

Phase II Investigations of Site P-2B-1 and Site P-23C-1 and Additional Phase IB Archaeological Assessment of the Flat Creek Solar Project, Towns of Root and Canajoharie, Montgomery County, New York (Project Review # 22PR01523)

Flat Creek Solar

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Management Summary

State and Federal Permits Needed: Office of Renewable Energy Siting (ORES) Chapter XVIII, Title 19 of NYCRR Part 900 Section 94-c.

Phase of Survey: Phase II and Phase IB Investigations

Location of Project: Flat Creek Solar NY LLC (Applicant) proposes the construction of the Flat Creek Solar Project (Project) in the Towns of Root and Canajoharie, Montgomery County, New York. The Project is currently proposed as an up to 300-megawatt (MWac) photovoltaic (PV) solar energy generation facility (Facility). The Applicant is assessing available land parcels owned by multiple participating landowners (Project Area) (Figure 1). The Project Area is composed of all of the Project parcels. Project facilities will include commercial-scale solar arrays, access roads, buried (and possibly overhead) electric collection lines, and electrical interconnection facilities (i.e., a collection substation and point of interconnection (POI) switchyard). The proposed collection substation and POI switchyard will be located on land within the Project Area. The Applicant intends to interconnect to the LS Power Grid, New York Corporation's 345 kV transmission located directly adjacent to the Project.

Review of Previous Phase I Testing: TRC completed a Phase IA desktop assessment for the entire Project Area, followed by a walkover survey and subsequent refined sensitivity assessment of the Project's Area of Potential Effect (APE). The APE is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36CFR §800.16(d)). With regards to known and potential archaeological resources, this area is referring to the direct effects APE. For this report, we consider the direct effects APE, the area where the Project will cause ground disturbance or may potentially cause ground disturbance. Therefore, if a portion of an archaeologically sensitive area will not be impacted by ground disturbing activities associated with the Project, it is not considered part of the APE.

TRC completed a Phase IA Assessment of the prospective Project Area from 2022 to 2023 (Mack et al. 2023). The assessment included walkover survey completed from May to December of 2022, April 2023, and November 2023 and resulted in the identification of 24 locations with archaeological sensitivity for Precontact period resources and another 11 locations with sensitivity for Historic or Post-contact period recourses. Two of the Historic areas overlapped with Precontact period areas.

TRC completed a Phase IB archaeological study of the Project APE in 2023 (Mack et al. 2024). the Phase IB investigation included a combination of pedestrian survey of recently plowed agricultural fields and excavation of 4,139 test holes. This resulted in the identification of seven Precontact period archaeological sites and 15 Precontact period find spots.



Survey Area: approximately 400 acres

USGS 7.5 Minute Quadrangle Maps: Fort Plain, NY; Canajoharie, NY; Randall, NY; Sprout Brook, NY; Sharon Springs, NY; Carlisle, NY

Results of Additional Phase IB Testing: Changes to the Project design necessitated additional Phase IB investigations of eight archaeologically sensitive test areas, which TRC completed in May 2024. For the additional Phase IB investigations, TRC excavated 277 test holes and identified one Precontact period archaeological site and two Precontact period find spots.

Site P-2C-1 dates to the Late Woodland to Contact period and is likely eligible for listing on the National Register of Historic Places (NRHP). Following the 2024 excavations and the identification of Site P-2C-1, the Project plans were changed to remove impacts to this site. Therefore, as the Project is currently proposed no additional archaeological testing is recommended for Site P-2C-1.

Results of Phase II Testing: Changes to the Project design necessitated Phase II investigations for Site P-2B-1 and Site P-23C-1, which TRC completed in May 2024. TRC excavated a total of 76 test holes and six test units within the proposed areas of substantial ground disturbance as defined by New York State Historic Preservation Office (NYSHPO). A scope of work was prepared by TRC and submitted for SHPO for approval prior to excavations. Excavations resulted in the determination that the portion of both sites located within the proposed areas of substantial ground disturbance are not eligible for listing the NRHP. Based on the current Project design plans no further archaeological testing is recommended for either of these sites.



1.0 Project Description and Introduction

Flat Creek Solar NY LLC (Applicant) proposes the construction of the Flat Creek Solar Project (Project) in the Towns of Root and Canajoharie, Montgomery County, New York.

The Project, as currently proposed, consists of an up to 300-megawatt (MWac) photovoltaic (PV) solar energy generation facility (Facility). The Applicant is assessing available land parcels owned by multiple participating landowners (Project Area) (Figure 1). The Project parcels as a whole are considered the Project Area. The parcels are outlined in black in Figure 1. Project facilities will include commercial-scale solar arrays, inverters and pads, access roads, buried (and possibly overhead) electric collection lines, and electrical interconnection facilities (i.e., a collection substation and point of interconnection (POI) switchyard). The proposed collection substation and POI switchyard will be located on land within the Project Area.

In 2022 and 2023 TRC completed a Phase IA desktop assessment for the entire Project Area, followed by a walkover survey and subsequent refined sensitivity assessment of the Project Area of Potential Effect (APE) (Mack et al. 2023). The APE is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36CFR §800.16(d)). With regards to known and potential archaeological resources, this area is referring to the direct effects APE. For this report, we consider the direct effects APE as the area where the Project will cause ground disturbance or may potentially cause ground disturbance. Therefore, if a portion of an archaeologically sensitive area will not be impacted by ground disturbing activities associated with the Project, it is not considered part of the APE.

