

APPENDIX A

Figures and Maps

- Figure 1 Location Map
- Figure 2 Alternative 2 Proposed Site Plan
- Figure 3 Alternative 2 Proposed Building Layout
- Figure 4 Land Use Map
- Figure 5 Flood Zones Map
- Figure 6 Flood Insurance Rate Map
Community Panel #360191 0225

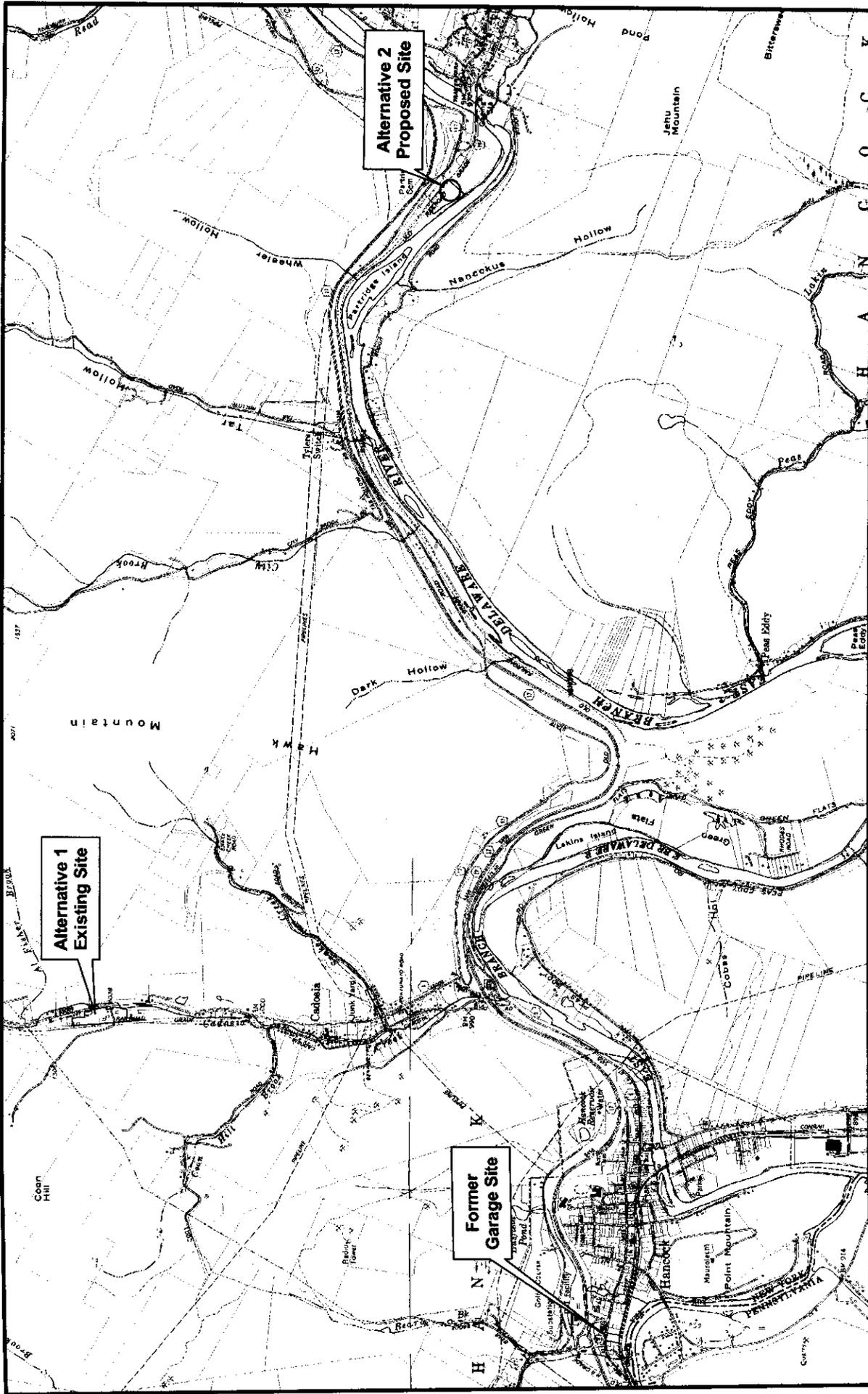


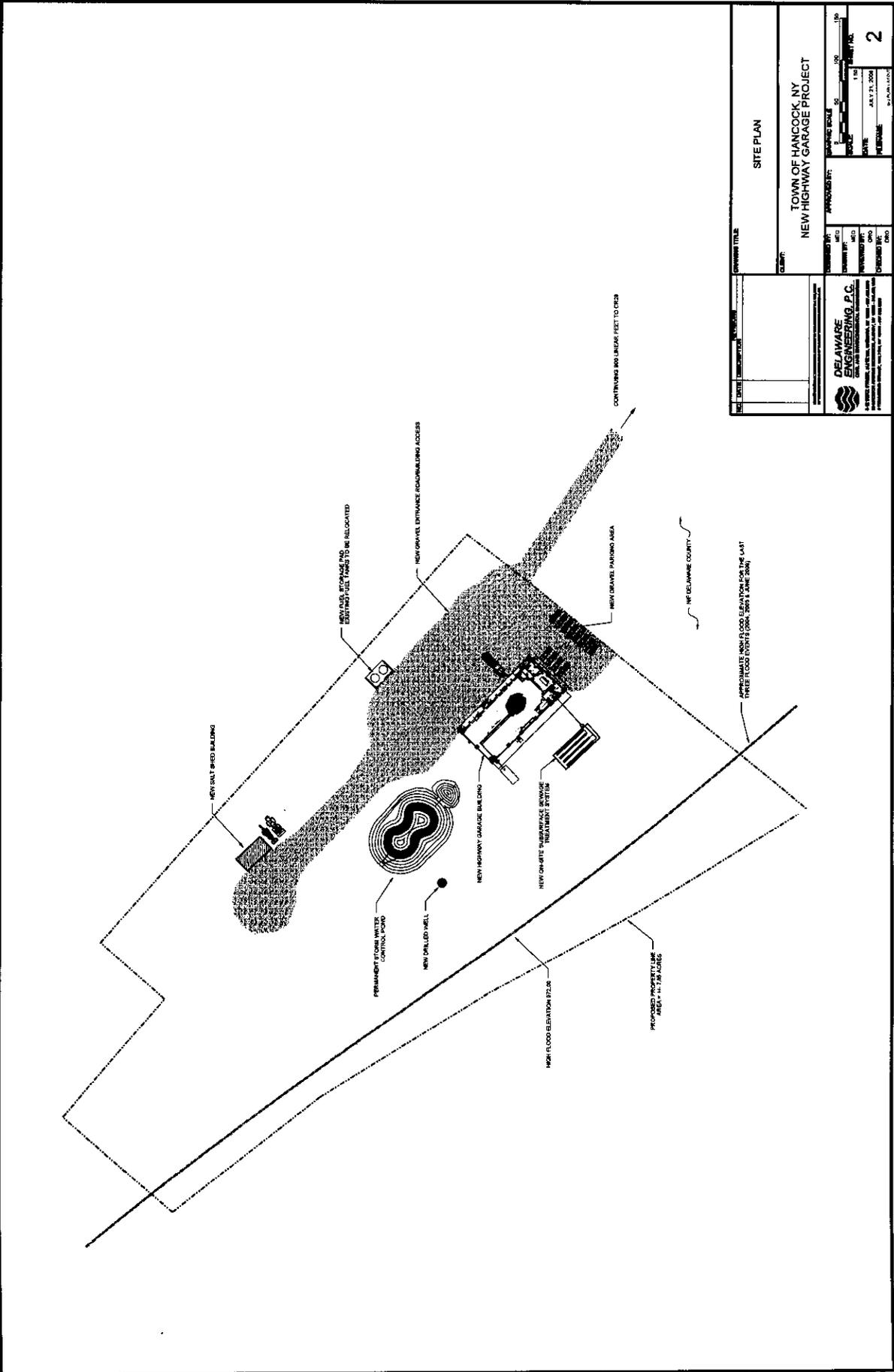
FIGURE 1

**SITE LOCATION MAP
NEW HIGHWAY GARAGE PROJECT**

TOWN OF HANCOCK, NEW YORK



Prepared by: Delaware Engineering P.C., March 2009
 Sources: Delaware Co. Parcel Boundaries, 2008
 NYS DOT 7.5' Digital Raster Quadrangle:
 Fishs Eddy (Y37) and Hancock (Y36), 1985



DATE: 07/27/2006	PROJECT: NEW HIGHWAY GARAGE PROJECT	SCALE: 1" = 100'	NO: 2
OWNER TITLE: SITE PLAN		PROJECT: TOWN OF HANCOCK, NY NEW HIGHWAY GARAGE PROJECT	
DESIGNED BY: DELAWARE ENGINEERING, P.C.	CHECKED BY: [Signature]	DATE: JULY 27, 2006	NO: 2
PROJECT NO: [Blank]	PROJECT NO: [Blank]	PROJECT NO: [Blank]	PROJECT NO: [Blank]
PROJECT NO: [Blank]	PROJECT NO: [Blank]	PROJECT NO: [Blank]	PROJECT NO: [Blank]

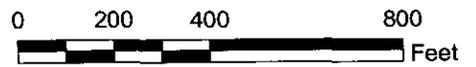


LEGEND

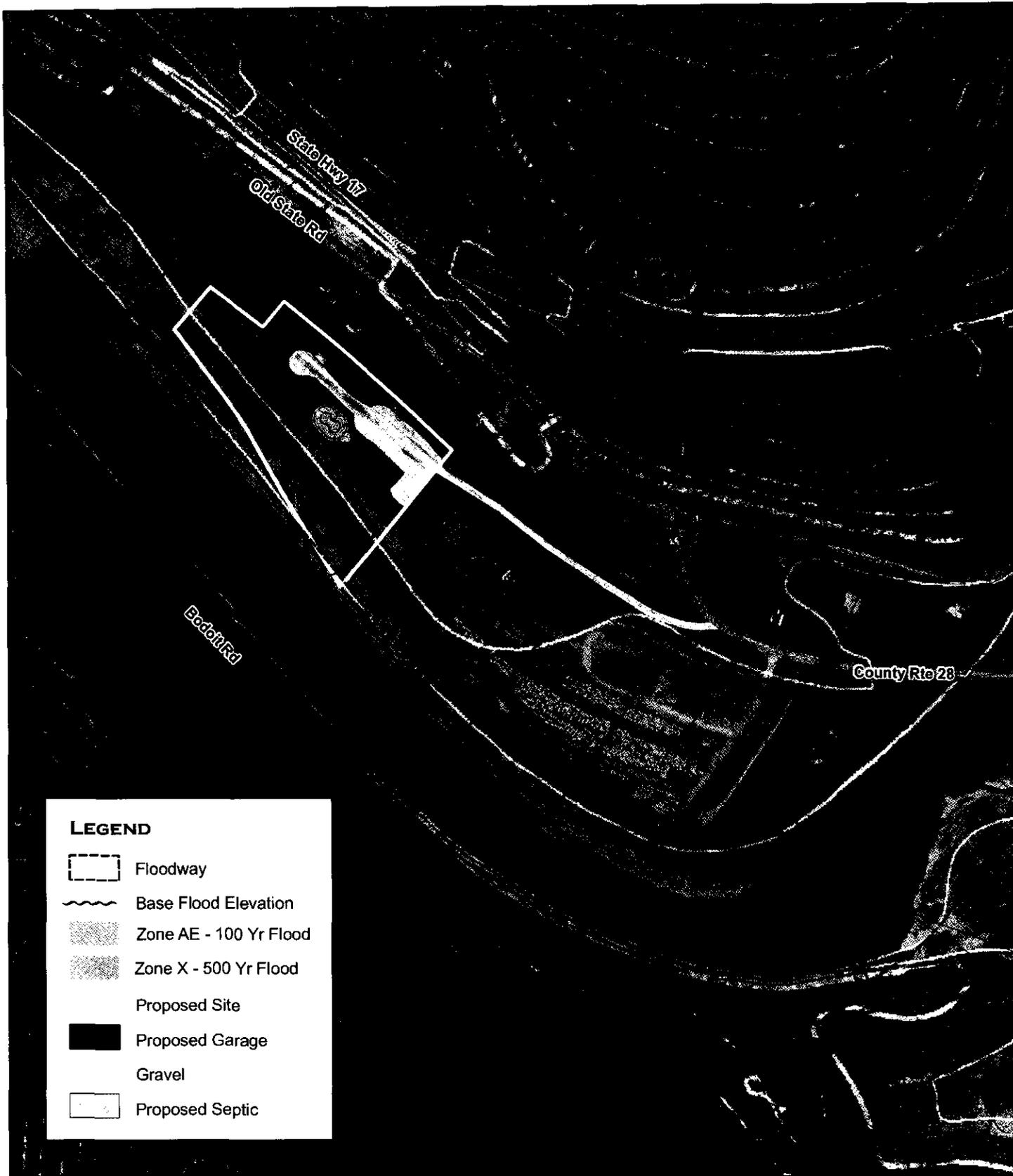
2008 PROPERTY CLASS CODES

-  Residential
-  Vacant Land
-  Commercial
-  Cemetery
-  Industrial/DPW Garage
-  Forested, Conservation

FIGURE 4
LAND USE MAP
NEW HIGHWAY GARAGE PROJECT
 TOWN OF HANCOCK, NEW YORK



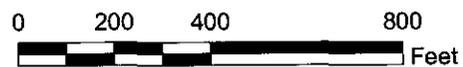
Prepared by: Delaware Engineering P.C., May 2009
 Sources: Delaware Co. Digital Tax Parcels, 2008



LEGEND

-  Floodway
-  Base Flood Elevation
-  Zone AE - 100 Yr Flood
-  Zone X - 500 Yr Flood
-  Proposed Site
-  Proposed Garage
-  Gravel
-  Proposed Septic

FIGURE 5
FLOOD ZONES MAP
NEW HIGHWAY GARAGE PROJECT
 TOWN OF HANCOCK, NEW YORK



Prepared by: Delaware Engineering P.C., March 2009
 Sources: FEMA Q3 Digital Flood Data 9/1996, and FIRM Map
 Community Panel # 360201 0027 B, 9/1990
 Delaware Co. Digital Tax Parcels, 2008
 NYS DOT 7.5' Digital Raster Quads: Fishs Eddy (Y37)
 w/USGS 20' Topo 1965

APPENDIX B

Agency Correspondence

U.S. Department of Homeland Security
Region II
Jacob K. Javits Federal Office Building
Mitigation Division
26 Federal Plaza, Room 1337
New York, NY 10278-0002



FEMA

November 18, 2009

Mr. Michael J. Clifford
Delaware County, Designated Conservationist
USDA-Natural Resources Conservation Service
44 West Street, Suite 1
Walton, NY 13856

Re: Farmland Protection & Policy Act Review
Town of Hancock, Proposed Highway Garage Facility, Delaware County, NY

Dear Mr. Clifford:

The Town of Hancock has proposed to construct a new highway garage facility in Delaware County off of County Route 28 just west of the Hamlet of Fishs Eddy. The structure would functionally replace the Town's existing highway garage on West Main Street which was severely damaged during a 2006 storm event. The proposed project is eligible for federal public assistance funding from FEMA Region II associated with disaster declaration: DR-1650-NY.

The site location for the proposed project has been formerly used for public works equipment storage and the site is disturbed with a mix of gravel and grass cover types. The soils in the project vicinity include soils classified as prime farmland. Due to the presence of prime farmland soils, FEMA requests your office review of the proposed action in accordance with the Farmland Protection & Policy Act. A project description and site maps are enclosed. We appreciate your assistance with reviewing the proposed action and identifying if it is appropriate for FEMA to submit a Farmland Conversion Impact Rating From AD-1006 given the site's existing condition and former DPW use and proposed development as a highway garage facility. We look forward to your response via mail, phone 212-680-3635 or via email at Megan.Jadrosich@dhs.gov.

Sincerely,

A handwritten signature in cursive script that reads "Megan Jadrosich".

