



# Governor's Office of Storm Recovery



Andrew M. Cuomo  
Governor

Lisa Bova-Hiatt  
Executive Director

February 24, 2016

Re: Lead Agency Designation for Environmental Review of Halsey Valley Road Elevation Project (Tioga County, NY)

Dear Interested/Involved Agency:

The Governor's Office of Storm Recovery ("GOSR") proposes to serve as lead agency under the National Environmental Policy Act ("NEPA") and State Environmental Quality Review Act ("SEQRA") and related laws for the environmental review of the proposed Halsey Valley Road Elevation (the "Proposed Action"). GOSR is conducting an environmental review of the Proposed Action on behalf of the State of New York as the recipient of Community Development Block Grant - Disaster Recovery ("CDBG-DR") funds from the U.S. Department of Housing and Urban Development under 42 U.S.C. § 5304(g).<sup>1</sup>

The Proposed Action consists of the elevation of approximately 1,800 linear feet of the southern portion of Halsey Valley Road. This requires right of way acquisition, clearing and grubbing, placing of fill materials for elevating the roadway, soil stabilization, placement of base coarse material, installation of driving surface material, roadway drainage activities, utility relocation, installation of guard rails where necessary, and replacement of private driveways and culverts where necessary. The Proposed Action is located in the Town of Tioga, New York. The Proposed Action is designed to ensure the accessibility of this critical connector during future storm events related to the lack of accessibility to medical assistance, groceries, and emergency services and supplies that occurred following Tropical Storm Lee. The Proposed Action would be located at Halsey Valley Road between Allyn Road and Highway 17C.

This action has been preliminarily classified as a Type I action pursuant to SEQRA. Additional information regarding the Proposed Action and its location are provided in the enclosed Full Environmental Assessment Form. The review of the Proposed Action under NEPA and SEQRA would satisfy the requirements of 24 CFR Part 58 and 6 NYCRR Part 617.

Your agency or organization has been identified as a potential cooperating, involved, or interested agency for the review and approval of the Proposed Action. If your agency

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<sup>1</sup> The Governor's Office of Storm Recovery, operating under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation, is the responsible entity for the administration of the CDBG-DR grants to the State of New York.

consents to GOSR's serving as the lead agency for review under SEQRA, please so indicate by signing this letter and returning it at your earliest convenience to Thomas J. King at 99 Washington Avenue, Suite 1224, Albany, New York 12260, or simply email a signed copy to [Thomas.King@Stormrecovery.ny.gov](mailto:Thomas.King@Stormrecovery.ny.gov). If we have not heard from you by March 16, 2016, your consent will be assumed.

If you have any questions, please feel free to contact me at (518) 473-0015. Thank you for your consideration and cooperation.

Sincerely,



Thomas J. King  
Assistant General Counsel

The undersigned hereby consents to The Governor's Office of Storm Recovery serving as lead agency for Halsey Valley Road Elevation.

Agency/Organization: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Permits/Approvals/Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Enclosure:    -Full Environmental Assessment Form Part 1  
                  -Attachments to EAF available upon request or at:  
                  [www.stormrecovery.ny.gov/environmental-docs](http://www.stormrecovery.ny.gov/environmental-docs)  
                  -Maps and Figures  
                  -List of Involved and Interested Agencies

**Full Environmental Assessment Form**  
**Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

**A. Project and Sponsor Information.**

Name of Action or Project: Halsey Valley Road Elevation		
Project Location (describe, and attach a general location map): Halsey Valley Road between Allyn Road and Highway 17C in the Town of Tioga		
Brief Description of Proposed Action (include purpose or need): The low-lying southern portion of Halsey Valley Road will be elevated to match the elevation of the perpendicular crossing road, NY State Route 17C. The project boundary consists of Halsey Valley Road between Allyn Road and Highway 17C. The purpose of the project is to ensure that this critical connector will be accessible during future storm events. Flooding from Tropical Storm Lee forced the closure of many roads in the Town of Tioga. One of the critical connectors that flooded, during and immediately following Tropical Storm Lee, was Halsey Valley Road. This road closure cut off Tioga residents from access to medical assistance, groceries, and emergency services and supplies.  The project activities include elevating approximately 1,800 linear feet of the southern portion of Halsey Valley Road, right of way acquisition, clearing and grubbing, fill materials for elevating roadway, soil stabilization, base coarse material, installation of driving surface material, roadway drainage activities, utility relocation, installation of guard rails where necessary, and replacement of private driveways and culverts where necessary.		
Name of Applicant/Sponsor: Town of Tioga	Telephone: 607-687-2292	E-Mail: lzornsupervisor@htva.net
Address: 54 Fifth Avenue		
City/PO: Barton	State: NY	Zip Code: 13734
Project Contact (if not same as sponsor; give name and title/role): Lewis Zorn, Supervisor	Telephone: same as above	E-Mail: same as above
Address: same as above		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone:	E-Mail:
Address:		
City/PO:	State:	Zip Code:

**B. Government Approvals**

**B. Government Approvals, Funding, or Sponsorship.** (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
c. City Council, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Tioga - utility relocation	
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Tioga County Dept of Public Works - roadwork permit	
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC - SPDES general permit - stormwater discharges from construction, NYSDOT	
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources. <ul style="list-style-type: none"> <li>i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/>Yes<input checked="" type="checkbox"/>No</li> <li>ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/>Yes<input checked="" type="checkbox"/>No</li> <li>iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/>Yes<input checked="" type="checkbox"/>No</li> </ul>		

**C. Planning and Zoning**

**C.1. Planning and zoning actions.**

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? YesNo

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1

**C.2. Adopted land use plans.**

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? YesNo

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? YesNo

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) YesNo

If Yes, identify the plan(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? YesNo

If Yes, identify the plan(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**C.3. Zoning**

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance.  Yes  No  
If Yes, what is the zoning classification(s) including any applicable overlay district?

\_\_\_\_\_

b. Is the use permitted or allowed by a special or conditional use permit?  Yes  No

c. Is a zoning change requested as part of the proposed action?  Yes  No

If Yes,

i. What is the proposed new zoning for the site? \_\_\_\_\_

**C.4. Existing community services.**

a. In what school district is the project site located? Tioga Central School District

b. What police or other public protection forces serve the project site?

Tioga County Sheriff

c. Which fire protection and emergency medical services serve the project site?

Tioga Center Fire Department, Owego Fire Department, Greater Valley EMS

d. What parks serve the project site?

Ransom Park

**D. Project Details**

**D.1. Proposed and Potential Development**

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? roadwork elevation in a rural, residential area

b. a. Total acreage of the site of the proposed action? \_\_\_\_\_ 10.0 acres

b. Total acreage to be physically disturbed? \_\_\_\_\_ 5.0 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? \_\_\_\_\_ 10.0 acres

c. Is the proposed action an expansion of an existing project or use?  Yes  No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % \_\_\_\_\_ Units: \_\_\_\_\_

d. Is the proposed action a subdivision, or does it include a subdivision?  Yes  No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) \_\_\_\_\_

ii. Is a cluster/conservation layout proposed?  Yes  No

iii. Number of lots proposed? \_\_\_\_\_

iv. Minimum and maximum proposed lot sizes? Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

e. Will proposed action be constructed in multiple phases?  Yes  No

i. If No, anticipated period of construction: \_\_\_\_\_ 5 months

ii. If Yes:

• Total number of phases anticipated \_\_\_\_\_

• Anticipated commencement date of phase 1 (including demolition) \_\_\_\_\_ month \_\_\_\_\_ year

• Anticipated completion date of final phase \_\_\_\_\_ month \_\_\_\_\_ year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

f. Does the project include new residential uses?  Yes  No  
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)?  Yes  No  
 If Yes,

i. Total number of structures \_\_\_\_\_  
 ii. Dimensions (in feet) of largest proposed structure: \_\_\_\_\_ height; \_\_\_\_\_ width; and \_\_\_\_\_ length  
 iii. Approximate extent of building space to be heated or cooled: \_\_\_\_\_ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage?  Yes  No  
 If Yes,

i. Purpose of the impoundment: \_\_\_\_\_  
 ii. If a water impoundment, the principal source of the water:  Ground water  Surface water streams  Other specify: \_\_\_\_\_  
 iii. If other than water, identify the type of impounded/contained liquids and their source. \_\_\_\_\_  
 iv. Approximate size of the proposed impoundment. Volume: \_\_\_\_\_ million gallons; surface area: \_\_\_\_\_ acres  
 v. Dimensions of the proposed dam or impounding structure: \_\_\_\_\_ height; \_\_\_\_\_ length  
 vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): \_\_\_\_\_

**D.2. Project Operations**

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both?  Yes  No  
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)  
 If Yes:

i. What is the purpose of the excavation or dredging? \_\_\_\_\_  
 ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?  
 • Volume (specify tons or cubic yards): \_\_\_\_\_  
 • Over what duration of time? \_\_\_\_\_  
 iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.  
 \_\_\_\_\_  
 \_\_\_\_\_

iv. Will there be onsite dewatering or processing of excavated materials?  Yes  No  
 If yes, describe. \_\_\_\_\_  
 \_\_\_\_\_

v. What is the total area to be dredged or excavated? \_\_\_\_\_ acres  
 vi. What is the maximum area to be worked at any one time? \_\_\_\_\_ acres  
 vii. What would be the maximum depth of excavation or dredging? \_\_\_\_\_ feet  
 viii. Will the excavation require blasting?  Yes  No  
 ix. Summarize site reclamation goals and plan: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area?  Yes  No  
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): \_\_\_\_\_  
 \_\_\_\_\_

