G.2	Phase 1B Cultural Resource Investigation



New York Branch 2390 Clinton Street Buffalo, NY 14227

Tel: (716) 821-1650 Fax: (716) 821-1607

Alabama Branch 2301 Paul Bryant Drive Tuscaloosa, AL 35401 Tel: (205) 556-3096

Tennessee Branch 91 Tillman Street Memphis, TN 38111 Tel: (901) 454-4733

Fax: (205) 556-1144

Tel: (901) 454-4733 Fax: (901) 454-4736

Corporate Headquarters P.O. Box 20884 Tuscaloosa, AL 35402 Tel: (205) 248-8767 Fax: (205) 248-8739

PHASE 1B CULTURAL RESOURCES INVESTIGATION FOR THE PHASES I-IV PRELIMINARY DESIGN AND DESIGN APPROVAL DOCUMENT

NIAGARA GORGE CORRIDOR -- ROBERT MOSES PARKWAY REMOVAL PROJECT, MAIN STREET TO FINDLAY DRIVE, NIAGARA FALLS, NEW YORK

PIN 5757.121 (OPRHP Project Review 15PR04311)

Prepared for:

New York State Office of Parks, Recreation and Historic Preservation Division of Historic Preservation Peebles Island State Park P.O. Box 189 Waterford, New York 12188

Under contract to:

Parsons Transportation Group of New York, Inc. 40 LaRiviere Drive, Suite 350 Buffalo, New York 14202

Sponsored by:

The New York Power Authority
The New York State Department of Transportation
The Federal Highway Administration
Empire State Development Corporation—USA Niagara
The City of Niagara Falls

Prepared by:

Panamerican Consultants, Inc. 2390 Clinton Street Buffalo, New York 14227-1735 (716) 821-1650

April 2016

PHASE 1B CULTURAL RESOURCES INVESTIGATION FOR THE PHASES I-IV PRELIMINARY DESIGN AND DESIGN APPROVAL DOCUMENT

FOR THE NIAGARA GORGE CORRIDOR - ROBERT MOSES
PARKWAY REMOVAL PROJECT, MAIN STREET TO FINDLAY DRIVE,
CITY OF NIAGARA FALLS, NIAGARA COUNTY, NEW YORK

PIN 5757.121 (OPRHP Project Review 15PR04311)

Prepared for:

New York State Office of Parks, Recreation and Historic Preservation
Division of Historic Preservation
Peebles Island State Park
P.O. Box 189
Waterford, New York 12188

Under contract to:

Parsons Transportation Group of New York, Inc. 40 LaRiviere Drive, Suite 350 Buffalo, New York 14202

Sponsored by:

The New York Power Authority
The New York State Department of Transportation
The Federal Highway Administration
Empire State Development Corporation—USA Niagara
The City of Niagara Falls

Prepared by:

Donald Smith, Ph.D., RPA, Senior Archaeologist/Co-Principal Investigator Frank J. Schieppati, Ph.D., RPA, Co-Principal Investigator/Project Manager Mark A. Steinback, M.A., Senior Historian

Panamerican Consultants, Inc. 2390 Clinton Street Buffalo, New York 14227-1735 (716) 821-1650

April 2016

Management Summary

PIN/BIN: PIN 5757.121

SHPO Project Review Number: 15PR04311

DOT PROJECT TYPE AND FUNDING: Originally a Federal/State-funded Public Scoping Process completed in 2013; currently a New York Power Authority (NYPA) funded Design Report/Environmental Assessment (DR/EA) process; final design and construction phases funding from a combination of NYPA and State Parks sources.

CULTURAL RESOURCE SURVEY TYPE: Phase 1B Cultural Resources Survey

LOCATION:

Route: Robert Moses Parkway – North Segment Minor Civil Division: City of Niagara Falls (MCD 06340)

County: Niagara

SURVEY AREA:

Study Area: Eight Survey Areas totaling 4.4 acres

U.S.G.S. 7.5' MINUTE QUADRANGLE MAP: Niagara Falls, NY-Ont. 1995

Archaeological Survey Overview

Number & Interval of Shovel Test Pits (STP): 184 STPs at 10-m (50-ft) intervals

Results of Archaeological Survey

Number & name of prehistoric sites identified: None
Number & name of historic sites identified: None

Number and name of sites recommended for Phase II/Avoidance: None

Results of Architectural Survey

(see Phase 1A investigation [Steinback et al. 2015])

AUTHOR/INSTITUTION: Panamerican Consultants, Inc., 2390 Clinton Street, Buffalo, New

York 14227

Report Author(s): D. Smith, F. J. Schieppati, and M.A. Steinback

DATE: April 2016

Table of Contents

Man	agem	nent Summaryuresures	ii
List	of Pho	otographs	\
1.0		duction	
		Project Description Phase 1A Investigation Summary	
2.0		se 1B Field Investigation	
	2.1 2.2	Methodology Results of the Field Investigation	2-1
3.0	Conc	clusions and Recommendations	3-1
4.0	Refe	rences	4-1
	Appen	es ndix A. Photographs ndix B. Shovel Test Log ndix C. Artifact Catalog	

List of Figures

FIGUE	RE	PAGE
1.1	Location of the project study area in the City of Niagara Falls, Niagara County, New York	. 1-2
1.2	Location of the Phase 1B archaeological survey areas in the City of Niagara Falls, Niagara County, New York	. 1-3
1.3	Southern archaeological survey areas depicted on a recent aerial photograph	. 1-6
1.4	Northern archaeological survey areas depicted on a recent aerial photograph	. 1-7
2.1	Survey Area 1 showing shovel test pits and photograph locations and directions	. 2-2
2.2	Large brick fragment with a maker's mark reading "KUSHEQUA" from Survey Area 1 STP 2.5	. 2-3
2.3	Survey Area 2 showing shovel test pits and photograph locations and directions	. 2-5
2.4	Survey Area 3 showing shovel test pits and photograph locations and directions	. 2-6
2.5	Survey Area 4 showing shovel test pits and photograph locations and directions	. 2-8
2.6	Survey Areas 5 and 6 showing shovel test pits and photograph locations and directions	2-10
2.7	Survey Area 7 showing shovel test pits and photograph locations and directions	2-12
2.8	Survey Area 8 showing shovel test pits and photograph locations and directions	2-15

List of Photographs

PHO	DTOGRAPH	PAGE
1	The western portion of Survey Area 1, facing northeast	A-2
2	Open space in the part of Survey Area 1 west of Third Street, facing northwest	A-2
3	Typical vegetation and surface conditions in the northern part of Survey Area 1, facing north	
4	The southern half of Survey Area 2 from near STP 5.4, facing southwest	A-3
5	Survey Area 2 from the west side of the Robert Moses Parkway, facing northeast	A-4
6	Standing water and wet surface conditions in the northern portion of Survey Area 2, facing south	
7	Survey Area 3 from its north end, facing south	A-5
8	Storm drain opening in Survey Area 3, facing southeast	A-5
9	Steep terrain and asphalt-paved roads in the eastern half of Survey Area 4, facing south	
10	Utilities, guardrails, and paved surfaces in Survey Area 4, facing northwest	A-6
11	Surface conditions in the south portion of Survey Area 4, facing southeast	A-7
12	Surface conditions in the eastern part of Survey Area 5, facing northwest	A-7
13	Surface conditions in the western part of Survey Area 5, facing southeast	A-8
14	Pylons and concrete-block paved surface beneath the Robert Moses Parkway in Survey Area 5, facing northeast	
15	Surface conditions in Survey Area 6 west of the Robert Moses Parkway, facing southeast	A-9
16	Surface conditions in the part of Survey Area 6 east of the Robert Moses Parkway, facing northwest	A-9
17	Survey Area 7 from the northwest, facing southeast	.A-10
18	Survey Area 7 from the southwest, facing northeast	.A-10
19	Survey Area 8 from the north, facing south	.A-11
20	Steep terrain and Robert Moses Parkway shoulder along the southwest edge of Survey Area 8, facing southeast	

21	Probable southwes	unimproved t	access	road	in 	the	northern	part	of	Survey	Area	8,	facing	A-12

1.0 Introduction

1.1 PROJECT DESCRIPTION

Panamerican Consultants, Inc., was contracted by Parsons Transportation Group of New York, Inc., Buffalo, New York, to conduct a Phase 1B cultural resources investigation for the Niagara Gorge Corridor -- Robert Moses Parkway (RMP) Removal Project, Main Street to Findlay Drive, Niagara Falls, New York (Figures 1.1 and 1.2). Project sponsors include the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), Empire State Development Corporation—USA Niagara Development Corporation, the City of Niagara Falls, the Federal Highway Administration (FHWA), the New York State Department of Transportation (NYSDOT), and the New York Power Authority (NYPA). Major components of the proposed construction project include:

- Removal of the RMP (i.e., all vehicular lanes, former vehicular lanes used for the RMP Trail, the Whirlpool Bridge Plaza overpass, and all other RMP interchange/accessory facilities) from Main Street (NYS Rte 104) to Findlay Drive, a distance of approximately two miles;
- Reconstruction of Whirlpool Street from Main Street to Walnut Avenue and from Cedar Avenue to Findlay Drive as an at-grade, two-lane, 30-MPH road to accommodate north-south vehicular and potential future bus access, and removal of Whirlpool Street from Cedar Avenue to Walnut Avenue;
- Restoration of the landscape/habitat on reclaimed lands along the Niagara Gorge rim with native species; and
- Construction of a pedestrian/bicycle trail network along the Gorge rim that connects to other trail systems and adjoining neighborhoods;
- Incorporation of amenities associated with the above improvements in the project corridor.

The purpose of the Phase 1B investigation was to determine the presence of previously unrecorded cultural resources that may be eligible for listing in the New York State and National Registers of Historic Places (S/NRHP). This Phase 1B cultural resources investigation involved fieldwork primarily consisting of subsurface shovel testing and reconnaissance. The field investigation was conducted during mid-March 2016. Senior Archaeologist Dr. Donald Smith, RPA, served as field director. Dr. Frank J. Schieppati, RPA, served as project director and principal investigator.

The study limits as shown in Figure 1.1 do not represent the area of potential effect (APE). This broader area (approximately 268 acres) was used for the studies conducted in support of the Environmental Assessment. For this larger study area, Phase 1A background research and an architectural reconnaissance survey (Steinback et al. 2015) were conducted. Ground-disturbing construction activities which represent the project's direct APE is much smaller and will be generally restricted to Third and Whirlpool streets and areas west of Whirlpool Street to the Niagara Gorge, approximately 76 acres (see Figure 1.2). The removal of two miles of the Robert Moses Parkway between Main Street and Findlay Drive, the reconstruction and westward

relocation of Whirlpool Street and the construction of paved multi-use trails in previously undisturbed areas are the primary activities which have the potential to affect prehistoric/precontact and historic archaeological sites. Thus, archaeological sensitivity was estimated for the direct APE only, and is based on the presence of known sites, topography and environment, the extent and severity of previous disturbance, and, for historic period sensitivity, the presence of map-documented structures (MDSs). MDSs are buildings depicted on historic maps but no longer exist. Early structures that are still standing may have important archaeological components but they are not MDSs. As a result, the Phase 1B investigation focused on eight areas totaling 4.4 acres suspected to be sensitive for the presence of cultural resources (see Figure 1.2).

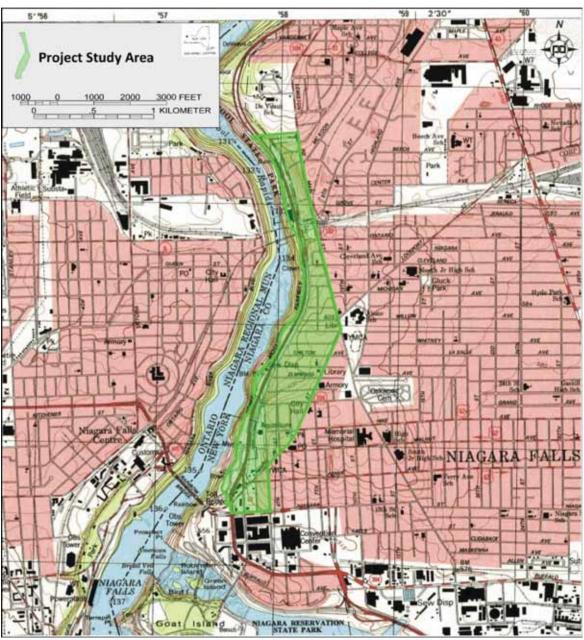


Figure 1.1. Location of the project study area in the City of Niagara Falls, Niagara County, New York (USGS 7.5' quadrangle, Niagara Falls, NY-Ont. 1995).

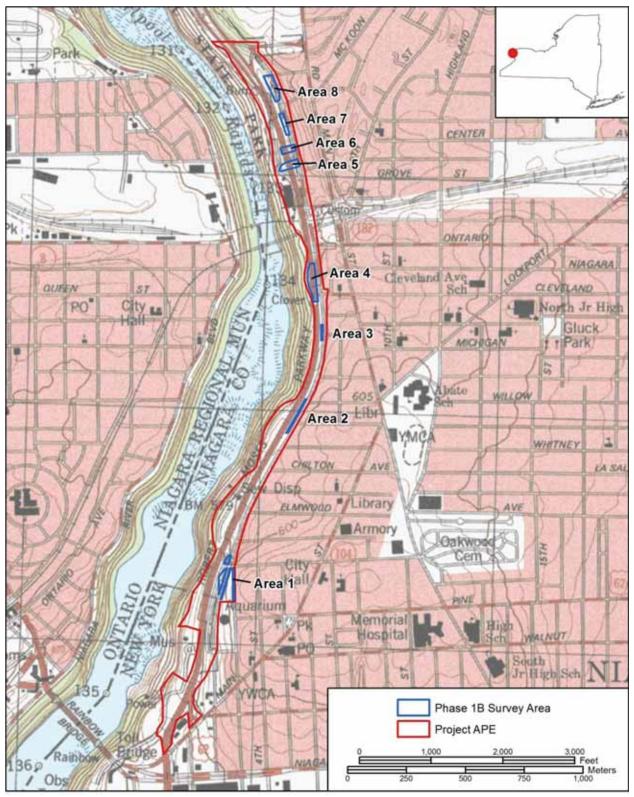


Figure 1.2. Location of the Phase 1B archaeological survey areas in the City of Niagara Falls, Niagara County, New York (USGS 7.5' quadrangle, Niagara Falls, NY-Ont. 1995).

This Phase 1B cultural resources investigation was conducted in compliance with:

- The requirements for the protection of the nation's cultural resources as mandated by Section 106 of the National Historic Preservation Act of 1966, the amended Procedures for Historic and Cultural Properties as set forth in 36 CFR Part 800 and associated guidance, the National Environmental Policy Act of 1969, Executive Order 11593, the Archaeological and Historic Preservation Act of 1974, the New York State Historic Preservation Act, the New York State Environmental Quality Review Act,
- The current New York State Education Department Cultural Resources Survey Program Work Scope Specifications for Cultural Resource Investigations on New York State Department of Transportation Projects (New York State Museum 2004).
- The current Cultural Resource Survey Report format as well as the New York Archaeological Council's *Standards for Archaeological Investigations* (NYAC 2000) and New York State Historic Preservation Office (NYSHPO) guidelines.