The Project Area is located south of the New York State Thruway Route 90, which runs parallel to the Mohawk River (Figures 2 and 3). The western portion of the Project abuts Carlisle Road, which branches off from the Town of Canajoharie. Carlisle Road cuts through the central majority of the Project Area, running east-west. The northeastern portion of the Project Area extends to the western edges of the Town of Currytown at the intersection of Sloansville Road and Flat Creek Road. The majority of the Project overlaps with the central and western portions of the Town of Canajoharie and Root and the neighborhood of Flat Creek, which is located within the Town of Root. Carlisle Road cuts through the Town of Root, intersecting with Mapletown Road, which runs along the southern portion of the Project Area. The Town of Mapletown is just southwest of the Project Area. Flat Creek, a tributary of the Mohawk River, bisects the Project Area running approximately north to south.

For ease of reporting, the Project Area was divided into 9 Sub-Areas (Area A – Area I) (Figure 3). These Sub-Areas are summarized in Table 1. A transmission line bisects the central part of the Project Area from east to west, and the Project will connect to the south side of this line via a proposed substation to be located on the east side of Hilltop Road between Hilltop Road and Rappa Road (Figure 2).



Sub-area Designation	General Location	Approximate Size (acres)
Area A	Area A is located in the northwest portion of the Project south of Sprakers Road, east of Cunningham Road, and north of Carlisle Road.	650.24
Area B	Area B is located to the south and east of Area A, on the western side of Lookout Road, and north of Carlisle Road. Flat Creek is located along the eastern side of Lookout Road, adjacent to the Project Area.	357.45
Area C	Area C is located immediately south of Area B in the western portion of the Project on the northeast and southwest sides of Carlisle Road.	502.14
Area D	Area D is located immediately east and south of Area C in the southern central portion of the Project Area. The area north of Carlisle Road is located between Rappa Road and Hilltop Road. The area south of Carlisle Road extends south past Conway Road.	509.7
Area E	Area E is located immediately east of Area D, north of Carlisle Road, and west of Flat Creek Road.	434.64
Area F	Area F is located immediately south of Area E and east of the southern portion of Area D and is located south of Carlisle Road with Mapletown Road running north-south through the area. Flat Creek is located along the southeastern edge of the area.	460.3
Area G	Area G is located immediately east of Area E and Area F and is located north and east of Carlisle Road and east of Flat Creek Road, extending north to Flanders Road. Most of the area has Flat Creek and associated wetlands throughout.	452.89
Area H	Area H is located to the north and east of Area G and is located just south of Currytown, extending west to Flat Creek Road. A small stream and Lasher Creek pass through the area. Darrow Road bisects the area, and Flanders Road is located to the south.	228.92
Area I	Area I is located immediately north and west of Area H and south and east of Area A. The area is bisected by State Highway 162 and has Lasher Creek running through the southern area.	176.12

Table 1. Summary of Project Sub-Areas for archaeological sensitivity assessment.

TRC completed a Phase IA Assessment of the Project from 2022 to 2023 (Mack et al. 2023). The assessment included walkover survey of the Project APE completed from May to December of 2022 and April and November of 2023. It resulted in the identification of 24 locations with archaeological sensitivity for Precontact period resources and another 11 locations with sensitivity



for Historic or Post-contact period resources. Two of the Historic areas overlapped with Precontact period areas. The Phase IB investigation included testing of two Precontact and Historic period areas, 17 Precontact period areas and two Historic period areas and was conducted between November 2022 and November 2023.

The Phase IB archaeological study of the Project APE was completed in 2023 (Mack et al. 2024). It included a combination of pedestrian survey of recently plowed agricultural fields and excavation of 4,139 test holes. It resulted in the identification of seven Precontact period archaeological sites and 15 Precontact period find spots. All findspots/sites date to the general Precontact time period except Site P-2D-1, which dates specifically to the Susquehanna time period. No Historic period sites or find spots were identified.

In May 2024, TRC completed Phase II investigations of Site P-2B-1 and Site P-23C-1 and additional Phase IB investigations of a combined eight archaeologically sensitive test areas. For the additional Phase IB investigations, TRC excavated 277 test holes and identified one new Precontact period archaeological site and two Precontact period find spots.

Phase II investigations for Site P-2B-1 and Site P-23C-1, TRC excavated a total of 76 test holes and six test units. All work was done in accordance with the guidelines established by the New York Office of Parks, Recreation and Historic Preservation (OPRHP) and the Cultural Resource Standards Handbook: Guidance for Understanding and Applying the New York State Standards for Cultural Resource Investigations published by the New York Archaeological Council (2000).

We have divided this report into the following sections. After this introductory section, Section 2 provides a review of the archaeological test areas identified during the Phase IA assessment and the archaeological sites and findspots identified during the initial Phase IB study. The environmental context and cultural context of the Project Area were provided in Phase IA archaeological assessment report (Mack et al. 2023) and Phase IB archaeological investigations report (Mack et al. 2024) and are not repeated in this report. Similarly, the archaeological sensitivity models used to identify Precontact and Historic period resources within the Project APE are presented in Mack et al. 2024 and are not included here. Section 3 contains the methodology used for Phase II and Phase IB investigations. Section 4 presents the results of additional Phase IB testing completed at eight locations within the Project APE in 2024. Section 5 contains the results of Phase II investigations of Site P-2B-1 (OPRHP# 05702.000218) and Site P-23C-1 (OPRHP# 05702.000168). Section 6 presents our conclusions and recommendations and is followed by the references cited section. All figures are presented at the end of this report following the references cited section. Appendix 1 contains artifact catalogs organized by archaeological sites followed by archaeological find spots. Appendix 2 contains copies of the test hole records.