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Will proposed action cause or result in disturbance to bottom sediments?  Yes  No  
If Yes, describe: \_\_\_\_\_

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation?  Yes  No  
If Yes:

- acres of aquatic vegetation proposed to be removed: \_\_\_\_\_
- expected acreage of aquatic vegetation remaining after project completion: \_\_\_\_\_
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): \_\_\_\_\_
- proposed method of plant removal: \_\_\_\_\_
- if chemical/herbicide treatment will be used, specify product(s): \_\_\_\_\_

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_

c. Will the proposed action use, or create a new demand for water?  Yes  No  
If Yes:

i. Total anticipated water usage/demand per day: \_\_\_\_\_ gallons/day

ii. Will the proposed action obtain water from an existing public water supply?  Yes  No  
If Yes:

- Name of district or service area: \_\_\_\_\_
- Does the existing public water supply have capacity to serve the proposal?  Yes  No
- Is the project site in the existing district?  Yes  No
- Is expansion of the district needed?  Yes  No
- Do existing lines serve the project site?  Yes  No

iii. Will line extension within an existing district be necessary to supply the project?  Yes  No  
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_
- Source(s) of supply for the district: \_\_\_\_\_

iv. Is a new water supply district or service area proposed to be formed to serve the project site?  Yes  No  
If Yes:

- Applicant/sponsor for new district: \_\_\_\_\_
- Date application submitted or anticipated: \_\_\_\_\_
- Proposed source(s) of supply for new district: \_\_\_\_\_

v. If a public water supply will not be used, describe plans to provide water supply for the project: \_\_\_\_\_

vi. If water supply will be from wells (public or private), maximum pumping capacity: \_\_\_\_\_ gallons/minute.

d. Will the proposed action generate liquid wastes?  Yes  No  
If Yes:

i. Total anticipated liquid waste generation per day: \_\_\_\_\_ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): \_\_\_\_\_

iii. Will the proposed action use any existing public wastewater treatment facilities?  Yes  No  
If Yes:

- Name of wastewater treatment plant to be used: \_\_\_\_\_
- Name of district: \_\_\_\_\_
- Does the existing wastewater treatment plant have capacity to serve the project?  Yes  No
- Is the project site in the existing district?  Yes  No
- Is expansion of the district needed?  Yes  No

• Do existing sewer lines serve the project site?  Yes  No  
 • Will line extension within an existing district be necessary to serve the project?  Yes  No  
 If Yes:  
 • Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?  Yes  No  
 If Yes:  
 • Applicant/sponsor for new district: \_\_\_\_\_  
 • Date application submitted or anticipated: \_\_\_\_\_  
 • What is the receiving water for the wastewater discharge? \_\_\_\_\_

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction?  Yes  No  
 If Yes:  
 i. How much impervious surface will the project create in relation to total size of project parcel?  
 \_\_\_\_\_ Square feet or 1.3 acres (impervious surface)  
 \_\_\_\_\_ Square feet or 5.0 acres (parcel size)  
 ii. Describe types of new point sources. stormwater runoff during construction  
 \_\_\_\_\_  
 \_\_\_\_\_  
 iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?  
stormwater runoff will be directed to on-site stormwater management facilities  
 \_\_\_\_\_  
 \_\_\_\_\_  
 • If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 • Will stormwater runoff flow to adjacent properties?  Yes  No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?  Yes  No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations?  Yes  No  
 If Yes, identify:  
 i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)  
 \_\_\_\_\_  
 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)  
 \_\_\_\_\_  
 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)  
 \_\_\_\_\_  
 \_\_\_\_\_

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?  Yes  No  
 If Yes:  
 i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)  Yes  No  
 ii. In addition to emissions as calculated in the application, the project will generate:  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)  
 • \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)  
 • \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)  
 • \_\_\_\_\_ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?  Yes  No

If Yes:

i. Estimate methane generation in tons/year (metric): \_\_\_\_\_

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): \_\_\_\_\_

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i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?  Yes  No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): \_\_\_\_\_

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j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?  Yes  No

If Yes:

i. When is the peak traffic expected (Check all that apply):  Morning  Evening  Weekend  
 Randomly between hours of \_\_\_\_\_ to \_\_\_\_\_.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: \_\_\_\_\_

iii. Parking spaces: Existing \_\_\_\_\_ Proposed \_\_\_\_\_ Net increase/decrease \_\_\_\_\_

iv. Does the proposed action include any shared use parking?  Yes  No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: \_\_\_\_\_

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vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site?  Yes  No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?  Yes  No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?  Yes  No

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k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?  Yes  No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: \_\_\_\_\_

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): \_\_\_\_\_

iii. Will the proposed action require a new, or an upgrade to, an existing substation?  Yes  No

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l. Hours of operation. Answer all items which apply.

<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 7:00 AM - 6:00 PM _____</li> <li>• Saturday: _____</li> <li>• Sunday: _____</li> <li>• Holidays: _____</li> </ul>	<p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____</li> <li>• Saturday: _____</li> <li>• Sunday: _____</li> <li>• Holidays: _____</li> </ul>
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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?  Yes  No  
 If yes:  
 i. Provide details including sources, time of day and duration:  
 Construction activities associated with clearing and grubbing and elevating the roadway could cause temporary increases in noise levels. Temporary increases in noise levels would be mitigated with implementation of noise conditions in accordance with local regulations.

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_  
 \_\_\_\_\_

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n.. Will the proposed action have outdoor lighting?  Yes  No  
 If yes:  
 i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_  
 \_\_\_\_\_

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o. Does the proposed action have the potential to produce odors for more than one hour per day?  Yes  No  
 If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage?  Yes  No  
 If Yes:  
 i. Product(s) to be stored \_\_\_\_\_  
 ii. Volume(s) \_\_\_\_\_ per unit time \_\_\_\_\_ (e.g., month, year)  
 iii. Generally describe proposed storage facilities: \_\_\_\_\_  
 \_\_\_\_\_

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q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?  Yes  No  
 If Yes:  
 i. Describe proposed treatment(s):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will the proposed action use Integrated Pest Management Practices?  Yes  No

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r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)?  Yes  No  
 If Yes:  
 i. Describe any solid waste(s) to be generated during construction or operation of the facility:  
 • Construction: \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 • Operation : \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:  
 • Construction: \_\_\_\_\_  
 \_\_\_\_\_  
 • Operation: \_\_\_\_\_  
 \_\_\_\_\_

iii. Proposed disposal methods/facilities for solid waste generated on-site:  
 • Construction: \_\_\_\_\_  
 \_\_\_\_\_  
 • Operation: \_\_\_\_\_  
 \_\_\_\_\_

s. Does the proposed action include construction or modification of a solid waste management facility?  Yes  No  
 If Yes:  
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_  
 ii. Anticipated rate of disposal/processing:  
 • \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or  
 • \_\_\_\_\_ Tons/hour, if combustion or thermal treatment  
 iii. If landfill, anticipated site life: \_\_\_\_\_ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste?  Yes  No  
 If Yes:  
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: \_\_\_\_\_  
 \_\_\_\_\_  
 ii. Generally describe processes or activities involving hazardous wastes or constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 iii. Specify amount to be handled or generated \_\_\_\_\_ tons/month  
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility?  Yes  No  
 If Yes: provide name and location of facility: \_\_\_\_\_  
 \_\_\_\_\_  
 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:  
 \_\_\_\_\_  
 \_\_\_\_\_

**E. Site and Setting of Proposed Action**

**E.1. Land uses on and surrounding the project site**

a. Existing land uses.  
 i. Check all uses that occur on, adjoining and near the project site.  
 Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)  
 Forest  Agriculture  Aquatic  Other (specify): \_\_\_\_\_  
 ii. If mix of uses, generally describe:  
 area is rural residential with some forested areas adjacent to project site  
 \_\_\_\_\_  
 \_\_\_\_\_

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	1.6	1.3	- 0.3
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	
• Other Describe: <u>roadside areas/roadside trees/portions of residential lawns near roadside</u>	8.4	8.7	+ 0.3

c. Is the project site presently used by members of the community for public recreation?  Yes  No  
i. If Yes: explain: \_\_\_\_\_

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  Yes  No  
If Yes,  
i. Identify Facilities:  
Tioga Senior High School, Tioga Elementary School, Tioga Middle School  
\_\_\_\_\_

e. Does the project site contain an existing dam?  Yes  No  
If Yes:  
i. Dimensions of the dam and impoundment:  
• Dam height: \_\_\_\_\_ feet  
• Dam length: \_\_\_\_\_ feet  
• Surface area: \_\_\_\_\_ acres  
• Volume impounded: \_\_\_\_\_ gallons OR acre-feet  
ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection:  
\_\_\_\_\_  
\_\_\_\_\_