All project staff performing or supervising cultural resource survey work qualify under the appropriate professional qualification standards set forth in the Secretary of the Interior's Professional Qualification Standards (48 CFR Part 44738-9).

1.2 PHASE 1A INVESTIGATION SUMMARY

Phase 1A background research results (Steinback et al. 2015) indicated that the project area would be considered sensitive for both prehistoric and historic archaeological sites if the location had not been so severely disturbed by previous industrial use. There are a number of known historic archaeological sites within or adjacent to the APE as well as several areas that are sensitive for the presence of historic period archaeological deposits.

The Phase 1A survey identified 414 architectural resources in the larger study area, and no architectural resources in the direct APE. The breakdown of resources in the larger Project study area includes the following: 399 buildings (inclusive of complexes), four structures greater than 50 years old, nine buildings/structures less than 50 years old, one state park, and one parkway. The Niagara Reservation/State Park (90NR01961) is a National Historic Landmark that includes part of the Robert Moses Parkway.

Three State/National Register Listed Individual properties and two State/National Register Listed Historic Districts are in the larger Project study area:

- Old Customs House (90NR01962), 2245 Whirlpool Street
- Niagara Falls Public Library/Carnegie Building (90NR01965), 1022 Main Street
- James G. Marshall House (04NR000709) 740 Park Place
- Park Place Historic District (10NR06113)
- Chilton Avenue-Orchard Parkway Historic District (10NR06119)

The National Register Listed (NRL) Old Customs House (90NR01962) at 2245 Whirlpool Street abuts the direct APE. The Old Customs House does not have a setback from the street. Its east façade and south lawn border the existing concrete sidewalk. Four properties (contributing)

located in two NRL Historic Districts have associated property in or adjacent to the proposed road reconstruction along Whirlpool Street.

A total of 39 individual State/National Register Eligible (S/NRE) historic resources are in the larger study area. Four contributing resources in the NRL Chilton Avenue-Orchard Parkway Historic District have associated property adjacent to the proposed road reconstruction along Whirlpool Street—605 Chilton Avenue; 614 Chilton Avenue; 609 Orchard Parkway (Henry Wasnide House); and, 620 Orchard Parkway (Herman Hain House). Three S/NRE properties are within the APE: Whirlpool Rapids Bridge; Michigan Central Railroad Bridge; and Aquarium of Niagara at 701 Whirlpool Street.

The Phase 1A recommended that if the depth of disturbance resulting from the reconstruction of Whirlpool Street does not exceed the original construction depth, there should be no concerns regarding that part of the project. If the vertical APE exceeds the present disturbance, measures may need to be taken based on consultation and may include construction monitoring. To address the relocation of portions of Whirlpool Street to the west, it is recommended that shovel testing be conducted in sensitive areas along the west side of the street, where feasible. It is also recommended that sensitive portions of the APE also be shovel tested to address the impacts of trail construction, removal of the parkway overpass over the Whirlpool Bridge and landscaping. The original parkway construction was highly destructive and was built largely on a rail bed with multiple tracks. As a result of this prior disturbance and the natural shallowness of the soil, no archaeological testing is recommended for the area occupied by the parkway. Mechanical trenching may be undertaken if the shovel testing indicates the need. Subsequently it was determined that eight areas would be subject Phase 1B archaeological investigation (see Figures 1.3 and 1.4)

No National Register Listed or Eligible buildings will be directly affected by the proposed project. No additional architectural survey work was recommended in the Phase 1A. The railroad bridge over Whirlpool Street that is part of the approach to the unused rail bridge over the gorge will be removed as part of the project. The NYSHPO has determined that the bridge over Whirlpool Street is not eligible for listing in the S/NRHP and is no longer of concern.



Figure 1.3. Southern archaeological survey areas depicted on a recent aerial photograph (after Google 2014).



Figure 1.4. Northern archaeological survey areas depicted on a recent aerial photograph (after Google 2014).

2.0 Phase 1B Field Investigation

2.1 METHODOLOGY

The Phase 1B archaeological field investigation included pedestrian reconnaissance, surface inspection, photographic documentation, shovel testing, and documentation of fieldwork. The pedestrian survey was used to identify cultural features, soil disturbances, and setting. These observations were used in conjunction with the background research results to determine the appropriate field-investigation strategy (i.e., shovel-testing interval). Photographs were taken to document environmental conditions and pertinent site conditions (e.g., cultural features, disturbances); the photographs are included in Appendix A.

Shovel test pits (STPs) averaged 16 inches (40 centimeters [cm]) in diameter. In addition to testing for the presence of intact cultural deposits, the STPs were also intended to acquire data concerning the depth and character of the fill anticipated in the survey areas. In Survey Areas 1 and 4, where deep layers of fill were anticipated, they were excavated to 100 cm below ground surface unless an impasse, such as rubble or pavement, was encountered or digging was precluded by water seepage. Elsewhere, they were dug to at least 10 cm (4 in) into culturally sterile soil (below topsoil), unless continued digging was prevented by an impasse. Soil colors were recorded using Munsell® color chart designations and soil descriptions followed pedological clay, silt, and sand categories (i.e., texture). Excavated soils were sieved through ¼-inch hardware screens. Shovel tests were backfilled to original landscape contour upon completion. All information was recorded on shovel test forms, including provenience, stratigraphic context, natural or manmade disturbances, and presence or absence of cultural materials. Additional shovel tests were excavated around STPs whose contents suggested an artifact deposit with research potential may be nearby (i.e., a test in which historical domestic material was found exclusive of demolition debris). Also, close-interval shovel testing (i.e., at an interval less than 15-meters) was implemented across the northern-most three survey areas (Areas 6, 7, and 8), which formerly included residential buildings and had the greatest potential for yielding archaeological deposits of the areas selected for survey.

2.2 RESULTS OF THE FIELD INVESTIGATION

Survey Area 1. Survey Area 1 includes four testable locations totaling .8 acres along the shoulders of Third and Whirlpool Streets north of the Aquarium of Niagara (Figure 2.1). It is bounded by Third Street to the east and the steep slope down to the pump station access road to the west (Appendix A: Photograph 1). Nearly all of Area 1 is publicly-accessible open space which, at the time of the field investigation, was covered with a low-cut lawn and several deciduous trees and decorative bushes (Appendix A: Photograph 2). A small area near its north edge was less-well maintained and had tall grasses, moderate-density underbrush, and several immature deciduous trees (Appendix A: Photograph 3). Visible indications of below-ground disturbances included a row of utility poles along the west side of Third Street and a short traffic barrier / fence along the west edge of Whirlpool Street (see Appendix A: Photographs 2 and 3).

The Survey Area 1 field investigation included 31 shovel test pits dug at a 15-meter interval along four transects (Transects 1 to 4) (see Figure 2.1; the shovel test log is included as Appendix B). Qualities of soils noted in the tests were consistent with those of fill and/or disturbances related to building construction and demolition. STPs contained up to four types of

soils: five tests were terminated because of impasses before reaching a second soil stratum; two soils were noted in 13 STPs; eight tests had three soils; and five had four soils. The STPs



Figure 2.1. Survey Area 1 showing shovel test pits and photograph locations and directions (aerial: Google 2016).

had a fairly uniform upper layer of dark grayish brown silt loam that was sometimes mottled with yellowish brown clay and reached an average of 23.6 cm below ground surface (BGS). This overlaid highly variable lenses of soils that included reddish brown and very dark grayish brown sand, strong brown silty clay, gray and brown silty clay loam, and pink clay. A crumbly layer of asphalt was noted in STP 1.3 and a 10-cm-thick horizon of crushed stone, likely from pavement, was found in STP 3.8. The shovel tests were dug to an average total depth of 47.6cm BGS. Just one was dug to 100cm; the remainder were terminated because of paved surfaces and rubble impasses at shallower depths.

Cultural materials in the Survey Area 1 shovel tests were also consistent with a context that has been highly disturbed and subjected to episodes of construction and demolition. Nineteen tests contained large numbers of bricks and brick fragments, two of which had a maker's mark that read "KUSHEQUA" (Figure 2.2). Seven STPs had large amounts of gravel, nine had asphalt fragments, eleven contained iron slag (which may be related to pavement, heating, or industrial processes), two contained concrete, and nine had mortar. STP 3.8 yielded a fragment of a terracotta drain tile; test 2.5 contained pieces of asphalt roofing; a piece of rebar was found in STP 4.1; tests 3.8 and 4.2 had sewer pipe fragments; and STP 3.5 contained a porcelain electrical insulator fragment (see Appendix C for the artifact catalog). A total of five nails (three wire, one cut, and one unidentifiable) and six pieces of flat glass were also found in the shovel tests. Just one test, number 2.2, did not contain architectural materials. Non-architectural artifacts from the STPs include: three pieces of clear container glass; five fragments from an olive glass champagne bottle; a bolt with a hex head (probably from a vehicle); and four pieces of iron slag. There were no shovel tests that contained domestic artifacts exclusive of architectural or pavement materials. No pre-contact period artifacts were found, nor were any pre-contact or historical-period features identified.



SurveyFigure 2.2. Large brick fragment with a maker's mark reading "KUSHEQUA" from Survey Area 1 STP 2.5 (PCI 2016).

Area 2. Survey Area 2 is a narrow (ca.-6-meter-wide), 160-meter-long area between Whirlpool Street and the Robert Moses Parkway west of Pierce Avenue (Figure 2.3). Roughly the southeastern half of the survey area covers terrain that slopes steeply downward six to eight feet from the northwest side of Whirlpool Street to the level of the shoulder along the east side of the parkway (Appendix A: Photographs 4 and 5). The steep slope is covered with dense brush, small amounts of tall grasses, and several medium-age deciduous trees; vegetation on the parkway shoulder is entirely low-cut grasses. Indications of below-ground disturbance include several road signs along the parkway and a short traffic barrier / fence along the west side of Whirlpool Street. Beyond this, it is highly probable that much of the survey area was been graded during the construction of the parkway. The steep slope along Whirlpool Street was also heavily littered with bottles and other trash. At the time of the field investigation, standing water covered parts of the northeastern-most 15 meters of the survey area (Appendix A: Photograph 6).

The field investigation at Area 2 included 11 tests dug at a 15-meter interval along Transect 5. Soils in the STPs were fairly consistent and included a 10-to-35-cm-thick layer of dark grayish brown clay loam that was sometimes mottled with brown and yellowish brown clay (Stratum 1) that overlaid an horizon of mottled reddish brown and yellowish brown clay loam (Stratum 2) which, in five tests, overlaid a layer of strong brown to reddish brown clay loam (Stratum 3). Gravel was noted throughout all the tests. The STPs were dug to an average total depth of 42.3 cm. The presence of the gravel in the clay indicates the soils in the survey area have been disturbed (perhaps deposited), likely during the construction of the parkway.

One artifact was found in the Survey Area 2 shovel tests: a piece of an oyster shell from Stratum 1 in STP 5.5. The shell was found with a piece of plastic in disturbed soils and therefore lacks its depositional context and has no archaeological value. No pre-contact period artifacts were found, nor were any pre-contact or historical-period features identified.

Survey Area 3. Survey Area 3 is an eight-meter by 65-meter area between Whirlpool Street and the Robert Moses Parkway west of Division Avenue (Figure 2.4). It covers terrain very similar to Survey Area 2: a steep ground surface that extended across the eastern half of the area drops five to six feet from the west side of Whirlpool Street to the shoulder along the east edge of the parkway (Appendix A: Photograph 7). Vegetation and visible evidence for belowground disturbances were similar to Area 2, but also included an east-west oriented storm drain (Appendix A: Photograph 8).

The Survey Area 3 field investigation included a total of six shovel tests dug at a 15-meter interval along Transect 6. The STPs were dug to a total average depth of 37.3 cm. Their soils had the same characteristics as those in Area 2: three strata of clayey soils with gravel throughout, qualities that indicate the area was disturbed during the construction of the parkway.

With the exception of a piece of asphalt from Stratum 2 in STP 6.3, no cultural remains were found in Survey Area 3.

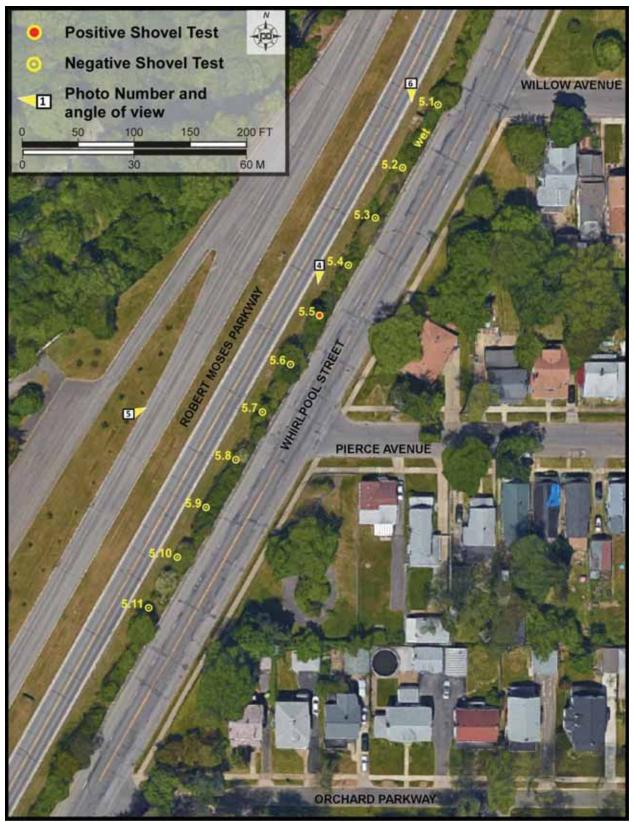


Figure 2.3. Survey Area 2 showing shovel test pits and photograph locations and directions (aerial: Google 2016).



Figure 2.4. Survey Area 3 showing shovel test pits and photograph locations and directions (aerial: Google 2016).

Survey Area 4. Survey Area 4 is a 1.1-acre area along the west side of, and partially beneath, an elevated portion of the Robert Moses Parkway west of Niagara and Cleveland Avenues (Figure 2.5). It is crossed by several single-lane, abandoned asphalt-paved roads and is bounded to the west by an gravel-paved trail along the edge of the Niagara Gorge. Much of the area between the asphalt roads is steep, consistent with grading. Other indications of belowground disturbances include the pylons for the elevated parkway, several guardrails, well and storm sewer manholes, and a concrete block pavement, which covers a part of the area beneath the parkway (Appendix A: Photographs 9 to 11). Only roughly 20 percent of the survey area was not either steep or covered with pavement. At the time of the field investigation, vegetation included young to medium-age deciduous trees, low uncut grasses, and moderate amounts of brush.

The field investigation at Area 4 included 14 tests along Transect 7, which were distributed across the testable portions of the survey area at a variety of intervals. The STPs were dug to an average total depth of 36.6cm. The shallowest soils identified in the tests were broadly similar across the area and typically consisted of dark grayish brown to very dark grayish brown silty loam that was sometimes mottled with material from underlying strata and that ranged from 10 to 40 cm in thickness. The topsoil overlaid one to two additional soil strata / lenses with characteristics that varied across the survey area (two soils were noted in eight STPs and three were identified in three tests, nos. 7.2, 7.6, and 7.7; the remaining three STPs – 7.1, 7.9, and 7.12 – were terminated due to rock impasses before a second soil layer was found). Underlying soils included: yellowish brown silt loam; strong brown sandy clay loam; reddish brown clay loam; light gray sandy silt; and reddish brown sand. These highly variable characteristics suggest that at least parts of the survey area had been disturbed.

