferrous metal cut nail	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.006"
GRPO 17405	CUT NAIL	ferrous metal cut nail	6	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.007"
GRPO 17412	CUT NAIL	ferrous metal wrought nail	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, taken from wood in southwest corner, Field Specimen "
GRPO 17423	CUT NAIL	ferrous metal cut nail	1	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.011"
GRPO 17376	DEBITAGE	chert debitage	1	"Trench 4, Unit 11, Level 3, 20-30 cm below surface, Field Specimen #24.003"
GRPO 17363	FENCING STAPLE	ferrous metal fencing staple	1	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.008"
GRPO 17362	FERROUS METAL FRAGMENT	unidentified ferrous metal fragment	2	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.007"
GRPO 17389	FERROUS METAL FRAGMENT	unidentified ferrous metal fragment	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.005"
GRPO 17395	FERROUS METAL FRAGMENT	unidentified ferrous metal fragment	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.011"
GRPO 17429	FERROUS METAL FRAGMENT	unidentified ferrous metal fragment	5	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.005"

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Table 1. Continued.

Catalog #	Object	Description	Count	Within Site
GRPO 17250	FLAT GLASS	colorless flat glass fragment	2	"Trench 1, Unit 2, Level 2, 14-20 cm below surface, Field Specimen #3.006"
GRPO 17265	FLAT GLASS	colorless flat glass fragment	1	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.016"
GRPO 17268	FLAT GLASS	colorless flat glass fragment	4	"Trench 1, Unit 3, Level 2, 10-20 cm below surface, Field Specimen #5.003"
GRPO 17282	FLAT GLASS	colorless flat glass fragment	2	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.010"
GRPO 17294	FLAT GLASS	colorless flat glass fragment	1	"Trench 2, Unit 4, Level 3, 35-45 cm below surface, Field Specimen #7.003"
GRPO 17295	FLAT GLASS	aqua flat glass fragment	2	"Trench 2, Unit 4, Level 3, 35-45 cm below surface, Field Specimen #7.004"
GRPO 17306	FLAT GLASS	aqua flat glass fragment	2	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.002"
GRPO 17307	FLAT GLASS	colorless flat glass fragment	5	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.003"
GRPO 17325	FLAT GLASS	colorless flat glass fragment	11	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.006"
GRPO 17334	FLAT GLASS	colorless flat glass fragment	1	"Trench 3, Unit 8, Level 3, 20-30 cm below surface, Field Specimen #20.003"
GRPO 17336	FLAT GLASS	colorless flat glass	1	"Trench 3, Unit 8, Level 4, 30-40 cm below surface, Field Specimen #32.002"
GRPO 17339	FLAT GLASS	aqua flat glass fragment	2	"Trench 3, Unit 8, Level 4, 30-40 cm below surface, Field Specimen #32.005"
GRPO 17342	FLAT GLASS	colorless flat glass fragment	1	"Trench 3, Unit 9, Level 2, 10-20 cm below surface, Field Specimen #17.002"
GRPO 17349	FLAT GLASS	aqua flat glass fragment	4	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.004"
GRPO 17350	FLAT GLASS	colorless flat glass fragment	2	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.005"
GRPO 17357	FLAT GLASS	colorless flat glass fragment	11	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.002"
GRPO 17394	FLAT GLASS	colorless flat glass fragment	2	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.010"

TABLES

Table 1. Continued.