2.0 Review of Previous Archaeological Studies

2.1 Phase IA Results

Our archaeological sensitivity assessment identified 24 locations with archaeological sensitivity for Precontact period resources and another 11 locations with sensitivity for Historic or Postcontact period recourses within the Project Area. Based on current design plans, some portions of these sensitive areas fall outside of the Project APE, meaning they will not be impacted by ground disturbance; therefore, these locations were not included in the Phase IB investigations. The potential location of project facilities that could cause ground disturbance was considered the APE for the Phase IB investigation. This section provides a summary of the archaeologically sensitive areas that were part of Phase IB testing competed in 2023.

In the Fall of 2023, changes to project plans necessitated additional walkover to assess new areas and refinement of previously assessed areas. These areas were assessed and are included in the Phase IB results section.

2.1.1 Precontact Period Test Areas

Seven of the areas identified as sensitive for Precontact period resources in the Phase IA assessment fell outside of the 2023 APE and were not included in the Phase IB investigations. These include Test Area P-6, Test Area P-7, Test Area P-8, Test Area P-9, Test Area P-11, Test Area P-16, and Test Area P-22. Table 2 provides a summary of the Test Areas that were part of the Phase IB investigations completed in 2023. These are organized by Project Areas (A-I).



Table 2. 2023 Phase IB Precontact Test Areas.



Table 2. 2023 Phase IB Precontact Tes

Test Area	Sensitivity Criteria	Approx. Size (Acres)
		Γ
		F

2.1.2 Historic or Post-contact Period Test Areas

Seven of the areas identified as sensitive for Historic or Post-contact period resources in the Phase IA assessment fell outside of the 2023 APE and were not included in the Phase IB investigations. These include Test Area H-2, Test Area H-4, Test Area H-6, Test Area H-21, and Test Area H-23. Table 3 provides a summary of the Areas that were part of the 2023 Phase IB investigations. These are organized by Project Areas (A-I).



Table 3. 2023 Phase IB Historic Test Areas.



2.2 2023 Phase IB Results

Between November and December 2022, Spring 2023, and November 2023, TRC completed Phase IB investigations of a total of 22 archaeologically sensitive test areas. TRC excavated 4,139 test holes and conducted pedestrian survey of recently plowed fields within the areas and identified a total of seven Precontact period archaeological sites and 15 Precontact period find



Table 4. Summary of 2023 Phase IB testing by Test Area.

Areas	Test Area	Number of Find Spots	Number of Sites	Name of Archaeological Sites/ Findspots



Project Sub Areas	Test Area	Number of Find Spots	Number of Sites	Name of Archaeological Sites/ Findspots
		-	-	
		I		
Total	22	15	7	7 Sites and 15 Findspots

Table 4. Summary of 2023 Phase IB testing by Test Area.

Findspots were not considered indicative of archaeological sites, and no further testing was recommended for the 15 findspots identified. Phase II archaeological testing was recommended for the seven archaeological sites identified unless substantial ground disturbance could not be avoided in the vicinity of the sites. NYSHPO defines substantial ground disturbance as grading and excavation more than six inches deep; grubbing, tree, and stump removal; and trenches more



than three feet wide. NYSHPO does not recommend archaeological testing for panel arrays, perimeter fencing, and utility poles if their associated posts are driven or drilled into the ground and no grubbing or grading is involved and for excavations and grading less than six inches in depth.

2.3 Additional Phase IB and Phase II Testing

Based on the project design dated June 2024, additional Phase IB testing was needed for areas that previously fell outside of the proposed APE.



Phase II testing was also required for two sites that could not be avoided by project design changes. These sites are Site P-2B-1

3.0 Phase IB and Phase II Methodology

This section discusses field methods to conduct walkover survey and subsurface testing for the presence of archaeological resources in eight locations not previously tested, followed by field methods used for determining site limits and eligibility for listing on the National Register of Historic Places at two sites within the Project APE. The field methods sections are followed by laboratory methods used to analyze recovered Precontact archaeological material.

3.1 Phase IB Field Methodology

Phase IB archaeological fieldwork in the Project's APE was conducted from May 20 – 29, 2024. A crew of three field technicians was supervised by Samantha Dunning (MA, Univ of AK). Overall project management was under the direction of Karen Mack (MS, Univ of ME).

Phase IB survey for archaeological resources included excavation of shovel test holes (THs). Shovel test holes were 30-40 cm in diameter and placed along linear transects. Transects were spaced approximately 15 m from one another, and THs were placed on an interval of 15 m to achieve an excavation density within the Project APE of 16 tests per acre, except for areas where previous ground disturbance or saturated sediments were noted in the field and documented. All soil removed from the THs was screened through 1/4-inch (6.4-mm) mesh, which was suitable for the recovery of small stone flakes, bones, or other cultural materials that might otherwise have been missed without screening.

Standardized documentation was maintained for every test hole excavated, including a soil description to indicate the nature of subsurface sediments, notes on disturbance, site drainage conditions, and provenience data of the cultural material collected. A table based on these field



forms is provided in Appendix 2.