Items consistent with episodes of construction and demolition, including asphalt fragments and large quantities of brick were found in four tests (asphalt was found in STPs 7.9 and 7.10 and brick in STPs 7.8 and 7.4+5mN) and crushed gravel, possibly related to the area's roads and trails was noted four tests (nos. 7.1, 7.2, 7.8, 7.9). Besides the bricks, architectural artifacts were limited to a pair of wire nails found in the topsoil of STP 7.4+5mN. A total of three domestic (i.e., Kitchen group) artifacts were found in STPs 7.3 and 7.4, which did not contain obvious indications of episodes of demolition or architectural materials. Two of the items, a piece of annular whiteware and an undecorated ironstone rim fragment, were from STP 7.4 and the other, a piece of plain ironstone, was from STP 7.3. Both shovel tests were in a confined testable area measuring roughly 17 meters by 4 meters and bounded by steep terrain; a pair of additional STPs was dug between them, in the only available investigable terrain. With the exception of the aforementioned wire nails and brick fragments from STP 7.4+5mN, neither test contained artifacts. Given the small size of the testable area around STPs 7.3 and 7.4, it is highly unlikely that undetected potentially archaeologically-productive deposits of artifacts are present. The area around the tests does not merit further archaeological investigation. Nonarchitectural artifacts found elsewhere in the survey area were limited to two pieces of coal from STP 7.2 and a fragment of terracotta, possibly from a large plant pot, found in STP 7.8 in soil that also contained large amounts of brick fragments, gravel, and iron slag. No pre-contact period artifacts were found in Survey Area 4, nor were any pre-contact or historical-period features identified.

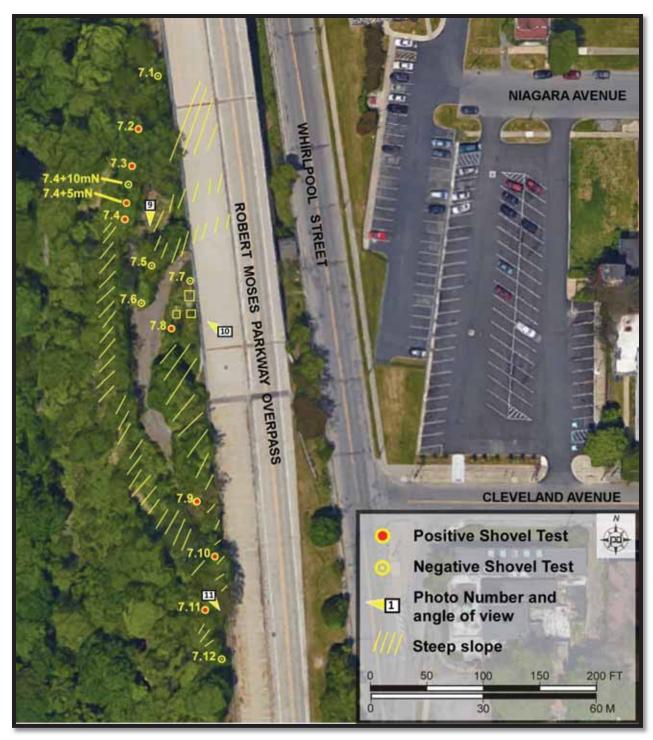


Figure 2.5. Survey Area 4 showing shovel test pits and photograph locations and directions (aerial: Google 2016).

Survey Area 5. Survey Area 5 is a .5-acre area that straddles an elevated portion of the Robert Moses Parkway northwest of the intersection of Whirlpool Street and Bellevue Avenue (Figure 2.6). At the time of the field investigation, vegetation included tall grasses, moderate low brush, and several mature deciduous trees (Appendix A: Photographs 12 and 13). Visible indications of below-ground disturbances were limited to street signs, a concrete block-paved surface beneath the elevated portion of the parkway and several parkway support pylons (Appendix A: Photograph 14; see Photograph 12).

The investigation at Area 5 included 14 STPs dug along 5 transects (Transects 8 to 12) at a 15-meter (or shorter) interval that were dug to an average total depth of 46.6 cm BGS. As in Survey Areas 1 and 4, the shallowest soils in the tests were roughly consistent across the survey area and comprised dark brown to very dark grayish brown clay loam 10 to 37 cm in thickness. The underlying soils were highly variable and included lenses of strong brown silt loam, brown silty clay, yellowish brown and dark grayish brown silty clay loam, reddish brown and strong brown sandy clay loam, reddish brown clay, and yellowish red sand. Five tests (nos. 8.2, 9.2, 10.2, 10.3, and 11.1) had layers of mixed soils. The highly variable qualities of the soils in the survey area are consistent with disturbances from episodes of demolition and construction.

Large quantities of brick were noted in two tests (nos. 8.2 and 12.1); mortar was found in STP 9.3; and crushed stone, which may have been related to the construction of the parkway and the nearby off-ramp, was identified in four STPs (nos. 8.2, 9.2, 12.1, and 12.2). A total of four other items likely related to building demolition were found in three tests and included: a piece of cut wood and a sewer pipe fragment from STP 8.2; a piece of flat glass in STP 11.2; and a fragment of bathroom porcelain in STP 12.2. Iron slag was noted in four STPs (nos. 8.3, 9.3, 11.2, and 12.1); pieces of coal were found in three tests (nos. 8.3, 9.3, and 11.2); and coal ash was identified in STP 9.3. Eight domestic (Kitchen group) items were also found, including: a piece of blue shell-edge whiteware from STP 8.2; a fragment of milk glass from STP 10.2; a fragment of hotel ware, a piece of brown-and-tan style stoneware a clear glass fragment of unidentifiable form from STP 11.2; a piece of salt-glazed stoneware, a fragment of clear container glass, and a fragment of amber container glass (which may be modern) from STP 12.2. One artifact was found that was unidentifiable as to artifact class: a piece of sheet iron from STP 12.1. Finally, ten oyster shell fragments were also found in three STPs (one piece was in STP 8.1; eight were in 11.2; and one was in STP 12.1). The volume of artifacts found in the survey is best characterized as light to moderate and no distinct deposits of items were noted. Because of this, along with the disturbed qualities of soils at the survey area, the assemblage has no archaeological research potential and not additional investigation of it is warranted. No pre-contact period artifacts were found, nor were any pre-contact or historical period features of any kind identified.

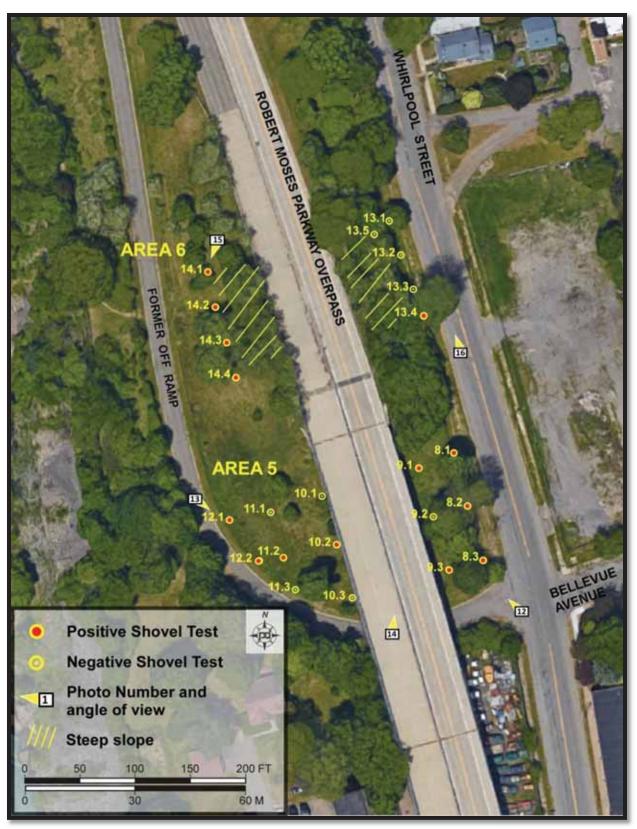


Figure 2.6. Survey Areas 5 and 6 showing shovel test pits and photograph locations and directions (aerial: Google 2016).

Survey Area 6. Survey Area 6 covers roughly .4 acres along the Robert Moses Parkway about 35 meters north of Survey Area 5 (see Figure 2.6). Approximately three-quarters of its surface is covered with a steep-sided embankment for the parkway (Appendix A: Photographs 15 and 16). With this exception, indications of below-ground disturbance were limited to several street signs. Vegetation on the east side of the parkway embankment included dense brush and medium-age deciduous trees (Appendix A: Photograph 15), while flora its west side as primarily tall grasses with small amounts of young deciduous trees (Appendix A: Photograph 16). The remainder of the survey area was covered with tall grasses.

The field investigation at Area 6 included nine STPs dug along Transects 13 and 14 at a tenmeter interval, or less; Transect 13 was east of the parkway embankment and Transect 14 was to its west. Soils in the Transect 13 STPs were similar to those in Survey Areas 1, 4, and 5, in that they comprised a uniform upper layer of soil – 21 to 35 cm of dark grayish brown silt loam – overlying other soils that varied along the transect. The deeper soils included yellowish red and strong brown sandy loam, brown and very dark gray silty clay loam, yellowish brown and reddish brown clay loam, and reddish brown clay. As elsewhere, these variable characteristics are consistent with disturbances from construction and demolition. Soils west of the parkway, in Transect 14, were more uniform and included a 27-to-32-cm-thick horizon of dark grayish brown sandy clay loam that overlaid a layer of typically strong brown sandy loam, the excavated portion of which was 6 to 17 cm in vertical extent. The Transect 13 tests were dug to an average total depth of 46.4 cm and the Transect 14 tests averaged 38 cm in depth.

A total of two historical artifacts were collected from the tests east of the parkway: a piece of undecorated ironstone from STP 13.1 and a piece of aqua container glass from STP 13.4. Several pieces of modern clear container glass were noted near the top of test 13.4, an STP that also contained large amounts of crushed stone and iron slag. Crushed stone was also present in STP 13.5. Just one historical artifact was collected from the tests west of the parkway: a piece of copper tubing that may be a vehicle part that was found in the topsoil of STP 14.2. Asphalt fragments were found in two contexts along Transect 14: the topsoil in STP 14.1 and the lower soil layer in STP 14.3, the latter of which also contained numerous fragments of brick, coal, and mortar. Modern clear container glass was found in the topsoil in STPs 14.2 and 14.4. The materials found along the two Area 6 Transects have no archaeological value. The soils in the Transect 13 tests have been disturbed and the artifacts they contained have no depositional context; although the soils along Transect 14 were not as obviously disturbed, the presence of asphalt fragments and large numbers of bricks in the lower soil stratum indicate at least part of that area has also been disturbed. There were also no instances along Transect 14 where non-architectural artifacts were found exclusive architectural items. No pre-contact period artifacts were found in Survey Area 6, nor were any pre-contact or historical period features of any kind identified.

Survey Area 7. Survey Area 7 is a .4-acre area between Whirlpool Street and the Robert Moses Parkway approximately 45 meters north of Survey Area 6 (Figure 2.7). It comprises publicly-accessibly parkland covered with low-cut grass and several mature deciduous trees (Appendix A: Photographs 17 and 18). Much of it is on level terrain, but the ground surface along its western periphery drops up to six feet to the level of the Robert Moses Parkway shoulder to the west. With the exception of this steep area and the shoulder, which have probably been subjected to grading, the only indications of below-ground disturbance are several street signs and a storm drain along the parkway.



Figure 2.7. Survey Area 7 showing shovel test pits and photograph locations and directions (aerial: Google 2016).

The investigation at Area 7 included 40 shovel tests dug along Transects 15 to 18; since the area – along with Survey Area 8 – had the highest potential for containing intact archaeological deposits of the parts of the North Segment project area selected for investigation, the STPs along Transects 15 to 17 were distributed at a 10-meter interval, or less. Tests on Transects 15 and 16 were at a 10-meter interval. It became apparent during the field work that these tests were probably located within the footprints of the residences that formerly stood in the survey area, and that the yards west of those buildings were at least partially disturbed by the parkway grading represented by the steep slope along the west edge of the area. Tests on Transect 17 were dug at a 7.5-meter interval as close to the edge of this steep area as possible, in order to acquire as much information about what little remained of the yards. STPs on Transect 18, which were on the parkway shoulder, were dug at a 15-meter interval.

Soils in the 22 tests along Transects 15 and 16 had characteristics similar to those dug in the other survey areas where buildings had been demolished. They included topsoil that was fairly uniform along both transects and comprised a 12-to-41-cm-thick layer of dark grayish brown to very dark grayish brown silt loam that overlaid soils with highly variable characteristics, among which were very dark gray sand, yellowish brown clay, strong brown and yellowish brown sandy clay loam, strong brown loam, black silt loam, and very dark grayish brown silty clay. The Transect 15 and 16 tests were dug to an average total depth of 41.7 cm. The STPs along Transect 17, which were dug to a mean total depth of 41.5 cm, had soils that were somewhat more consistent from one test to another, and included: a 14-to-27-cm thick layer of dark grayish brown silt loam that overlaid an 8-to-38-cm-thick horizon of strong brown to reddish brown silt loam that was sometimes mottled with dark grayish brown silt loam. In five tests, this soil overlaid additional layers, which had relatively variable characteristics, including: reddish brown silt loam, very dark gray sandy loam, and yellowish brown clay. Soils in the Transect 18 tests included a 22-to-27-cm-thick layer of dark grayish brown silt loam that overlaid lenses of soils with variable characteristics, including dark grayish brown silty clay loam, yellowish brown sandy loam, and yellowish red silty clay. Six soils were identified below the topsoil in STP 18.3, which comprised alternative 4-to-9-cm-thick layers of reddish brown and greenish gray clay. The Transect 18 tests were dug to a mean total depth of 43.8 cm.

Cultural materials noted in the Transect 15 and 16 STPs included numerous items likely related to episodes of construction and demolition. Large numbers of brick fragments were found below the topsoil in six tests (nos. 15.1, 15.2, 15.11, 16.1, 16.2, and 16.3); asphalt was noted in STPs 15.6 and 15.9; concrete was present in test 16.3; mortar was found in STPs 15.6, 15.9, and 16.1; and crushed stone, possibly from pavement, was abundant in the lower soils in four tests (nos. 15.8, 15.10, 15.11, and 16.8). Other artifacts of architectural origin include: two screws and a piece of terracotta tile found in test 16.3; two wire nails and two pieces of iron conduit sheathing from test 16.5; and a piece of flat glass from test 16.7. Moderate numbers of non-architectural items were also found along the transects, including: four pieces of container glass (one aqua and three clear); a fragment of undecorated whiteware; an oyster shell fragment; and a mother-of-pearl button. Iron slag was identified in seven tests; coal was found in twelve STPs; and coal ash was present in six tests.