Catalog #	Object	Description	Count	Within Site
GRPO 17408	FLAT GLASS	colorless flat glass fragment	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.010"
GRPO 17413	FLAT GLASS	colorless flat glass fragment	2	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.001"
GRPO 17431	FLAT GLASS	colorless flat glass fragment	2	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.007"
GRPO 17438	FLAT GLASS	colorless flat glass fragment	1	"Shovel Test 4, 0-38 cm below surface, Field Specimen #2.002"
GRPO 17374	LEAD SHOT	"lead shot, Buckshot, type 1, .30 cal. shot for pistol or shot (Hunt 1989: 393-397)"	1	"Trench 4, Unit 11, Level 3, 20-30 cm below surface, Field Specimen #24.001"
GRPO 17435	LEATHER	leather fragment	1	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.011"
GRPO 17310	MORTAR FRAGMENT	"mortar fragment, mortar contains wood fragment"	1	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.006"
GRPO 17384	MORTAR FRAGMENT	mortar fragments	5	"Trench 6, Unit 15, Level 3, 20-30 cm below surface, Field Specimen #34.003"
GRPO 17260	NAIL	unidentified ferrous metal nail	1	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.011"
GRPO 17416	NON-FERROUS METAL FRAGMENT	non-ferrous metal fragment	1	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.004"
GRPO 17432	NON-FERROUS METAL FRAGMENT	non-ferrous metal fragment	1	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.008"
GRPO 17254	PEARLWARE	undecorated pearlware fragment	2	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.004"
GRPO 17404	PEARLWARE	undecorated pearlware fragment	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.006"
GRPO 17356	PLASTIC FRAGMENT	brown plastic fragments 4 embossed fragments	4	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.001"
GRPO 17316	PORCELAIN	undecorated porcelain fragment	1	"Trench 3, Unit 7, Level 1, 0-10 cm below surface, Field Specimen #12.003"
GRPO 17315	RING	"faux ruby and setting, plastic ruby set in non-ferrous metal setting, ring is missing band"	1	"Trench 3, Unit 7, Level 1, 0-10 cm below surface, Field Specimen #12.002"
GRPO 17341	ROCK	red pebble	1	"Trench 3, Unit 9, Level 2, 10-20 cm below surface, Field Specimen #17.001"

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Table 1. Continued.

Catalog #	Object	Description	Count	Within Site
GRPO 17274	RUBBER FRAGMENT	unidentified rubber fragment	1	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.002"
GRPO 17410	STONEWARE	stoneware fragment	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.012"
GRPO 17417	STONEWARE	stoneware fragment	1	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.005"
GRPO 17304	TERRA COTTA FRAGMENT	terra cotta fragment	7	"Trench 3, Unit 6, Level 1, 0-10 cm below surface, Field Specimen #13.003"
GRPO 17388	TERRA COTTA FRAGMENT	terra cotta fragment	2	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.004"
GRPO 17241	TINKLING CONE	copper tinkling cone	1	"Trench 1, Unit 1, Level 3, 20-30 cm below surface, Field Specimen #6.004"
GRPO 17287	TOBACCO PIPE FRAGMENT	tobacco pipe stem fragment	1	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.015"
GRPO 17308	TOBACCO PIPE FRAGMENT	tobacco pipe bowl fragment	1	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.004"
GRPO 17340	TOBACCO PIPE FRAGMENT	tobacco pipe stem fragment	1	"Trench 3, Unit 8, Level 4, 30-40 cm below surface, Field Specimen #32.006"
GRPO 17344	TOBACCO PIPE FRAGMENT	tobacco pipe stem fragment	2	"Trench 3, Unit 9, Level 2, 10-20 cm below surface, Field Specimen #17.004"
GRPO 17351	TOBACCO PIPE FRAGMENT	tobacco pipe stem fragment	1	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.006"
GRPO 17358	TOBACCO PIPE FRAGMENT	tobacco pipe stem fragment	1	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.003"
GRPO 17391	TOBACCO PIPE FRAGMENT	tobacco pipe stem fragment	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.007"
GRPO 17401	TOBACCO PIPE FRAGMENT	"pipe bowl fragment, burned"	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.003"
GRPO 17264	UNIDENTIFIED FERROUS METAL FRAGMENT	unidentified ferrous metal fragment	9	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.015"
GRPO 17289	UNIDENTIFIED FERROUS METAL FRAGMENT	unidentified ferrous metal fragment	1	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.017"

**TABLES**

Table 1. Continued.