Additionally, photographs were taken to document each Test Area. Spatial data regarding the location of excavation units relative to significant landscape features was collected using a Samsung tablet and Geode antenna. The data was collected using ESRI Field Maps software. All fieldwork complied with the New York Archaeological Council's (NYAC) standards for cultural resource investigations and the curation of archaeological collections in New York State (1994) adopted by the NYSHPO in 1995.

3.2 Phase II Field Methodology

A Phase II scope of work was prepared and submitted to NYSHPO on May 17, 2024 and was approved by NYSHPO on May 20,2024. NYSHPO forwarded the scope of work to Darren Bonaparte, Tribal Historic Preservation Officer (THPO) for the Saint Regis Mohawk Tribe for comment. TRC received no comment from the THPO. Phase II survey for archaeological resources included excavation of 50 cm x 50 cm square shovel test holes and 1 m x 1 m square test units. The 50 cm x 50 cm square shovel test holes were placed along linear transects or along proposed project components like access roads, collector lines, hedgerow clearing, or inverter pads. Transects and test holes were spaced approximately 5 m from one another. Excavation of 1 m x 1 m was aimed at gaining a better understanding of site stratigraphy and areas of artifact concentrations, to help determine eligibility for listing on the NRHP.

All test holes and test units were excavated by 10 cm levels within natural stratigraphy to culturally sterile soil, and all excavated soils were screened through 1/4-inch (6.4-mm) mesh due to clay sediments present at the sites. All test excavations were documented on standardized recording forms and digital photography was used to document conditions at the time of the fieldwork. Stratigraphic profiles of all test holes and test units were drawn, and at least one wall of a test unit was photographed. The location of all excavations was recorded on a tablet with the support of a Geode antenna to support the integration of field data into GIS. The GPS receiver had sufficient sensitivity to produce corrected spatial data with a minimum accuracy of 1.0 m. All identified cultural material was collected with appropriate provenience information and taken to the TRC laboratory facility in Bath, ME, for analysis and preparation for curation. No cultural features were encountered. A field log of all cultural material recovered was maintained during excavations. All field forms were reviewed by the field director for accuracy.

3.3 Laboratory Methodology

All artifacts recovered were returned to the laboratory to be cleaned, cataloged, and analyzed. Artifacts were subdivided further into classes based on the criteria discussed below. The artifacts are described in detail in the results section organized by Test Area

Laboratory activities commenced with the initial inventory and processing of all cultural material



recovered during fieldwork. The field catalog was downloaded from the hand-held tablets into a computer database program. All artifacts were cataloged, and certain artifact classes received additional detailed analyses. Detailed artifact analyses will follow with particular attention to lithic tools remains. No cultural features were identified and therefore no sediment samples were collected for analysis.

Additional Phase IB testing identified one new Precontact archaeological site and two Precontact archaeological findspots. Phase II testing further assessed the site boundaries and significance of two previously identified Precontact archaeological sites. A findspot was designated when a single artifact was found in a test hole or surface collected, and bracket test holes excavated to the north, south, east, and west on 1 m and 3 m intervals produced no additional artifacts or cultural features. No Historic period archaeological sites were identified.

3.3.1 Precontact Materials

The lithic artifact assemblage includes specimens of the following classes: lithic debitage, modified debitage, and bifaces. Each class of lithic artifacts is described below following a discussion of lithic raw material.

3.3.1.1 Lithic Raw Material

The lithic artifact assemblages were initially cleaned using a brush and tap water and then computer cataloged. Specimens were classified by class (e.g., flake, uniface, biface, etc.), description (morphological details such as stemmed or non-stemmed), material (lithic or rock type), and comments (e.g., information on artifact condition or modification). All rock identifications were made based on visual inspection using a low-powered (35X) binocular microscope. Rock types from the lithic assemblages are described in Table 5. They are distinguished primarily by differences in structure and texture that are indicative of the stone's history and origin. Artifact catalogs organized by archaeological sites and archaeological findspots are provided in Appendix 1.

Rock Ty	/pe	Definition	Comments		
Sedimentary	Chert	Microcrystalline structure with smooth, waxy luster. Composed of amorphous silica. Colors vary from gray, red, and variegated blood red with opaque inclusions having a bluish tint.	Onondaga chert from the Onondaga Limestone Formation, and other unsourced cherts		
Quartz		Macroscopic crystal forms ranging from opaque to translucent.	Ubiquitous sources in the region		

Table 5.	Rock types	identified a	t Precontact	period sites.
Tuble 0.	Rook types	nuclitutiou u	it i recontact	periou sites.



3.3.1.2 Lithic Artifact Class Definitions

Bifaces are stone tools formed by chipping opposing surfaces to produce a thin, sharp edge. As an artifact class, bifaces may include a variety of forms that reflect functional differences, stylistic preferences, and technological differences. Functional differences are typically distinguished based on the overall form of the artifact. For example, projectile points usually exhibit hafting modifications and a triangular or lanceolate-like blade, while bifaces with long, narrow distal ends that are thick and steeply edged are usually classified as drills. Stylistic preferences are most commonly viewed in the context of modifications to the proximal end of the biface that represent different hafting techniques. Archaeologists use stylistic preferences, particularly among projectile points, to define cultural relationships at both temporal and spatial scales (e.g., Ritchie 1980. Technological differences relate to the production process. This process is typically viewed as a continuum that begins with the selection of a suitable "blank" and ends with the final product (Callahan 1979). At any time during this process, the biface may be aborted for a variety of reasons (e.g., the biface broke, material flaws prevented further shaping, technological errors made by the manufacturer could not be overcome, etc.). Determining whether a biface recovered from an archaeological site is aborted or finished is a qualitative judgment usually based on comparison with other bifaces from the assemblage, as well as certain attributes, such as symmetry, blade edge sinuosity, and overall thickness. The bifaces recovered during the Phase IB testing in 2024 are complete or finished specimens. Neither of these bifaces are stemmed. Each are described in the following results section.