Materials found in the Transect 17 tests are consistent with significant degrees of disturbance. Asphalt fragments were found in strata below the topsoil in eight of the eleven STPs dug along the transect and large numbers of brick fragments were found in another. Mortar was noted in one test and crushed stone, possibly from pavement, was found in three STPs. There were relatively small numbers of non-architectural items, including: a piece of an undecorated ironstone plate from test 17.1 and a small fragment of milk glass from STP 17.5. Iron slag was identified in five tests and coal and coal ash were each found in two. A bone from a large

mammal was found in STP 17.8; the bone does not have butchering marks and might not be cultural.

No artifacts were found in the Transect 18 shovel tests dug along the parkway shoulder.

No deposits or artifacts were found in Survey Area 7, nor were there any instances where non-architectural items were found in contexts exclusive of architectural materials likely related to episodes of construction and demolition. No pre-contact period artifacts were found, nor were any pre-contact or historical period features of any kind identified. Although moderate numbers of historical-period items were found across the survey area, they do not have context and therefore have no archaeological value.

Survey Area 8. Survey Area 8 covers approximately .9 acres between the Robert Moses Parkway and Whirlpool Street 55 meters north of Survey Area 7 (Figure 2.8). At the time of the field investigation its flora primarily included tall grasses and moderate amounts of underbrush and young to mature deciduous trees (Appendix A: Photographs 19 and 20). A ca.-3-meter-wide tract of low cut grass crosses the area near its north end and likely marks an unimproved access road to the parkway (Appendix A: Photograph 21). As was the case with Survey Area 7, the terrain along its southwestern edge slopes steeply downward seven to eight feet to the parkway shoulder; both the slope and the shoulder were likely graded. The only other indications of disturbance were limited to signs along the parkway and Whirlpool Street.

The field investigation at Area 8 included 59 STPs; 43 of the tests were dug along Transects 19 to 22 at a 10-meter interval (or less) and the remaining 16 were radial STPs (nos. 21.1 and 21.11) dug around a pair of tests in which domestic artifacts were found in contexts exclusive of demolition debris.

Soils in the Area 8 tests were consistent with those in the other survey areas where buildings had been demolished, i.e. they comprised a fairly uniform layer of topsoil – a 10-to-45-cm-thick horizon of dark grayish brown silt loam – that overlaid soils with characteristics that varied across the area. Underlying soils included: lenses of dark grayish brown, strong brown, light yellowish brown, and reddish brown clay loam; dark grayish brown and yellowish red silt loam; greenish gray, reddish brown and pale brown clay; and strong brown sandy loam. The tests were dug to an average total depth of 46.5 cm.

Artifacts found in the STPs are also generally consistent with a setting that has been subjected to episodes of construction and demolition. Large numbers of brick fragments were found in soils below the topsoil in fifteen of the Area 8 tests and mortar was found in the lower soils of an additional two STPs. Asphalt fragments were noted below the topsoil in five of the tests, three of which contained neither brick nor mortar. A total of 21 architectural artifacts were collected from fifteen of the area's STPs, including: ten pieces of flat glass (one of which was frosted 'privacy' glass); and 11 nails (of which four are wire nails, three are cut, two are too corroded to determine their types, one is a wire roofing nail, and one is a cut spike). A fragment of a welding rod was also found. Finally, three tests contained large amounts of gravel, which may have been related to pavement.

Thirty-three non-architectural items were collected from 17 of the Area 8 STPs, including: five pieces of ironstone (none decorated); two fragments of porcelain (one from a cup and one from a plate – neither of which is decorated); two pieces of stoneware (one is from a ginger beer bottle and the other is from a salt-glazed vessel); four whiteware fragments (three of which refit and are from a flow blue plate and one has a blue transfer-print design but is too small to



Figure 2.8. Survey Area 8 showing shovel test pits and photograph locations and directions (aerial: Google 2016).

determine its vessel's type); eight pieces of container glass (of which three are aqua, three are clear, and two are green); two crown bottle cap pieces (which are probably from the same cap); a fragment from a terracotta flower pot; a molded plastic toy soldier; three cut mammal bone fragments; and five fragments of a red glass vehicle light lens. A further six items were also collected, but that could not be classified as to function: a piece of milk glass; four unidentifiable iron fragments; and a piece of heavy gauge sheet plastic. Four of the artifacts were found in the topsoil of a single STP, no. 21.7, a context that also yield modern material (amber bottle glass) and an architectural item (a nail). With this exception, the remaining artifacts were fairly evenly distributed across the survey area. Other cultural materials noted in the survey area include: iron slag noted in 11 STPs; coal, found in 28 tests; and coal ash, which was present in 9 STPs.

Two tests, STPs 21.1 and 21.11, yielded historical domestic material found exclusive of architectural materials: a piece of clear container glass was found below the topsoil in STP 21.1 and STP 21.11 contained the flow-blue plate fragments and one of the porcelain pieces. The areas around each context were tested with eight STPs. None yielded additional artifacts from contexts that did not also contain architectural items, nor were any artifact deposits identified.

No pre-contact period artifacts were found at Survey Area 8, nor were any pre-contact or historical period features of any kind identified. Although moderate numbers of historical-period items were found across the survey area, they do not have context and therefore have no archaeological value.

3.0 Conclusions and Recommendations

The Phase 1B investigation for the proposed removal of the Robert Moses Parkway, North Segment included 184 shovel tests dug across the eight survey areas, which totaled 4.4 acres. Moderate numbers of historical artifacts were found scattered across six of the areas (nos. 1 and 4 to 8). However, the testing in these locations also revealed they have been significantly disturbed during episodes of construction and demolition. Because of this, along with the fact that no intact deposits of cultural materials were identified in any of the areas, the artifacts have no context and possess no archaeological value. The investigation at the remaining two survey areas, nos. 2 and 3, revealed their locations had been significantly, if not entirely, disturbed during the construction of the Robert Moses Parkway.

No pre-contact-period (prehistoric) artifacts were found at any of the survey areas, nor were any pre-contact or historical period subsurface features of any kind identified. Therefore, the project will have no effect on archaeological resources that are potentially eligible for listing in the National Register and no further archaeological investigations are recommended.

4.0 References

Higgins, Bradford A., P.S. Puglia, R.P. Leonard, T.D. Yoakum, and W.A. Wirtz

1972 Soil Survey of Niagara County, New York. U.S. Department of Agriculture, Soil Conservation Service in cooperation with Cornell University Agriculture Experiment Station. U.S. Government Printing Office, Washington, D.C.

New York Archaeological Council (NYAC)

2000 Cultural Resource Standards Handbook: Guidance for Understanding and Applying the New York State Standards for Cultural Resource Investigations. Prepared by the New York Archaeological Council Standards Committee.

New York State Education Department (NYSED)

2004 Cultural Resources Survey Program Workscope Specifications for New York State Department of Transportation Projects. New York State Education Department, Albany.

Steinback, Mark, Frank J. Schieppati, and Christine M. Longiaru

2015 Phase 1A Cultural Resources Investigation for the Phases I-IV Preliminary Design and Design Approval Document for the Robert Moses Parkway – North Segment, Niagara Falls State Park, City of Niagara Falls, Niagara County, New York. PIN 5757.121. (OPRHP Project Review 15PR04311). Panamerican Consultants, Inc., Buffalo Branch, Buffalo. Prepared for New York State Office of Parks, Recreation and Historic Preservation, Division of Historic Preservation, Waterford. Under contract to Parsons Transportation Group of New York, Inc., Buffalo. Sponsored by The New York State Department of Transportation and the Federal Highway Administration.

USA Niagara Development Corporation

2009 Projects in *The Revitalization Initiative of Downtown Niagara Falls, USA*. USA Niagara Falls Development Corporation, Niagara Falls, NY. Electronic document, http://www.usaniagara.com/projects_display.asp?id=15, accessed May 20, 2015.

United States Geological Survey (USGS)

1995 *Niagara Falls Quadrangle, New York-Ontario.* 7.5 Minute Series (Topographic). U.S. Geological Survey, Department of the Interior, Denver, CO.

Appendix A. Photographs



Photograph 1. The western portion of Survey Area 1, facing northeast (Panamerican 2016).



Photograph 2. Open space in the part of Survey Area 1 west of Third Street, facing northwest (Panamerican 2016).



Photograph 3. Typical vegetation and surface conditions in the northern part of Survey Area 1, facing north (Panamerican 2016).



Photograph 4. The southern half of Survey Area 2 from near STP 5.4, facing southwest (Panamerican 2016).



Photograph 5. Survey Area 2 from the west side of the Robert Moses Parkway, facing northeast (Panamerican 2016).



Photograph 6. Standing water and wet surface conditions in the northern portion of Survey Area 2, facing south (Panamerican 2016).



Photograph 7. Survey Area 3 from its north end, facing south (Panamerican 2016).



Photograph 8. Storm drain opening in Survey Area 3, facing southeast (Panamerican 2016).



Photograph 9. Steep terrain and aspalt-paved roads in the eastern half of Survey Area 4, facing south (Panamerican 2016).



Photograph 10. Utilities, guardrails, and paved surfaces in Survey Area 4, facing northwest (Panamerican 2016).



Photograph 11. Surface conditions in the south portion of Survey Area 4, facing southeast (Panamerican 2016).



Photograph 12. Surface conditions in the eastern part of Survey Area 5, facing northwest (*Panamerican 2016*).



Photograph 13. Surface conditions in the western part of Survey Area 5, facing southeast (*Panamerican 2016*).



Photograph 14. Pylons and concrete-block paved surface beneath the Robert Moses Parkway in Survey Area 5, facing northeast (Panamerican 2016).



Photograph 15. Surface conditions in Survey Area 6 west of the Robert Moses Parkway, facing southeast (*Panamerican 2016*).



Photograph 16. Surface conditions in the part of Survey Area 6 east of the Robert Moses Parkway, facing northwest (*Panamerican* 2016).



Photograph 17. Survey Area 7 from the northwest, facing southeast (Panamerican 2016).



Photograph 18. Survey Area 7 from the southwest, facing northeast (Panamerican 2016).



Photograph 19. Survey Area 8 from the north, facing south (Panamerican 2016).



Photograph 20. Steep terrain and Robert Moses Parkway shoulder along the southwest edge of Survey Area 8, facing southeast (Panamerican 2016).



Photograph 21. Probable unimproved access road in the northern part of Survey Area 8, facing southwest (*Panamerican 2016*).

Appendix B. Shovel Test Log

Shovel Test Log for Robert Moses Parkway North Segment Phase 1B

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
1.1	1	0-14	10YR 4/2	DK GR BR	SI LO	NCM
1.1	2	14-42	10YR 4/1	DK GR	SA CL LO	NCM
			7.5YR 5/6	STRONG BR		
1.1	3	42-55	10YR 3/2	V DK GR BR	SA LO	asphalt (not collected)
1.2	1	0-16	10YR 3/3	DK BR	CL LO	NCM
		0.0	10YR 6/4	LT YL BR	0110	
1.2	2	16-20	10YR 6/2	LT BR GR	SA LO	NCM
1.2	3	20-33	10YR 2/2	V DK BR	SA LO	NCM
1.2	4	33-54	10YR 3/4	DK YL BR	SA LO	iron slag; 1 brick fragment; 2 mortar
	-					fragments
1.3	1	0-23	10YR 3/2	V DK GR BR	SI LO	NCM
			10YR 5/4	YL BR	CL	
1.3	2	23-30		asphalt		asphalt
1.3	3	30-45	10YR 3/2	V DK GR BR	SI LO	crushed gravel; brick impasse at 45cm
						, , , , , , , , , , , , , , , , , , , ,
1.4	1	0-17	10YR 4/2	DK GR BR	SI LO	NCM
1.4	2	17-34	10YR 3/2	V DK GR BR	SA LO	slag; asphalt (not collected)
1.4	3	34-65	7.5YR 5/6	STRONG BR	SILO	NCM
1.5	1	0-36	10YR 3/2	V DK GR BR	SI LO	asphalt; cut gravel; concrete pieces
1.5	2	36-56	5YR 5/4	RD BR	CL	NCM
1.6	1	0-30	10YR 4/2	DK GR BR	SI LO	terracotta fragments; iron slag
1.6	2	30-80	7.5YR 5/6	STRONG BR	SI CL	NCM
1.7	1	0-15	10YR 5/1	GR	CL LO	NCM
			10YR 3/1	V DK GR		
			10YR 6/6	BR YL		
1.7	2	15-27	10YR 5/1	GR	SI CL LO	20+ brick fragments; 30+ slag; 100+
			10YR 3/1	V DK GR		charcoal; 50+ coal
1.7	3	27-42	10YR 3/1	V DK GR	SI	200+ charcoal; 100+ coal
1.7	4	42-81	5YR 5/6	YL RD	CL	NCM
			5YR 7/4	PINK		
1.8	1	0-17	10YR 3/2	V DK GR BR	SI LO	asphalt; asphalt impasse at 17cm
1.9	1	0-12	10YR 4/2	DK GR BR	SI LO	NCM; rock impasse at 12cm
1.10	1	0-18	10YR 3/2	V DK GR BR	SI LO	NCM
1.10	2	18-52	5YR 4/4	RD BR	SA	NCM
1.10	3	52-100	10YR 3/1	V DK GR	SA	asphalt; slag; mortar
2.1	1	0-51	10YR 3/2	V DKGR BR	SI LO	asphalt; gravel; concrete impasse at
			10YR 5/4	YL BR	CL	51cm
			5YR 5/4	RD BR		
2.2	1	0-29	10YR 4/3	BR	CL LO	NCM
			10YR 6/4	LT YL BR		
2.2	2	29-39	7.5YR 5/4	BR	SI CL LO	NCM; stone impasse at 39cm
			10YR 5/3			
2.3	1	0-14	10YR 4/2	DK GR BR	SI LO	NCM
2.3	2	14-26	7.5YR 5/6	STRONG BR	CL LO	NCM
2.3	3	26-48	10YR 3/2	V DK GR BR	SA LO	brick; mortar; glass; rock impasse at
						48cm
2.4	1	0-27	10YR 5/1	GR	CL LO	NCM
1			10YR 3/1	V DK GR		
			10YR 6/6	BR YL		
2.4	2	27-58	10YR 5/1	GR	SI CL LO	200+ brick fragments; 50+ mortar; 2
			10YR 3/1	V DK GR		slag
2.5	1	0-29	10YR 4/3	BR	CL LO	2 pieces amber bottle glass; 3 small
			10YR 6/4	LT YL BR		brick fragments
Key		: BL = bla	ck, BR = brov	vn, DK = dark, 0	GR = gray, GR	N = green, LT = light, V = very, YL =
i vey	yellow					
	Soil Desci	ription: C	L = clay, LO =	= loam, SA = sa	nd, SI = silt	
	Comment	s: NCM =	no cultural m	aterial		
L					<u>I</u>	l .