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?  Yes  No  
If Yes:  
i. Has the facility been formally closed?  Yes  No  
• If yes, cite sources/documentation: \_\_\_\_\_  
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:  
\_\_\_\_\_  
\_\_\_\_\_  
iii. Describe any development constraints due to the prior solid waste activities: \_\_\_\_\_  
\_\_\_\_\_

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?  Yes  No  
If Yes:  
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:  
\_\_\_\_\_  
\_\_\_\_\_

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  Yes  No  
If Yes:  
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:  Yes  No  
 Yes – Spills Incidents database Provide DEC ID number(s): \_\_\_\_\_  
 Yes – Environmental Site Remediation database Provide DEC ID number(s): \_\_\_\_\_  
 Neither database  
ii. If site has been subject of RCRA corrective activities, describe control measures: \_\_\_\_\_  
\_\_\_\_\_  
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?  Yes  No  
If yes, provide DEC ID number(s): \_\_\_\_\_  
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):  
\_\_\_\_\_  
\_\_\_\_\_

v. Is the project site subject to an institutional control limiting property uses?  Yes  No

- If yes, DEC site ID number: \_\_\_\_\_
- Describe the type of institutional control (e.g., deed restriction or easement): \_\_\_\_\_
- Describe any use limitations: \_\_\_\_\_
- Describe any engineering controls: \_\_\_\_\_
- Will the project affect the institutional or engineering controls in place?  Yes  No
- Explain: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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**E.2. Natural Resources On or Near Project Site**

a. What is the average depth to bedrock on the project site? \_\_\_\_\_ >6.5 feet

b. Are there bedrock outcroppings on the project site?  Yes  No  
 If Yes, what proportion of the site is comprised of bedrock outcroppings? \_\_\_\_\_ %

c. Predominant soil type(s) present on project site:

Tioga silt loam, high bottom (Tsb)	_____	63 %
Canfield gravelly silt loam (Cdr)	_____	28 %
Chenango gravelly loam (Cga)	_____	9 %

d. What is the average depth to the water table on the project site? Average: \_\_\_\_\_ 4.5 feet

e. Drainage status of project site soils:  Well Drained: \_\_\_\_\_ 75 % of site  
 Moderately Well Drained: \_\_\_\_\_ 25 % of site  
 Poorly Drained \_\_\_\_\_ % of site

f. Approximate proportion of proposed action site with slopes:  0-10%: \_\_\_\_\_ 75 % of site  
 10-15%: \_\_\_\_\_ 25 % of site  
 15% or greater: \_\_\_\_\_ % of site

g. Are there any unique geologic features on the project site?  Yes  No  
 If Yes, describe: \_\_\_\_\_  
 \_\_\_\_\_

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?  Yes  No

ii. Do any wetlands or other waterbodies adjoin the project site?  Yes  No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  Yes  No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name \_\_\_\_\_ Classification \_\_\_\_\_
- Lakes or Ponds: Name \_\_\_\_\_ Classification \_\_\_\_\_
- Wetlands: Name \_\_\_\_\_ Approximate Size \_\_\_\_\_
- Wetland No. (if regulated by DEC) \_\_\_\_\_

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  Yes  No  
 If yes, name of impaired water body/bodies and basis for listing as impaired: \_\_\_\_\_  
 \_\_\_\_\_

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i. Is the project site in a designated Floodway?  Yes  No

j. Is the project site in the 100 year Floodplain?  Yes  No

k. Is the project site in the 500 year Floodplain?  Yes  No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  Yes  No  
 If Yes:

i. Name of aquifer: Clinton Street Ballpark Aquifer System

m. Identify the predominant wildlife species that occupy or use the project site: squirrels, chipmunks _____ whitetail deer _____ sparrows _____ raccoons _____ skunks _____ wild turkey _____	
n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: i. Describe the habitat/community (composition, function, and basis for designation): _____ ii. Source(s) of description or evaluation: _____ iii. Extent of community/habitat: • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres	
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>	
USFWS IPaC indicates potential presence of Northern long-eared bat (federal and state threatened) (see Attachment 1). The NYNHP Nature Explorer also identifies several state threatened and state endangered species as being present within Tioga County (see Attachment 2). However, the elevation of the roadway is not expected to impact these species. Consultation letters will be submitted to USFWS and NYNHP.	
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
NYNHP Nature Explorer identifies several species of special concern as being present within Tioga County (see Attachment 2). Elevation of the roadway is not expected to impact these species. A consultation letter will be submitted to NYNHP.	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If yes, give a brief description of how the proposed action may affect that use: _____ _____	
<b>E.3. Designated Public Resources On or Near Project Site</b>	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, provide county plus district name/number: _____	
b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> i. If Yes: acreage(s) on project site? _____ ii. Source(s) of soil rating(s): _____	
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____	
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: i. CEA name: _____ ii. Basis for designation: _____ iii. Designating agency and date: _____	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District	
<i>ii.</i> Name: _____	
<i>iii.</i> Brief description of attributes on which listing is based: _____	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	
If Yes:	
<i>i.</i> Describe possible resource(s): <u>cultural remains on the Armstrong Site (see Attachment 3)</u>	
<i>ii.</i> Basis for identification: <u>Phase IA/IB Archeological Investigation and Phase II Site Evaluation conducted (see Attachment 3)</u>	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Identify resource: _____	
<i>ii.</i> Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____	
<i>iii.</i> Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Identify the name of the river and its designation: _____	
<i>ii.</i> Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

**F. Additional Information**

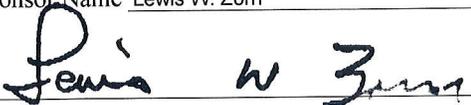
Attach any additional information which may be needed to clarify your project.

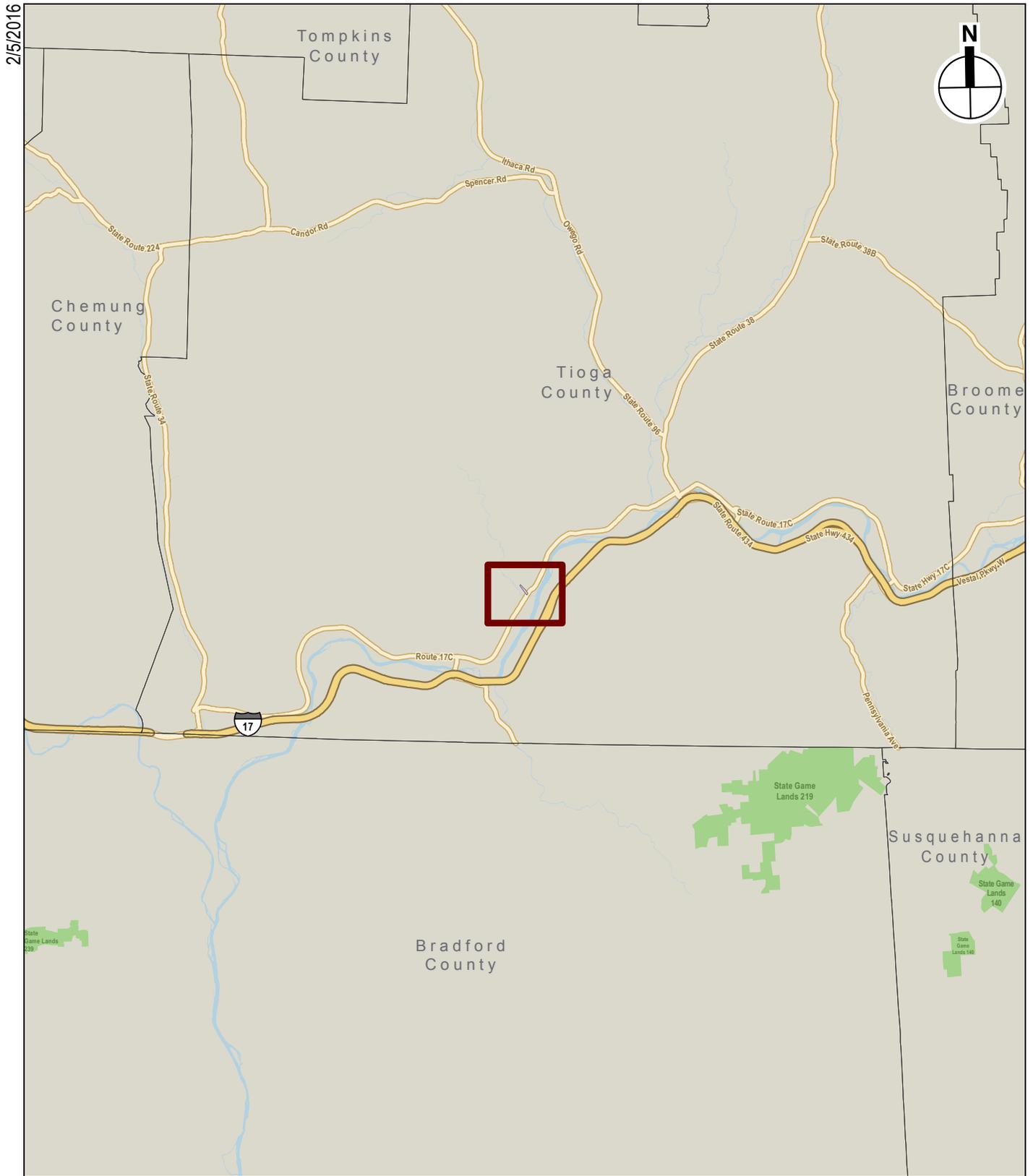
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