Megan Jadrosich
Regional Environmental Officer

Enclosures: Project Description & Maps 1-4



Delaware Engineering, PC

28 Madison Avenue Extension
Albany, New York 12203

Tel: 518.452.1290
Fax: 518.452.1335

March 26, 2009

Ms. Tara Seoane
NYSDEC-DFWMR
Natural Heritage Program-Information Services
625 Broadway, 5th Floor
Albany, NY 12233-4757

**Re: Town of Hancock, Delaware County, NY
New Highway Garage Project**

**Sub: Request for Review of
Rare Species or Significant Natural Communities**

Dear Ms. Seoane,

We respectfully request that you review the New York Natural Heritage Program files with respect to known occurrences of endangered, threatened or special concern wildlife species, rare plant, animal or natural community occurrences or other significant habitats, in the vicinity of the project site.

The Town is planning to construct a new highway garage as an alternate project under FEMA's DR NY 1650 disaster assistance program. Before the project can proceed, FEMA is requiring that an environmental assessment be conducted to identify any potential environmental impacts due to the project.

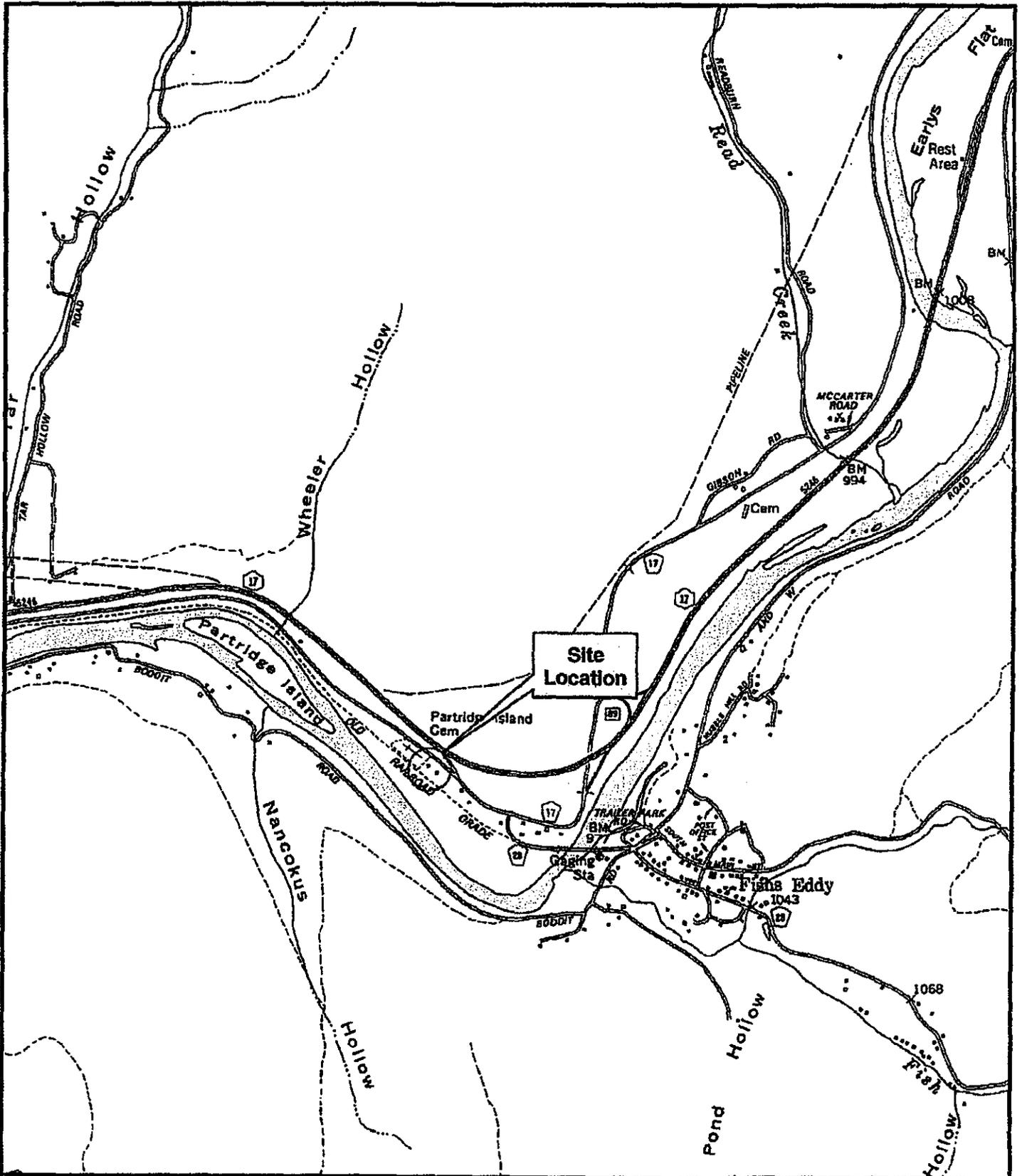
The site is located off of Route 28, adjacent to the County materials storage yard in Fishs Eddy, Delaware County, NY. A Site Location Map is enclosed. The proposed project involves the construction of a new 55 feet x 130 feet highway garage building as well as related parking and subsurface/septic facilities. The new building will house Town highway equipment and serve as the highway department's base of operation.

Our project team is in the process of completing Phase 1A field investigation and preparing the environmental assessment document. Therefore, your timely review of our request will be greatly appreciated. Please contact me at 452-1290 ext. 232 should you have any questions or require any additional information. Your assistance is greatly appreciated.

Respectfully,

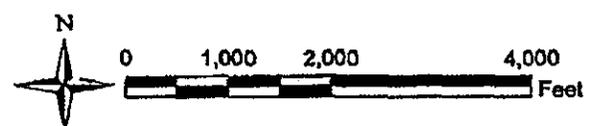
Stephanie Vetter, P.E.

cc: Grayling A Martin, Town Highway Superintendent
Dave Ohman, Delaware Engineering, P.C.



NEW HIGHWAY GARAGE LOCATION MAP

TOWN OF HANCOCK, NEW YORK



Prepared by: Delaware Engineering P.C., March 2009
Sources: NYS DOT 7.5" Digital Raster Quadrangle
Fish Eddy (Y37) 1985

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, Albany, New York 12233-4757
Phone: (518) 402-8935 • FAX: (518) 402-8925
www.dec.state.ny.us

RECEIVED

APR 18 2009



Alexander B. Grannis
Commissioner

DELAWARE ENGINEERING

April 16, 2009

Stephanie Vetter
Delaware Engineering
28 Madison Avenue Extension
Albany, NY 12203

Dear Ms. Vetter:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed New Highway Garage in Fishs Eddy, site as indicated on the map you provided, located off Rte 28, Town of Hancock, Delaware County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered sensitive and should not be released to the public without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environment impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,
Tara Salerno
Tara Salerno, Information Services
New York Natural Heritage Program

JP

Enc.

cc: Reg. 4, Regional Mgr.
Reg. 4, Fisheries Mgr.
Peter Nye, Endangered Species Unit, Albany

Natural Heritage Report on Rare Species

NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,
Albany, NY 12233-4757
(518) 402-8935



- This report contains SENSITIVE information that should not be released to the public without permission from the NY Natural Heritage Program.
- Refer to the User's Guide for explanations of codes, ranks and fields.
- We do not provide maps for species most vulnerable to disturbance.

Natural Heritage Report on Rare Species and Ecological Communities



REPTILES

Crotalus horridus

Timber
Rattlesnake

NY Legal Status: Threatened

NYS Rank: S3 - Vulnerable

Office Use

6656

Federal Listing:

Global Rank: G4 - Apparently secure

ESU

County: Delaware

Town: Hancock

Location: Documented within 1.5 miles of project site. Animals can move 1.5 miles or more from documented locations. For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager for the Region where the project is located.

1 Records Processed

More detailed information about many of the rare and listed animals in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, and from NYSDEC at <http://www.dec.ny.gov/animals/7494.html>.

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 625 Broadway, 5th Floor, Albany, NY 12233-4757 phone: (518) 402-8935



NATURAL HERITAGE PROGRAM: The NY Natural Heritage Program is a partnership between the NYS Department of Environmental Conservation (NYS DEC) and The Nature Conservancy. Our Mission is to facilitate the conservation of New York's biodiversity by providing comprehensive information and scientific expertise on rare species and natural ecosystems to resource managers and other conservation partners. We accomplish this mission by combining thorough field inventories, scientific analyses, expert interpretation, and the most comprehensive database on New York's distinctive biodiversity to deliver the highest quality information for natural resource planning, protection, and management.

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-house use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

EO RANK: A letter code for the quality of the occurrence of the rare species or significant natural community, based on population size or area, condition, and landscape context.

- A-E = Extant: A=Excellent, B=Good, C=Fair, D=Poor, E=Extant but with insufficient data to assign a rank of A-D.
- F = Failed to find. Did not locate species during a limited search, but habitat is still there and further field work is justified.
- H = Historical. Historical occurrence without any recent field information.
- X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
- U = Extant/Historical status uncertain.
- Blank = Not assigned.

LAST REPORT: The date that the rare species or significant natural community was last observed at this location, as documented in the Natural Heritage databases. The format is most often YYYY-MM-DD.

NY LEGAL STATUS – Animals:

Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Animals listed as Endangered, Threatened, or Special Concern are protected against taking, importation, transportation, possession, or sale without a permit. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

- E - Endangered Species:** any species which meet one of the following criteria:
 - Any native species in imminent danger of extirpation or extinction in New York.
 - Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.
- T - Threatened Species:** any species which meet one of the following criteria:
 - Any native species likely to become an endangered species within the foreseeable future in NY.
 - Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.
- SC - Special Concern Species:** those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York.
- P - Protected Wildlife** (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.
- U - Unprotected** (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.
- G - Game** (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NY LEGAL STATUS – Plants:

The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

- E - Endangered Species:** listed species are those with:
 - 5 or fewer extant sites, or
 - fewer than 1,000 individuals, or
 - restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
 - species listed as endangered by U.S. Dept. of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
- T - Threatened:** listed species are those with:
 - 6 to fewer than 20 extant sites, or
 - 1,000 to fewer than 3,000 individuals, or
 - restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
 - listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

R - Rare: listed species have:

- 20 to 35 extant sites, or
- 3,000 to 5,000 individuals statewide.

V - Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.

U - Unprotected; no state status.

FEDERAL STATUS (PLANTS and ANIMALS): The categories of federal status are defined by the United States Department of the Interior as part of the 1974 Endangered Species Act (see Code of Federal Regulations 50 CFR 17). The species listed under this law are enumerated in the Federal Register vol. 50, no. 188, pp. 39526 - 39527. The codes below without parentheses are those used in the Federal Register. The codes below in parentheses are created by Heritage to deal with species which have different listings in different parts of their range, and/or different listings for different subspecies or varieties.

(blank) = No Federal Endangered Species Act status.

LE = Formally listed as endangered.

LT = Formally listed as threatened.

C = Candidate for listing.

LE,LT = Formally listed as endangered in part of its range, and as threatened in the other part; or, one or more subspecies or varieties is listed as endangered, and the others are listed as threatened.

LT,PDL = Populations of the species in New York are formally listed as threatened, and proposed for delisting.

GLOBAL AND STATE RANKS (animals, plants, ecological communities and others): Each element has a global and state rank as determined by the NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State. Intraspecific taxa are also assigned a taxon rank to reflect the infraspecific taxon's rank throughout the world. ? = Indicates that the state or global rank is uncertain and more information is needed. Range ranks, e.g. S1S2, indicate not enough information is available to distinguish between two ranks.

GLOBAL RANK:

G1 - Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology.

G2 - Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.

G3 - Vulnerable: Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.

G4 - Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 - Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH - Historically known, with the expectation that it might be rediscovered.

GX - Species believed to be extinct.

GU - Lack of information or substantial conflicting information about status or trends makes ranking infeasible at this time.

NYS RANK:

S1 - Critically imperiled: Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.

S2 - Imperiled: Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

S3 - Vulnerable: Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

S4 - Apparently secure in New York State.

S5 - Demonstrably secure in New York State.

SH - Historically known from New York State, but not seen in the past 20 years.

SX - Apparently extirpated from New York State.

SU - Lack of information or substantial conflicting information about status or trends makes ranking infeasible at this time.

SxB and SxN, where Sx is one of the codes above, are used for migratory animals, and refer to the rarity within New York State of the breeding (B)populations and the non-breeding populations (N), respectively, of the species.

TAXON (T) RANK: The T-ranks (T1 - T5) are defined the same way as the Global ranks (G1 - G5), but the T-rank refers only to the rarity of the subspecific taxon.

T1 through T5 - See Global Rank definitions above.

Q - Indicates a question exists whether or not the taxon is a good taxonomic entity.



New York State Department of Environmental Conservation

Regional Permit Administrators

Region	Counties	Regional Permit Administrator
1	Nassau & Suffolk FAX: 631-444-0360	Roger Evans NYSDEC 50 Circle Rd SUNY @ Stony Brook Stony Brook, NY 11790-3409 631-444-0365 631-444-0355 (Duty Analyst-M,W&F only)
2	New York City, (Boroughs of Manhattan, Brooklyn, Bronx, Queens & Staten Island) FAX: 718-482-4975	John Cryan NYSDEC One Hunters Point Plaza 47-40 21st St Long Island City, NY 11101-5407 718-482-4997
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster & Westchester FAX: 845-255-3042	Margaret Duke NYSDEC 21 South Putt Corners Rd. New Paltz, NY 12561-1620 845-256-3054
4	Albany, Columbia, Greene, Montgomery, Rensselaer & Schenectady FAX: 518-357-2460	William Clarke NYSDEC 1130 North Westcott Rd. Schenectady, NY 12306-2014 518-357-2069
4(sub- office)	Delaware, Otsego & Schoharie FAX: 607-652-2342	Kent Sanders* NYSDEC 65561 State Highway - Route 10 HCR #1, Box 3A Stamford, NY 12167-9503 607-652-7741
5	Clinton, Essex, Franklin & Hamilton FAX: 518-897-1394	Thomas Hall NYSDEC Route 86, P.O. Box 296 Ray Brook, NY 12977-0296 518-897-1234
5(sub- office)	Fulton, Saratoga, Warren & Washington FAX: 518-623-3603	Thomas Hall NYSDEC P.O. Box 220 232 Golf Course Rd. Warrensburg, NY 12885-0220 518-623-1281

6	Jefferson, Lewis & St. Lawrence FAX: 315-785-2242	Larry Ambéau NYSDEC State Office Bldg. 317 Washington St. Watertown, NY 13601-3787 315-785-2245 or 2246
6(sub-office)	Herkimer & Oneida FAX: 315-793-2748	Patrick Clearey* NYSDEC State Office Building 207 Genesee St. Utica, NY 13501-3787 315-793-2555
7	Cayuga, Madison, Onondaga & Oswego FAX: 315-426-7425	John Feltman NYSDEC 615 Erie Blvd. West (Env. Permits Room 206) Syracuse, NY 13204-2400 315-426-7438
7(sub-office)	Broome, Chenango, Cortland, Tioga & Tompkins FAX: 607-753-8532	Michael Barylski* NYSDEC 1285 Fisher Ave. Cortland, NY 13045-1090 607-753-3095
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne & Yates FAX: 585-226-2830	Peter Lent NYSDEC 6274 East Avon Lima Rd. Avon, NY 14414-9519 585-226-2466
9	Erie, Niagara & Wyoming FAX: 716-851-7168	Steve Doleski NYSDEC 270 Michigan Ave. Buffalo, NY 14203-2999 716-851-7165
9(sub-office)	Allegany, Cattaraugus, & Chautauqua FAX: 716-372-2113	Charles Cranston* NYSDEC Suite 3, 182 East Union Allegany, NY 14706-1328 716-372-0645

*Deputy Regional Permit Administrator



David A. Paterson
Governor

Carol Ash
Commissioner

New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

21 August 2009

Mr. Michael O'Reilly
Delaware Engineering, P.C.
8-12 Dietz Street, Suite 303
Oneonta, NY 13820

Re: FEMA, SEMO
Hancock New Highway Garage
Town of Hancock, Delaware County
09PR03122

Dear Mr. O'Reilly:

The State Historic Preservation Office (SHPO) has reviewed the information submitted for this project (*Geomorphological Examination, Town Highway Garage Project, located in the Town of Hancock, Delaware County, New York, August 2009*, prepared by Birchwood Archaeological Services). Our review has been in accordance with Section 106 of the National Historic Preservation Act and relevant implementing regulations.