B-2

Transect/		Depth		1	Soil	<u> </u>
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
2.5	2	29-44	10YR 3/2	V DK GR BR	SI CL LO	3 brick pieces; half a brick; tar sheets
			10YR 6/4	LT YL BR		•
2.5	3	44-50	10YR 5/3	BR	SI CL	2 small terracotta fragments; stone/brick impasse at 50cm
2.6	1	0-33	10YR 3/2	V DK GR BR	SI LO	brick fragments; 20cm piece of cut
			10YR 5/4	YL BR	CL	stone; cut gravel pieces; brick/cut gravel impasse at 33cm
2.7	1	0-23	10YR 4/2	DK GR BR	SA CL LO	NCM
			7.5YR 5/6	STRONG BR		
2.7	2	23-39	10YR 3/2	V DK GR BR	SA CL LO	clear glass; nail; mortar; slag; brick (not
			7.5YR 5/6	STRONG BR		collected); brick/rock impase at 39cm
2.8	1	0-39	10YR 3/2	V DK GR BR	SI LO	asphalt; 1 piece slag; 1 piece coal
		0 00	10YR 5/4	YL BR	CL	asprian, i proce orag, i proce ocar
2.8	2	39-52	10YR 3/2	V DK GR BR	SI CL	brick fragments; crushed stone pieces;
2.0	_	00 02	5YR 5/4	RD BR	CL	root impasse at 52cm
2.9	1	0-27	10YR 5/1	GR	CL LO	NCM
2.0	'	0 21	10YR 3/1	V DK GR	OL LO	INOW
			10YR 6/6	BR YL		
2.9	2	27-40	10YR 5/1	GR	SI LO	100+ brick fragments; 1 terracotta
2.9	2	27-40	10YR 3/1	V DK GR	SILO	brick; 50+ mortar; slag; coal; charcoal; 1 bolt (collected)
2.9	3	40-48	10YR 3/1	V DK GR	SI	NCM
2.9	4	48-83	5YR 5/6	YL RD	CL	NCM
2.0		10 00	5YR 7/4	PINK	SI CL	Trom
2.10	1	0-20	10YR 4/2	DK GR BR	SA LO	NCM
2.10		0 20	7.5YR 5/6	STRONG BR	0/120	TVOW!
2.10	2	20-40	10YR 3/2	V DK GR BR	SA LO	1 clear glass; 1 brick; brick fragments;
2.10	_	20 10	10111 6/2	VERGICER	0,120	slag; mortar (not collected); brick/rock impasse at 40cm
3.1	1	0-16	10YR 4/3	BR	CL LO	NCM; rock impasse at 16cm
3.2	1	0-15	10YR 4/2	DK GR BR	SI LO	NCM
3.2	2	15-29	7.5YR 5/6	STRONG BR	SI LO	NCM
0.2	_	10 20	10YR 4/2	DK GR BR	0, 20	NOW
3.2	3	29-40	101R 4/2	V DK GR	SA LO	1 nail
3.2	4	40-51	10YR 5/4	YL BR	SA LO	NCM; rock impasse at 51cm
3.3	1	0-19	10YR 4/3	BR	SI CL	NCM
3.3	2	19-47	10YR 4/3	BR	CL LO	12 brick fragments; stone/brick
3.3		13-47	101R 4/3 10YR 5/4	YL BR	OL LO	impasse at 47cm
3.4	1	0-32	101R 3/4 10YR 4/2	DK GR BR	SI LO	NCM
3.4	'	0-32				INCIVI
2.4	2	32-54	10YR 5/4 10YR 3/2	YL BR	CL SA	brick fragments; cut rocks; asphalt
3.4				V DK GR BR		fragments
3.5	1	0-29	10YR 4/3	BR	CL LO	50+ brick fragments; 1 ceramic
		00.47	10YR 5/6	YL BR	6116	(collected); 20+ slag; 1 glass
3.5	2	29-45	10YR 3/1	V DK GR	SI LO	150+ brick fragments; 50+ charcoal
3.6	1	0-19	10YR 6/4 10YR 4/3	LT YL BR BR	CL LO	NCM
3.6	2	19-39	10YR 3/2	V DK GR BR	SA LO	1 nail; 4 pieces clear glass; 6 small brick fragments; coal; 3 pieces coal ash
3.6	3	39-48	10YR 6/2	LT BR GR	SA	NCM; stone impasse at 48cm
3.7	1	0-15	10YR 4/2	DK GR BR	SI LO	1 green bottle glass fragment (not collected)
3.7	2	15-28	10YR 4/2 7.5YR 5/6	DK GR BR STRONG BR	SI LO	NCM
3.7	3	28-37	10YR 3/1	V DK GR	SA LO	brick; mortar (not collected)

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
3.7	4	37-49	7.5YR 5/6	STRONG BR	SA LO	NCM; rock impasse at 49cm
			7.5YR 3/1	V DK GR		•
3.8	1	0-30	10YR 3/2	V DK GR BR	SI LO	NCM
			10YR 5/4	YL BR	CL	
3.8	2	30-40	10YR 2/1	BLK	Crushed stone	NCM
3.8	3	40-70	10YR 4/4	DK YL BR	SA	crushed gravel; brick fragments; bottle
						fragments; drain tile; 1 nail; concrete
						pieces; mortar pieces
4.1	1	0-14	10YR 4/1	DK GR	CL LO	1 clear bottle glass (not collected)
4.1	2	14-30	7.5YR 5/6	STRONG BR	CL LO	1 nail; 1 bolt; rock impasse at 30cm
4.2	1	0-23	10YR 4/3	BR	SI CL	8 small brick fragments; 1 ceramic
1.0		00.47	10YR 6/4	LT YL BR	01.01	NOM
4.2	2	23-47	10YR 4/4	DK YL BR	SI CL	NCM
4.3	1	0-30	10YR 5/4 10YR 4/2	YL BR DK GR BR	CL LO	NCM
4.3	1 2	30-37	7.5YR 5/6	STRONG BR	SI CL LO	10+ brick fragments; 1 bottle glass;
						gravel
5.1	1	0-10	10YR 4/2	DK GR BR	SILO	NCM
5.1	2	10-40	10YR 5/4	YL BR	CL	NCM; water seepage at 38cm
<i>F</i> 0	1	0.45	5YR 5/4	RD BR BR	SI CL LO	NICM
5.2 5.2	1 2	0-15	10YR 4/3	LT YL BR	CL LO	NCM NCM
5.2	4	15-30	10YR 6/4	BR	CL LO	INCIVI
5.2	3	30-39	10YR 4/3 5YR 5/4	RD BR	CL LO	NCM; rock impasse at 39cm
5.3	1	0-35	10YR 4/2	DK GR BR	CL	NCM
5.5	'	0-33	101R 4/2 10YR 5/3	BR	OL	INCIVI
			101R 5/3	BR YL		
5.3	2	35-45	5YR 5/4	RD BR	SI CL LO	NCM; rock impasse at 45cm
5.4	1	0-13	10YR 3/2	V DK GR BR	CL LO	NCM
5.4	2	13-29	10YR 5/4	YL BR	CL LO	NCM
5.4	3	29-38	7.5YR 5/6	STRONG BR	CL LO	NCM
5.5	1	0-32	10YR 4/2	DK GR BR	SI CL	1 oyster shell; 1 piece of plastic
			10YR 5/4	YL BR	CL	
5.5	2	32-43	5YR 4/4	RD BR	CL	NCM; water seepage at 43cm
5.6	1	0-12	10YR 3/2	V DK GR BR	CL LO	NCM
5.6	2	12-35	10YR 5/6	YL BR	CL LO	NCM
			10YR 4/1	DK GR		
5.6	3	35-46	7.5YR 5/6	STRONG BR	SA CL	NCM
5.7	1	0-12	10YR 4/3	BR	SI CL LO	NCM
5.7	2	12-32	10YR 6/4	LT YL BR	CL LO	NCM
		00.54	10YR 4/3	BR	01.10	NOM at a sign of 54
5.7	3	32-51	5YR 5/4	RD BR	CL LO	NCM; stone impasse at 51cm
5.8	1	0-29	10YR 4/2 10YR 5/3	DK GR BR BR	CL	NCM
			10YR 5/3 10YR 6/8	BR YL		
5.8	2	29-37	5YR 5/4	RD BR	SI CL LO	NCM
5.9	1	0-35	10YR 4/2	DK GR BR	SI CL	NCM
0.9	'	0 00	101R 4/2 10YR 5/4	YL BR	51 52	140101
5.9	2	35-50	5YR 4/4	RD BR	CL	NCMI rock impasse at 50cm
5.10	1	0-34	10YR 4/2	DK GR BR	SI CL LO	NCM
		- *	10YR 5/3	BR		
			10YR 6/8	BR YL		
5.10	2	34-38	5YR 5/4	RD BR	SI CL LO	NCM; rock impasse at 38cm
5.11	1	0-12	10YR 4/2	DK GR BR	CL LO	NCM
5.11	2	12-33	10YR 5/6	YL BR	CL LO	NCM
			10YR 4/1	DK GR		
5.11	3	33-38	7.5YR 5/6	STRONG BR	SA CL	NCM; rock impasse at 38cm

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
6.1	1	0-35	10YR 4/2	DK GR BR	SI CL	road gravel
			10YR 5/4	YL BR	CL	
6.1	2	35-45	10YR 2/1	BLK	SA	road gravel; gravel impasse at 45cm
6.2	1	0-17	10YR 3/3	DK BR	SI CL LO	NCM
6.2	2	17-36	10YR 6/4	LT YL BR	CL LO	NCM; stone impasse at 36cm
			10YR 3/3	DK BR		-
6.3	1	0-12	10YR 4/2	DK GR BR	CL LO	NCM
6.3	2	12-27	10YR 4/1	DK GR	CL LO	asphalt
			10YR 5/6	YL BR		
6.3	3	27-33	7.5YR 5/6	STRONG BR	SA CL	NCM; rock impasse at 33cm
6.4	1	0-26	10YR 4/2	DK GR BR	SI CL	NCM; 10% stone
			10YR 5/3	BR		
			10YR 6/8	BR YL		
6.4	2	26-28	5YR 5/4	RD BR	SI CL LO	NCM; 15% stone
6.4	3	28-35	10YR 2/1	BLK	SI	NCM; 60% stone
6.5	1	0-10	10YR 4/2	DK GR BR	CL LO	NCM
6.5	2	10-29	10YR 4/2	DK GR BR	CL LO	NCM
			7.5YR 5/6	STRONG BR		
6.6	3	29-39	10YR 3/2	V DK GR BR	SA CL LO	NCM
6.6	1	0-23	10YR 4/2	DK GR BR	SI CL	NCM; 10% stone
			10YR 5/3	BR		
			10YR 5/6	YL BR		
6.6	2	23-27	5YR 5/4	RD BR	SI CL LO	NCM; 10% stone
6.6	3	27-36	10YR 2/1	BLK	SI	NCM; 60% stone
7.1	1	0-20	10YR 4/3	BR	SI LO	NCM; gravel; gravel/stone impasse at 20cm
7.2	1	0-18	10YR 4/2	DK GR BR	SI CL LO	NCM; 20% gravel
			10YR 5/6	YL BR		
7.2	2	18-54	10YR 4/2	DK GR BR	SI CL LO	2 glass slag; 2 oyster shells; 15+ slag;
			10YR 3/1			30% gravel
			10YR 5/6			
7.2	3	54-65	5YR 5/4	RD BR	SI CL LO	NCM; 10% gravel; rock impasse at 65cm
7.3	1	0-13	10YR 4/2	DK GR BR	SI CL	NCM
7.3	2	13-30	10YR 4/2	DK GR BR	SI CL	1 whiteware
			10YR 5/4	YL BR	CL	
7.4	1	0-15	10YR 4/2	DK GR BR	CL LO	2 ceramics; 1 possible ceramic; mortar
7.4	2	15-29	7.5YR 5/6	STRONG BR	SA CL LO	NCM; rock impasse at 29cm
7.4+5mN	1	0-21	10YR 4/2	DK GR BR	SI LO	2 cut nails
7.4+5mN	2	21-37	5YR 5/4	RD BR	SI CL LO	brick; stone/brick impasse at 37cm
			10YR 4/2	DK GR BR		
7.4+10mN	1	0-25	10YR 4/2	DK GR BR	SI CL	NCM
7.4+10mN	2	25-36	5YR 5/4	RD BR	SI CL	NCM; rock impasse at 36cm
7.5	1	0-10	10YR 3/2	V DK GR BR	SA CL LO	NCM
7.5	2	10-25	7.5YR 5/6	STRONG BR	SA CL LO	NCM; rock impasse at 25cm
			10YR 4/1	DK GR		
7.6	1	0-17	10YR 4/3	BR	SI LO	NCM
7.6	2	17-37	10YR 6/4 10YR 4/3	LT YL BR BR	CL LO	NCM
7.6	3	37-49	5YR 5/4	RD BR	CL LO	NCM; stone impasse at 37cm
7.7	1	0-10	10YR 4/3	BR	SI LO	NCM
7.7	2	10-17	10YR 7/2	LT GR	SA SI	NCM
7.7	3	17-28	5YR 5/6	YL RD	SA SI LO	NCM; stone impasse at 28cm
7.8	1	0-19	10YR 4/2	DK GR BR	SA CL LO	5+ brick fragments; 30% gravel
			5YR 5/4	RD BR	_	3 1., 1111 3 1113

Transect/		Depth			Soil	I
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
7.8	2	19-48	5YR 5/4	RD BR	SA	20+ brick fragments; 1 brick floor tile (collected); 20+ slag; 50+ cut stone
						fragments; 40% gravel
7.9	1	0-32	10YR 4/2	DK GR BR	SI CL	2 pieces clear flat glass; 1 piece clear
						bottle glass; 1 piece 5cm asphalt; small
						road gravel; 2 plastic pieces (not
						collected); rock impasse at 32cm
7.10	1	0-22	10YR 3/2	V DK GR BR	SI LO	asphalt
7.10	2	22-37	10YR 5/4	YL BR	SI LO	NCM
7.11	1	0-20	10YR 3/3	DK BR	SI LO	NCM
			10YR 4/4	DK YL BR		
7.11	2	20-36	10YR 5/6	YL BR	SI CL	4 pieces of coal; stone impasse at 36cm
7.12	1	0-40	10YR 4/2	DK GR BR	SI CL	rock impasse at 40cm
			10YR 5/4	YL BR	CL	
8.1	1	0-37	10YR 3/3	DK BR	SI CL	1 oyster shell piece; root impasse at 37cm
8.2	1	0-23	10YR 4/2	DK GR BR	CL LO	NCM; 10% gravel
8.2	2	23-47	10YR 4/2	DK GR BR	SI CL LO	50+ slag; 10+ brick fragments; 1 wood;
			10YR 5/6	YL BR		1 ceramic; 1 whiteware; 30% gravel;
						20% cut stone fragments; decaying
						wood; rock impasse at 47cm
8.3	1	0-26	10YR 3/3	DK BR	SI CL	NCM
8.3	2	26-47	7.5YR 5/6	STRONG BR	CL LO	iron slag; coal
9.1	1	0-36	10YR 4/1	DK GR	SI CL LO	30% slag; 1 window glass; 35% gravel
9.1	2	36-64	5YR 5/4	RD BR	SA CL LO	NCM; water seepage at 48cm; rock impasse at 64 cm
9.2	1	0-16	10YR 4/2	DK GR BR	SI CL	road gravel
9.2	2	16-36	10YR 4/2	DK GR BR	SI CL	NCM
			10YR 5/4	YL BR	CL	
9.2	3	36-47	5YR 5/4	RD BR	CL SA	road gravel; water filled STP at 45cm
9.3	1	0-30	10YR 4/2	DK GR BR	CL LO	NCM
9.3	2	30-44	7.5YR 5/6 10YR 3/2	STRONG BR V DK GR BR	SI LO	coal; mortar; slag; coal ash (not collected)
9.3	3	44-55	7.5YR 5/6	STRONG BR	SI LO	NCM
10.1	1	0-12	10YR 4/1	DK GR	SI CL LO	NCM; 20% gravel
10.1	2	12-29	5YR 5/4	RD BR	SA CLO	20% slag; 40% gravel; rock impasse at 29cm
10.2	1	0-10	5YR 4/4	RD BR	CL SA	road gravel
			10YR 4/2	DK GR BR	SI CL	
10.2	2	10-40	10YR 4/2	DK GR BR	SI LO	whiteware; water seepage at 38cm
			10YR 3/1	V DK GR		
			5YR 4/4	RD BR	CL SA	
10.3	1	0-37	10YR 3/2	V DK GR BR	SA LO	NCM
			10YR 4/1	DK GR		
			7.5YR 5/6	STRONG BR		
10.3	2	37-48	7.5YR 5/6	STRONG BR	SA LO	NCM
			7.5YR 4/3	BR		
11.1	1	0-37	10YR 4/2	DK GR BR	CL LO	NCM
11.1	2	37-49	7.5YR 5/6	STRONG BR	SA CL LO	NCM
	_	· · ·	7.5YR 4/3	BR		
11.2	1	0-36	10YR 4/1	DK GR	SI LO	shells; glass; ceramics; coal; slag
11.2	2	36-52	5YR 5/6	YL RD	SA	NCM; stone impasse at 52cm
11.3	1	0-24	10YR 4/2	DK GR BR	CL LO	NCM
	<u> </u>	<u> </u>	.0.10.72		<u> </u>	