**G. Verification**

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Lewis W. Zorn Date 02/23/2016

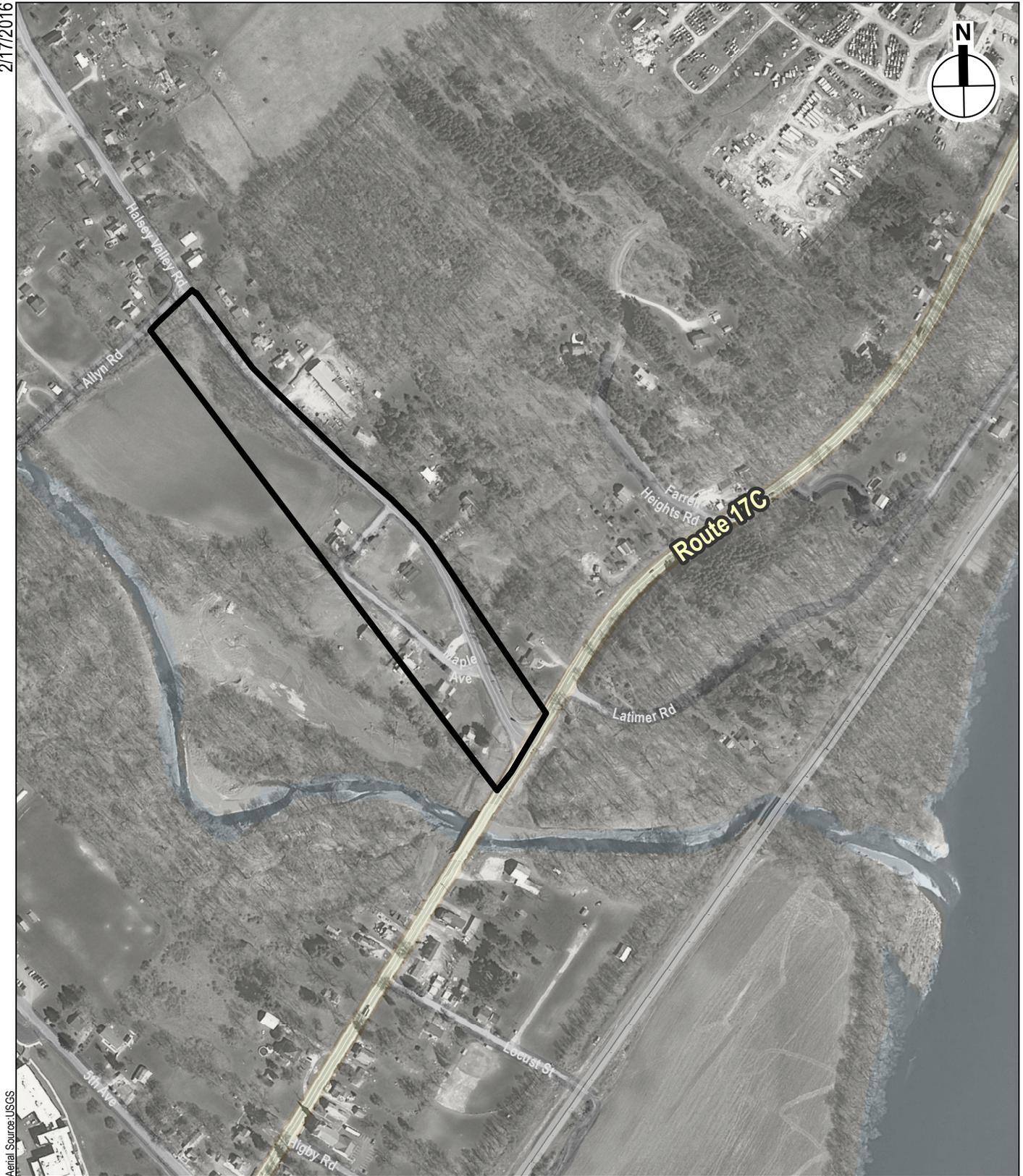
Signature  Title Town Supervisor



 Project Location

0  10 Miles

2/17/2016



Aerial Source: USGS

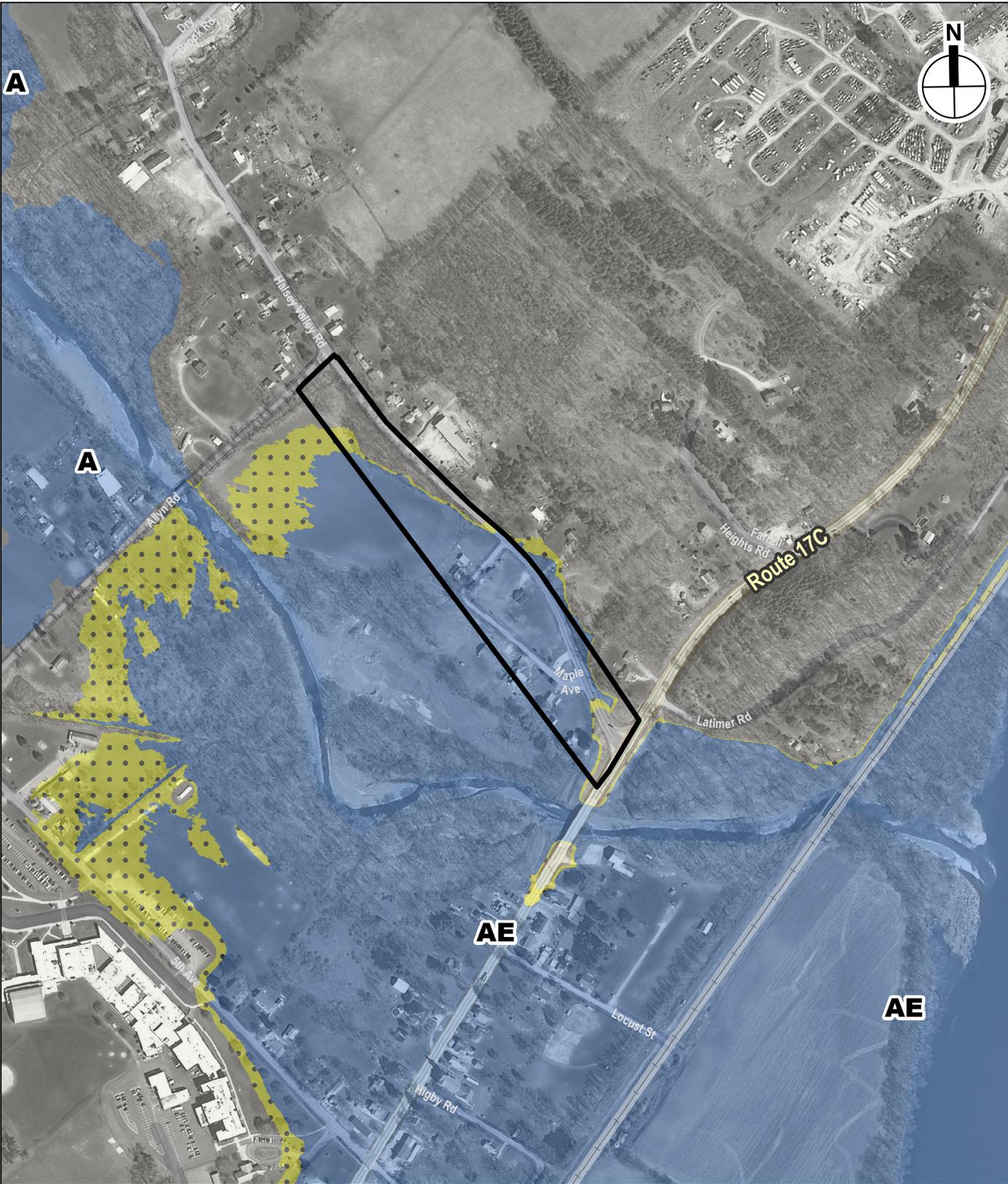
 Project Site



### **HALSEY VALLEY ROAD ELEVATION**

**Project Site Map  
Figure 2**

2/18/2016



Source: USGS Aerials; FEMA, National Flood Hazard Layer, 2015

-  Project Site
-  100-Year Floodplain
-  500-Year Floodplain

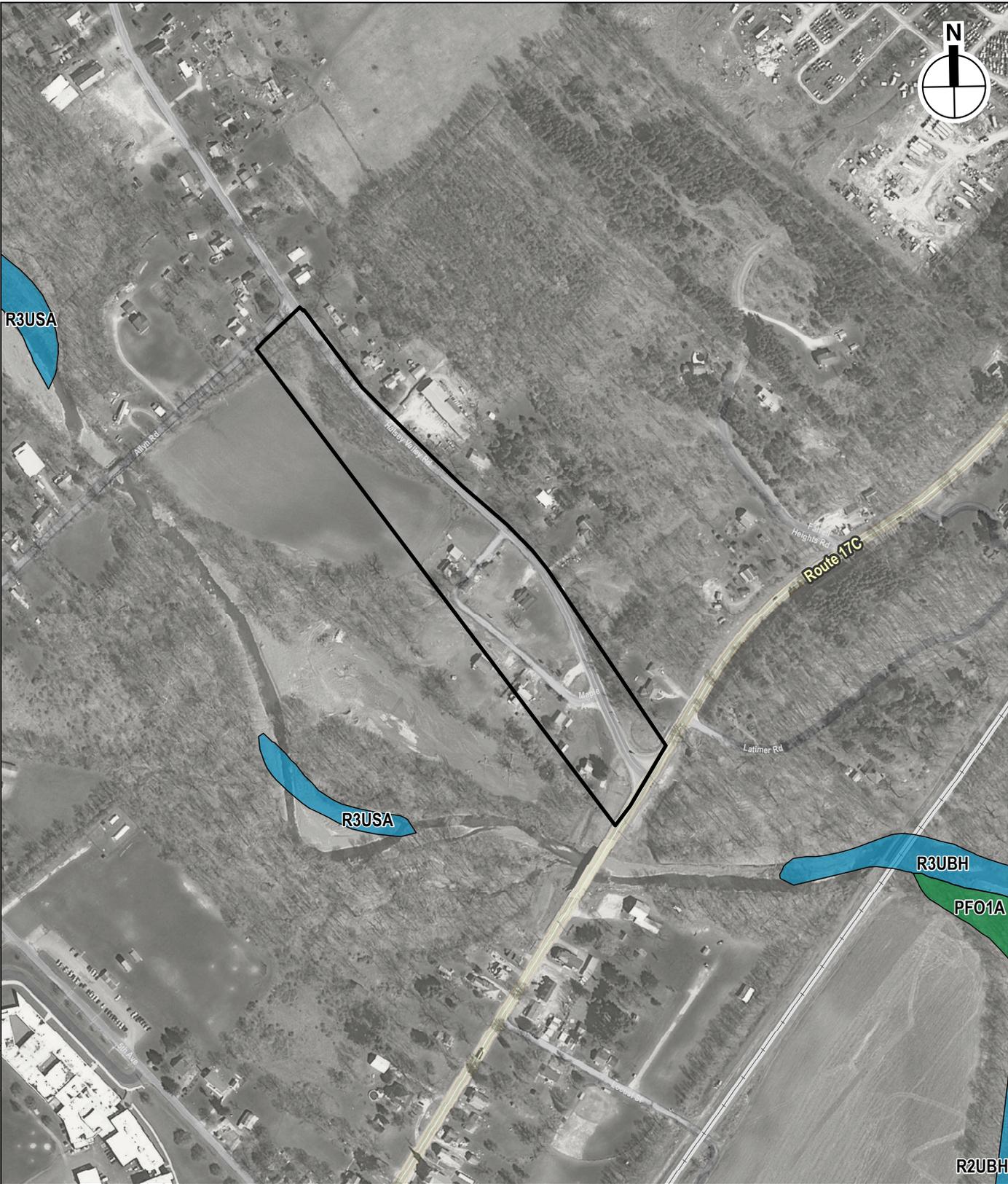
0 1,000 FEET



### **HALSEY VALLEY ROAD ELEVATION**

**FEMA Floodplain  
Figure 3**

2/5/2016



Source: USGS Aerials; NWI Mapped Wetlands; USFWS, 2014

-  Project Site
-  Freshwater Forested/Shrub Wetland
-  Riverine

0 1,000 FEET

### **HALSEY VALLEY ROAD ELEVATION**

NWI Wetlands  
**Figure 4**

2/18/2016

Source: USGS Aerials; Freshwater Wetlands, New York State Department of Environmental Conservation, 1999



 Project Site

0 1,000 FEET

**HALSEY VALLEY ROAD ELEVATION**

**NYSDEC FRESHWATER  
WETLANDS  
Figure 5**



# Governor's Office of Storm Recovery



Andrew M. Cuomo  
Governor

Lisa Bova-Hiatt  
Executive Director

## **Halsey Valley Road Elevation Project**

### **Potentially Involved Agencies:**

New York Department of Transportation  
Kathryn Mangan  
44 Hawley Street  
Binghamton, NY 13901-3200

New York State Department of Environmental Conservation  
Dan Bishop, Regional Natural Resources Supervisor  
1285 Fisher Ave  
Cortlandt, NY 13045-1090

Town of Tioga  
Lewis Zorn, Supervisor  
54 Fifth Avenue  
Barton, New York 13734

New York State Division for Historic Preservation  
Mr. Larry Moss  
Pebbles Island State Park  
P.O. Box 189  
Waterford, NY 12188-0189

NYS Office of Parks, Recreation and Historic Preservation  
Ron Rausch  
625 Broadway  
Albany, NY 12207

Tioga County Department of Public Works  
Gary Hammond, Commissioner of Public Works  
477 Route 96  
Owego NY 13827

### **Potentially Interested Agencies:**

Tioga County  
56 Main Street  
Owego, NY 13827

Tioga County Soil and Water Conservation District  
183 Corporate Drive  
Owego, NY 13827

# Halsey Valley Road Elevation

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## *IPaC Trust Resource Report*

Generated January 29, 2016 05:50 AM MST, IPaC v2.3.2

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



US Fish & Wildlife Service