Based on the information provided in this and the previously submitted Phase IA report, SHPO recommends that the planned project will have No Effect on historic properties listed or eligible for listing on the National Register of Historic Places. This recommendation pertains only to the Area of Potential Effects (APE) examined during the above-referenced investigation. Should the project design be changed, SHPO recommends further consultation with this office.

These comments are those of the Field Services Bureau and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

If you have any questions please don't hesitate to contact me.

Sincerely,

Philip A. Perazio, OPRHP
Phone: 518-237-8643 x3276; FAX: 518-233-9049
Email: Philip.Perazio@oprhp.state.ny.us

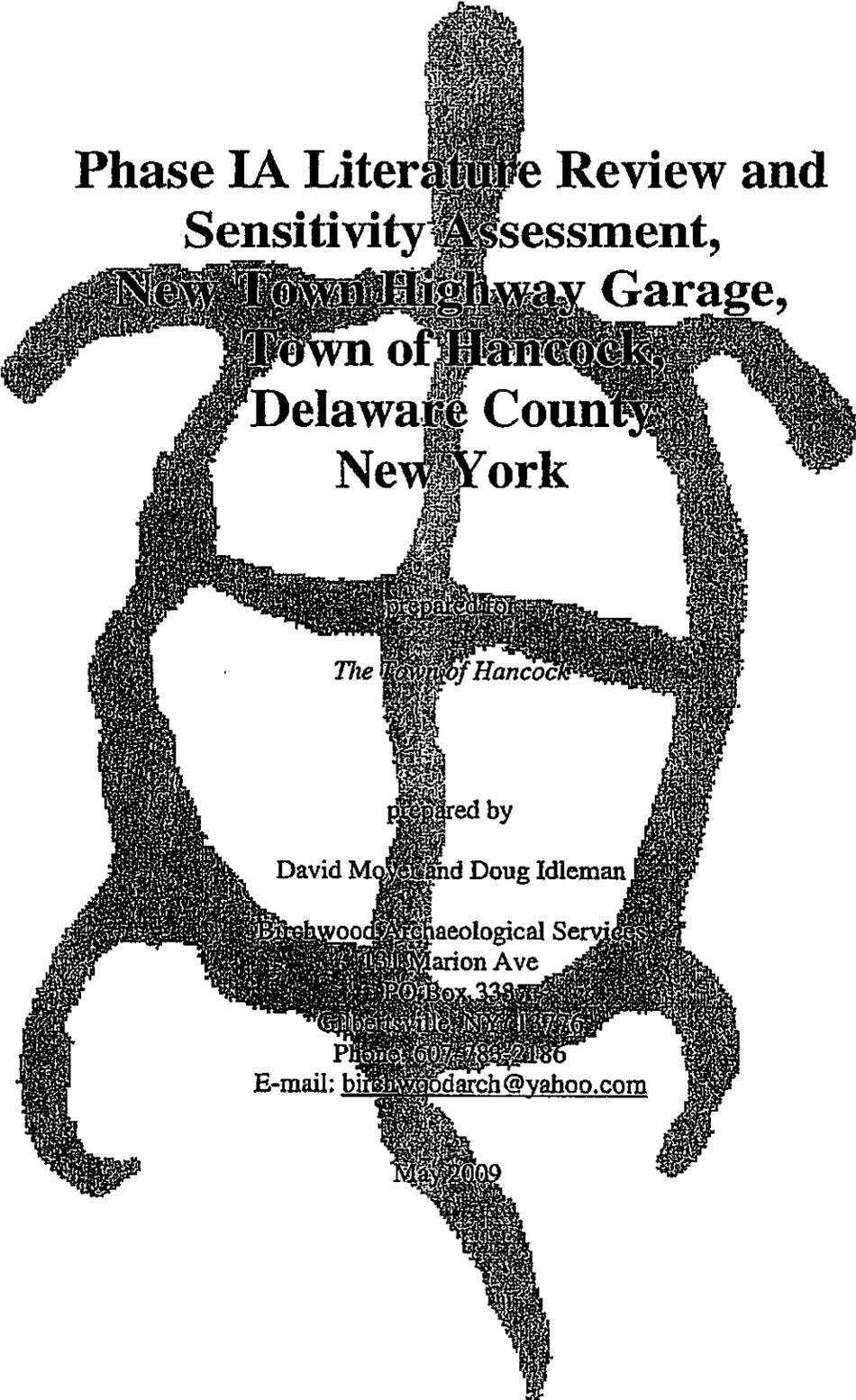
Cc: David Moyer, Birchwood Archaeological Services (via email)

APPENDIX C

Public Notices

APPENDIX D

**Phase 1A Cultural Resources Report
Geomorphological Examination**



**Phase IA Literature Review and
Sensitivity Assessment,
New Town Highway Garage,
Town of Hancock,
Delaware County
New York**

prepared for

The Town of Hancock

prepared by

David Moyer and Doug Idleman

Birchwood Archaeological Services

1631 Marion Ave

PO Box 338

Gilbertsville, NY 13776

Phone: 607-784-2136

E-mail: birchwoodarch@yahoo.com

May 2009

Management Summary

New Town Highway Garage Project

SHPO Project Review Number:

Involved State and Federal Agencies: DEC

Phase of Survey: IA

Location Information

Location: west of Fishs Eddy

Minor Civil Division: Town of Hancock

County: Delaware

Survey Area (Metric & English)

Length:

Width:

Depth: 5 ft (1.5 m)

Number of Acres Surveyed: 7.85 acres

Number of Square Meters & Feet Excavated:

Percentage of the Site Excavated:

USGS 7.5 Minute Quadrangle Map: Fishs Eddy

Archaeological Survey Overview

Number & Interval of Shovel Tests:

Number & Size of Units:

Width of Plowed Strips:

Surface Survey Transect Interval:

Results of Archaeological Survey

Number & name of prehistoric sites identified: 0

Number & name of historic sites identified: 0

Number & name of sites recommended for Phase II/Avoidance: 0

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area: 0

Number of buildings/structures/cemeteries adjacent to project area: 0

Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts: 0

Number of identified eligible buildings/structures/cemeteries/districts: 0

Report Author(s): Douglas Idleman and David Moyer

Date of Report: May 2009

Executive Summary

Birchwood Archaeological Services was contracted by Delaware Engineering for the Town of Hancock to conduct a Phase IA Literature Review and Sensitivity Assessment for the Town of Hancock Highway Garage Project, located in the Town of Hancock, Delaware County, New York. The project involves the construction of a new town garage as well as related parking and septic facilities. It also includes a new salt shed storage building, a new pad for fuel tank storage, a new drilled well, and permanent storm water control measures. The area of potential effects (APE), as shown on the site plan (Figure 2), is approximately 7.85 acres. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed.

Sites of all cultural time periods are known to exist in Delaware County, many of which are located near sources of fresh water. The current proposed improvements lie on a floodplain just north of the East Branch of the Delaware River. No precontact archaeological sites have been identified within one mile of the current project area, although natural resources abound throughout the local area, which would have made it an excellent location for prehistoric people to procure and/or process a large variety of seasonal resources. As a result of its physical location and environment, the project area would be considered highly sensitive for prehistoric remains. But due to substantial disturbance the project area is considered poorly sensitive regarding prehistoric remains. In addition, the Phase IA review identified one historic site within a mile. This is the A. Maynard Sawmill site located on Fish Creek in the hamlet of Fishs Eddy reported by the Hanford Mills Museum. While there are multiple historic structures and a cemetery close to the project area, there are no structures located on the APE. Again, because of the heavy disturbance, the project area is considered poorly sensitive for historic archaeological sites.

A surface examination was conducted in all areas of proposed ground disturbing activities in order to test for cultural deposits that may be impacted by the proposed project. The entire 7.85-acre area of potential effects (APE) was surveyed using visual inspection. The entire project area is heavily disturbed and the potential for any intact archaeological remains is low.

Based on these findings, we recommend that a Phase IB field investigation is not necessary.

Table of Contents

Executive Summary.....	ii
List of Tables	iv
List of Figures	iv
List of Photographs	iv
Introduction	1
Part I: Documentary Research	2
Environmental Setting	2
Soils	3
Current/Past Land Use.....	7
Disturbance.....	7
Previous Surveys	7
Prehistoric Overview.....	7
Known Prehistoric Sites	6
Historic Overview.....	6
Known Historic Sites and Structures.....	11
Assessment of Sensitivity for Cultural Resources	12
Prehistoric Sensitivity	12
Historic Sensitivity	12
Part II: Field Assessment	13
Methodology	13
Field Walkover and Surface Collection.....	13
Results	14
Surface Inspection	14
Structures	14
Visual Impacts	15
Part III: Summary and Recommendations	16
References Cited	17
Appendix A. Figures	A-1
Appendix B. Photos	B-1

List of Tables

Table 1. Typical soil profile of Barbour loam series.....	3
Table 2. Typical soil profile of Trestle silt loam series.....	4
Table 3. Typical soil profile of Basher silt loam series.....	4
Table 4. Typical soil profile of Tunkhannock gravelly loam series.....	5
Table 5. Previous cultural resource surveys within one mile of project area.....	7
Table 6. Previously identified historic sites within one mile of project area	11

List of Figures

Figure 1. Map showing the location of the project area on Fishs Eddy USGS 7.5 minute topographic map.....	A-1
Figure 2. Site map showing the location of photo angles within the project area.....	A-2
Figure 3. Map showing the location of the project area on NRCS soil map.....	A-3
Figure 4. Portion of 1829 Burr Map with the approximate location of the project area indicated.....	A-4
Figure 5. Portion of 1856 J. Gould Map with the approximate location of the project area indicated.....	A-5
Figure 6. Portion of 1869 Beers Map with the approximate location of the project area indicated.....	A-6
Figure 7. Portion of 1923 Long Eddy USGS topographic map with the approximate location of the project area indicated.....	A-7
Figure 8. Aerial photograph showing the location of the project area.....	A-8

List of Photographs

Photo 1. Portion of panoramic view from the northwestern end of project are, facing north.....	B-1
Photo 2. Portion of panoramic view from the northwestern end of project are, facing northeast.....	B-1
Photo 3. Portion of panoramic view from the northwestern end of project area, facing southeast.....	B-2
Photo 4. Portion of panoramic view from the northwestern end of project are, facing southwest.....	B-2
Photo 5. Portion of panoramic view from the northwestern end of project are, facing west.....	B-3
Photo 6. Portion of panoramic view from the northwestern end of project are, facing northwest.....	B-3
Photo 7. View of ditch in northwestern portion of project area, facing southwest.....	B-4
Photo 8. View of ditch running adjacent to fence line, facing northwest.....	B-4
Photo 9. View of ditch running adjacent to fence line, facing southeast.....	B-5
Photo 10. Portion of panoramic view from the southeastern end of project area, facing north.....	B-5
Photo 11. Portion of panoramic view from the southeastern end of project area, facing northeast.....	B-6
Photo 12. Portion of panoramic view from the southeastern end of project area, facing southeast.....	B-6

List of Photographs, continued

- Photo 13. Portion of panoramic view from the southeastern end of project area, facing south..... B-7
- Photo 14. Portion of panoramic view from the southeastern end of project area, facing southwest..... B-7
- Photo 15. Portion of panoramic view from the southeastern end of project are, facing west..... B-8
- Photo 16. View of road and ditch running along southern fence line, facing northwest..... B-8
- Photo 17. View of vertical pipes (unknown function) and ditch along southern fence line, facing southeast..... B-9
- Photo 18. View of vertical pipe (unknown function) and cut running into ditch along southern fence line, facing southwest..... B-9
- Photo 19. View of project area from entrance, facing northwest..... B-10
- Photo 20. View from project area towards entrance road, facing southeast..... B-10

Introduction

Birchwood Archaeological Services was contracted by Delaware Engineering for the Town of Hancock to conduct a Phase IA Literature Review and Sensitivity Assessment for the Town of Hancock Highway Garage Project, located in the Town of Hancock, Delaware County, New York. The overview had been requested to assess the potential that significant cultural resources may be located within the project area. The investigation was performed in compliance with Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law.

The project involves the construction of a new town garage as well as related parking and septic facilities. It also includes a new salt shed storage building, a new pad for fuel tank storage, a new drilled well, and permanent storm water control measures. The area of potential effects (APE), as shown on the site plan (Figure 2), is approximately 7.85 acres. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) within the building footprint.

Background research was conducted to assess the potential for prehistoric and historic resources on the property and provide contexts with which to interpret any future findings (see Part I: Documentary Research).

Part I: Documentary Research

Documentary sources and collections were consulted to gain an overview of the prehistory, history, and environmental setting of the project area and surrounding region. A search was also conducted to locate known archaeological sites, historic structures, and National Register properties within one mile of the project area. Sources of information that were consulted included:

- Office of Parks, Recreation and Historic Preservation (OPRHP) site files and survey reports
- New York State Museum site files (copies at OPRHP)
- National Register of Historic Places
- New York State Library and Archives, Albany
- New York State Historical Association Library, Cooperstown
- Milne Library, SUNY Oneonta

Specific documentary references that were consulted are listed in the bibliography.

Environmental Setting

Delaware County is situated in the western foothills of the Catskill Mountains in central New York State, encompassing both the East and West Branches of the Delaware River. Its most prominent geographic feature is the Catskill Mountains, which are highest in elevation in the eastern part of Delaware County and decrease in height as one moves west across the County. The project lies within the Delaware section of the Glaciated Allegheny Plateau physiographic region.

The Delaware section of the Glaciated Allegheny Plateau consists of large, U-shaped valleys with topography reflecting both deglacial and postglacial. Most of the soils in the project vicinity were laid down as outwash following deglaciation, followed by continued deposition from flood events. (Seifried et. al, 2009).

The project area is located on a floodplain terrace on the northern bank of the East Branch of the Delaware River, just west of the Hamlet of Fishs Eddy (Figures 1 and 2; Photos 1-20). Elevation is relatively level throughout the project area, ranging from approximately 968.00ft (295.05m) above mean sea level near the East Branch, to 988ft (301.14m) above mean sea level on the slope to the northeast. The East Branch flows northwest along the southwestern edge of the project area, approximately 200.0ft (60.96m) from the proposed construction activities. Fish Creek flows into the East Branch approximately 1,845.00ft (562.36m) east of the project area, while an unnamed stream flows into the East Branch from the south, 1,910.00ft (582.17m) northwest of the project area.

Soils

The NRCS web soil survey (WSS) shows three soil types as occurring within the boundaries of the current project: Barbour-Trestle complex (map unit Bg), Basher silt loam (map unit Bs), and Tunkhannock gravelly loam (map unit TkB). The Barbour-Trestle complex is a mixture of Barbour loam and Trestle silt loam where the two soils cannot be differentiated from one another. This soil type is found running along most of the southwestern half of the project area. The Barbour series consists of very deep well drained soils formed in recent alluvial deposits derived from areas of acid, reddish sandstone, siltstone, and shale. They are nearly level or gently sloping soils on flood plains. Mean annual temperature is 50 degrees F, and mean annual precipitation is 40 inches. A typical soil profile of Barbour loam is listed below in Table 1.

Table 1. Typical soil profile of Barbour loam.