B-6

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
11.3	2	24-38	7.5YR 5/6	STRONG BR	SA CL LO	NCM
12.1	1	0-30	10YR 4/1	DK GR	CL LO	10+ brick fragments; 1 stoneware
12.1		0 00	10111	DIC OIL	02.20	(collected); 15% gravel
12.1	2	30-44	7.5YR 5/4	BR	SI CL	20+ brick fragments; 30+ slag; 1 oyster
12.1		30-44	7.511(5/4	DIX.	OI OL	shell (collected); 40% gravel, rock
						impasse at 44cm
12.2	1	0-35	10YR 4/2	DK GR BR	SI CL	1 ceramic piece; 1 brown glass
12.2	'	0-35		YL BR		
40.0	2	25.40	10YR 5/4	RD BR	CL CL	fragment
12.2	2	35-46	5 YR 4/4	KD BK	CL	road gravel; gravel impassse at 46cm
40.4	4	0.04	10YR 4/2	DV CD DD	SI LO	1 whitewere
13.1	1 2	0-24		DK GR BR		1 whiteware
13.1	2	24-35	10YR 4/2	DK GR BR	SI CL	NCM
40.4	0	05.54	10YR 5/4	YL BR	CL	NOM
13.1	3	35-51	5YR 4/4	RD BR	CL	NCM
13.2	1	0-24	10YR 4/2	DK GR BR	SI CL LO	NCM
13.2	2	24-53	5YR 5/6	YL RD	SA LO	NCM; stone impasse at 53cm
13.3	1	0-21	10YR 4/2	DK GR BR	CL LO	NCM
13.3	2	21-33	7.5YR 5/6	STRONG BR	SA LO	NCM; rock impasse at 33cm
13.4	1	0-31	10YR 4/1	DK GR	SI CL LO	5+ modern bottle glass
			7.5YR 5/4	BR		
13.4	2	31-52	7.5YR 5/4	BR	SI CL LO	20+ slag; 20+ charcoal; 1 historic glass
			10YR 3/1	V DK GR		(collected); 30% gravel; rock impasse
						at 52cm
13.5	1	0-32	10YR 4/2	DK GR BR	SI CL	NCM
			10YR 5/4	YL BR	CL	
13.5	2	32-43	10YR 5/4	YL BR	CL LO	road gravel; gravel impasse at 43cm
			5YR 4/4	RD BR		
14.1	1	0-30	10YR 4/2	DK GR BR	SI CL	asphalt; water seepage at 24cm
14.2	1	0-32	10YR 4/2	DK GR BR	CL LO	15+ slag; 5+ glass; 10+ charcoal; 1
			10YR 5/6	YL BR		copper tube (collected); 20% gravel
14.2	2	32-38	5YR 5/4	RD BR	SI CL	NCM; 70% gravel; rock impasse at
						38cm
14.3	1	0-27	10YR 4/2	DK GR BR	SA CL LO	asphalt
14.3	2	27-44	7.5YR 5/6	STRONG BR	SA LO	coal; brick; mortar; asphalt (not
			10YR 3/2	V DK GR BR		collected); rock impasse at 44cm
14.4	1	0-28	10YR 4/2	DK GR BR	SA CL LO	modern clear container glass
14.4	2	28-40	7.5YR 5/6	STRONG BR	SA LO	NCM; stone impasse at 40cm
15.1	1	0-15	10YR 4/2	DK GR BR	CL LO	NCM
15.1	2	15-28	10YR 5/6	YL BR	SA CL LO	1 clear glass fragment; 1 ferrous
	_		7.5YR 5/6	STRONG BR		object; coal; asphalt; brick
15.1	3	28-44	10YR 3/2	V DK GR BR	SA LO	NCM; rock impasse at 44cm
15.2	1	0-12	10YR 3/2	V DK GR BR	SI LO	NCM
15.2	2	12-43	101R 3/2	DK GR BR	SI CL	1 piece glass; 2 brick fragments; coal;
10.2		12 70	10111 7/2	DIC OIL DIC	0.00	rock impasse at 43cm
15.3	1	0-38	10YR 4/2	DK GR BR	SI LO	1 whiteware; rock impasse at 38cm
13.3	'	0-30	101R 4/2 10YR 5/3	BR	SI CL	winteware, rock impasse at socili
15.4	1	0-40	101R 3/3 10YR 3/2	V DK GR BR	SILO	NCM
15.4 15.4	2	40-51	101R 3/2 10YR 4/2	DK GR BR	SI CL	coal; coal ash; rock impasse at 51cm
13.4		40-01	7.5YR 5/6	STRONG BR	SI CL	Coai, coai asii, rock iiripasse at 510111
15.5	1	0-37	10YR 3/2	V DK GR BR	SI LO	NCM; rock/root impasse at 37cm
15.6	1	0-37	101R 3/2 10YR 4/1	DK GR BR	SI LO	asphalt; slag; mortar; shotgun shell
13.0	'	U-4 I	10114.4/1	DN GK	SI LU	
15.0	2	/1 EE	7 5VD 5/6	STDONG DD	2410	(not collected) NCM
15.6	2	41-55	7.5YR 5/6	STRONG BR	SA LO	_
15.7	1	0-39	10YR 3/2	V DK GR BR	SI LO	1 piece clear modern bottle glass (not
45.0		0.00	40VP 0/0	V DV 0D DD	CLIO	collected); rock impasse at 39
15.8	1	0-28	10YR 3/2	V DK GR BR	SI LO	2 pieces modern clear glass; 1 brick
						fragment

Transect/	1	Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
15.8	2	28-32	10YR 3/2	V DK GR BR	SI LO	gravel; slag; coal; rock impasse at 32cm
15.9	1	0-23	10YR 4/1	DK GR	CL LO	asphalt; mortar (not collected)
15.9	2	23-34	7.5YR 5/6	STRONG BR	SA CL LO	NCM; rock impasse at 34cm
15.10	1	0-22	10YR 4/2	DK GR BR	SI LO	1 piece of modern brown bottle glass
			10YR 5/4	YL BR	SI CL	(not collected)
15.10	2	22-27			Gravel	crushed road gravel impasse at 27cm
15.11	1	0-20	10YR 4/2	DK GR BR	SI LO	brick fragment
15.11	2	20-28	10YR 2/1 10YR 4/2	BLK DK GR BR	SI LO	coal; coal ash
15.11	3	28-40	10YR 3/2	V DK GR BR	SI CL	gravel
			7.5YR 5/6	STRONG BR		
16.1	1	0-24	10YR 4/1	DK GR	SA LO	NCM
16.1	2	24-40	7.5YR 5/6	STRONG BR	SA CL LO	brick; mortar (not collected; rock impasse at 40cm
16.2	1	0-30	10YR 4/2	DK GR BR	SI LO	NCM
16.2	2	30-46	10YR 4/2	DK GR BR	SI LO	coal; ash; brick fragment; rock impasse
			7.5YR 5/6	STRONG BR	LO	at 46cm
16.3	1	0-16	10YR 4/2	DK GR BR	SI LO	NCM
16.3	2	16-66	10YR 4/2	DK GR BR	SI LO	1 copper screw; 1 oyster shell
			10YR 5/4	YL BR	CL	fragment; 1 brick fragment (collected) 1
						shell button; 100+ brick fragments;
						coal fragments; coal ash; iron slag; 3 small concrete fragments
16.4	1	0-20	10YR 4/1	DK GR	SA LO	brick fragments (not collected
16.4	2	20-52	7.5YR 5/6	STRONG BR	SA CL LO	coal; coal ash; slag (not collected);
			10YR 3/1	V DK GR		rock impasse at 52cm
16.5	1 2	0-26	10YR 4/2	DK GR BR	SI LO	NCM
16.5	2	26-40	10YR 4/2	DK GR BR	SI LO CL	2 nails; 2 metal fragments; coal; coal
			7.5YR 5/6	STRONG BR	01.01	ash
16.5	3	40-51	10YR 4/2	DK GR BR	SI CL	NCM; rock impasse at 51cm
40.0	4	0.20	7.5YR 5/6	STRONG BR	CL LO	and alog (not callegted)
16.6 16.6	2	0-39 39-51	10YR 4/2 7.5YR 5/6	DK GR BR STRONG BR	SA CL LO	coal; slag (not collected) NCM
16.7	1	0-16	10YR 4/2	DK GR BR	SILO	NCM
16.7	2	16-30	101R 4/2	DK GR BR	SI CL LO	1 piece clear glass; 1 piece window
10.7		10 00	7.5YR 5/6	STRONG BR	01 02 20	glass; rock impasse at 30cm
16.8	1	0-20	10YR 4/2	DK GR BR	SI LO	1 metal screw
16.8	2	20-30	10YR 5/4	YL BR	CL	road gravel
16.8	3	30-41	10YR 3/1	V DK GR	SA	coal; iron slag; cut gravel; gravel/slag impasse at 41cm
16.9	1	0-26	10YR 4/2	DK GR BR	SI LO	NCM
16.9	2	26-31	10YR 4/2	DK GR BR	SI LO CL	coal; rock impasse at 31cm
			7.5YR 5/6	STRONG BR		-
16.10	1	0-18	10YR 4/2	DK GR BR	SI LO	NCM
16.10	2	18-30	10YR 4/2	DK GR BR	SI LO	gravel
			10YR 5/4	YL BR	CL	
16.10	3	30-35	10YR 3/1	V DK GR	SA	slag; rock impasse at 35cm
16.11	1	0-24	10YR 4/2	DK GR BR	CL LO	NCM
16.11	2	24-35	7.5YR 5/6	YL BR	CL LO	NCM
17.1	1	0-16	10YR 4/2	DK GR BR	SILO	NCM
17.1	2	16-40	10YR 4/2 5YR 5/4	DK GR BR YL BR	SI CL LO	1 piece whiteware; rock impasse at 40cm
17.2	1	0-19	10YR 4/2	DK GR BR	CL LO	NCM
17.2	2	19-33	7.5YR 5/6	STRONG BR	CL LO	NCM
17.2	1	0-27	10YR 4/2	DK GR BR	SI LO	NCM
17.0		0 21	101117/2	יייייייייייייייייייייייייייייייייייייי	J. LO	I TOIVI

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
17.3	2	27-39	5YR 5/4	YL BR	CL LO	asphalt
17.4	1	0-15	10YR 4/2	DK GR BR	SI LO	NCM
17.4	2	15-37	10YR 4/1	DK GR	SI LO	asphalt (not collected)
			7.5YR 5/6	STRONG BR		
17.4	3	37-48	7.5YR 5/6	STRONG BR	SI	NCM
17.5	1	0-14	10YR 4/2	DK GR BR	SI LO	1 white glass fragment
17.5	2	14-52	10YR 4/2	DK GR BR	SI CO	iron pipe (not collected); coal; slag
			5YR 5/4	RD BR	SI CL	
17.5	3	52-68	5YR 5/4	RD BR	SI LO	NCM
17.6	1	0-25	10YR 4/2	DK GR BR	SI LO	NCM
17.6	2	25-40	10YR 4/2	DK GR BR	CL LO	asphalt
			7.5YR 5/4	BR		
17.7	1	0-22	10YR 4/2	DK GR BR	SI LO	asphalt; slag (not collected)
17.7	2	22-43	7.5YR 5/6	STRONG BR	SI LO	NCM
17.8	1	0-17	10YR 4/2	DK GR BR	SI LO	NCM
17.8	2	17-32	7.5 YR 5/6	STRONG BR	SI LO	1 piece bone; slag; asphalt; mortar
17.8	3	32-45	5YR 5/4	RD BR	SI CL	NCM
17.9	1	0-21	10YR 4/2	DK GR BR	SA LO	asphalt (not collected)
17.9	2	21-29	7.5YR 5/6	STRONG BR	SI LO	asphalt (not collected)
17.9	3	29-37	10YR 3/1	V DK GR	SA LO	coal; coal ash (not collected); rock
						impasse at 37cm
17.10	1	0-17	10YR 4/2	DK GR BR	SI LO	NCM
17.10	2	17-48	10YR 5/3	BR	CL	asphalt pieces; small cut gravel; gravel
						impasse at 48cm
17.10+3mE	1	0-14	10YR 4/2	DK GR BR	SI LO	NCM
17.10+3mE	2	14-30	10YR 4/2	DK GR BRN	SI LO	cut road gravel; iron slag; coal slag;
47.40.0.5		00.07	5YR 5/4	RD BR	01	brick fragments
17.10+3mE	3	30-37	10YR 5/4	YL BR	CL	cut road gravel; gravel impasse at
17.44	4	0.00	10)/5 1/0	DI	0110	37cm
17.11	1	0-22	10YR 4/2	DK GR BR	SI LO	NCM
17.11	2	22-30	5YR 5/4	RD BR	CL LO	asphalt; gravel; rock impasse at 30cm
17.10	4	0.44	40VD 4/0	DK CD DD	CALO	controls (not collected)
17.12 17.12	1 2	0-14 14-32	10YR 4/2 10YR 3/1	DK GR BR V DK GR	SA LO SA LO	asphalt (not collected) brick; ash; slag (not collected); rock
17.12		14-32	7.5YR 5/6	STRONG BR	SA LO	impasse at 32cm
18.1	1	0-27	10YR 4/2	DK GR BR	SI LO	NCM
18.1	2	27-33	101R 4/2 10YR 4/2	DK GR BR	SI CL LO	NCM
10.1		21-33	7.5YR5/6	STRONG BR	31 CL LO	INCIVI
18.1	3	33-37	5YR 5/6	YL RD	SI CL	gravel; rock impasse at 37cm
18.2	1	0-23	10YR 4/2	DK GR BR	CL LO	foil wrapper (not collected)
10.2	ļ.	0-23	10111 4/2	DIC OIL DIC	OL LO	Toll Wrapper (not collected)
10.0	2	22.24	7 5VD 5/6	STDONG DD	8110	NCM: gravel/rook impages at 24am
18.2 18.3	2	23-34 0-22	7.5YR 5/6 10YR 4/2	STRONG BR DK GR BR	SI LO SI LO	NCM; gravel/rock impasse at 34cm small brown beer bottle fragments (not
10.3	'	0-22	10113 4/2	DK GK BK	Si LO	collected)
18.3	2	32-40	5YR 5/4	RD BR	CL	NCM
18.3	3	40-42	10Y 6/1	GRN GR	CL	NCM NCM
18.3	4	40-42	5YR 4/4	RD BR	CL	NCM NCM
18.3	5	47-49	10Y 6/1	GRN GR	CL	NCM
18.3	6	49-58	5YR 4/4	RD BR	CL	NCM
18.3	7	58-72	10Y 6/1	GRN GR	CL	NCM
18.4	1	0-23	101 6/1 10YR 4/2	DK GR BR	SI LO	NCM
18.4	2	23-40	101R 4/2 10YR 4/2	DK GR BR	CL LO	NCM
10.4	_	_0 -0	7.5YR 5/6	STRONG BR		140111
18.5	1	0-22	10YR 4/2	DK GR BR	SA LO	NCM
10.0	'	J	101117/2	בו טוג טוג	5/120	140111