# IPaC Trust Resource Report



NAME

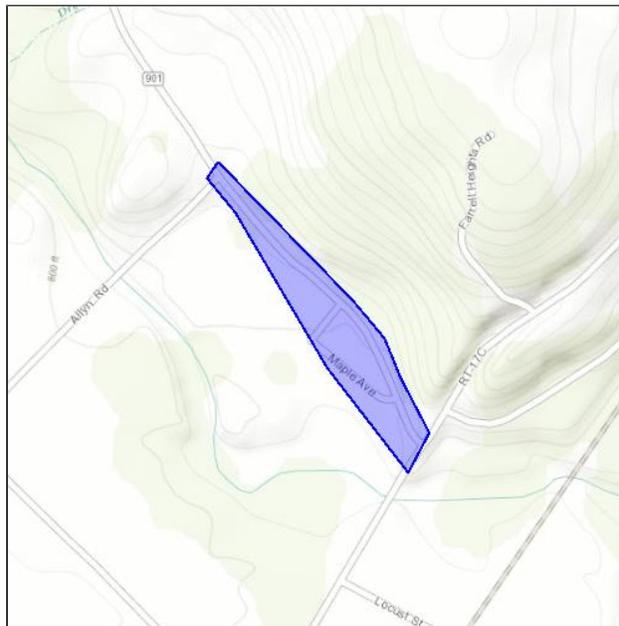
Halsey Valley Road Elevation

LOCATION

Tioga County, New York

IPAC LINK

<https://ecos.fws.gov/ipac/project/DQJ5M-SIY3Z-DY3PC-FZXXQ-RYYUHQ>



## U.S. Fish & Wildlife Contact Information

Trust resources in this location are managed by:

**New York Ecological Services Field Office**

3817 Luker Road

Cortland, NY 13045-9349

(607) 753-9334

## Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

**This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.**

For project evaluations that require FWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

**A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from the Regulatory Documents section in IPaC.**

The list of species below are those that may occur or could potentially be affected by activities in this location:

### Mammals

**Northern Long-eared Bat** *Myotis septentrionalis* Threatened

CRITICAL HABITAT

**No critical habitat** has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=A0JE](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=A0JE)

### Critical Habitats

**There are no critical habitats in this location**

# Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

Additional information can be found using the following links:

- Birds of Conservation Concern  
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds  
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data  
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>

The following species of migratory birds could potentially be affected by activities in this location:

<b>American Bittern</b> <i>Botaurus lentiginosus</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F3">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F3</a>	
<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008</a>	
<b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HI">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HI</a>	
<b>Blue-winged Warbler</b> <i>Vermivora pinus</i>	Bird of conservation concern
Season: Breeding	
<b>Canada Warbler</b> <i>Wilsonia canadensis</i>	Bird of conservation concern
Season: Breeding	
<b>Golden-winged Warbler</b> <i>Vermivora chrysoptera</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0G4">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0G4</a>	
<b>Kentucky Warbler</b> <i>Oporornis formosus</i>	Bird of conservation concern
Season: Breeding	