Quantitative attributes were measured with a digital sliding caliper and measured to 0.1 of a millimeter (mm); angle measurements were made with a hand-held goniometer. The same method of measuring bifaces was used for all artifact classes. The qualitative attributes typically define shapes and assist in characterizing the morphological traits of the biface.

Cores are artifacts used to produce lithic flakes that could then be manufactured into tools or utilized for a specific activity. The detached stone is commonly referred to as a "blank" and is often removed by striking along a steep-angled edge of the core. The side of the core from which the "blank" detaches is known as the core face, and the edge which is struck to detach the "blank" is called the striking platform. The shapes and sizes of cores may vary considerably, but are typically blocky or chunky in form.

Debitage is the term used to describe the waste products of stone tool manufacture. Because stone tool production is a process in which the tool maker reduces larger pieces of stone into smaller, finished artifacts using a variety of techniques and implements, debitage may vary widely in size and shape. Recognizable technological attributes, such as striking platforms and prominent flake scar arises, aid in the classification and interpretation of these artifacts. However, some stone used by Native Americans are not conducive to producing these attributes. Quartz, which is an abundant raw material in this collection, commonly has numerous structural flaws and poor conchoidal fracture that often cause it to break uncontrollably when impacted. These



qualities can make it difficult to assess the nature of quartz debris recovered from archaeological sites.

Utilized debitage shows one or more edges that show evidence of regular breakage, which is the result of use wear. Modification of the object is the result of use versus edge modification that was done with the intention of creating a working edge.

Modified debitage shows one or more edges that have been intentionally retouched to improve the object's functionality. Modification of the object takes place prior to use. The edge angle is not significantly changed through retouching and is >50°.

4.0 Results of Phase IB Fieldwork

The additional Phase IB fieldwork was completed using shovel test hole excavation. A total of 46 transects and 277 test holes were excavated within eight test areas. Figures 4–11 show the location of the test holes.

One new Precontact period archaeological site and two Precontact period find spots were identified.

4.1 Area A

Area A is along the western most edge of the Project Area northwest of Area B (Figure 3). Area A is located on the south side of the Mohawk River, on the south side of State Route 5S, and on the east side of Cunningham Road. Miller Drive bisects the western portion of Area A. The Area is composed of agricultural fields surrounded by wooded areas along the streams. Area A was divided into 3 Test Areas: Test Area P-1, Test Area P-2, and Test Area P-3. Test Area P-2 was further subdivided into Test Sub-Area P-2A, Test Sub-Area P-2B, Test Sub-Area P-2C, Test Sub-Area P-2D, Test Sub-Area P-2E, and Test Sub-Area P-2F. Additional Phase IB fieldwork was conducted on Test Sub-Area P-2C.

4.1.1 Test Sub-Area P-2C









4.1.1.1 Site P-2C-1













Transect No.		No. of THs		No. of Negative THs		No. of Positive THs		No. of No Dig THs		Summary of artifacts		

Table 6. Summary of test holes in Area A, Test Sub-Area P-2C.

4.2 Area B

Area B is along the western edge of the Project Area southeast of Area A. Area B is located on the western side of Lookout Road and north of Carlisle Road. Flat Creek is located along the eastern side of Lookout Road, adjacent to the Project Area. The Area is composed of soybean fields to the west and rolling grass fields throughout the rest of the area. Area B includes two test areas: Test Area P-4 and Test Area P-5 (Figure 3).

4.2.1 Test Area P-5







Transect No.		No. of THs		No. of Negative THs		No. of Positive THs		No. of No Dig THs		Summary of artifacts		

Table 7. Summary of transects in Area B, Test Area P-5.

4.2.2 Test Area P-5A





Table 8. Summary of transects in Area B, Test Area P-5A.

Transect No.		No. of THs		No. of Negative THs		No. of Positive THs		No. of No Dig THs		Summary of artifacts		y of ts



4.3 Area C

Area C is along the western edge of the Project Area south of Area B on the east and west sides of Carlisle Road at its intersection with Lincoln Road (Figure 3). Flat Creek runs through the portion of the Area located on the east side of Carlisle Road. The Area is composed of agricultural land except for the portions surrounding Flat Creek, which are steeply sloped and covered with shrub and tree vegetation. Area C contains two test areas, Test Area P-9 and Test Area P-10. Test Area P-10 was divided into 4 Test Sub-Areas: P-10A, P-10B, P-10C, and P-10D for ease of data collection.

4.3.1 Test Sub-Area P-9



Table 9. Summary of transects in Area C, Test Sub-Area P-9.

Trans	ect No.	No. c	of THs	No Negati	o. of ive THs	No Positi	o. of ve THs	No. Dig	of No THs	Sur a	nmar rtifac	y of ts



Transe	ect No.	No. o	of THs	No Negat	o. of ive THs	No Positi	o. of ve THs	No. o Dig	of No THs	Su a	mmary rtifacts	of s

Table 9. Summary of transects in Area C, Test Sub-Area P-9.