Horizon	Depth	Description
Ap	0-6 in (0-15 cm)	dark reddish brown (5YR 3/2) loam, pinkish gray (5YR 6/2) dry; weak fine granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary (6 to 10 inches thick)
Bw1	6-18 in (15-46 cm)	reddish brown (5YR 4/3) silt loam; weak coarse prismatic structure parting to weak medium, fine and very fine subangular blocky; friable; common fine roots; common fine pores; faces of peds are dark reddish brown (5YR 3/3); strongly acid; clear wavy boundary (12 to 24 inches thick)
Bw2	18-26 in (46-66 cm)	reddish brown (5YR 4/3) gravelly loam; very weak fine subangular blocky structure; friable; common fine roots; few fine pores; 20 percent gravel; strongly acid; clear wavy boundary (0 to 10 inches thick)
2C	26-72 in (66-183 cm)	reddish brown (5YR 4/4) very gravelly loamy sand; single grain; loose; 50 percent gravel; strongly acid

The Trestle series consists of very deep, well drained soils formed in stratified alluvium over outwash or valley fill materials. They are nearly level to gently sloping soils along high gradient streams and in fan positions. Permeability is moderate to moderately rapid in the solum and rapid in the substratum. Slope ranges from 0 to 6 percent. Mean annual temperature is about 47 degrees F. and mean annual precipitation is about 39 inches. A typical soil profile of Trestle silt loam is listed below in Table 2.

Table 2. Typical soil profile of Trestle silt loam.

Horizon	Depth	Description
Ap	0-10 in (0-25 cm)	brown (7.5YR 4/2) silt loam; weak medium granular structure; friable; common fine roots; common fine pores; 10 percent gravel; moderately acid; clear wavy boundary. (6 to 11 inches thick.)
Bw1	10-18 in (25-46 cm)	brown (7.5YR 5/4) gravelly silt loam; weak medium subangular blocky structure; friable; common fine and few coarse roots; common fine and few coarse pores; 15 percent gravel; moderately acid; clear wavy boundary.
Bw2	18-23 in (46-58 cm)	brown (7.5YR 4/4) gravelly loam; weak medium subangular blocky structure; very friable; few fine and coarse roots; common fine and few coarse pores; 25 percent gravel; moderately acid; clear wavy boundary. (Combined thickness of the B horizon ranges from 7 to 19 inches.) boundary (0 to 10 inches thick)
2C	23-72 in (58-183 cm)	dark reddish brown (5YR 3/4) very gravelly coarse sandy loam; massive; loose; 60 percent gravel and cobblestones; moderately acid.

The Basher silt loam soil type is located in a small area in the northwest portion of the project area. The Basher series consists of very deep, moderately well drained soils formed in recent alluvial deposits derived from acid, reddish siltstone, sandstone, and shale. They are nearly level soils on flood plains. Permeability is moderate in the A horizon and B horizon, and moderate or moderately slow in the upper part of the C horizon, and moderate or moderately rapid in the lower part. Mean annual temperature is 50 degrees F., and mean annual precipitation is 40 inches. A typical soil profile of Basher silt loam is listed below in Table2.

Table 3. Typical soil profile of Basher silt loam.

Horizon	Depth	Description
Ap	0-9 in (0-23 cm)	dark reddish brown (5YR 3/4) silt loam, light reddish brown (5YR 6/4) dry; weak fine granular structure; friable; many fine roots; very strongly acid; clear smooth boundary. (6 to 10 inches thick)
Bw1	9-14 in (23-36 cm)	dark reddish brown (5YR 3/4) silt loam; weak medium subangular blocky structure parting to weak medium granular; friable; many fine roots; common fine pores; very strongly acid; clear wavy boundary.
Bw2	14-20 in (36-51 cm)	reddish brown (5YR 4/3) gravelly loam; very weak fine subangular blocky structure; friable; common fine roots; few fine pores; 20 percent gravel; strongly acid; clear wavy boundary (0 to 10 inches thick)

Table 3. Typical soil profile of Basher silt loam (continued).

Horizon	Depth	Description
BC	20-27 in (51-69 cm)	yellowish brown (10YR 5/4) silt loam; very weak medium subangular blocky structure; friable; few fine roots; common fine pores; many medium distinct grayish brown (10YR 5/2) iron depletions and common medium distinct strong brown (7.5YR 5/6) iron concentrations; very strongly acid; clear wavy boundary. (0 to 12 inches thick)
C1	27-32 in (69-81 cm)	grayish brown (10YR 5/2) loam; massive; friable; few fine roots; few fine pores; many medium distinct yellowish brown (10YR 5/4) iron concentrations; moderately acid; clear irregular boundary.
C2	32-42 in (81-107 cm)	gray (10YR 5/1) loam; massive; friable; few fine roots; few fine pores; common medium distinct yellowish brown (10YR 5/4) iron concentrations; slightly acid; clear wavy boundary.
C3	42-72 in (107-183 cm)	very dark gray (10YR 3/1) fine sandy loam; massive; very friable; contains partially decomposed woody and herbaceous organic material; moderately acid.

The Tunkhannock soil type encompasses the entire northeast half of the project area away from the East Branch. The Tunkhannock series consists of very deep, well to somewhat excessively drained soils formed in water-sorted glacial material derived from reddish sandstone, siltstone, and shale. Slope ranges from 0 to 60 percent. Permeability is moderately rapid in the solum and rapid in the substratum. Mean annual precipitation is 40 inches. Mean annual temperature is 50 degrees F. A typical soil profile of Tunkhannock gravelly loam is listed below in Table 4.

Table 4. Typical soil profile of Tunkhannock gravelly loam.

Horizon	Depth	Description
AP	0-8 in (0-20 cm)	brown (10YR 4/3) gravelly loam, pale brown (10YR 6/3) dry; weak fine granular structure; very friable, nonsticky, slightly plastic; common roots; 15 percent rock fragments; slightly acid; abrupt smooth boundary. (5 to 12 inches thick.)
Bw1	8-16 in (20-41 cm)	brown (7.5YR 5/4) gravelly loam; weak medium subangular blocky structure; friable, nonsticky, slightly plastic; common roots; 20 percent rock fragments; slightly acid; clear wavy boundary.
Bw2	16-26 in (41-66 cm)	reddish brown (5YR 4/4) very gravelly loam; weak coarse subangular blocky structure; friable, nonsticky, slightly plastic; common roots; 45 percent rock fragments; moderately acid; gradual wavy boundary. (Combined thickness of the Bw is 13 to 32 inches.)

Table 4. Typical soil profile of Tunkhannock gravelly loam (continued).

Horizon	Depth	Description
BC	26-30 in (66-76 cm)	reddish brown (5YR 4/4) extremely gravelly sandy loam; very weak medium subangular blocky structure; very friable, nonsticky, nonplastic; common roots; 60 percent rock fragments; strongly acid; gradual wavy boundary. (0 to 12 inches thick.)
C	30-72 in (76-183 cm)	reddish brown (5YR 4/3) extremely gravelly loamy sand and stratified loamy fine sand; single grain; loose, nonsticky, nonplastic; few roots in upper part; 60 percent rock fragments; strongly acid.

The above soil profiles suggest that both historic and prehistoric resources may potentially be found in approximately the first 46 cm (18 in) of soil overlaying parent material. The soil survey did not indicate the presence of any buried A horizons in the soil profiles within or adjacent to the current project. Testing should extend at least 20 cm (8 inches) below the B horizons. All resources are expected to be confined to the A and B horizons.

This soil information is based upon documentary sources examined prior to the initiation of fieldwork. As a result, it may be necessary to modify the subsurface testing strategy in the field to meet unexpected soils, disturbances and other obstructions. The results of the subsurface testing and how they compare with the above soils information is discussed in the *Results* section of this report.

Current/Past Land Use

The project area is currently in use by the Delaware County Department of Public Works as a general storage area for materials such as unused culverts (Photos 1 and 4) and gravel (Photos 13 and 14). The project area does not seem to have been used recently for agricultural purposes, however, the level of disturbance present could very well have erased all signs that would indicate anything agriculturally related. The current proposed project is very much in keeping with this current land use, as the proposed construction area has been used by the county highway department for many years.

Disturbance

Most, if not all, of the project area seems to have been heavily disturbed from. The central portion seems to have been graded throughout for leveling purposes with fill used to make roads for access purposes within the APE (Photos 1-20). A shallow ditch seems to have been excavated along a southern roadway also within the center of the project area (Photo 16). A chain link fence runs along the northern, southern, and western sides of the project area with ditches running along the inside of the northern and southern fences (Photos 1-6, 8-9).

Previous Surveys

One cultural resource survey has been conducted within one mile of the project area (Table 3). John Milner Associates completed a Phase IA survey in 2006 as part of PIN 9066.94.102, the New York State Route 17 upgrades and conversion to Interstate 86 project, in the Town of Hancock, Delaware County, NY. This survey did not identify any archaeological sites.

Table 5. Previous cultural resource surveys within one mile of the project area.

Project Name	Reference	No. of Sites Identified
PIN 9066.94.102 Phase IA	(John Miller Associates 2006)	0

Prehistoric Overview

Glaciers covered much of central New York during the Wisconsin glaciation, which ended about 12,000 years ago. People may have begun occupying the area soon after the glaciers retreated. These Paleoindians were organized in highly mobile bands adapted to tundra and boreal forest environments. While archaeologists have traditionally emphasized the hunting of large megafauna such as mammoth and bison, there is increasing evidence that Paleoindians exploited a diverse array of small game and wild

plants. Ritchie (1994: 4-5) notes several fluted point finds indicative of Paleoindian occupation along the northern part of Delaware County, although no Paleoindian camps have been identified near the project area.

Around 7000 B.C., stands of spruce and fir rapidly gave way to a denser forest of pine and deciduous trees, with oak becoming a dominant species. This drier climate supported less game and provided fewer plant resources for human populations. As a result, few sites dating from this Early and Middle Archaic period have been discovered in the region. Those few sites that have been found dating to this period are often found near water sources and suggest that people lived in small mobile bands and subsisted on gathered and hunted wild resources.

Beginning around 6500 B.C., the climate became increasingly wetter, resulting in an environment similar to ours today. The large number of sites from this period suggests that Late Archaic populations increased significantly at this time. While people continued to live in small, mobile bands, there was an increasing trend toward sedentism. Subsistence practices were highly diverse and included a wide variety of aquatic and terrestrial resources. Late Archaic sites range from small upland camps to large villages near the confluences of major streams. During the latter part of this period, the Lamoka and Brewerton phases figure prominently in the prehistory of the region. No beveled axes indicative of the Lamoka phase have been identified in Delaware County (Ritchie 1994:45).

The Transitional Period (ca. 1300-1000 B.C.) is characterized by the use of steatite vessels and smoking pipes, which gradually give way to large, thick pottery vessels. This period is very much a continuation of Late Archaic life ways, with increasing sedentism and reliance on plant resources. The Woodland Period begins about 1000 B.C. and is marked by the introduction of pottery and the development of an elaborate trade and ceremonial complex. It is during this time that people gradually began to cultivate plants.

The Late Woodland Period began around A.D. 1000 and is differentiated from its predecessor primarily on the basis of projectile point types, pottery styles and diet (Funk 1976). Hoe cultivation also appears during Late Woodland times. Diet was largely made up of cultigens (corn, beans and squash) and game supplemented by fishing and the gathering of aquatic and terrestrial resources. Large, permanent village sites occur along major rivers as well as defensive locations (Ritchie 1994). Small, ephemeral sites also occur, probably used as camps for resource extraction. These smaller sites are located in a wide variety of geographic contexts, ranging from wetlands and backwater drainages to forested uplands. After about A.D. 1400, the Iroquois culture was fully developed, with intensive horticulture and large, palisaded villages (Ritchie and Funk 1973).

Known Prehistoric Sites

A check of site files of the Office of Parks, Recreation, and Historic Preservation and the New York State Museum indicated that no prehistoric sites are known within one mile of the project area.

Historic Overview

Delaware County lies in the south central region of New York State with the southwestern edge of the County bordering Pennsylvania. The headwaters of the Delaware River run through the County from northeast to southwest in two separate branches that are known as the West Branch in the north, and the East Branch in the south. The branches of the Delaware and its tributaries account for the terrain of Delaware County, which is mostly made of relatively steep ridges and the valleys formed by the various waterways. The Catskill State Park runs through portions of the southeastern section of the County, making the eastern border of the County the Catskill Mountains. Portions of the Susquehanna River valley make up the northern border of Delaware County. The soil is made up mostly of reddish clay and is well known for being extremely rocky. Delaware County was created from parts of Ulster County and Otsego County on March 10, 1797 and Delhi became the county seat in 1817, but the first land grant was given in 1708. This was the 10 square mile Hardenburgh Patent, which was granted to Johannes Hardenburgh of Kingston and included the area south of the East branch of the Delaware River (French 1860). But it wasn't until 1762-1763, that Dutch settlers from Hurley, NY came and began to settle the area. It was from this time through to the early 1770's that many more settlers came to Delaware County. Most of these early settlers were driven out of the area by Native American groups in the early days of the Revolutionary War (Sullivan 1927). Most of these people returned after the Revolution with many more people later following to settle Delaware County. Logging was the first major industry, but as that decreased in popularity dairy farming took over as the main industry, continuing through to the present.

The Town of Hancock is located in the southwestern most section of Delaware County. It is bordered on the east by the Town of Colchester, on the north by the Towns of Tompkins and Deposit, on the south by Sullivan County and on the west by the Delaware River and the State of Pennsylvania. It was officially organized as a township in 1806 from the Town of Colchester (Sullivan 1927), being named in honor of John Hancock, the President of the Continental Congress (French 1860). As Hancock is where the East Branch and the West Branch of the Delaware River come together, it was always an important spot for many of the early settlers to the area. The first permanent settler to the area was Josiah Parks, who arrived near the beginning of the American Revolution (Sullivan 1927). He was a former officer in the British Navy whose descendants lived in Hancock through the end of the 19th century (Munsell 1880). Other early settlers include Dr. Elnathan Gregory, and William, Joseph, John, and Samuel Mallory, who settled near Partridge Island, just down river from the modern Hamlet of Fishs Eddy. Sometime in

the early 1790's, Jonas Lakin came to Fishs Eddy and built what might have been the first store in the area. In 1792, Ebenezer Wheeler came from Massachusetts and built a sawmill on Partridge Island (Murray 1898).

The Town of Hancock had a slightly different past when it came to the early industries that sprang up in the area. As a result of the ruggedness of the terrain, agriculture did not become important in Hancock until much later than the rest of Delaware County, although other early industries were very much in keeping with what was seen throughout the rest of the County. Hemlock, for tanning, was important in Hancock as it was throughout the whole of Delaware County. This also led to a large timber industry that was very important to the economy of the early settlers. Sawmills were set up along the bigger streams, including the East Branch, and tremendous amounts of lumber were sent down stream to the lumber markets of Philadelphia. The lumber would be cut in the winter and then built into rafts in the spring to take advantage of the high water as it was sent downstream. The Two Branches of the Delaware above Hancock were well known to be relatively dangerous for the men handling the rafts as they came downstream. It was common for them to send small rafts through this area, and once the juncture had been passed, the rafts would be combined together as the Delaware widened and became calmer. (Murray 1898). The quarrying of bluestone, used in landscaping and for decorative purposes, was also a very important industry early on (Sullivan 1927) that is still important to the area today (Kane 2006).

Bluestone quarrying, lumber and farming are all still important industries to the Town of Hancock today, but other industries have come about that are just as important. The area is well known for trout fishing because of the Delaware River and its branches being located in the Town. This brings many anglers to the area, which helps the economy through the tourist industry. In addition, a controversial industry has made its way to Hancock, dividing many people on whether it should be there: the mining of natural gas found in the Marcellus Shale formation which runs under much of the Northeast, including Delaware County. Supporters of the industry say it would bring much needed income to the residents of the area while the opponents say it would be very destructive to the environment. An article written in the Times Herald-Record in 2008, talks about one way this might affect Hancock. In this instance, a gas mining company wants to remove water from the East Branch of the Delaware River for use in their mining operations. Many people argue that that would adversely affect the trout living in the East Branch and therefore greatly affect the trout fishing industry throughout the area (Bosch 2008). This and many other specific issues relating to natural gas mining will continue to seriously affect the lives of the residents of Hancock for many years to come.