<b>Least Bittern</b> <i>Ixobrychus exilis</i> Season: Breeding	Bird of conservation concern
<b>Louisiana Waterthrush</b> <i>Parkesia motacilla</i> Season: Breeding	Bird of conservation concern
<b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i> Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN</a>	Bird of conservation concern
<b>Peregrine Falcon</b> <i>Falco peregrinus</i> Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU</a>	Bird of conservation concern
<b>Pied-billed Grebe</b> <i>Podilymbus podiceps</i> Season: Breeding	Bird of conservation concern
<b>Prairie Warbler</b> <i>Dendroica discolor</i> Season: Breeding	Bird of conservation concern
<b>Red-headed Woodpecker</b> <i>Melanerpes erythrocephalus</i> Season: Breeding	Bird of conservation concern
<b>Short-eared Owl</b> <i>Asio flammeus</i> Season: Wintering <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD</a>	Bird of conservation concern
<b>Willow Flycatcher</b> <i>Empidonax traillii</i> Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6</a>	Bird of conservation concern
<b>Wood Thrush</b> <i>Hylocichla mustelina</i> Season: Breeding	Bird of conservation concern
<b>Worm Eating Warbler</b> <i>Helmitheros vermivorum</i> Season: Breeding	Bird of conservation concern

## Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

**There are no refuges in this location**

# Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

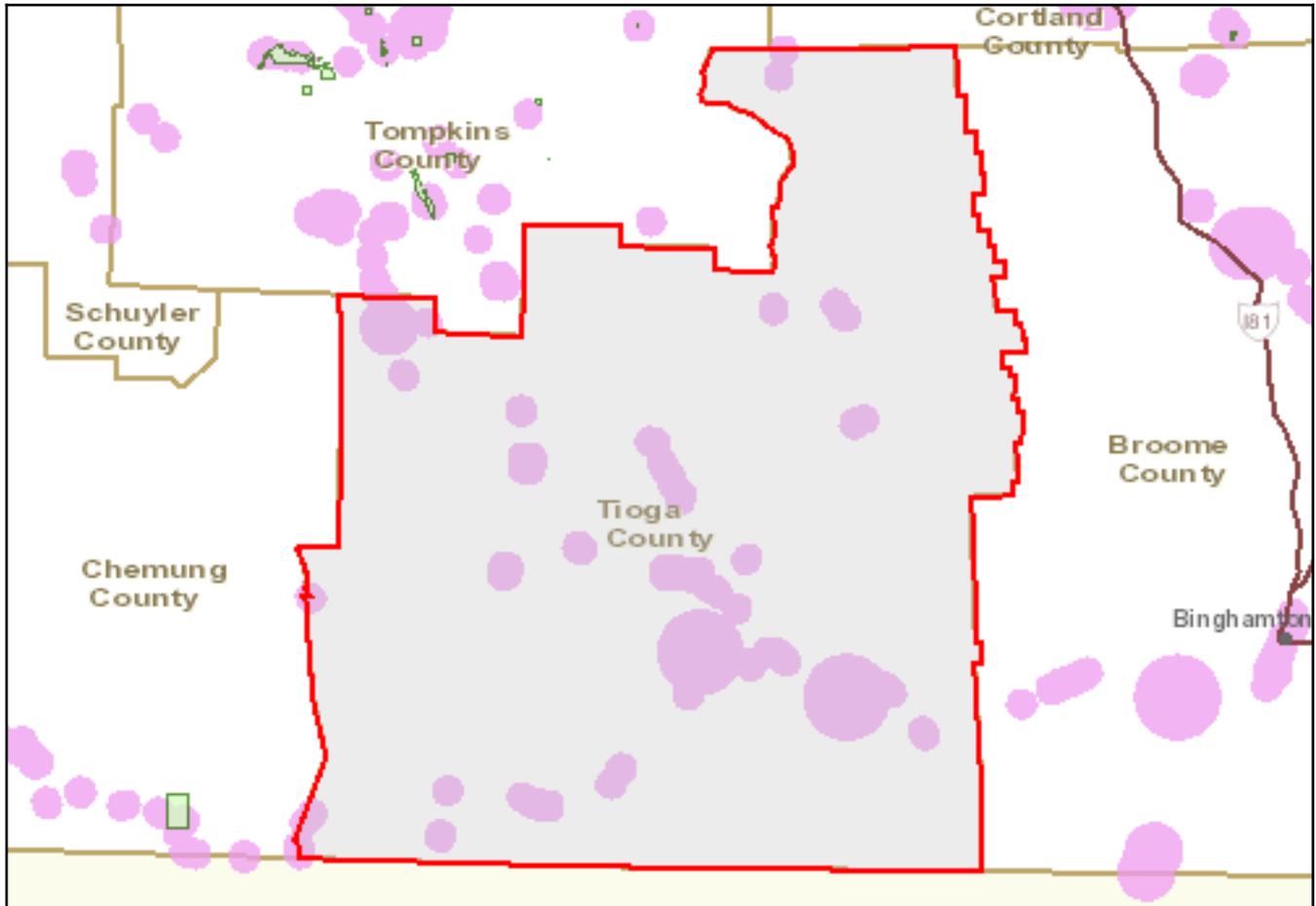
## DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

**There are no wetlands in this location**

# New York Nature Explorer County Results Report

Criteria: County: Tioga



Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global

## County: Tioga

### Animal: Mammals

Northern Long-eared Bat	Bats	Historically Confirmed		Threatened	Threatened	S3S4	G1G3
<i>Myotis septentrionalis</i>							

### Animal: Birds

Acadian Flycatcher	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S3B	G5
<i>Empidonax vireescens</i>							
Alder Flycatcher	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
<i>Empidonax alnorum</i>							