4.3.2 Test Sub-Area P-10C





Trans	ect No.	No. c	of THs	No Negati	o. of ive THs	No Positi	o. of ve THs	No. Dig	of No THs	Sur a	nmar rtifac	y of ts

Table 10. Summary of transects in Area C, Test Sub-Area P-10C.

4.4 Area D

Area D is located along the southern edge of the Project Area between Area C to the west and Areas E and F to the east (Figure 3). Area D includes portions north of Carlisle Road between Hilltop Road and Rappa Road as well as areas south of Carlisle Road north and south of Conway Road. The Area is composed of agricultural land and low flood plains surrounding portions of Flat Creek. The southwestern section of Area D includes dense shrubs and deciduous tree clusters. Area D was divided into four test areas: Test Area H-W2, Test Area P-12, Test Area P-13, and Test Area P-14. Test Area P-12 is located within Site Area NYSM 4019. NYSM 4019 was documented by A.C. Parker in 1922 and described as a village or earthworks with some Historic period occupation, but primarily exhibiting Native American cultural expressions. Site 05709.000120 is adjacent to H-W2 on the east side of the stream that forms the western boundary of Test Area HW-2 and will not be impacted by Project development.

4.4.1 Test Area P-12







Trans	ect No.	No. c	of THs	No Negati	o. of ive THs	No Positi	o. of ve THs	No. of Ti	No Dig Hs	Sur a	nmar rtifact	y of ts

Table 11. Summary of transects in Area D, Test Area P-12.

4.5 Area E

Area E is located along the south-central edge of the Project Area and north of Area F (Figure 3). Area E is north of Carlisle Road between Rappa Road to the west and Flat Creek Road to the east. The Area is composed of agricultural land with sloped sections, low and wet sections, and previously logged forests in the north. Area E was divided into three test areas; Test Area P-15 was excavated, Test Area P-18 was excavated and partially pedestrian surveyed, and Test Area P-17 was pedestrian surveyed. In 2023 Test Area P-16 was not investigated since it was not included in the Project APE. With the new design plans, it is now included in the Project APE.

4.5.1 Test Area P-16







4.6 Area F

Area F is located along the south-central edge of the Project Area and south of Area E (Figure 3). Area F is south of Carlisle Road on both sides of Mapletown Road. The Area is composed of maple and beech forests to the south and agricultural fields throughout the central and northern sections. Area F was divided into five test areas during Phase IB testing for ease of data collection: Test Area H-W3, Test Area H-W4, Test Area P-19, Test Area P-20, Test Area P-21. Except for Test Area H-W3, these areas were further subdivided into sub-test areas. Test Area H-W4 overlaps a portion of Test Area P-20. Site 05709.000119 is located within the southern portion of Test Area P-20 and consists of a single nondiagnostic biface found on the surface.

4.6.1 Test Area P-21

Test Area P-21 is located in the eastern portion of Area F. This Test Area was sub-divided into four Test Sub-Areas: Test Sub-Area P-21A, Test Sub-Area P-21B, Test Sub-Area P-21C, and Test Sub-Area P-21D for ease of data collection. Flat Creek, its associated tributaries, and wetlands run through the eastern side of the P-21.

4.6.2 Test Sub-Area P-21A





Tuble	IV. Oum	in a y	or tru	noceto n	i Aicu i ,		Alcui	21/1.				
Trans	sect No.	No Ti	. of Hs	No. of N T	Vegative Hs	No Positiv	. of ve THs	No. of TI	No Dig Hs	Sur a	nmary o rtifacts	of

Table 13. Summary of transects in Area F, Test Sub-Area P-21A.

5.0 Results of Phase II Site Investigations

Phase II fieldwork was completed using shovel test hole excavation and test unit excavation. Phase II testing was completed at Site P-2B-1 testing was also completed at Site P-23C-1

5.1 Site P-2B-1









Table 14. Summary of Phase II test holes in Area A, Site P-2B-1.

Tra	nsect	t No.	No. a	of THs	No Negati	o. of ive THs	No Positi	o. of ve THs	No. of T	No Dig Hs	Sur a	mmar rtifac	y of ts

5.2 Site P-23C-1





determine if site deposits are present and to identify areas of artifact concentrations (Figure 13) (Table 15). For ease of differentiating Phase II testing from Phase IB testing, the Phase II test holes were given a CL designation before the transect numbers when they overlapped the proposed collector line, AR when they overlapped the proposed access road, and INV when they overlapped the proposed inverter pad. Twenty-seven test holes were placed along the proposed collector line (CL) at 5 m intervals (Photos 33 and 34). The typical stratigraphy was composed of an approximately 30 cm thick Ap horizon of dark gray brown clay loam over a C soil horizon of mottled yellow brown clay. All test holes terminated in either compact clay or rock impasse. No archaeological materials were identified during excavation of the proposed collector line.











Table 15. Sulli	mary or r n	ase in test notes in	Alea O, Sile I -Z	JC-1.	
Transect No.	No. of THs	No. of Negative THs	No. of Positive THs	No. of No Dig THs	Summary of artifacts
CL	27	27	0	0	None
AR	24	24	0	0	None

 Table 15. Summary of Phase II test holes in Area G, Site P-23C-1.