<b>Catalog #</b>	<b>Object</b>	<b>Description</b>	<b>Count</b>	<b>Within Site</b>
GRPO 17277	UNIDENTIFIED NON-FERROUS METAL FRAG	unidentified non-ferrous metal object	1	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.005"
GRPO 17280	UNIDENTIFIED NON-FERROUS METAL FRAG	unidentified non-ferrous metal fragment	5	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.008"
GRPO 17248	WHITEWARE	blue transfer print white ware fragment	2	"Trench 1, Unit 2, Level 2, 14-20 cm below surface, Field Specimen #3.004"
GRPO 17249	WHITEWARE	undecorated white ware fragment	1	"Trench 1, Unit 2, Level 2, 14-20 cm below surface, Field Specimen #3.005"
GRPO 17255	WHITEWARE	undecorated white ware fragment	5	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.005"
GRPO 17262	WHITEWARE	undecorated white ware fragment	5	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.013"
GRPO 17263	WHITEWARE	blue transfer print white ware fragment	2	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.014"
GRPO 17271	WHITEWARE	undecorated white ware fragment	1	"Trench 1, Unit 3, Level 2, 10-20 cm below surface, Field Specimen #5.006"
GRPO 17278	WHITEWARE	"unknown decoration white ware fragments, 1 black glaze white ware fragment"	3	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.006"
GRPO 17279	WHITEWARE	blue transfer print white ware fragment	1	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.007"
GRPO 17286	WHITEWARE	undecorated white ware fragment	5	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.014"
GRPO 17298	WHITEWARE	blue transfer print white ware fragment	1	"Trench 2, Unit 5, Level 2, 30 cm below surface, Field Specimen #8.002"
GRPO 17301	WHITEWARE	undecorated white ware fragment	3	"Trench 2, Unit 5, Level 4, 30-40 cm below surface, Field Specimen #11.003"
GRPO 17322	WHITEWARE	undecorated white ware fragment	1	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.003"
GRPO 17324	WHITEWARE	blue transfer print white ware fragment	1	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.005"
GRPO 17359	WHITEWARE	annular white ware fragment	1	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.004"
GRPO 17392	WHITEWARE	undecorated white ware fragment	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.008"

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Table 1. Continued.

Catalog #	Object	Description	Count	Within Site
GRPO 17393	WHITEWARE	blue transfer print whiteware fragment	1	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.009"
GRPO 17403	WHITEWARE	blue transfer print whiteware fragment	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.005"
GRPO 17414	WHITEWARE	blue transfer print whiteware fragment	1	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.002"
GRPO 17425	WHITEWARE	blue transfer print whiteware fragment	5	"Trench 7 Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.001"
GRPO 17426	WHITEWARE	undecorated whiteware fragment	2	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.002"
GRPO 17439	WHITEWARE	undecorated whiteware fragment	1	"Shovel Test 4, 0-30 cm below surface, Field Specimen #2.003"
GRPO 17361	WIRE	ferrous metal wire fragment	1	"Trench 3, Unit 9, Level 4, 30-40 cm below surface, Field Specimen #30.006"
GRPO 17407	WIRE	ferrous metal wire fragment	2	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.009"
GRPO 17415	WIRE	ferrous metal wire fragment	1	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.003"
GRPO 17436	WIRE	ferrous metal wire fragment	1	"Shovel Test 2, 0-28 cm below surface, Field Specimen #1.001"
GRPO 17238	WIRE NAIL	ferrous metal wire nail	1	"Trench 1, Unit 1, Level 3, 20-30 cm below surface, Field Specimen #6.001"
GRPO 17242	WIRE NAIL	ferrous metal wire nail	1	"Trench 1, Unit 1, Level 3, 20-30 cm below surface, Field Specimen #6.005"
GRPO 17269	WIRE NAIL	ferrous metal wire nail	1	"Trench 1, Unit 3, Level 2, 10-20 cm below surface, Field Specimen #5.004"
GRPO 17290	WIRE NAIL	ferrous metal wire nail	3	"Trench 1, Unit 3, Level 3, 20-30 cm below surface, Field Specimen #10.018"
GRPO 17292	WIRE NAIL	ferrous metal wire nail	2	"Trench 2, Unit 4, Level 3, 35-45 cm below surface, Field Specimen #7.001"
GRPO 17302	WIRE NAIL	ferrous metal wire nail	1	"Trench 3, Unit 6, Level 1, 0-10 cm below surface, Field Specimen #13.001"
GRPO 17305	WIRE NAIL	ferrous metal wire nail	3	"Trench 3, Unit 6, Level 2, 10-20 cm below surface, Field Specimen #15.001"
GRPO 17318	WIRE NAIL	ferrous metal wire nail	6	"Trench 3, Unit 7, Level 1, 0-10 cm below surface, Field Specimen #12.005"