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
American Black Duck <i>Anas rubripes</i>	Ducks, Geese, Waterfowl	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S3B,SNRN	G5
American Crow <i>Corvus brachyrhynchos</i>	Crows and Jays	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5	G5
American Goldfinch <i>Spinus tristis</i>	Finches and Crossbills	Recently Confirmed	2000-2005	Protected Bird		S5	G5
American Kestrel <i>Falco sparverius</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
American Redstart <i>Setophaga ruticilla</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
American Robin <i>Turdus migratorius</i>	Thrushes and Bluebirds	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
American Woodcock <i>Scolopax minor</i>	Gulls, Terns, Plovers, Shorebirds	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5B	G5
Bald Eagle <i>Haliaeetus leucocephalus</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2012	Threatened		S2S3B,S2N	G5
Baltimore Oriole <i>Icterus galbula</i>	Blackbirds and Orioles	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Bank Swallow <i>Riparia riparia</i>	Swallows	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Barn Owl <i>Tyto alba</i>	Owls	Recently Confirmed		Protected Bird		S1S2	G5
Barn Swallow <i>Hirundo rustica</i>	Swallows	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Barred Owl <i>Strix varia</i>	Owls	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Belted Kingfisher <i>Megaceryle alcyon</i>	Kingfishers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Black-and-white Warbler <i>Mniotilta varia</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	Cuckoos	Recently Confirmed	2000-2005	Protected Bird		S5B	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Black-capped Chickadee <i>Poecile atricapillus</i>	Chickadees and Titmice	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Black-throated Blue Warbler <i>Setophaga caerulescens</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Black-throated Green Warbler <i>Setophaga virens</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Blackburnian Warbler <i>Setophaga fusca</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Blue Jay <i>Cyanocitta cristata</i>	Crows and Jays	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Blue-gray Gnatcatcher <i>Poliptila caerulea</i>	Gnatcatchers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Blue-headed Vireo <i>Vireo solitarius</i>	Vireos	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Blue-winged Warbler <i>Vermivora cyanoptera</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Bobolink <i>Dolichonyx oryzivorus</i>	Blackbirds and Orioles	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Brewster's Warbler <i>Vermivora cyanoptera x chrysoptera</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		SNA	GNA
Broad-winged Hawk <i>Buteo platypterus</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Brown Creeper <i>Certhia americana</i>	Creepers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Brown Thrasher <i>Toxostoma rufum</i>	Mockingbirds and Thrashers	Recently Confirmed	2000-2005	Protected Bird		S3S4B	G5
Brown-headed Cowbird <i>Molothrus ater</i>	Blackbirds and Orioles	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Canada Goose <i>Branta canadensis</i>	Ducks, Geese, Waterfowl	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5	G5
Canada Warbler <i>Cardellina canadensis</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Carolina Wren <i>Thryothorus ludovicianus</i>	Wrens	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Cedar Waxwing <i>Bombycilla cedrorum</i>	Waxwings	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Chestnut-sided Warbler <i>Setophaga pensylvanica</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Chimney Swift <i>Chaetura pelagica</i>	Hummingbirds and Swifts	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Chipping Sparrow <i>Spizella passerina</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Cliff Swallow <i>Petrochelidon pyrrhonota</i>	Swallows	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Common Grackle <i>Quiscalus quiscula</i>	Blackbirds and Orioles	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Common Merganser <i>Mergus merganser</i>	Ducks, Geese, Waterfowl	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5	G5
Common Nighthawk <i>Chordeiles minor</i>	Nightbirds	Historically Confirmed		Special Concern		S2S3B	G5
Common Raven <i>Corvus corax</i>	Crows and Jays	Recently Confirmed	2000-2005	Protected Bird		S4	G5
Common Yellowthroat <i>Geothlypis trichas</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Cooper's Hawk <i>Accipiter cooperii</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Special Concern		S4	G5
Dark-eyed Junco <i>Junco hyemalis</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Downy Woodpecker <i>Picoides pubescens</i>	Woodpeckers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Eastern Bluebird <i>Sialia sialis</i>	Thrushes and Bluebirds	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Eastern Kingbird <i>Tyrannus tyrannus</i>	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Eastern Meadowlark <i>Sturnella magna</i>	Blackbirds and Orioles	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Eastern Phoebe <i>Sayornis phoebe</i>	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Eastern Screech-Owl <i>Megascops asio</i>	Owls	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Eastern Towhee <i>Pipilo erythrophthalmus</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Eastern Wood-Pewee <i>Contopus virens</i>	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
European Starling <i>Sturnus vulgaris</i>	Starlings	Recently Confirmed	2000-2005			SNA	G5
Evening Grosbeak <i>Coccothraustes vespertinus</i>	Finches and Crossbills	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Field Sparrow <i>Spizella pusilla</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Fish Crow <i>Corvus ossifragus</i>	Crows and Jays	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S4	G5
Golden-crowned Kinglet <i>Regulus satrapa</i>	Kinglets	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Golden-winged Warbler <i>Vermivora chrysoptera</i>	Wood-Warblers	Recently Confirmed	2000-2005	Special Concern		S3B	G4
Grasshopper Sparrow <i>Ammodramus savannarum</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Special Concern		S3B	G5
Gray Catbird <i>Dumetella carolinensis</i>	Mockingbirds and Thrashers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Great Blue Heron <i>Ardea herodias</i>	Hérons, Bitterns, Egrets, Ibises	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Great Crested Flycatcher <i>Myiarchus crinitus</i>	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Great Horned Owl <i>Bubo virginianus</i>	Owls	Recently Confirmed	2000-2005	Protected Bird		S5	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Green Heron <i>Butorides virescens</i>	Hérons, Bitterns, Egrets, Ibises	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Hairy Woodpecker <i>Picoides villosus</i>	Woodpeckers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Henslow's Sparrow <i>Ammodramus henslowii</i>	Sparrows and Towhees	Recently Confirmed		Threatened		S3B	G4
Hermit Thrush <i>Catharus guttatus</i>	Thrushes and Bluebirds	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Hooded Merganser <i>Lophodytes cucullatus</i>	Ducks, Geese, Waterfowl	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S4	G5
Hooded Warbler <i>Setophaga citrina</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Horned Lark <i>Eremophila alpestris</i>	Larks	Recently Confirmed	2000-2005	Special Concern		S3S4B	G5
House Finch <i>Haemorhous mexicanus</i>	Finches and Crossbills	Recently Confirmed	2000-2005	Protected Bird		SNA	G5
House Sparrow <i>Passer domesticus</i>	Old World Sparrows	Recently Confirmed	2000-2005			SNA	G5
House Wren <i>Troglodytes aedon</i>	Wrens	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Indigo Bunting <i>Passerina cyanea</i>	Cardinals and Buntings	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Kentucky Warbler <i>Geothlypis formosa</i>	Wood-Warblers	Historically Confirmed		Protected Bird		S2B	G5
Killdeer <i>Charadrius vociferus</i>	Gulls, Terns, Plovers, Shorebirds	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Lawrence's Warbler <i>Vermivora chrysoptera x cyanoptera</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		SNA	GNA
Least Bittern <i>Ixobrychus exilis</i>	Hérons, Bitterns, Egrets, Ibises	Historically Confirmed		Threatened		S3B,S1N	G5
Least Flycatcher <i>Empidonax minimus</i>	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Louisiana Waterthrush <i>Parkesia motacilla</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Magnolia Warbler <i>Setophaga magnolia</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Mallard <i>Anas platyrhynchos</i>	Ducks, Geese, Waterfowl	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5	G5
Mourning Dove <i>Zenaida macroura</i>	Pigeons and Doves	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Mourning Warbler <i>Geothlypis philadelphia</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Nashville Warbler <i>Oreothlypis ruficapilla</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Northern Bobwhite <i>Colinus virginianus</i>	Grouse, Pheasants, Turkeys	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S4	G5
Northern Cardinal <i>Cardinalis cardinalis</i>	Cardinals and Buntings	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Northern Flicker <i>Colaptes auratus</i>	Woodpeckers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Northern Goshawk <i>Accipiter gentilis</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Special Concern		S3S4B,S3N	G5
Northern Harrier <i>Circus cyaneus</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2004	Threatened		S3B,S3N	G5
Northern Mockingbird <i>Mimus polyglottos</i>	Mockingbirds and Thrashers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Northern Parula <i>Setophaga americana</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S3S4B	G5
Northern Rough-winged Swallow <i>Stelgidopteryx serripennis</i>	Swallows	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Northern Waterthrush <i>Parkesia noveboracensis</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Orchard Oriole <i>Icterus spurius</i>	Blackbirds and Orioles	Recently Confirmed	2000-2005	Protected Bird		S4B	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Osprey <i>Pandion haliaetus</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Special Concern		S4B	G5
Ovenbird <i>Seiurus aurocapilla</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Pied-billed Grebe <i>Podilymbus podiceps</i>	Grebes	Recently Confirmed	2004	Threatened		S3B,S1N	G5
Pileated Woodpecker <i>Dryocopus pileatus</i>	Woodpeckers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Pine Warbler <i>Setophaga pinus</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Prairie Warbler <i>Setophaga discolor</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Purple Finch <i>Haemorhous purpureus</i>	Finches and Crossbills	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Purple Martin <i>Progne subis</i>	Swallows	Recently Confirmed	2000-2005	Protected Bird		S4B	G5
Red-bellied Woodpecker <i>Melanerpes carolinus</i>	Woodpeckers	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Red-breasted Nuthatch <i>Sitta canadensis</i>	Nuthatches	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Red-eyed Vireo <i>Vireo olivaceus</i>	Vireos	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	Woodpeckers	Historically Confirmed		Special Concern		S2?B	G5
Red-shouldered Hawk <i>Buteo lineatus</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Special Concern		S4B	G5
Red-tailed Hawk <i>Buteo jamaicensis</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Red-winged Blackbird <i>Agelaius phoeniceus</i>	Blackbirds and Orioles	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Ring-necked Pheasant <i>Phasianus colchicus</i>	Grouse, Pheasants, Turkeys	Recently Confirmed	2000-2005	Protected Bird - Game with open season		SNA	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Rock Pigeon <i>Columba livia</i>	Pigeons and Doves	Recently Confirmed	2000-2005			SNA	G5
Rose-breasted Grosbeak <i>Pheucticus ludovicianus</i>	Cardinals and Buntings	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Ruby-crowned Kinglet <i>Regulus calendula</i>	Kinglets	Recently Confirmed	2000-2005	Protected Bird		S3B	G5
Ruby-throated Hummingbird <i>Archilochus colubris</i>	Hummingbirds and Swifts	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Ruffed Grouse <i>Bonasa umbellus</i>	Grouse, Pheasants, Turkeys	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5	G5
Savannah Sparrow <i>Passerculus sandwichensis</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Scarlet Tanager <i>Piranga olivacea</i>	Cardinals and Buntings	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Sharp-shinned Hawk <i>Accipiter striatus</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Special Concern		S4	G5
Short-eared Owl <i>Asio flammeus</i>	Owls	Recently Confirmed	2000-2005	Endangered		S2	G5
Song Sparrow <i>Melospiza melodia</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Sora <i>Porzana carolina</i>	Rails, Coots and Cranes	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S4	G5
Spotted Sandpiper <i>Actitis macularius</i>	Gulls, Terns, Plovers, Shorebirds	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Swamp Sparrow <i>Melospiza georgiana</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Tree Swallow <i>Tachycineta bicolor</i>	Swallows	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Tufted Titmouse <i>Baeolophus bicolor</i>	Chickadees and Titmice	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Turkey Vulture <i>Cathartes aura</i>	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Protected Bird		S4B	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Veery <i>Catharus fuscescens</i>	Thrushes and Bluebirds	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Vesper Sparrow <i>Pooecetes gramineus</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Special Concern		S3B	G5
Warbling Vireo <i>Vireo gilvus</i>	Vireos	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
White-breasted Nuthatch <i>Sitta carolinensis</i>	Nuthatches	Recently Confirmed	2000-2005	Protected Bird		S5	G5
White-throated Sparrow <i>Zonotrichia albicollis</i>	Sparrows and Towhees	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Wild Turkey <i>Meleagris gallopavo</i>	Grouse, Pheasants, Turkeys	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5	G5
Willow Flycatcher <i>Empidonax traillii</i>	Flycatchers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Wilson's Snipe <i>Gallinago delicata</i>	Gulls, Terns, Plovers, Shorebirds	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5B	G5
Winter Wren <i>Troglodytes hiemalis</i>	Wrens	Recently Confirmed	2000-2005	Protected Bird		S5	G5
Wood Duck <i>Aix sponsa</i>	Ducks, Geese, Waterfowl	Recently Confirmed	2000-2005	Protected Bird - Game with open season		S5	G5
Wood Thrush <i>Hylocichla mustelina</i>	Thrushes and Bluebirds	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Yellow Warbler <i>Setophaga petechia</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Yellow-bellied Sapsucker <i>Sphyrapicus varius</i>	Woodpeckers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Yellow-billed Cuckoo <i>Coccyzus americanus</i>	Cuckoos	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
Yellow-breasted Chat <i>Icteria virens</i>	Wood-Warblers	Historically Confirmed		Special Concern		S2?B	G5
Yellow-rumped Warbler <i>Setophaga coronata</i>	Wood-Warblers	Recently Confirmed	2000-2005	Protected Bird		S5B	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Yellow-throated Vireo	Vireos	Recently Confirmed	2000-2005	Protected Bird		S5B	G5
<i>Vireo flavifrons</i>							