Known Historic Sites and Structures

A check of site files of the Office of Parks, Recreation, and Historic Preservation and the New York State Museum indicated that there is one historic archaeological site known within one mile of the project area (Table 5). The listed site is the A. Maynard, Sawmill/Fish Creek site, reported by the Hanford Mills Museum in 1979 as part of the Historic Industrial Resources Survey. Documentation on the Beers Atlas and the Gould maps can be found listed in both the 1850s and 1870s, which show it as a profitable mill in its day.

A survey of the National Register database (SPHINX) revealed that there are no listed National Register properties within one mile of the project area, and there are no map-documented structures within the project area.

Table 6. Previously identified historic sites and National Register Listed Properties within one mile of project area.

Site Number	Cultural Affiliation	Status	Site Name	Distance	Reference
A025-09-000014	No info	I	A. Maynard Sawmill/ Fish Creek	4,471 ft southeast	(Hanford Mills Museum)

*Status: I=inventoried, E=eligible, L=listed

Assessment of Sensitivity for Cultural Resources

An assessment of whether significant cultural resources are likely to be present within a project area must consider what is known of the prehistory of the area, including likely locations of archaeological sites and proximity to known sites; and the history of the immediate area, including whether any historic structures or features are known to exist within the project boundaries. An assessment must also consider that if cultural resources *are* located on a parcel, will they likely retain *integrity* (without which they would not be considered significant). Modifications to the land may serve to destroy all or portions of any cultural deposits that may exist.

Prehistoric Sensitivity

No prehistoric sites are known within one mile of the project area. This does not necessarily reflect the absence of prehistoric cultural resources, but rather reflects that that no culturally significant prehistoric material has been found or reported within one mile. The project area's vicinity to the East Branch and other smaller tributaries, as well as the diversity of natural resources in the area, may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes, and possibly even temporary camps. Due to these factors, the project is considered moderately sensitive for prehistoric remains.

Historic Sensitivity

One historic archaeological site has been identified within one mile of the project area. This is the A. Maynard Sawmill/Fish Creek Site, reported by the Hanford Mills Museum in 1979 as part of the Historic Industrial Resources Survey. According to the USGS map (Figure A-1), the Partridge Island Cemetery is just north of the project area, and many of the gravestones date to the 19th century. In addition to the A. Maynard Sawmill site and the Partridge Island Cemetery, the Village and Town of Hancock both possess historic structures and roadways dating to the 19th century. Due to these factors any undisturbed areas of the APE would be considered highly sensitive for historic remains.

Part II: Field Assessment

Field investigations were conducted to identify any historic or prehistoric cultural resources that may be impacted by the proposed project. The fieldwork was conducted on April 30, 2009 by the author, assisted by Royce Duda during the field walkover and surface inspection. The weather was cool and overcast. Staff members from the town highway department that were spoken to were not aware of any historic or prehistoric resources in the project vicinity. Photographs were taken of the project area, adjacent visible structures, and any areas of disturbance (Appendix B).

Part II: Results

Surface Inspection

The area of potential effects (APE) was first subjected to a pedestrian walkover of all of all areas of proposed ground disturbance. The project is located between the East Branch and Old State road/Old Route 17 opposite the hamlet of Fishs Eddy in the Town of Hancock, Delaware County, New York (Figures 1 and 2; Photos 1-28). The project involves the construction of a new town garage as well as related parking and septic facilities, as well as a new salt shed storage building, a new pad for fuel tank storage, a new drilled well, and permanent storm water control measures. The area of potential effects (APE), as shown on the site plan (Figure 2), is approximately 7.85 acres. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed

The proposed garage will be accessed from the southeast through property now owned and currently in use by the Delaware County DPW (Photo 19). The surface inspection showed that most of the project area appeared to have been leveled and graded with some cuts made along the edge and through the central portions Photos (1-20). The project area also appears to be used as storage for soil and gravel, which could possibly be waste gravel (Photos 13-15), culverts (Photo 1, 4 and 15), and steel and concrete debris (Photos 8, 10 and 18). A dumpster lies in the northwestern portion of the APE. Also revealed in the surface inspection was a trench that was approximately 5.00-8.00 ft (1.52-2.44 m) deep that had three vertical pipes of unknown purpose on its northern edge (Photos 17 and 18). This trench was along the southwestern fence line with another short trench running perpendicular into it from the north (Photo 18). The two western pipes are grouped together while the pipe in the east is isolated. Ground visibility in the project area was very good, with vegetation consisting of medium height grass and a small amount of brush in the ungraded portions of the project area (Photo 7-8 and 16). Visibility was diminished along the fence line where brush and small trees have not been recently cleared (Photo 17-18).

No historic or precontact artifacts were noted during the surface inspection and no cultural features were identified. No historic or prehistoric archaeological sites were encountered.

Structures

No structures occur within the APE boundaries. Several historic structures are partially visible through a tree line along the north boundary of the APE (Photo 1). Modern structures associated with Highway Department activities are located southeast of the project area (Photo 11-12 and 19).

None of these structures will be impacted by any proposed construction activities.

Visual Impacts

The project area is situated on the floodplain on the north side of the East Branch of the Delaware River (Figures 1 and 2; Photos 1-28). The proposed project involves the installation of a new town garage building as well as a new septic field and paved parking lots, roadways, fuel tank storage pad, and permanent storm water control measures. While there are historic structures north of the project area, they are only partially visible through trees from the project area and the majority of the new construction will be at the southeastern and opposite end of the project area (Photo 1). This should help to limit any visual impacts the new construction will have on the historic buildings near the northwestern end of the project area. The only other structures visible from the project area are Delaware County DPW buildings located southeast of the project area (Photo 11-12 and 19). The listed historic site, the A Maynard Sawmill Site, is located across the East Branch in the Hamlet of Fishs Eddy, and is not visible from the APE. The project is in keeping with the existing land use of the parcel, since the area is already used by the Delaware County DPW as a storage area. For these reasons, the proposed project should have minimal impact to any historic properties in the vicinity.

Part III: Summary and Recommendations

A Phase IA Literature Review and Sensitivity Assessment has been completed for the Town of Hancock Highway Garage Project, located in the Town of Hancock, Delaware County, New York. The project involves the construction of a new town garage as well as related parking and septic facilities, as well as a new salt shed storage building, a new pad for fuel tank storage, a new drilled well, and permanent storm water control measures. The area of potential effects (APE), as shown on the site plan (Figure 2), is approximately 7.85 acres. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed.

The Phase IA review indicated that there are no prehistoric sites known within one mile of the project area. This does not necessarily reflect the absence of prehistoric cultural material, but merely signifies a lack of documentation. The project area is considered moderately sensitive for prehistoric remains as a result of its vicinity to the East Branch of the Delaware River and other smaller tributaries, as well as the diversity of natural resources in the area which may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes, and possibly even temporary camps. In addition to the moderate prehistoric sensitivity of the current project, there is one historic archaeological site known within one mile of the proposed project. As a result, the project is considered moderately sensitive for historic remains.

No historically significant structures occur within the APE boundaries. A few historic structures and a historic cemetery can be found just north of the project area, but they will not be impacted by the proposed construction. The APE has been heavily disturbed with much grading, leveling and filling having taken place. In addition, ditches along a fence line surrounding three sides of the project area have been previously excavated and as well as through central portions of the APE. Soil survey information suggests that soils expected within the current project boundaries consist of multiple types of alluvial soils commonly found on a floodplain setting like the APE, if undisturbed, would be considered likely to contain archaeological sites. However, the high level of disturbance within the project area would possibly have destroyed any archaeological sites that might have been in the project limits.

The proposed project will impact a small section of land currently owned by the Delaware County DPW. In addition to the soil survey assessment of the 7.85-acre project area, which is apparently heavily disturbed, the project is very much in keeping with current land usage in the surrounding vicinity. As a result, we suggest that a Phase IB field investigation is not necessary in this instance. This assessment is subject to the review and concurrence of the New York State Office of Parks, Recreation, and Historic Preservation.

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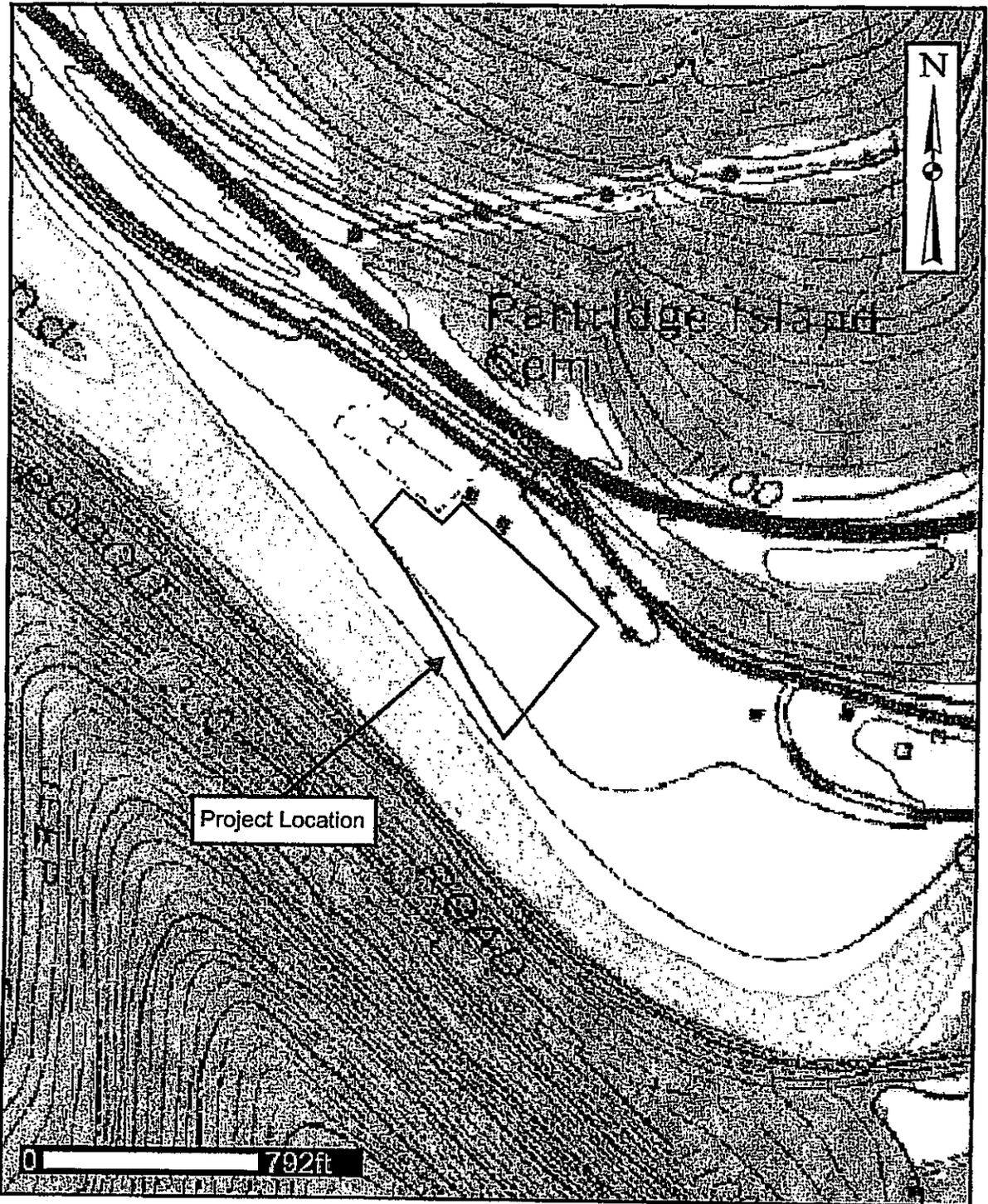


Figure 1. Map showing the location of the project area on Fishs Eddy USGS 7.5 minute topographic map

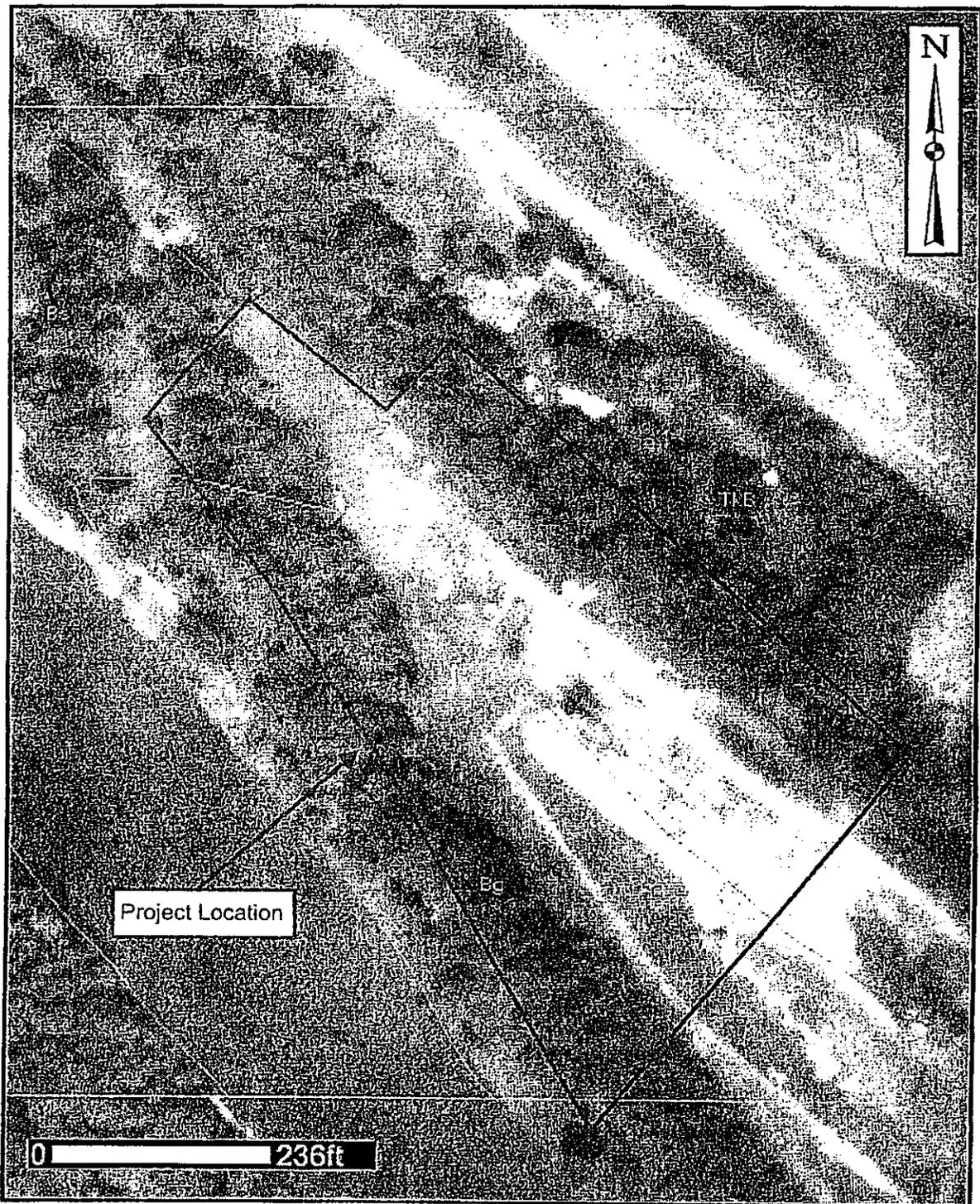


Figure 3. Map showing the location of the project area on NRCS soil map.