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
18.5	2	22-36	10YR 5/6	YL BR	SA LO	NCM
			10YR 4/1	DK GR		
19.1	1	0-15	10YR 4/2	DK GR BR	SI LO	1 piece green bottle bottom
19.1	2	15-50	10YR 4/2	DK GR BR	SA CL	house wood plank; brick; coal
			7.5YR 5/6	STRONG BR		
40.0	4	0.44	5YR 5/4	RD BR	011.0	hairlefare anne artes e colo d'aire e
19.2	1	0-14	10YR 4/2	DK GR BR	SI LO CL	brick fragments; coal; 1 piece whiteware
19.2	2	14-50	10YR 4/2	DK GR BR	CL LO	brick fragments; coal; ash
			5YR 5/4	RD BR		
19.3	1	0-40	10YR 3/2	V DK GR BR	SI LO	1 nail; 6 coal pieces
19.3	2	40-55	7.5YR 5/6	STRONG BR	CL LO	13 mortar pieces; 4 coal pieces
19.4	1	0-16	10YR 4/2	DK GR BR	SA LO	NCM
19.4	2	16-27	10YR 5/4	YL BR	SA CL LO	NCM
19.4	3	27-41	10YR 3/1 10YR 5/4	V DK GR YL BR	SA LO	3 clear glass window; brick; coal, coal
19.5	1	0-30	101R 3/4 10YR 3/2	V DK GR BR	SI LO	slag; rock impasse at 41m NCM
19.5	2	30-52	101R 5/2	LT YL BR	CL LO	2 wires; coal; 11 brick fragments; stone
10.0	_	00 02	10YR 4/3	BR	02 20	impasse at 52cm
19.6	1	0-20	10YR 4/2	DK GR BR	SI LO	40% cut road gravel
19.6	2	20-45	10YR 5/4	YL BR	CL	brick fragments; coal fragments
			10YR 3/1	DK GR	SI CL	
19.7	1	0-17	10YR 4/1	DK GR	CL LO	NCM
19.7	2	17-24	10YR 3/1	V DK GR	SA LO	coal; coal ash; (not collected)
19.7	3	24-48	10YR 5/6	YL BR	SA CL LO	NCM
			7.5YR 5/6	STRONG BR		
19.7	4	48-60	7.5YR 5/6	STRONG BR	SA LO	brick; asphalt (not collected)
19.8 19.8	2	0-17 17-40	10YR 4/2 10YR 4/2	DK GR BR DK GR BR	SI LO SI LO	NCM 1 clear bottle glass fragment (not
19.0		17-40	5YR 5/4	RD BR	SILO	collected); coal; slag
19.9	1	0-28	10YR 4/2	DK GR BR	SI LO	1 whiteware
19.9	2	28-42	10YR 7/3	V PALE BR	Coal ash	2 cut nails; coal; coal ash; brick; mortar
20.1	1	0-16	10YR 3/2	V DK GR BR	SILO	modern brown bottle fragment (not collected)
20.1	2	16-44	5YR 5/4	RD BR	CL	2 brick fragments; 1 concrete fragment
			10YR 3/2	V DK GR BR	SI LO	(not collected)
20.2	1	0-15	10YR 4/2	DK GR BR	SILO	NCM
20.2	2	15-30	10YR 5/4	YL BR	SI LO	1 piece bottle bottom; 1 piece window glass; rock impasse at 30cm
20.3	1	0-27	10YR 4/2	DK GR BR	SA CL LO	NCM
			7.5YR 5/6	STRONG BR		
20.3	2	27-45	10YR 3/1	V DK GR	SA CL LO	NCM
			7.5YR 5/6	STRONG BR		
20.4	1	0-14	10YR 4/2	DK GR BR	SILO	NCM
20.4	2	14-29	5YR 5/4	RD BR	SA CL LO	brick fragment; coal
20.4	3	29-45 0-17	5YR 5/4 10YR 4/2	RD BR DK GR BR	CL LO SI LO	brick fragments; slag cast iron plate (not collected0
20.5	2	17-27	10YR 4/2 10YR 4/2	DK GR BR	SILO	red glass slag
20.5	-	11-21	101R 4/2 10YR 6/4	LT YL BR	51 20	rea glass slag
20.5	3	17-37	10YR 6/3	PALE BR	CL LO	NCM; stone impasse at 37cm
20.6	1	0-13	10YR 3/2	V DK GR BR	SI LO	NCM
20.6	2	13-27	10YR 3/2	V DK GR BR	SI LO	2 brick fragments (not collected); 50%
			5YR 5/4	RD BR	CL	large cut road gravel
			10YR 5/4	YL BR	CL	_
20.7	1	0-12	10YR 4/2	DK GR BR	CL LO	NCM

Transect/		Depth		T WOSES Fair	Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
20.7	2	12-23	10YR 5/6	YL BR	SA CLO	NCM; rock impasse at 23cm
20.7	_	12 20	10YR 4/1	DK GR	ONOLO	TVOW, TOOK III passe at 25cm
20.8	1	0-15	10YR 4/2	DK GR BR	SI LO	NCM
20.8	2	15-25	10YR 4/2	DK GR BR	CL LO	1 piece welded rod
	_		5YR 5/4	RD BR		
20.8	3	25-38	10YR 5/4	YL BR	SL LO	brick; slag
			7.5YR 5/6	STRONG BR		, 3
20.9	1	0-27	10YR 4/2	DK GR BR	SI LO	1 brick fragment; 1 copper fragment;
			10YR 5/4	YL BR		coal; coal slag; iron slag (not
						collected); brick/rock impasse at 27cm
20.10	1	0-11	10YR 4/2	DK GR BR	CL LO	NCM
20.10	2	11-24	7.5YR 5/6	STRONG BR	SI LO	NCM; rock impasse at 24cm
			10YR 4/2	DK GR BR		
20.11	1	0-27	10YR 4/2	DK GR BR	CL LO	2 pieces clear window glass; 6 pieces
00.44	0	07.45	40)/D 5/4	\// DD	01.10	coal
20.11	2	27-45	10YR 5/4	YL BR	CL LO	NCM; root impasse at 45cm
21.1	4	0-17	10YR 4/2	DK GR BR	SI LO	NCM
21.1	1 2	17-30	10YR 4/2 10YR 4/2	DK GR BR DK GR BR	SILO	1 jar fragment; clear glass
21.1	2	17-30	5YR 5/4	RD BR	SILO	i jar iragment, clear glass
21.1	3	30-53	51R 5/4 5YR 5/4	RD BR	CL	NCM
21.1	3	30-33	10Y 6/1	GRN GR	OL	INCIVI
21.1+1mE	1	0-22	10YR 4/3	BR	SI LO	1 piece clear window glass; 1 metal
21.11 11112	'	0 22	10111 4/0		0, 20	piece
21.1+1mE	2	22-50	5YR 5/6	YL RD	SI LO	NCM
21.1+1mN	1	0-33	10YR 4/2	DK GR BR	SI LO	1 piece ceramic with blue print
21.1+1mN	2	33-53	5YR 5/6	YL RD	SI	NCM
21.1+1mN	3	50-60	7.5YR 5/6	STRONG BR	SI LO	NCM
21.1+1mS	1	0-19	10YR 3/2	V DK GR BR	SI LO	NCM
21.1+1mS	2	19-50	5YR 5/4	RD BR	CL LO	1 piece cut bone; brick fragments
21.1+1mW	1	0-32	10YR 3/2	V DK GR BR	SI LO	1 piece cut bone; 1 flat glass; 1 milk
						glass; 1 piece metal; 1 golf ball (not
						collected)
21.1+1mW	2	32-50	5YR 5/4	RD BR	CL	2 pieces coal slag (not collected)
			10YR 3/2	V DK GR BR	SI LO	
21.1+1mW	3	50-67	5YR 5/4	RD BR	SI CL	NCM; rock impasse at 67cm
04.4.0. =	4	0.00	10Y 6/1	GRN GR	0110	
21.1+3mE	1 2	0-30	10YR 4/3	BR	SILO	coal; brick fragments
21.1+3mE	2	30-50	10YR 5/4	YL BR	SI CL LO	2 pieces clear window glass; 1
21.1.2mE	3	50-60	10YR 4/3 5YR 5/6	BR	SI LO	terracotta glass; 1 nail; 1 whiteware NCM
21.1+3mE 21.1+3mN	1	0-27	10YR 4/2	YL RD DK GR BR	SILO	1 cut nail
21.1+3mN	2	27-37	5YR 5/6	YL RD	SI LO	NCM
21.1+3mN	3	28-50	10YR 3/3	DK BR	SA LO	ash; coal (not collected)
		20 00	10YR 7/2	LT GR	0,120	451., 554. (1.61 551156154)
21.1+3mS	1	0-12	10YR 3/2	V DK GR BR	SI LO	NCM
21.1+3mS	2	12-40	5YR 5/4	RD BR	SI CL	NCM; root impasse at 40cm
21.1+3mW	1	0-21	10YR 3/2	V DK GR BR	SI LO	1 piece of black plastic
21.1+3mW	2	21-28	10YR 3/2	V DK GR BR	SI LO	NCM
			5YR 5/4	RD BR	SI CL	
21.2	1	0-14	10YR 4/2	DK GR BR	CL LO	NCM
21.2	2	14-54	10YR 4/1	DK GR	CL LO	coal (not collected)
			10YR 5/6	YL BR		
			7.5YR 5/6	STRONG BR		
21.3	1	0-26	10YR 4/2	DK GR BR	SI LO	3 pieces barbed wire
21.3	2	26-34	5YR 5/4	RD BR	SA LO	NCM
21.3	3	34-46	7.5YR 5/6	STRONG BR	CL LO	NCM; stone impasse at 46cm

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
21.4	1	0-22	10YR 4/2	DK GR BR	SI LO	NCM
					LO	
21.4	2	22-42	10YR 4/2	DK GR BR	SI LO	slag; coal
			5YR 5/4	RD BR	CL	
21.5	1	0-15	10YR 4/2	DK GR BR	SI LO	NCM
21.5	2	15-30		RUSHED GRAV		gravel fill; gravel impasse at 30cm
21.6	1 1	0-30	10YR 3/2	V DK GR BR	SI CL	1 clear bottle fragment; gravel impasse
			10YR 5/4	YL BR	LO	at 30cm
21.7	1	0-34	10YR 4/2	DK GR BR	SI LO	ceramics; glass; nail
21.7	2	34-40	10YR 5/4	YL BR	CL LO	NCM
			10YR 4/2	DK GR BR		
21.8	1	0-14	10YR 4/2	DK GR BR	CL LO	NCM
21.8	2	14-54	10YR 4/1	DK GR	CL LO	coal (not collected)
			10YR 5/6	YL BR		
			7.5YR 5/6	STRONG BR		
21.8	3	54-65	7.5YR 5/6	STRONG BR	SI LO	NCM
21.9	1	0-10	10YR 4/2	DK GR BR	SI LO	NCM
21.9	2	10-32	5YR 5/6	YL RD	CL LO	roof shingle pieces; drainage tile piece;
						asphalt; compact gravel impasse att
						32cm
21.10	1	0-19	10YR 4/2	DK GR BR	SI LO	NCM
21.10	2	19-36	5YR 5/4	RD BR	CL LO	coal
			7.5YR 5/6	STRONG BR		
21.11	1	0-26	10YR 4/2	DK GR BR	SI LO	ceramic (historic)
21.11	2	26-72	5YR 5/6	YL RD	SI CL	NCM
21.11+ 1mE	1	0-45	10YR 4/2	DK GR BR	SI LO	brick fragments; coal
21.11+ 1mE	2	45-5	5YR 5/4	RD BR	CL LO	coal
21.11+1mN	1	0-19	10YR 4/2	DK GR BR	SI LO	NCM
21.11+1mN	2	19-50	10YR 4/1	DK GR	SA LO	1 plastic soldier; brick; coal; slag
			7.5YR 5/6	STRONG BR		
21.11+1mS	1	0-32	10YR 4/2	DK GR BR	SI LO	coal
21.11+1mS	2	32-53	7.5YR 5/6	STRONG BR	SI LO	NCM
21.11+1mW	1	0-32	10YR 3/2	V DK GR BR	SI LO	NCM
21.11+1mW	2	32-60	5YR 5/4	RD BR	SI CL	NCM
21.11+ 3mE	1	0-30	10YR 4/2	DK GR BR	SI LO	NCM
21.11+ 3mE	2	30-45	10YR 3/1	V DK GR	SI LO	brick fragments; coal; coal slag; ash; 1
						large nail
21.11+ 3mE	3	45-55	5YR 5/4	RD BR	CL LO	brick fragments
21.11+3mN	1	0-12	10YR 3/2	V DK GR BR	SA LO	NCM
21.11+3mN	2	12-40	5YR 5/4	RD BR	SA LO	NCM
21.11+3mS	1	0-16	10YR 4/2	DK GR BR	CL LO	NCM
21.11+3mS	2	16-55	10YR 3/2	V DK GR BR	SA LO	coal (not collected)
			10YR 5/6	YL BR		
21.11+3mS	3	55-66	7.5YR 5/6	STRONG BR	SI LO	NCM
21.11+3mW	1	0-32	10YR 4/2	DK GR BR	SI LO	1 nail; 1 whiteware; 1 cut bone; 1 flat
						glass
21.11+3mW	2	32-53	5YR 5/4	RD BR	SI CL	NCM
21.12	1	0-19	10YR 4/2	DK GR BR	SA LO	NCM
21.12	2	19-33	10YR 4/2	DK GR BR	SA LO	1 nail
			7.5YR 5/6	STRONG BR		
22.1	1	0-19	10YR 4/2	DK GR BR	SI LO	NCM
22.1	2	19-50	5YR 5/4	RD BR	CL LO	1 window glass; coal
22.2	1	0-17	10YR 4/2	DK GR BR	SA LO	coal slag (not collected)
22.2	2	17-38	10YR 3/2	V DK GR BR	SA LO	4 glass; 1 ferrous object; brick; mortar;
	-		7.5YR 5/6	STRONG BR		coal; ash; rock impasse at 38cm
				5OO.D.		25a., ac., . con impacco at coom
22.3	1	0-18	10YR 4/2	DK GR BR	SI LO	
۷۷.۷	ı	0-10	101114/2	אין אין אין	31 LO	l .