**TABLES**

Table 1. Concluded.

<b>Catalog #</b>	<b>Object</b>	<b>Description</b>	<b>Count</b>	<b>Within Site</b>
GRPO 17320	WIRE NAIL	ferrous metal wire nail	4	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.001"
GRPO 17321	WIRE NAIL	ferrous metal wire nail	4	"Trench 3, Unit 7, Level 2, 10-20 cm below surface, Field Specimen #14.002"
GRPO 17331	WIRE NAIL	ferrous metal wire nail	2	"Trench 3, Unit 8, Level 2, 10-20 cm below surface, Field Specimen #19.001"
GRPO 17354	WIRE NAIL	ferrous metal wire nail	7	"Trench 3, Unit 9, Level 3, 20-30 cm below surface, Field Specimen #21.009"
GRPO 17398	WIRE NAIL	ferrous metal wire nail	10	"Trench 7, Unit 16, Level 1, 0-10 cm below surface, Field Specimen #26.013"
GRPO 17409	WIRE NAIL	ferrous metal wire nail	5	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.011"
GRPO 17421	WIRE NAIL	ferrous metal wire nail	9	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.009"
GRPO 17434	WIRE NAIL	ferrous metal wire nail	3	"Trench 7, Unit 17, Level 2, 10-20 cm below surface, Field Specimen #25.010"
GRPO 17437	WIRE NAIL	ferrous metal wire nail	1	"Shovel Test 4, 0-38 cm below surface, Field Specimen #2.001"
GRPO 17319	WOOD FRAGMENT	wood fragment	4	"Trench 3, Unit 7, Level 1, 0-10 cm below surface, Field Specimen #12.006"
GRPO 17253	WROUGHT NAIL	ferrous metal wrought nail	1	"Trench 1, Unit 2, Level 3, 20-30 cm below surface, Field Specimen #9.003"
GRPO 17402	WROUGHT NAIL	ferrous metal wrought nail	1	"Trench 7, Unit 16, Level 2, 10-20 cm below surface, Field Specimen #33.004"
GRPO 17422	WROUGHT NAIL	ferrous metal wrought nail	2	"Trench 7, Unit 17, Level 1, 0-10 cm below surface, Field Specimen #35.010"

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**Figure 2.** Routes of ADA compliant pathways connecting the new GRPO Heritage Center and the reconstructed NW Company Depot.