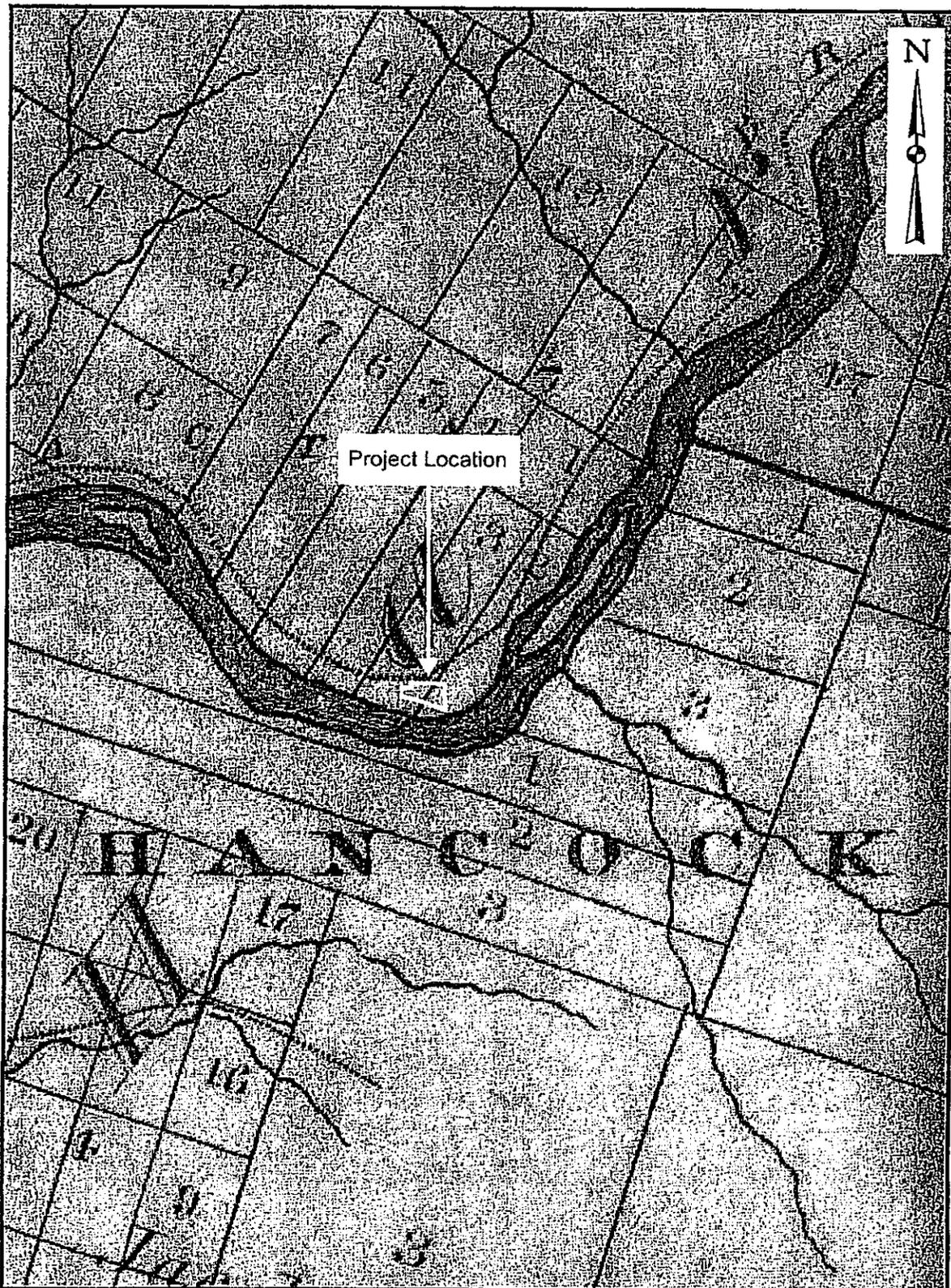


Figure 4. Portion of 1829 Burr Map with the approximate location of the project area indicated.

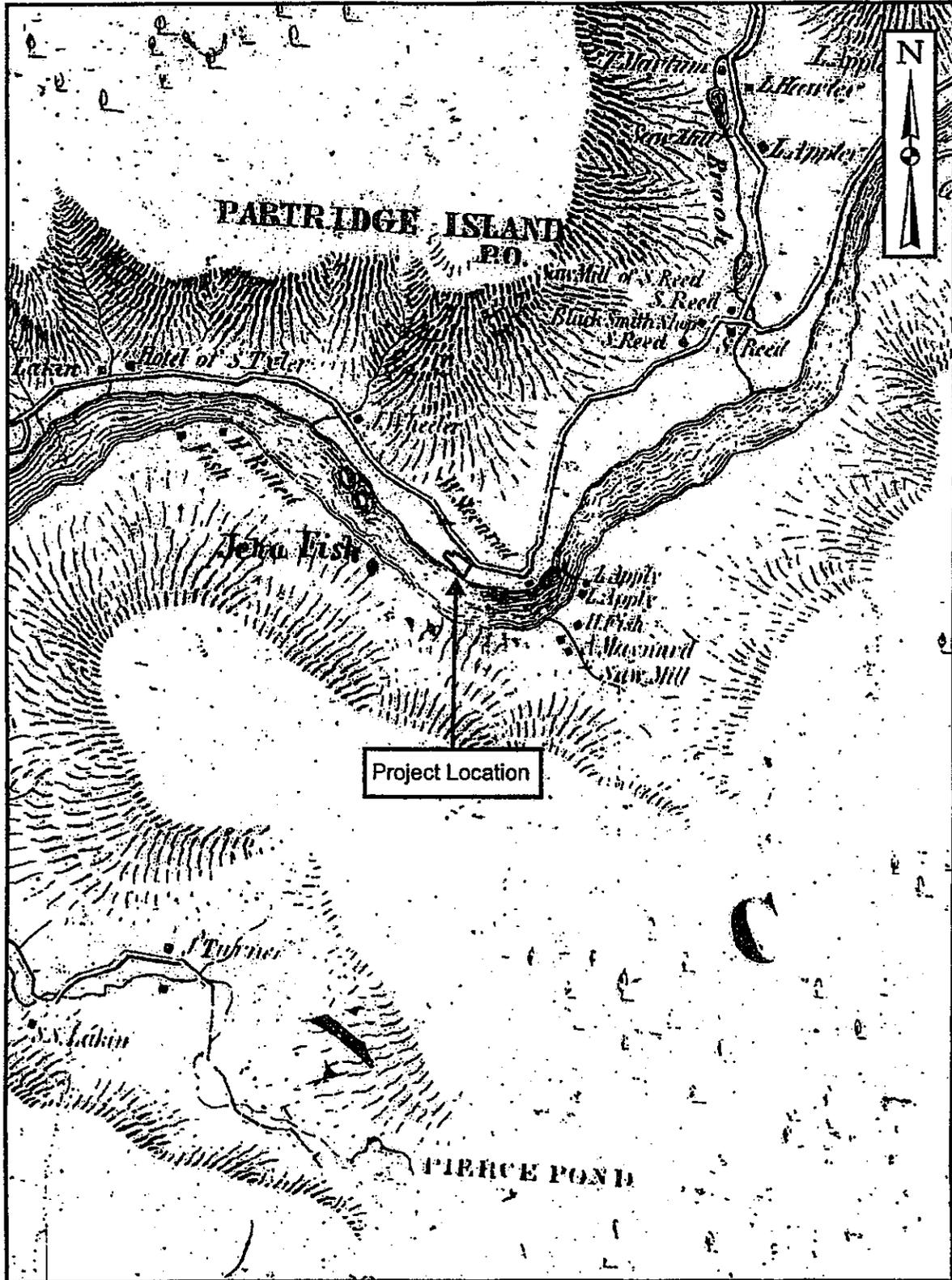


Figure 5. Portion of 1856 J. Gould map with the approximate location of the project area indicated.

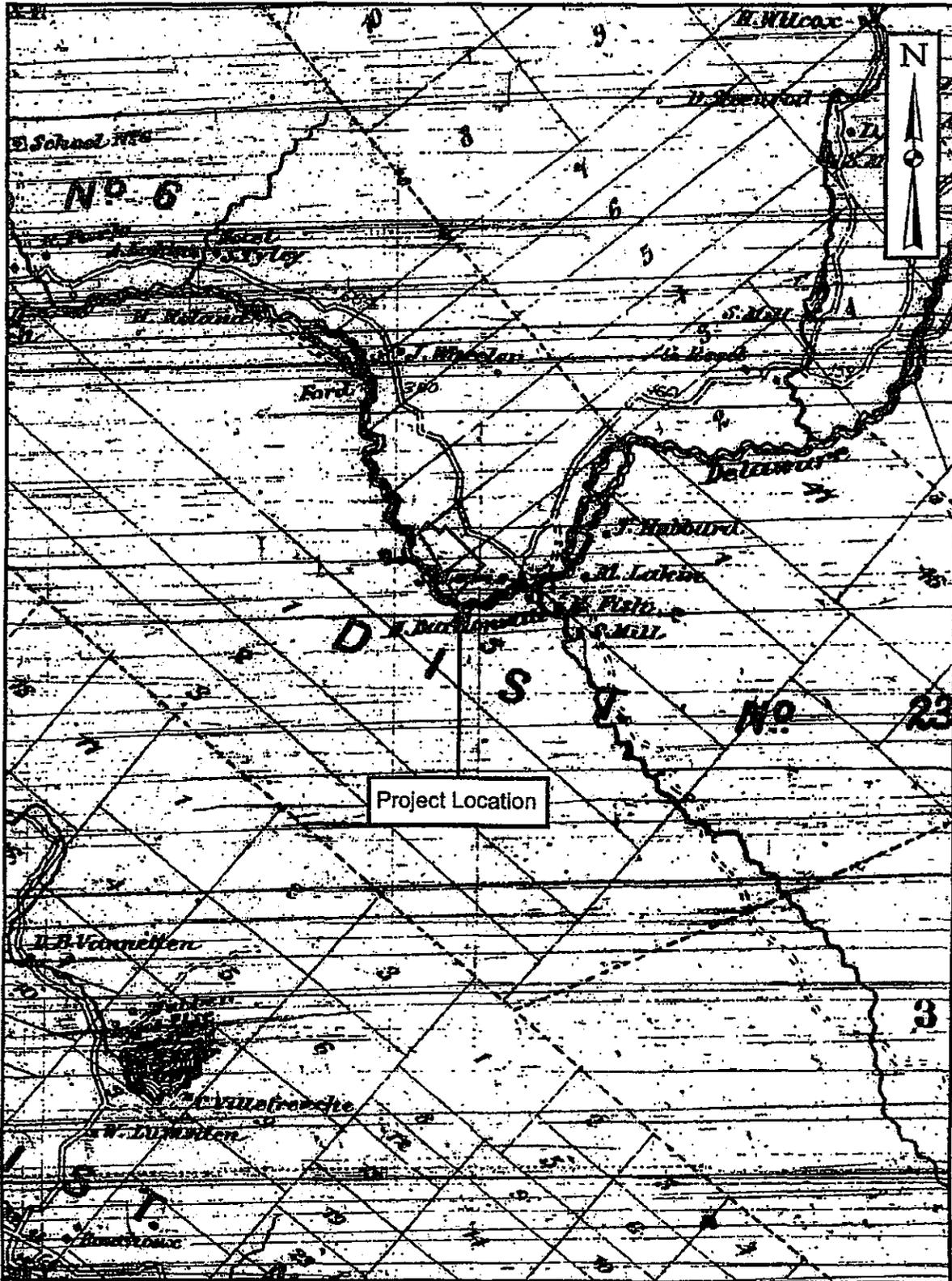


Figure 6. Portion of 1869 Beers map with the approximate location of the project area indicated.

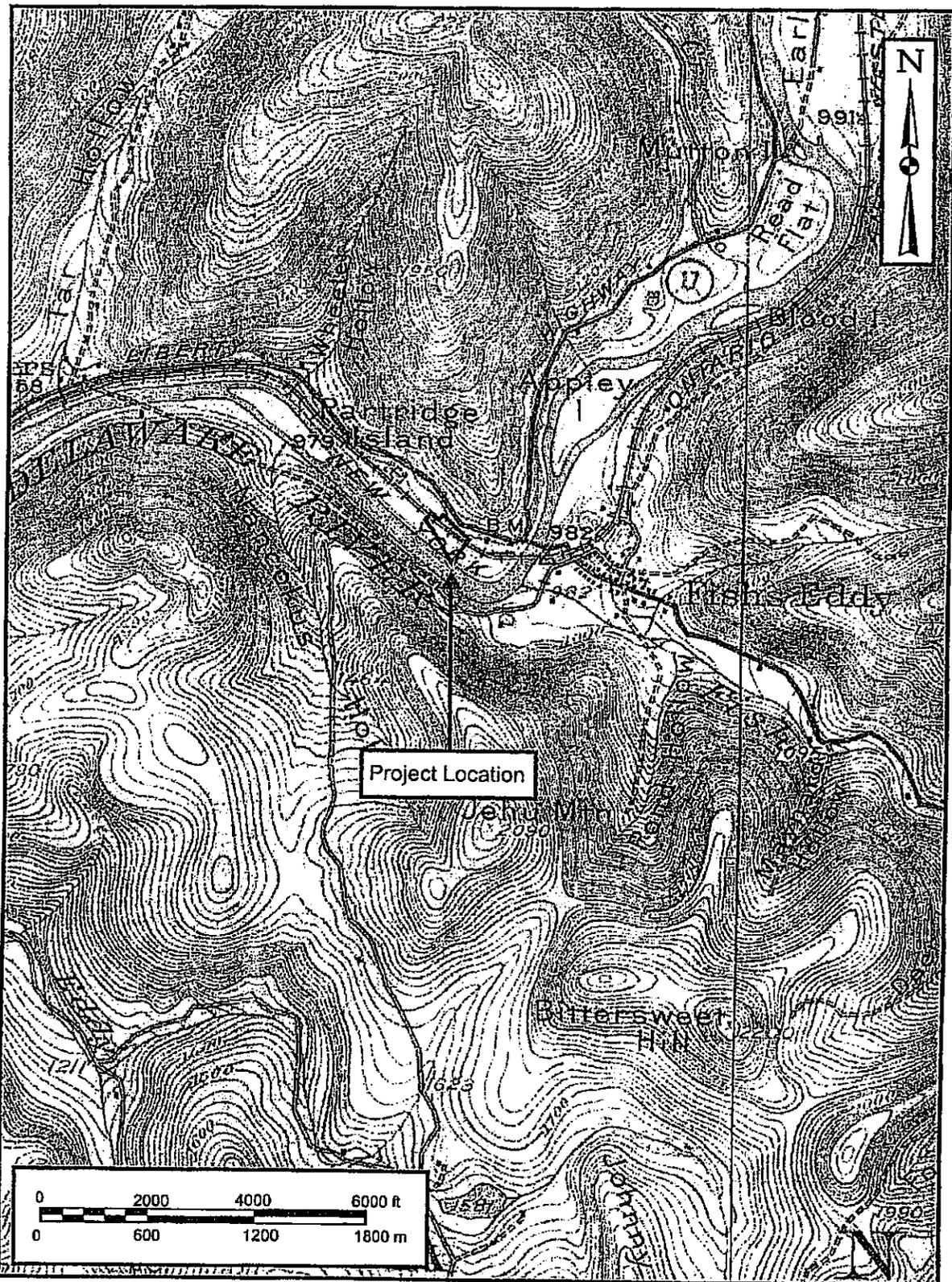


Figure 7. Portion of 1923 Long Eddy USGS topographic map with the approximate location of the project area indicated.