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6.0 Conclusions and Recommendations

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INV

Total

In May 2024, TRC completed Phase II investigations of Site P-2B-1 and Site P-23C-1 and additional Phase IB investigations of a total of eight archaeologically sensitive test areas. For the additional Phase IB investigations, TRC excavated 277 test holes and identified one new Precontact period archaeological site and two Precontact period find spots. The new site (Site P-2C-1) . One findspot is **1000** (Findspot P-9-1), and one **1000** (Findspot P-12-3). All findspots date to the general Precontact time period. Site P-2C-1 dates to the Late Woodland to Contact period and is likely eligible for listing on the NRHP. Following the 2024 excavations and the identification of Site P-2C-1, the Project plans were changed to remove impacts to this site. Therefore, as the Project is currently proposed no additional archaeological testing is recommended for Site P-2C-1. Findspots are not considered indicative of archaeological sites, and no further testing is recommended for the two findspots identified.

0

0

0

0

None

Site P-23C-1



Phase II investigations of Site P-2B-1 and Site P-23C-1 included excavation of 76 test holes and six test units which yielded two lithic flakes, one from each site. Phase II excavations resulted in the determination that the portion of both sites located within the proposed areas of substantial ground disturbance are not eligible for listing the NRHP. Based on the current Project design plans no further archaeological testing is recommended for either of these sites.



7.0 References

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Based on plans date 6/4/24

Figures 3 to 13 have been redacted (11 pages) due to their confidential nature.

Photos 1 to 17 have been redacted (9 pages) due to their confidential nature.







Photos 24 to 30 have been redacted (4 pages) due to their confidential nature.





Photos 33 to 38 have been redacted (3 pages) due to their confidential nature.



Photos 40 to 41 have been redacted (1 page) due to their confidential nature.



Photos 43 to 44 have been redacted (1 page) due to their confidential nature.



Photos 46 to 47 have been redacted (1 page) due to their confidential nature.







APPENDIX 1 ARTIFACT CATALOGS



Site P-2B-1 Phase I/ II Precontact Catalog

Cat. #	Phase	Area/Subarea	Transect/ Test Hole	Level	Depth (cmbs)	Stratum	Class	Description	Material	Color	Quantity
001	1	A/P-2b	6/13	4	30-40	1	Lithic	Debitage	Chert	Gray	1
002	I.	A/P-2b	7/13	2	10-20	- I	Lithic	Debitage	Chert	Gray	1
003	I.	A/P-2b	13/4	1	0-10	- I	Lithic	Biface Preform	Rhyolite	Tan	1
004	II	A/P-2b	3/6	2	10-20	1	Lithic	Debitage	Chert	Gray	1

Site P-2C-1 Phase IB Precontact Catalog

Cat. #	Lot	Phase	Area/Subarea	Transect/ Test Hole	Level	Depth (cmbs)	Stratum	Class	Description	Material	Color	Quantity
001		IB	A/P-2c	7/3	2	15-20	I/II	Lithic	Debitage	Chert	Gray	1
002		IB	A/P-2c	8/2	2	10-20	I.	Lithic	Debitage	Chert	Gray	3
003		IB	A/P-2c	8/1	2	10-20	I.	Lithic	Debitage	Chert	Gray	2
004		IB	A/P-2c	7/4	3	20-30	I.	Lithic	Debitage	Chert	Dk Gray, Gray and Lt Gray	5
005		IB	A/P-2c	7/4	2	10-20	I	Lithic	Debitage	Chert	Dk Gray and Lt Gray	6
006		IB	A/P-2c	7/2	1	0-10	I	Lithic	Debitage	Chert	Gray	1
007		IB	A/P-2c	7/1	3	20-25	I/II Interface	Lithic	Debitage	Chert	Gray	2
008		IB	A/P-2c	6/4	3	20-22	I/II Interface	Lithic	Debitage	Chert	Gray and Lt. Gray	3
009		IB	A/P-2c	6/4	2	10-20	I	Lithic	Debitage	Chert	Gary and Lt Gray	4
010		IB	A/P-2c	6/3	2	10-20	1	Lithic	Debitage	Chert	Gray	3
011		IB	A/P-2c	6/2	3	20-30	I	Lithic	Debitage	Chert	Gray	1
012	.001	IB	A/P-2c	6/1	2	10-20	1	Lithic	Debitage	Chert	Gray	2
012	.002	IB	A/P-2c	6/1	2	10-20	1	Lithic	Debitage	Quartz	White	1
012	.003	IB	A/P-2c	6/1	2	10-20	1	Lithic	Debitage	Coal	Black	1
012	.004	IB	A/P-2c	6/1	2	10-20	I	Lithic	Modified Debitage	Chert	Gray	1
013	.001	IB	A/P-2c	5/3	3	20-30	1	Lithic	Debitage	Chert	Gray	3
013	.002	IB	A/P-2c	5/3	3	20-30	I	Lithic	Utilized Debitage	Chert	Gray	1
014		IB	A/P-2c	5/3	2	10-20	I	Lithic	Debitage	Chert	Gray and Lit Gray	3
015		IB	A/P-2c	5/2	3	20-30	I	Lithic	Debitage	Chert	Gray	1
016		IB	A/P-2c	5/1	4	29-30	I/II Interface	Lithic	Debitage	Chert	Gray	1
017		IB	A/P-2c	5/1	3	20-30	I	Lithic	Debitage	Chert	Gray	2
018		IB	A/P-2c	4/5	2	10-20	I	Lithic	Debitage	Chert	Gray	1
019		IB	A/P-2c	4/3	4	30-40	1	Lithic	Debitage	Chert	Gray	2
020		IB	A/P-2c	AR 2/5	2	10-20	I.	Lithic	Point	Chert	Gray	1
021		IB	A/P-2c	AR 3/5	1	0-10	I	Lithic	Debitage	Chert	Gray and Lt Gray	3
022	.001	IB	A/P-2c	AR 1/3	2	10-20	I	Lithic	Debitage	Chert	Gray	2
022	.002	IB	A/P-2c	AR 1/3	2	10-20	I	Lithic	Utilized Debitage	Chert	Gray	1
023		IB	A/P-2c	AR 2/5	2	10-20	I	Lithic	Debitage	Chert	Gray	1
024		IB	A/P-2c	AR 2/6	1	0-10	I	Lithic	Debitage	Chert	Gray	1