Proposed pathway segments

- Partially disturbed by 1970s kitchen excavations and 1989 kitchen drainage
- Partial disturbance from 1970s warehouse and water/sewerline excavations
- Potential disturbance from 1914 road and 1970s water/sewer line excavations
- Heavily disturbed by 1930s excavation and reconstruction of interior palisade
- Heavily disturbed by 1970s water/sewer line excavations

Utility Corridors

- Kitchen drain, 1989
- Water/sewer line, 1970s
- Fire suppression line, 2004

**Figure 3.** Illustration depicting areas of estimated previous disturbance along the pathway routes.



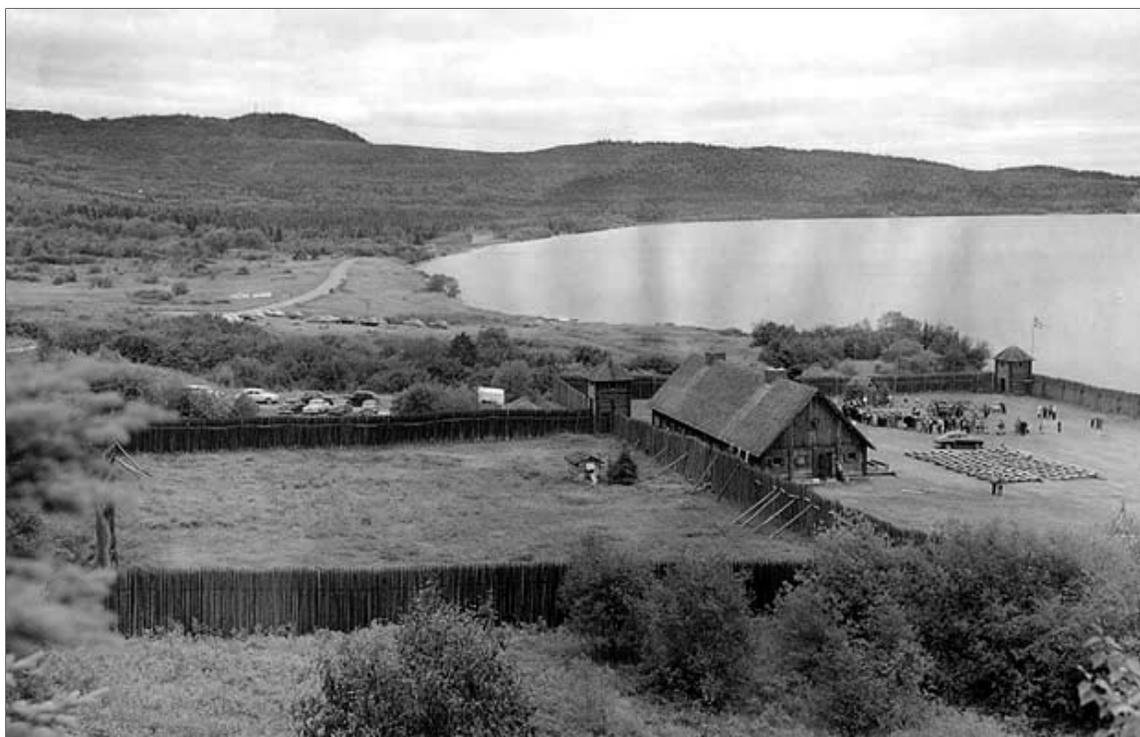


**Figure 5.** Excavation of the exterior and interior palisade lines prior to the 1938 reconstruction of the GRPO Depot.



**Figure 6.** First reconstruction of the GRPO Depot (note bracing along palisade walls).

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**Figure 7.** Photograph of 1930s reconstruction showing support bracing along interior palisade wall.



**Figure 8.** Photograph of GRPO Depot prior to 1969 fire but without the interior palisade wall.



Figure 9. Map showing the locations of previous archeological investigations within and surrounding the GRPO Depot.