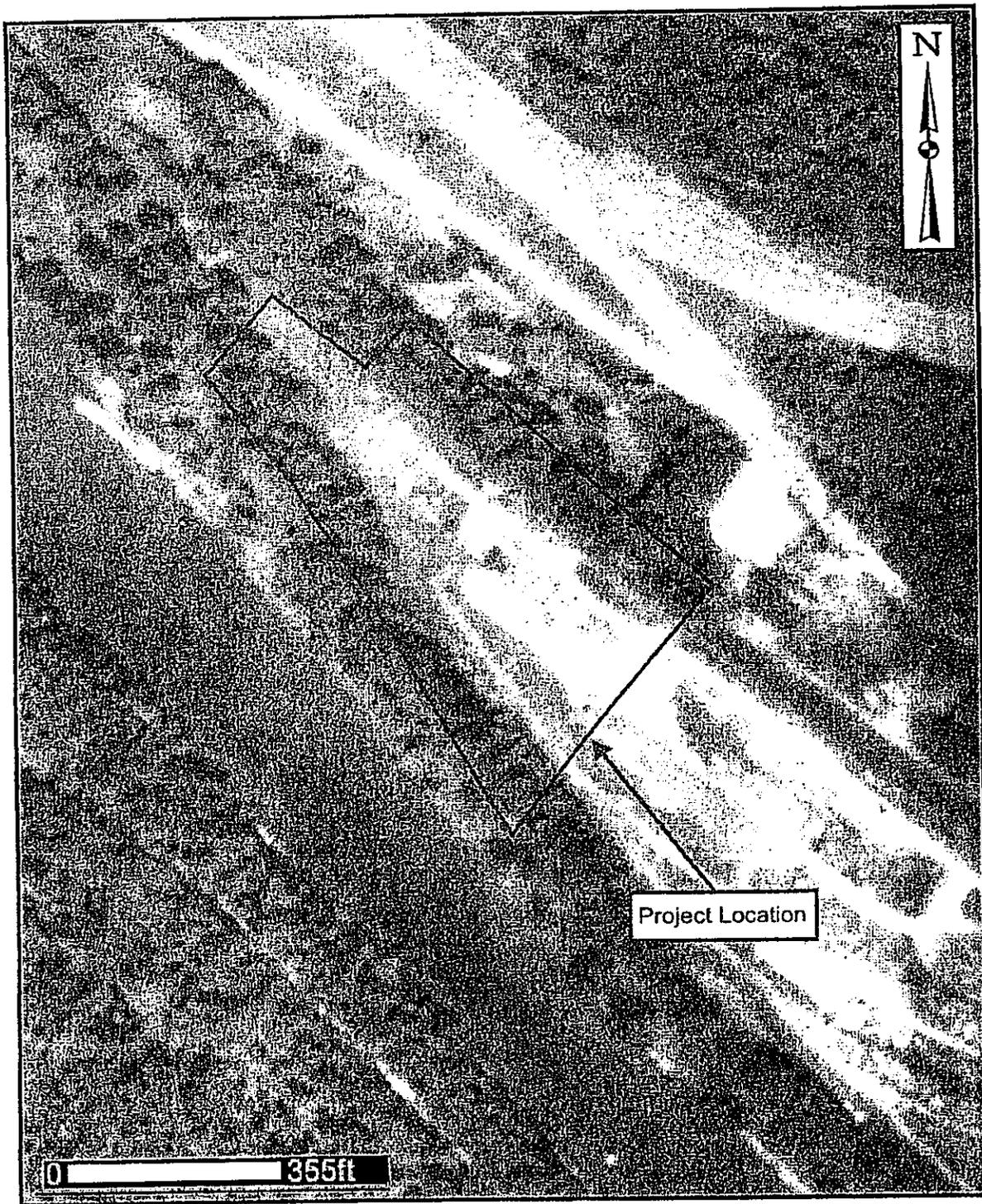


Figure 8. Aerial photograph showing the location of the project area.

Appendix B.

Photographs

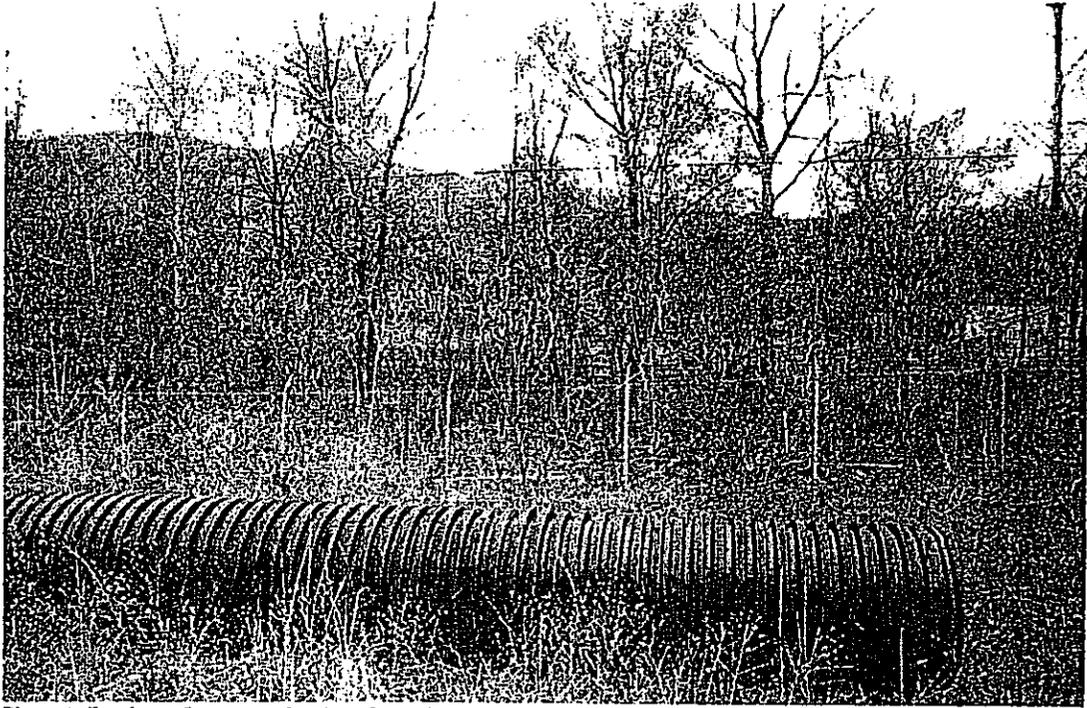


Photo 1. Portion of panoramic view from the northwestern end of project area, facing north.



Photo 2. Portion of panoramic view from the northwestern end of project area, facing northeast.



Photo 3. Portion of panoramic view from the northwestern end of project area, facing southeast.

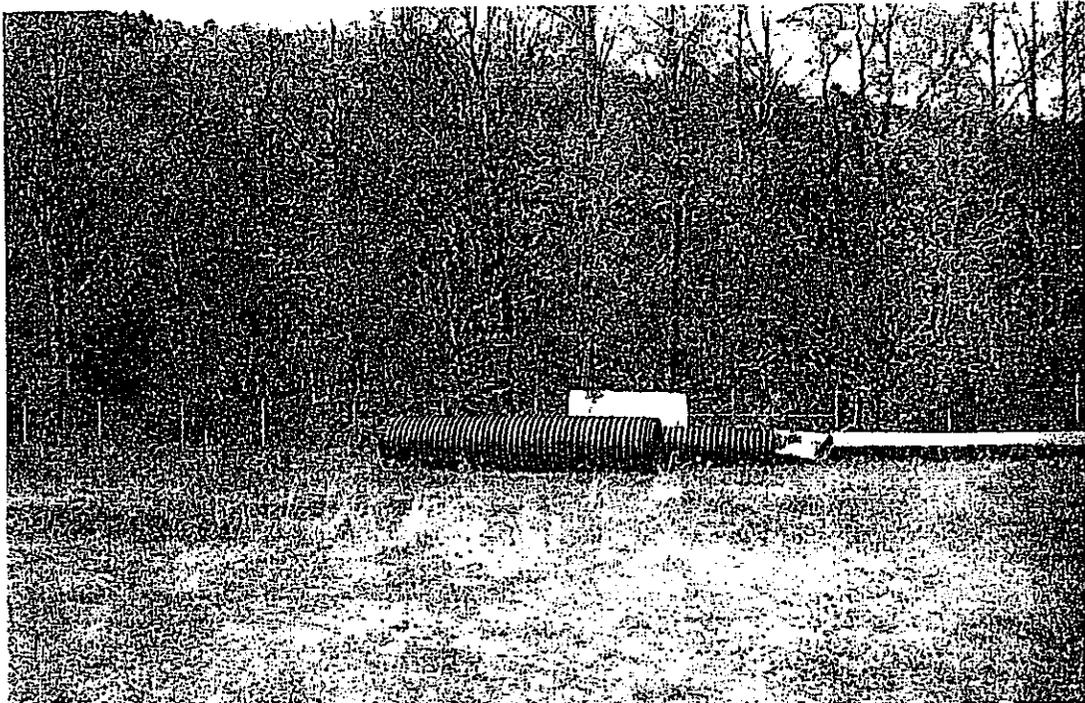


Photo 4. Portion of panoramic view from the northwestern end of project area, facing southwest.



Photo 5. Portion of panoramic view from the northwestern end of project area, facing west.



Photo 6. Portion of panoramic view from the northwestern end of project area, facing northwest.



Photo 7. View of ditch in northwestern portion of project area, facing southwest.

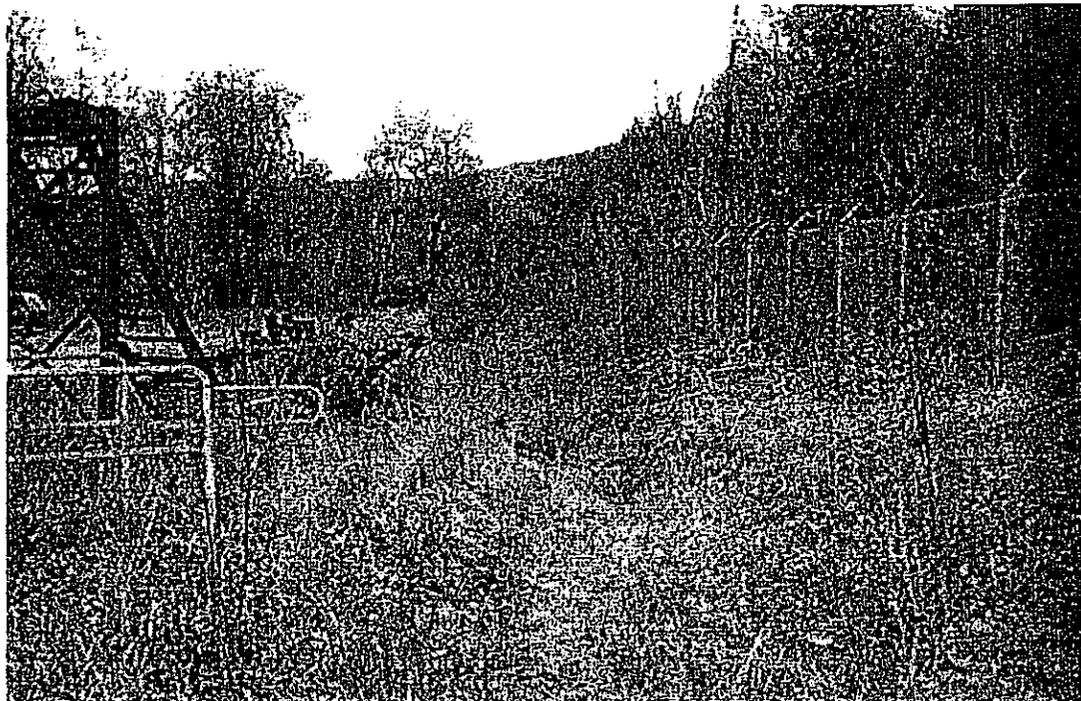


Photo 8. View of ditch running adjacent to fence line, facing northwest.



Photo 9. View of ditch running adjacent to fence line, facing southeast.

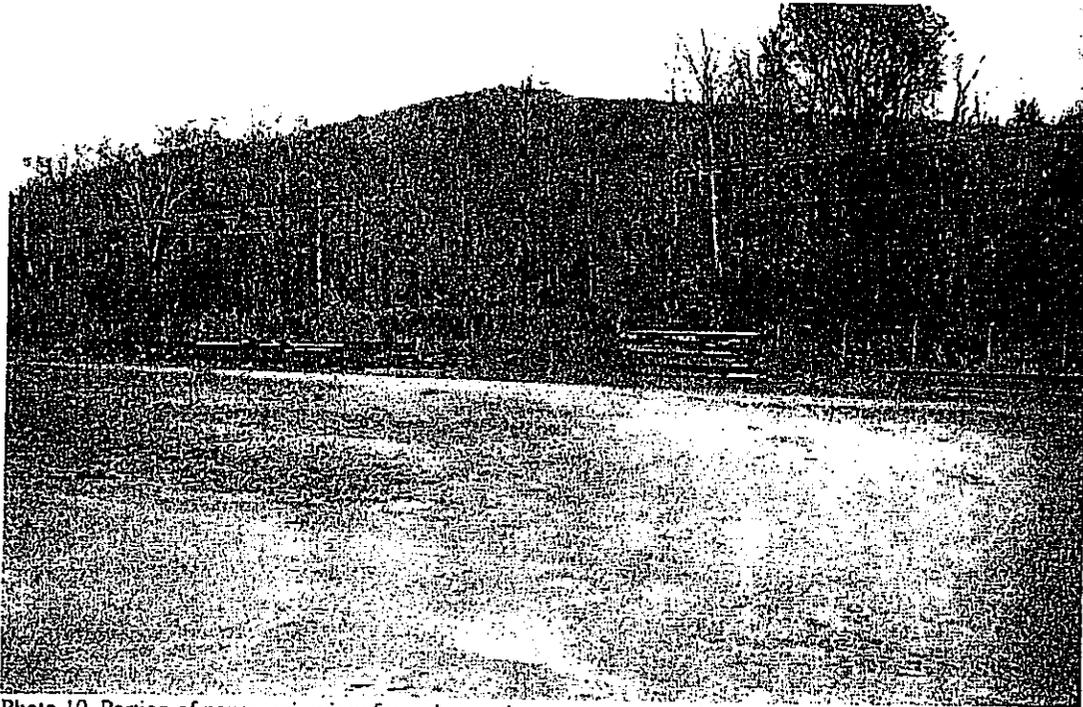


Photo 10. Portion of panoramic view from the southeastern end of project area, facing north.



Photo 11. Portion of panoramic view from the southeastern end of project area, facing northeast.

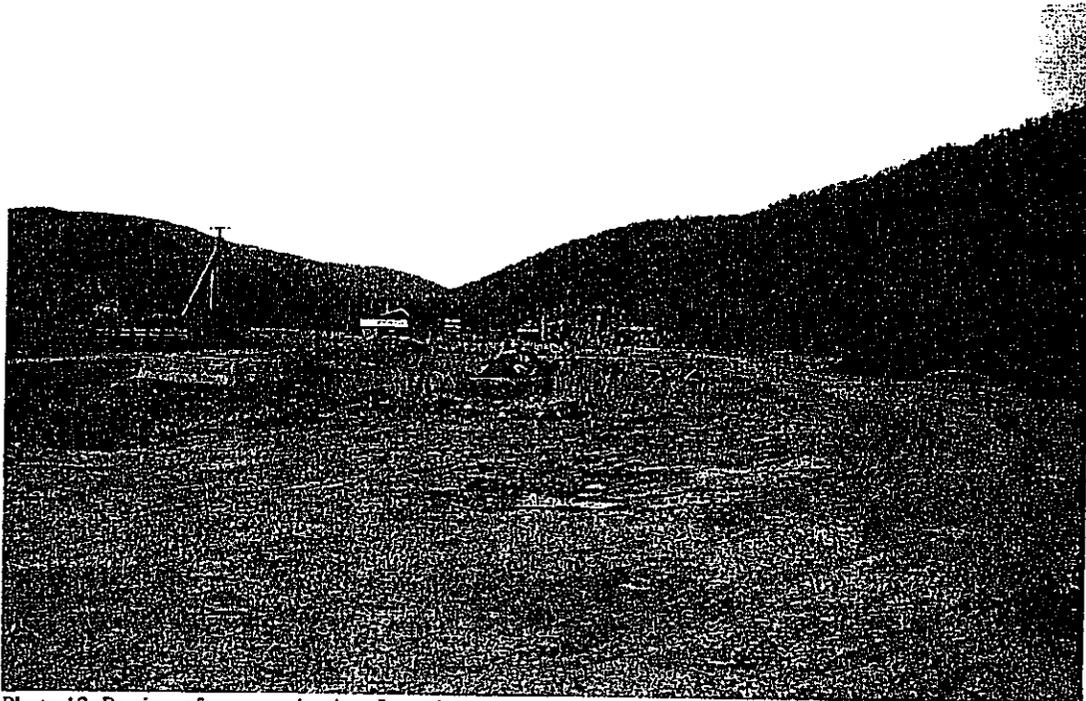


Photo 12. Portion of panoramic view from the southeastern end of project area, facing southeast.