Site P-2C-1 Phase IB Precontact Catalog

Cat. #	Lot	Phase	Area/Subarea	Transect/ Test Hole	Level	Depth (cmbs)	Stratum	Class	Description	Material	Color	Quantity
025		IB	A/P-2c	AR 3/3	2	10-20	I	Lithic	Debitage	Chert	Gray	2
026	.001	IB	A/P-2c	AR 1/4	2	10-20	I	Lithic	Debitage	Chert	Gray	1
026	.002	IB	A/P-2c	AR 1/4	2	10-20	I	Lithic	Core	Chert	Gray	1
027	.001	IB	A/P-2c	AR 1/5	2	10-20	I	Lithic	Debitage	Chert	Mottled white and tan	3
027	.002	IB	A/P-2c	AR 1/6	2	10-20	I	Lithic	Modified Debitage	Chert	Gray	1
028		IB	A/P-2c	AR 1/6	2	10-20	I	Lithic	Debitage	Chert	Gray	6
029		IB	A/P-2c	AR 2/3	2	10-20	I	Lithic	Debitage	Unknown Chert	White, yellow and Gray mottled	1
030		IB	A/P-2c	AR 1/6	3	20-30	I	Lithic	Biface	Chert	Gray	1
031		IB	A/P-2c	AR 1/8	2	10-20	I	Lithic	Debitage	Chert	Gray	1
032		IB	A/P-2c	AR 1/6	3	20-30	I	Lithic	Debitage	Chert	Gray	11
033		IB	A/P-2c	AR 1/7	2	10-20	I	Lithic	Debitage	Chert	Gray	5

Site P-23C-1 Phase I/ II Precontact Catalog

Cat. #	Phase	Area/Subarea	Transect/ Test Hole	Level	Depth (cmbs)	Stratum	Class	Description	Material	Color	Quantity
001	I.	G/P-23c	64/1	1	0-10	I.	Lithic	Debitage	Chert	Gray	2
002	I	G/P-23c	13/7	1	0-10	I	Lithic	Scraper	Chert	Lt. Gray & Dk. Gray	1
003	I	G/P-23c	Surface Find #1	0	0	I	Lithic	Debitage	Chert	Gray	2
004.01	I	G/P-23c	Surface Find #2	0	0	I	Lithic	Retouched Flake	Chert	Brown & Black	1
004.02	I.	G/P-23c	Surface Find #2	0	0	I.	Lithic	Debitage	Chert	Gray	1
005	I	G/P-23c	Surface Find #3	0	0	I	Lithic	Retouched Flake	Chert	Gray	1
006	I.	G/P-23c	Surface Find #4	0	0	I.	Lithic	Debitage	Chert	Gray	1
007	I.	G/P-23c	Surface Find #5	0	0	I.	Lithic	Debitage	Chert	Lt. Gray	1
008	I.	G/P-23c	Surface Find #6	0	0	I.	Lithic	Utilized Flake	Chert	Gary	1
009	I.	G/P-23c	Surface Find #7	0	0	I.	Lithic	Utilized Flake	Chert	Gray	1
010	I.	G/P-23c	Surface Find #8	0	0	I.	Lithic	Debitage	Chert		1
011	I	G/P-23c	Surface Find #9	0	0	I	Lithic	Debitage	Chalcedony	Mottled White & Gray	1
012	I	G/P-23c	Surface Find #10	0	0	I	Lithic	Debitage	Chert	White	1
013	I	G/P-23c	Surface Find #11	0	0	I	Lithic	Biface	Chert	Tan	1
014	I	G/P-23c	Surface Find #12	0	0	I	Lithic	Utilized Flake	Chert	Gray	1
015	I	G/P-23c	Surface Find #13	0	0	I	Lithic	Debitage	Chert	Gray	1
016	II	G/P-23c-1	2	3	20-30	I	Lithic	Debitage	Chert	Gray	1

Findspots Phase I Precontact Catalog

Cat. #	Area/Subarea	Transect/ Test Hole	Level	Depth (cmbs)	Stratum	Class	Description	Material	Color	Quantity
P-9-1-001	C/P-9	18/2	1	0-10	1	Lithic	Cobble	Chert	Gray	1
P-9-1-002	C/P-9	18/2	1	30		Lithic	Debitage	Chert	Gray	1
P-12-3-001	D/P-12	32/5	1	0-10	I	Lithic	Modified Debitage	Chert	Gray	1

Appendix 2 (Shovel Test Hole Records and Test Unit Records) have been redacted (94 pages) due to their confidential nature.