Transect/		Depth			Soil	
STP	Stratum	(cm)	Munsell	Soil Color	Description	Comments
22.3	2	18-50	5YR 5/4	RD BR	CL	1 metal piece; possible bolt
			10YR 4/2	DK GR BR	SI LO	
22.3	3	50-65	5YR 5/4	RD BR	CL	NCM
			10YR 6/3	PALE BR		
22.4	1	0-22	10YR 4/2	DK GR BR	SI CL LO	NCM
22.4	2	22-50	10YR 5/6	YL BR	CL LO	1 piece whiteware
			10YR 4/2	DK GR BR		
22.5	1	0-19	10YR 4/2	DK GR BR	SI LO	NCM
22.5	2	19-30	5YR 5/4	RD BR	CL LO	NCM; rock impasse at 30cm
22.6	1	0-12	10YR 4/2	DK GR BR	SA LO	asphalt (not collected)
22.6	2	12-48	10YR 3/2	V DK GR BR	SA LO	1 lithic; 2 ferrous; coal; coal ash; slag
			7.5YR 5/6	STRONG BR		
22.6	3	48-60	7.5YR 5/6	STRONG BR	SILO	NCM
22.7	1	0-22	10YR 4/2	DK GR BR	SI CL LO	NCM
22.7	2	22-25		ASPHALT		asphalt block
22.7	3	25-35	10YR 3/2	V DK BR BR	SI CL	asphalt
			5YR 5/4	RD BR	CL LO	
22.7	4	35-48	5YR 5/4	RD BR	CL LO	asphalt; coal
			7.5YR 5/6	STRONG BR		
22.8	1	0-26	10YR 4/2	DK GR BR	SI LO	coal pieces; coal ash
22.8	2	26-56	5YR 5/6	YL RD	SA CL LO	coal; 1 metal wire
22.9	1	0-34	10YR 4/2	DK GR BR	SI LO	2 pieces coal slag (not collected)
			10YR 5/4	YL BR	CL	
22.9	2	34-47	5YR 5/4	RD BR	SI CL LO	
22.9	3	47-50	10Y 6/1	GRN GR	SI CL	NCM
22.9	4	50-61	5YR 4/3	RD BR	SI CL	NCM
22.10	1	0-21	10YR 4/2	DK GR BR	SI LO	
22.10	2	21-31	5YR 5/4	RD BR	CL LO	asphalt; brick fragments; coal
22.10	3	31-45	10YR 3/2	V DK GR BR	CL LO	asphalt
22.11	1	0-33	10YR 4/2	DK GR BR	SI LO	coal pieces
22.11	2	33-53	5YR 5/6	YL RD	SI CL LO	NCM

Appendix C. Artifact Catalog

STP	Stratum / Depth	Group/ Function	Material	Туре	#	Vessel Form	Color	Description	Wt (g)
2.1	2 2	Kitchen	Glass	container glass	1	1 01111	clear	Description	3.7
2.3	3	Architectural	Ceramic	brick	3		oloui	small pieces	12.8
2.3	3	Architectural	Glass	flat glass	1		clear	privacy glass	7.5
2.3	3	Architectural	Glass	flat glass	1		aqua	principly grade	2
2.3	3	Architectural	Ceramic	mortar	4		5.45.6		1.6
2.3	3	N/A	Metal	iron slag	2				14.5
2.4	2	Architectural	Ceramic	brick	5			small pieces	59.4
2.4	2	Architectural	Ceramic	mortar	1				3.4
2.4	2	N/A	Metal	iron slag	2				17.8
2.5	3	Architectural	Ceramic	brick	3			small pieces	8.6
2.7	2	Architectural	Glass	flat glass	1		clear		2.1
2.7	2	Architectural	Metal	wire nail	1				5.7
2.9	2	Transportation	Metal	hex head cap screw	1			5/8" head; probably from a vehicle	45.5
3.2	3	Architectural	Metal	nail	1			too corroded to determine type	5.8
3.5	1	Kitchen	Glass	container glass	1		clear	уро	8.3
3.5	1	Utility	Ceramic	porelain	1			electrical insulator fragment; brown glaze	5.1
3.6	2	Architectural	Glass	flat glass	3		aqua	2.5 g.a_0	7.9
3.6	2	Architectural	Metal	wire nail	1		aqua		2.8
3.6	2	Kitchen	Glass	container glass	1		clear		2.7
3.8	3	Architectural	Metal	cut nail	1				3.4
3.8	3	Architectural	Ceramic	tile	1			yellow; unglazed; .7-inch thickness	54.6
								neck and rim fragments from a bottle with a champagne closure; has mold seams that extend to the rim (machine	
3.8	3	Kitchen	Glass	container glass	5		olive	made)	64
3.8	3	Utility	Ceramic	sewer pipe	1		0.1170	flange fragment	204.3
4.1	2	Architectural	Metal	wire nail	1			nango nagmon	17.5
4.1	2	N/A	Metal	iron rod	1			.6-inch diameter; 4.1-inch length; possibly rebar	76
4.2	2	Utility	Ceramic	sewer pipe	1			flange fragment	103.5
7.2	2	N/A	Lithic	coal	2			nango nagmon	6.3
7.3	2	Kitchen	Ceramic	ironstone	1			no decoration	8.8
7.4	1	Kitchen	Ceramic	ironstone	1			rim fragment from a bowl or	
7.4	1	Kitchen	Ceramic	whiteware	1			serving vessel; no decoration annular whiteware; decoration includes gray, brown, and yellow bands; vessel form unidentifiable	2.5
7.4	1	N/A	Metal	iron slag	1				31
7.4+5m N	1	Architectural	Metal	wire nail	2				9.9
7.8	2	N/A	Ceramic	terracotta	1			possibly from a large plant pot	7.2
8.2	2	Architectural	Wood	cut wood	1			probable plank fragment; one end cut; .95-x2-2.7 inches	19.4
8.2	2	Kitchen	Ceramic	whiteware	1	plate		blue shell-edge whiteware; non- impressed design	2.1
8.2	2	Utility	Ceramic	sewer pipe	1				114.1
10.2	2	N/A	Glass	milk glass	1			probably a base fragment from a stemmed vessel	3.2
11.2	1	Architectural	Glass	flat glass	1		aqua		1.7
11.2	1	Kitchen	Ceramic	hotel ware	1	saucer	7-1	rim fragment; annular decoration consists of two green bands	2

	Stratum	Group/		_		Vessel			
STP	/ Depth	Function	Material	Туре	#	Form	Color	Description	Wt (g)
11.2	1	Kitchen	Ceramic	stoneware	1			buff body; brown-and-tan-style exterior; brown glaze interior	13.2
11.2	1	N/A	Glass	unidentifiable as to form	1		clear	possibly a complete Hertzian cone	5.3
12.1	1	Kitchen	Ceramic	stoneware	1			buff body; buff salt-glazed exterior; brown glaze interior	30
12.1	2	Kitchen	Glass	container glass	1		clear		2.2
12.1	2	N/A	Metal	sheet iron	1			thin gauge	2.3
12.2	1	Bath	Ceramic	bathroom porcelain	1			base fragment from a pedestaled furnishing	136.9
12.2	1	Bath	Putty	sealant	2			small fragments from a perforation in the bathroom porcelain also found in STP 12.2	0.6
12.2	1	Kitchen	Glass	container glass	1		amber		1.1
13.1	1	Kitchen	Ceramic	ironstone	1				
13.4	2	Kitchen	Glass	container glass	1		aqua	small fragment; no decoration too small to discern vessel	1.5
14.2	1		Metal		1		aqua	form 22mm long, 5mm outer	1.9
	-	N/A		copper tube				diameter; one end crimped closed	1.8
15.2	1	Kitchen	Glass	container glass	1		aqua	too small to discern vessel form	1.8
15.3	1	Kitchen	Ceramic	whiteware	1			no decoration; 30mm by 16mm; possibly from a plate	1.5
15.8	1	Kitchen	Glass	container glass	2	bottle	clear		5.5
16.3	1	N/A	Metal	screw	1			wood screw, slot drive type	12.8
16.3	2	Architectural	Ceramic	terracotta	1			roof tile fragment	21.1
16.3	2	Clothing	Shell	button	1			10mm diameter; two eyes; mother of pearl	0.1
16.3	2	N/A	Metal	screw	1			brass; 22mm length; oval raised head with slot drive type	
16.5	2	Architectural	Metal	wire nail	2				6.5
16.5	2	N/A	Metal	unidentifiable iron fragments	2			possibly sheathing from electrical conduit	17.1
16.7	2	Architectural	Glass	flat glass	1		aqua		1.1
16.7	2	Kitchen	Glass	container glass	1		clear	lightning jar closure fragment	20
17.1	2	Kitchen	Ceramic	ironstone	1	plate		no decoration	4.4
17.5	1	N/A	Glass	milk glass	1			too small to discern form	1.8
19.1	1	Kitchen	Glass	container glass	1	bottle	green	base fragment; knurled heel; exterior painted brown;	
								embossed label includes "A"	8
19.2	1	Kitchen	Ceramic	porcelain	1	teacup		rim fragment, no decoration	3.3
19.3	1	Architectural	Metal	wire nail	1		00110		13.5
19.4 19.5	3 2	Architectural Architectural	Glass Metal	flat glass wire nail	2		aqua		10.8 12.5
19.5	1	Kitchen	Ceramic	ironstone	1	plate		abraded; no decoration	6.5
19.9	2	Architectural	Metal	wire nail	1	plate		abraded, no decoration	5.3
19.9	2	Architectural	Metal	wire roofing nail	1				4
20.2	2	Construction	Metal	welding rod	1			fragment	6.9
	_							base; embossed "11"; suction scar from machine	
20.2	2	Kitchen	Glass	container glass	1	bottle	clear	manufacture	14.6
20.2	2	Kitchen	Glass	container glass	1		clear	1.1.4.98.1.4	2.8
20.5	2	Transportation	Glass	lens glass	5		red	vehicle tail light fragments	7.3
20.11	1	Architectural	Glass	flat glass	2		aqua		16

								The second of th	
STP	Stratum / Depth	Group/ Function	Material	Туре	#	Vessel Form	Color	Description	Wt (g)
011	/ Deptil	Tunotion	Material	Турс	n e	10111	30101	shoulder fragment from a soda bottle with embossed vertical lines and a label reading in	W (g)
21.1	2	Kitchen	Glass	container glass	1		clear	part "rlry"	14.1
21.1+ 1mE	1	N/A	Metal	unidentifiable iron fragment	1				38.2
21.1+ 1mE	1	Architectural	Glass	flat glass	1		aqua		11.8
21.1+ 3mE	2	Kitchen	Ceramic	ironstone	1			small fragment; no decoration	2.2
21.1+1 mN	2	Toys	Plastic	toy soldier	1		green		5.6
21.1+ 3mW	1	N/A	Plastic	sheet plastic	1		black	heavy gauge	1.4
21.1+ 1mW	2	N/A	Glass	milk glass	1			embossed label too fragmentary to be legible	1.3
21.1+ 1mW	2	Architectural	Glass	flat glass	1		frosted	mag.memary to be legible	0.5
21.1+		N/A		unidentifiable iron			Hostou	not ovidized: probably an alloy	
1mW 21.6	1	N/A Kitchen	Metal Glass	fragment container glass	1	bottle	aqua	fragment from the side of a bottle; includes an embossed label that reads in part "Y BOTTWORKSARAFAN	8.3
21.7	1	Kitchen	Ceramic	stoneware	1	bottle		ginger beer bottle fragment; tan glaze on exterior and interior	3.9
21.7	1	Kitchen	Ceramic	stoneware	1			tan salt-glazed exterior; brownglazed interior	17.1
21.7	1	Kitchen	Ceramic	ironstone	1			burned	5.4
21.7	1	Kitchen	Glass	container glass	1		amber		6.1
21.7	1	Kitchen	Glass	container glass	1		aqua		5.9
21.7	1	Architectural	Metal	nail	1			too corroded to determine type	7.3
21.11	1	Kitchen	Ceramic	whiteware	3	plate		flow blue, possibly a floral pattern; pieces refit; from vessel rim	9.1
21.11	1	Kitchen	Ceramic	porcelain	1	plate		rim fragment; molded; no applied decoration	2.6
21.11+ 1mN	1	Kitchen	Ceramic	whiteware	1			blue transfer-print design, too fragmentary to determine pattern	0.8
21.11+ 1mN	1	Gardening	Ceramic	terracotta	1			flower pot	1.7
21.11+ 1mN	1	Architectural	Metal	cut nail	1				8.8
21.11+ 3mE	2	Architectural	Metal	cut spike	1				37.2
21.11+ 3mN	1	Architectural	Metal	nail	1			too corroded to determine type	10.7
21.11+ 3mW 21.11+	1	Kitchen	Ceramic	ironstone	1			base fragment includes part of vessel heel; no decoration	4.5
3mW	1	Architectural	Metal	cut nail	1				7.4
21.12	2	Architectural	Metal	cut nail	1				4.5
22.1	2	Architectural	Glass	flat glass	1		clear		2.3
22.2	2	Kitchen	Glass	container glass	1	bottle	green	kickup fragment	27.4
22.2	2	Kitchen	Glass	container glass	1		aqua		5.6
22.2	2	Architectural	Glass	flat glass	2		aqua	1	13.9

C-4

	Stratum	Group/				Vessel			
STP	/ Depth	Function	Material	Type	#	Form	Color	Description	Wt (g)
				unidentifiable iron					
22.2	2	N/A	Metal	fragment	1				11
				unidentifiable iron					
22.3	2	N/A	Metal	fragment	1				107.2
22.4	2	Kitchen	Ceramic	ironstone	1				0.2
								crown type; possibly from the	
22.6	2	Kitchen	Metal	bottle cap	2			same cap	6.8

Faunal Material Catalog for Robert Moses Parkway North Segment Phase 1B

STP	Stratum/ Depth	Туре	#	Wt (g)	Description
7.2	2	Marine shell	1	1.9	oyster shell fragment
8.1	1	Marine shell	1	2	oyster shell fragment
11.2	1	Marine shell	8	34.2	oyster shell fragment
12.1	2	Marine shell	1	0.3	oyster shell fragment
16.3	2	Marine shell	1	1.9	oyster shell fragment
17.8	2	Mammal bone	1	25.5	large mammal; unidentifiable fragment; no butchering marks
21.1	2	Mammal bone	1	6.4	large mammal; unidentifiable fragment; cut
21.1+	2	Mammal bone	1	3.3	large mammal; long bone fragment; cut
1mW					
21.11+ 3mW	1	Mammal bone	1	1.7	medium to large mammal; unidentifiable fragment; cut