Photo 13. Portion of panoramic view from the southeastern end of project area, facing south.



Photo 14. Portion of panoramic view from the southeastern end of project area, facing southwest.



Photo 15. Portion of panoramic view from the southeastern end of project area, facing west.



Photo 16. View of road and ditch running along southern fence line, facing northwest.



Photo 17. View of vertical pipes (unknown function) and ditch along southern fence line, facing southeast.

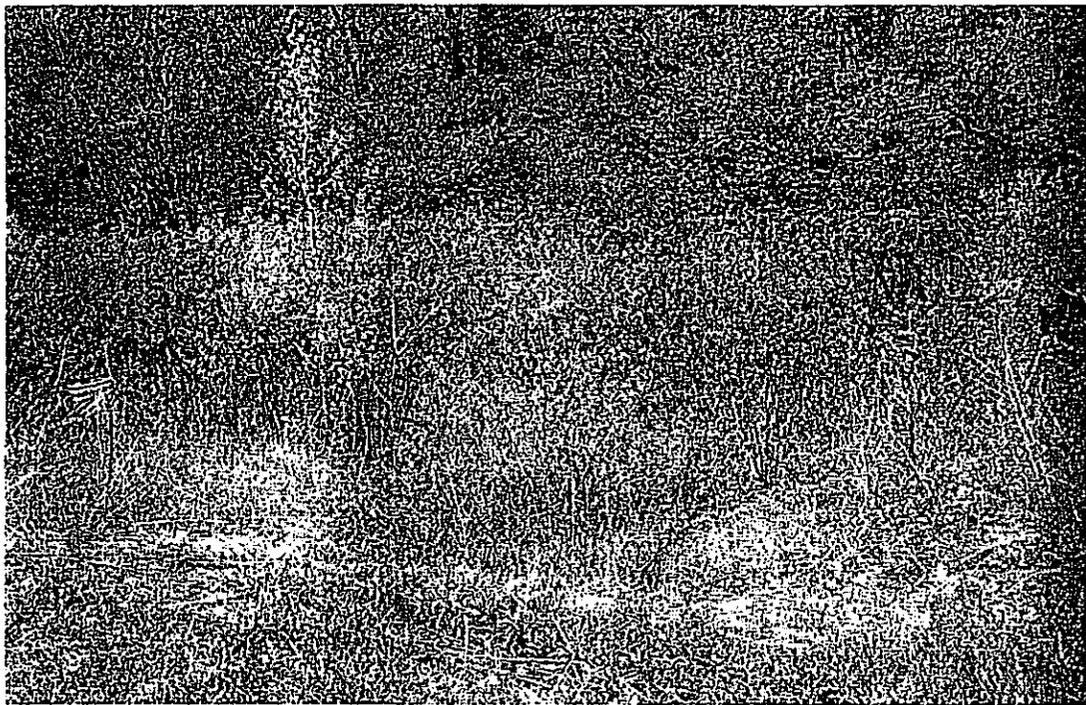


Photo 18. View of vertical pipe (unknown function) and cut running into ditch along southern fence line, facing southwest.



Photo 19. View of project area from entrance, facing northwest.

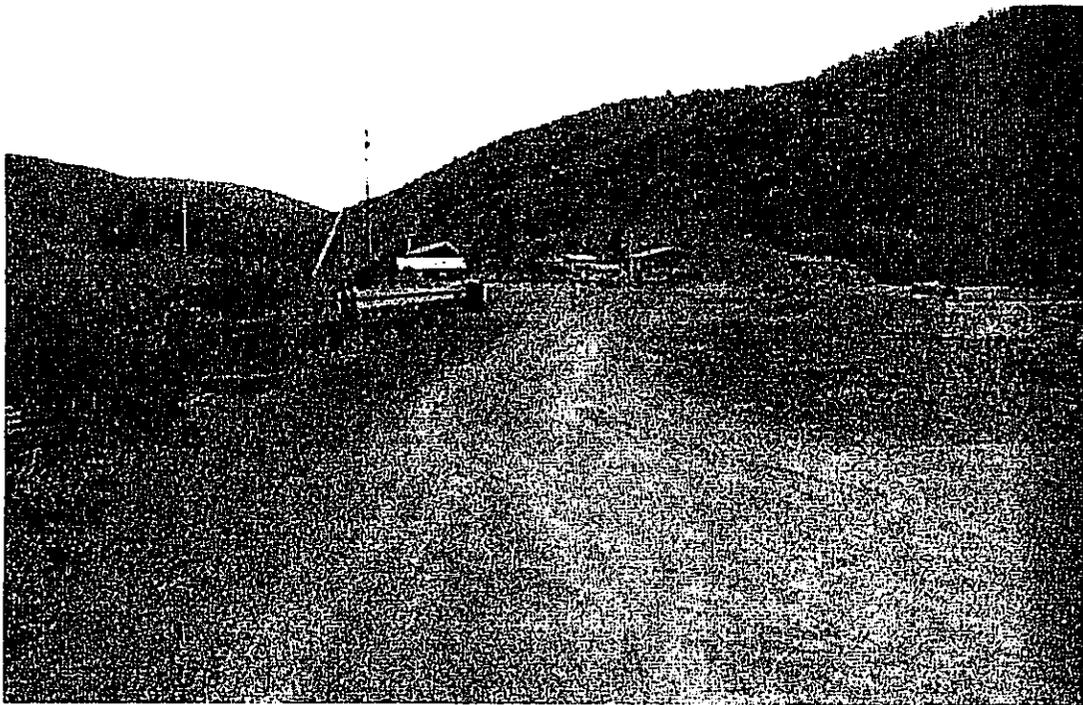


Photo 20. View from project area towards entrance road, facing southeast.

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August 10, 2009

NYSOPRHP
Peebles Island
PO Box 189
Waterford NY 12188-0189
Attn: Philip Perazio

-Re: Geomorphological Examination, Town of Hancock Highway Garage Project,
located in the Town of Hancock, Delaware County, New York. 09PR03122

Mr. Perazio,

Please find attached a copy of the geomorphological investigation conducted by geoarchaeologist Jon Stiteler as part of the Town of Hancock Highway Garage Project, located in the Town of Hancock, Delaware County, New York. The current undertaking was requested following the NYSOPRHP review of a Phase IA Literature Review and Sensitivity Assessment performed in April 2009.

The proposed project involves the construction of a new town garage as well as related parking and septic facilities, a new salt shed storage building, a new pad for fuel tank storage, a new drilled well, and a permanent storm water control pond. The area of potential effects (APE) is approximately 7.85 acres, with proposed ground disturbance extending to depths in excess of 5 ft (1.5 m) below the ground surface.

Excavation of the trenches was conducted on July 24th of 2009. David Moyer and Doug Idleman, Principal and staff archaeologist from Birchwood Archaeological Services, were at the site at the time of this investigation. Each trench location was mapped, photographs were taken, and the subsoil was examined for artifacts (see attached).

Results of Mr. Stiteler's report suggest that the property has no potential for prehistoric or historic archaeological resources due to mechanical soil removal. Based upon these findings, we request that the project be allowed to proceed with no additional cultural resources work required. Please feel free to contact us if you have any questions.

On July 24, 2009 a study was conducted of the soils and geomorphology at the site of a proposed Town garage and storage facility at Fishs Eddy, Town of Hancock, Delaware County, New York. The purpose of my investigation, conducted at the behest of Birchwood Archaeological Services, was to determine the potential for the presence of intact, in-situ cultural material, particularly deeply buried material, within alluvium and colluvium in the area of potential effect (APE) of the proposed project area. In this report, reference is made both to the APE and to the study area. "APE" refers to the area where design plans call for cutting, filling, and other construction-related disturbance. "Study area" refers to the broader context -- essentially the viewscape as seen from the proposed construction site -- and includes alluvial landforms (floodplains and terraces) as they extend outside of the APE; the surrounding slopes that might contribute run-off and colluvium; and the geometry of valley segments and stream reaches up- and downstream.

The study area is located on the right bank of the East Branch Delaware River on the inside of a deeply entrenched meander bend. The East Branch Delaware River is a 5th order stream with a drainage basin encompassing several thousand square kilometers upstream from the study area. The river valley served as a major conduit for meltwater and outwash from the receding Woodfordian ice sheet of the terminal Pleistocene.

The setting of the APE is a terrace lying about 300 m above sea level (asl) and about 7 m above the channel of the East Branch Delaware River. This landform is mapped by Cadwell (1989) as a glacial outwash terrace. A brushy floodplain occupies the area immediately adjacent to the river and the slightly lower proximal edge of the terrace appears to function as a high floodplain. Both of the floodplain landforms lie outside of the project APE. No tributary streams enter the East Branch from the right bank in or near the study area.

Soils of the terrace within the APE are mapped by the USDA-NRCS as the Tunkhannock series and, with greater proximity to the river, the Barbour-Trestle complex (USDA-NRCS 2009). The Tunkhannock series consists of very deep, well to somewhat excessively drained soils formed in water-sorted glacial material derived from reddish sandstone, siltstone, and shale. The Barbour series consists of very deep, well drained soils formed on flood plains in recent alluvial deposits derived from areas of acid, reddish sandstone, siltstone, and shale. The Trestle series consists of very deep, well drained

soils formed in stratified alluvium over outwash or valley fill materials and mapped along high gradient streams and in fan positions. Before excavation began, local informants, employees of the Town of Hancock, stated that the area had been stripped of topsoil in the early 1980s. Presence of rounded cobbles and gravel over much of the terrace surface supported this assertion. Comparison of the APE surface to that on the intact wooded distal portion of the terrace suggested that the APE has been downcut by 50 to 75 cm.

Fieldwork for this study consisted of excavation of three backhoe trenches (BHT1-BHT3) and examination and description of the resulting profiles, along with a walkover of the study area.

BHT1 was excavated near the center of the APE. The profile of BHT1 consisted of an Bw/2C1/2C2 sequence to base of excavation at 100 cm. The Bw horizon (0-26 cm bs) was formed in sandy loam showing minimal soil development and containing 2-3% rounded gravel and small cobbles. The 2C1 horizon (26-60 cm bs) consisted of rounded gravel and cobbles (80-90% by volume) in a matrix of sandy loam. The 2C2 horizon (60-100 cm bs) consisted of rounded gravel, cobbles, and small boulders with very little soil matrix.

BHT2 was excavated 40 m southeast of BHT1, near the proposed location for a new maintenance garage. The profile, to base of excavation at 50 cm bs, consisted entirely of cobbly and gravelly 2C1 material as described for BHT1.

BHT3 was excavated 27 m northeast of BHT2, at the edge of a proposed gravel parking area. The profile of BHT3 consisted of an A/2C1/2C2 sequence to base of excavation at 70 cm bs. The weakly expressed A horizon (0-16 cm) appeared to have been formed largely by mechanical mixing of organic material into the stripped surface. The 2C1 horizon (16-36 cm bs) was loamy sand containing 3-5% rounded gravel. The 2C2 horizon (36-70 cm bs) consisted of 80-90% rounded gravel and cobbles with coarse sand in the interstitial spaces.

Interpretation – The East Branch Delaware River served as a conduit for vast amounts of glacial meltwater and outwash during the waning stage of Wisconsin glacialiation (roughly 14,000-16,000 years bp). At that time, the ancestral East Branch would have been characterized by multiple, constantly shifting channels flowing at elevations well above that of the current study area, transporting the immense sediment

load and storing some of it with the valley. With recession of the continental ice sheet out of the East Branch drainage basin and amelioration of the climate, vegetation was re-established and the landscape began to stabilize, reducing the sediment load introduced into streams. The East Branch then began to transport much of the stored valley fill material out of the valley and to downcut to its modern channel elevation. Removal of the glacial material was never completed and terraces made up of glacial outwash are present above the modern channel throughout the East Branch valley. The study area landform is made up largely of very coarse bedload which, before mechanical stripping of the area, was covered by a thin cap of sandy lateral deposition and, presumably, an even thinner cap of late Pleistocene/early Holocene overbank alluvium.

The overbank deposits and part of the lateral deposition have been mechanically removed from the APE. The profiles of all three backhoe trenches excavated in the APE consisted of a small amount of late Pleistocene lateral deposition overlying bedload cobbles and gravel. The soils of the APE have no potential to contain in-situ cultural material. The potential for the presence of cultural material is limited to the truncated bases of deep pit features which were excavated into the sandy lateral deposits and to artifacts that may have moved down from the surface into the sandy deposits through bioturbation.

Summary – Soils of the proposed Town of Hancock maintenance garage APE have been mechanically stripped and, with the exception of the bases of truncated features, the soils have no potential to contain in-situ cultural resources.

John M. Stiteler
Soil scientist
Newfield, New York
August 7, 2009

References:

Cadwell, D.H., 1989. Surficial Geologic Map of New York: Lower Hudson Sheet. Map and Chart Series No. 40. New York State Museum – Geologic Survey.



Photo 5. View of the excavation of backhoe trench (BHT) No. 3, facing northeast.

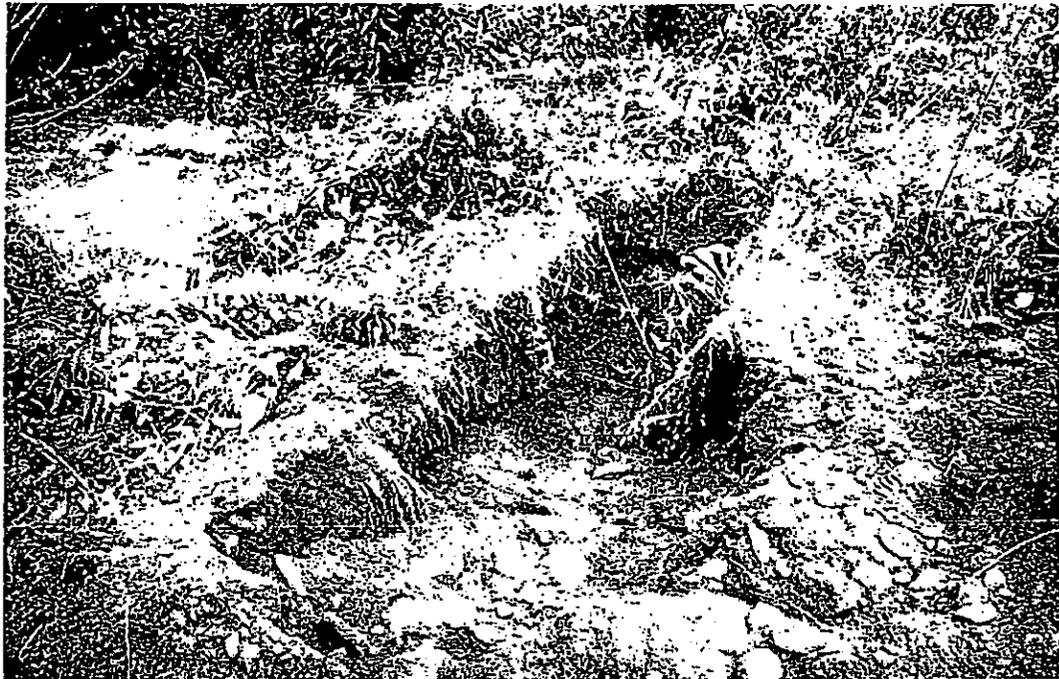


Photo 6. View of BHT 3 showing soils, facing southeast.



Photo 3. View of the excavation of backhoe trench (BHT) No. 2, facing north.



Photo 4. View of BHT 2 showing soils, facing northeast.



Photo 1. View of the excavation of backhoe trench (BHT) No. 1, facing north.



Photo 2. View of BHT 1 showing soils, facing southeast.