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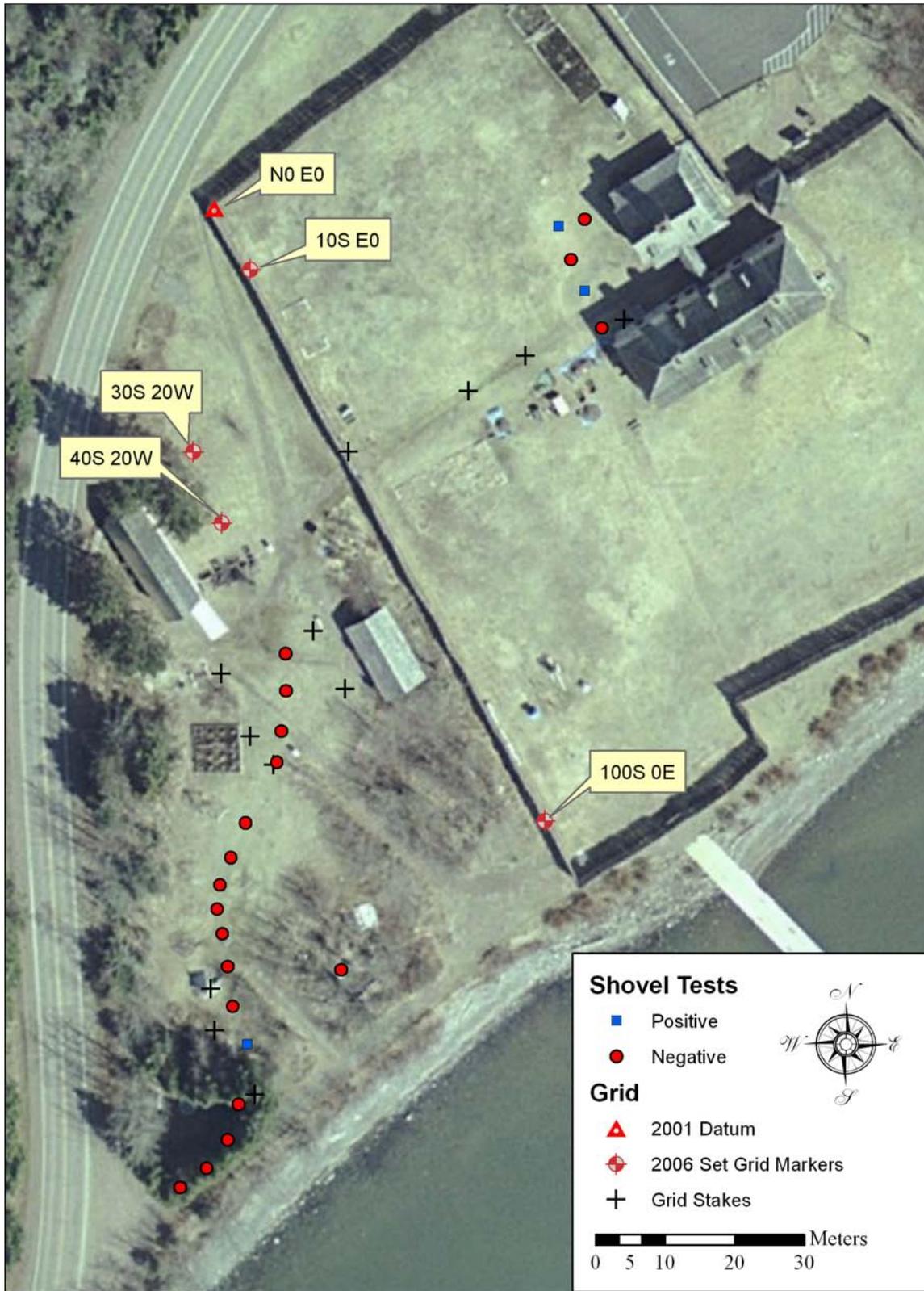


Figure 10. Map of 2006 grid markers and shovel tests.



Figure 11. MWAC technician setting up Sokkia Total Station outside the Depot palisade.



Figure 12. MWAC technician excavating Trench 1.

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Figure 13. Map and inset depicting the locations of the 2006 test units excavated within the GRPO Depot and near the sewage lift station.

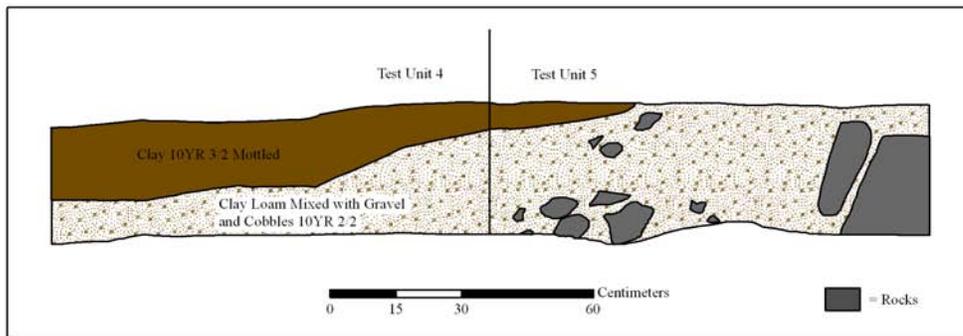


Figure 14. Overview of excavated Trenches 2, 1, 3 (in order from closest to furthest from view).

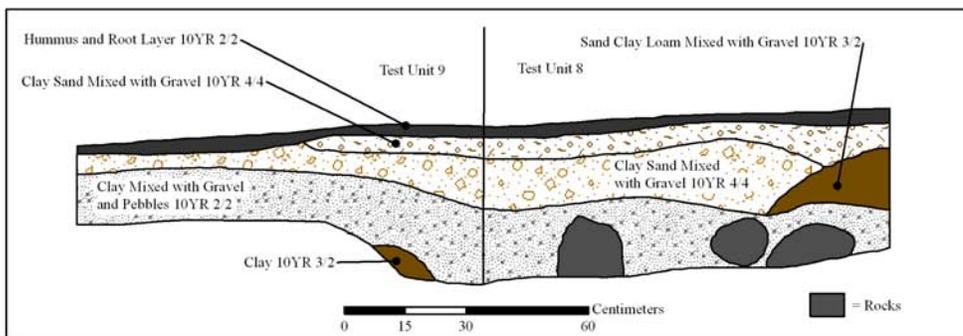


Figure 15. MWAC technician and GRPO volunteer excavating Trench 5.

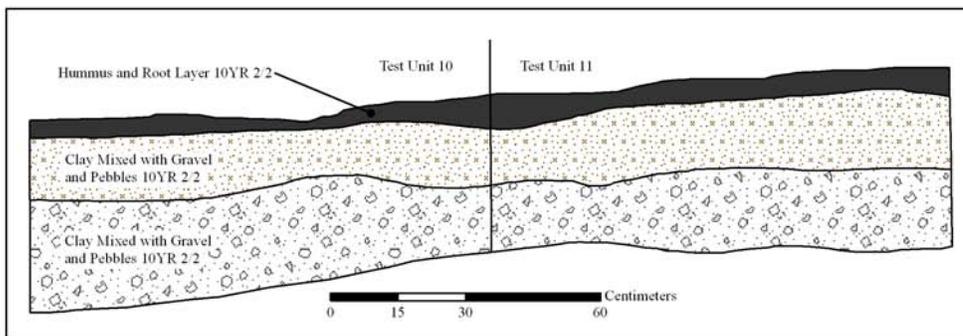
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(A) Trench 2, Test Units 4-5, West Profile



(B) Trench 3, Test Units 8-9, West Profile



(C) Trench 4, Test Units 10-11, West Profile

Figure 16 (a-c). Profiles from trenches excavated during the 2006 testing phase.



**Figure 17.** Photograph of Trench 3 depicting modern wood timbers uncovered during the 2006 testing near the reconstructed Great Hall.



**Figure 18.** Photograph of Trench 7 showing modern wood timbers uncovered during the 2006 testing near the Great Hall.

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Figure 19. Diagnostic artifacts collected during the 2006 GRPO pathways investigations.