## Animal: Reptiles

Coal Skink	Lizards	Recently Confirmed	1990-1999	Game with no open season		S2S3	G5
<i>Plestiodon anthracinus</i>							
Common Gartersnake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Thamnophis sirtalis</i>							
Dekay's Brownsnake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Storeria dekayi</i>							
Eastern Ratsnake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S4	G5
<i>Pantherophis spiloides</i>							
Eastern Ribbonsnake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S4	G5
<i>Thamnophis sauritus</i>							
Milksnake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Lampropeltis triangulum</i>							
Northern Watersnake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Nerodia sipedon</i>							
Painted Turtle	Turtles	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Chrysemys picta</i>							
Red-bellied Snake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Storeria occipitomaculata</i>							
Ring-necked Snake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Diadophis punctatus</i>							
Smooth Green Snake	Snakes	Recently Confirmed	1990-1999	Game with no open season		S4	G5
<i>Opheodrys vernalis</i>							
Snapping Turtle	Turtles	Recently Confirmed	1990-1999	Game with open season		S5	G5
<i>Chelydra serpentina</i>							
Wood Turtle	Turtles	Recently Confirmed	1990-1999	Special Concern		S3	G3
<i>Glyptemys insculpta</i>							

## Animal: Amphibians

Allegheny Mountain Dusky Salamander	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
<i>Desmognathus ochrophaeus</i>							

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
American Toad <i>Anaxyrus americanus</i>	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
Bullfrog <i>Lithobates catesbeianus</i>	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
Dusky Salamander <i>Desmognathus fuscus</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
Eastern Newt <i>Notophthalmus viridescens</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
Four-toed Salamander <i>Hemidactylum scutatum</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
Gray Treefrog <i>Hyla versicolor</i>	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
Green Frog <i>Lithobates clamitans</i>	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
Longtail Salamander <i>Eurycea longicauda</i>	Salamanders	Recently Confirmed	2013	Special Concern		S2S3	G5
Northern Leopard Frog <i>Lithobates pipiens</i>	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
Northern Slimy Salamander <i>Plethodon glutinosus</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
Northern Two-lined Salamander <i>Eurycea bislineata</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
Pickereel Frog <i>Lithobates palustris</i>	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
Redback Salamander <i>Plethodon cinereus</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
Spotted Salamander <i>Ambystoma maculatum</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5
Spring Peeper <i>Pseudacris crucifer</i>	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
Spring Salamander <i>Gyrinophilus porphyriticus</i>	Salamanders	Recently Confirmed	1990-1999	Game with no open season		S5	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Wood Frog	Frogs and Toads	Recently Confirmed	1990-1999	Game with open season		S5	G5
<i>Lithobates sylvaticus</i>							

## Animal: Fish

Blackchin Shiner	Minnnows, Shiners, Suckers	Recently Confirmed	1992			S1	G5
<i>Notropis heterodon</i>							
Blacknose Shiner	Minnnows, Shiners, Suckers	Historically Confirmed				S2S3	G4
<i>Notropis heterolepis</i>							
Bridle Shiner	Minnnows, Shiners, Suckers	Historically Confirmed				S2?	G3
<i>Notropis bifrenatus</i>							
Comely Shiner	Minnnows, Shiners, Suckers	Recently Confirmed	2004			S2?	G5
<i>Notropis amoenus</i>							
Swallowtail Shiner	Minnnows, Shiners, Suckers	Historically Confirmed				S2	G5
<i>Notropis procne</i>							

## Animal: Butterflies and Moths

Southern Grizzled Skipper	Butterflies and Skippers	Historically Confirmed	1970	Endangered		SH	G1G2Q
<i>Pyrgus wyandot</i>							

## Animal: Dragonflies and Damselflies

Arrowhead Spiketail	Dragonflies	Recently Confirmed	2004			S3	G4
<i>Cordulegaster obliqua</i>							
Cobra Clubtail	Dragonflies	Recently Confirmed	2009			S1	G5
<i>Gomphus vastus</i>							
Spatterdock Darner	Dragonflies	Recently Confirmed	1988			S2	G4
<i>Rhionaeschna mutata</i>							

## Animal: Mussels and Clams

Brook Floater	Freshwater Mussels	Recently Confirmed	2008	Threatened		S1	G3
<i>Alasmidonta varicosa</i>							
Green Floater	Freshwater Mussels	Recently Confirmed	1997	Threatened		S1S2	G3
<i>Lasmigona subviridis</i>							
Yellow Lampmussel	Freshwater Mussels	Recently Confirmed	2008			S3	G3G4
<i>Lampsilis cariosa</i>							

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global

## Plant: Flowering Plants

American Bittersweet <i>Celastrus scandens</i>	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Basil-balm <i>Monarda clinopodia</i>	Other Flowering Plants	Historically Confirmed		Endangered		S1S2	G5
Bent Sedge <i>Carex styloflexa</i>	Sedges	Historically Confirmed	1898	Endangered		S1	G4G5
Big Shellbark Hickory <i>Carya laciniosa</i>	Other Flowering Plants	Possible but not Confirmed		Threatened		S2	G5
Bog Aster <i>Oclemena nemoralis</i>	Asters, Goldenrods and Daisies	Recently Confirmed		Rare		S3	G5
Butternut <i>Juglans cinerea</i>	Other Flowering Plants	Historically Confirmed				S4	G4
Cat-tail Sedge <i>Carex typhina</i>	Sedges	Historically Confirmed	1905	Endangered		S1	G5
Creamy Wild-pea <i>Lathyrus ochroleucus</i>	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Culver's-root <i>Veronicastrum virginicum</i>	Other Flowering Plants	Historically Confirmed		Threatened		S2	G4
Fairy Wand <i>Chamaelirium luteum</i>	Other Flowering Plants	Historically Confirmed		Endangered		S1S2	G5
Goosefoot Corn-salad <i>Valerianella chenopodiifolia</i>	Other Flowering Plants	Possible but not Confirmed		Endangered		S1	G5
Great St. John's-wort <i>Hypericum ascyron</i>	Other Flowering Plants	Historically Confirmed		Rare		S3	G4
Hooker's Orchid <i>Platanthera hookeri</i>	Orchids	Historically Confirmed	1915	Endangered		S1	G4
Jacob's-ladder <i>Polemonium vanbruntiae</i>	Other Flowering Plants	Historically Confirmed		Rare		S3	G3G4
Lesser Bladderwort <i>Utricularia minor</i>	Other Flowering Plants	Historically Confirmed		Rare		S3	G5

# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Meadow-parsnip <i>Thaspium barbinode</i>	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Muhlenberg's Sedge <i>Carex muehlenbergii</i> var. <i>enervis</i>	Sedges	Historically Confirmed		Rare		S3	G5T5
Narrow-leaved Sedge <i>Carex amphibola</i>	Sedges	Possible but not Confirmed	1920	Endangered		S1	G5
Nodding Wild Onion <i>Allium cernuum</i> var. <i>cernuum</i>	Other Flowering Plants	Historically Confirmed	1950	Threatened		S2	G5T5
Northeastern Sedge <i>Carex cryptolepis</i>	Sedges	Recently Confirmed		Rare		S3	G4
Northern Bog Aster <i>Symphyotrichum boreale</i>	Asters, Goldenrods and Daisies	Historically Confirmed		Threatened		S2	G5
Northern Wild Comfrey <i>Cynoglossum virginianum</i> var. <i>boreale</i>	Other Flowering Plants	Historically Confirmed	1915	Endangered		S1S2	G5T4T5
Pale Indian-plantain <i>Arnoglossum atriplicifolium</i>	Asters, Goldenrods and Daisies	Historically Confirmed		Endangered		SH	G4G5
Porter's Reedgrass <i>Calamagrostis porteri</i> ssp. <i>porteri</i>	Grasses	Historically Confirmed	1920	Endangered		S1S2	G4T4
Reflexed Sedge <i>Carex retroflexa</i>	Sedges	Recently Confirmed	2006	Threatened		S2S3	G5
Rough Avens <i>Geum virginianum</i>	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Schweinitz's Sedge <i>Carex schweinitzii</i>	Sedges	Historically Confirmed	1922	Threatened		S2S3	G3G4
Slender Marsh Bluegrass <i>Poa paludigena</i>	Grasses	Historically Confirmed	1922	Endangered		S1	G3
Small Bur-reed <i>Sparganium natans</i>	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Small-flowered Tick-trefoil <i>Desmodium pauciflorum</i>	Other Flowering Plants	Possible but not Confirmed		Endangered		SH	G5
Southern Wood Violet <i>Viola hirsutula</i>	Other Flowering Plants	Historically Confirmed	1900	Endangered		SH	G4

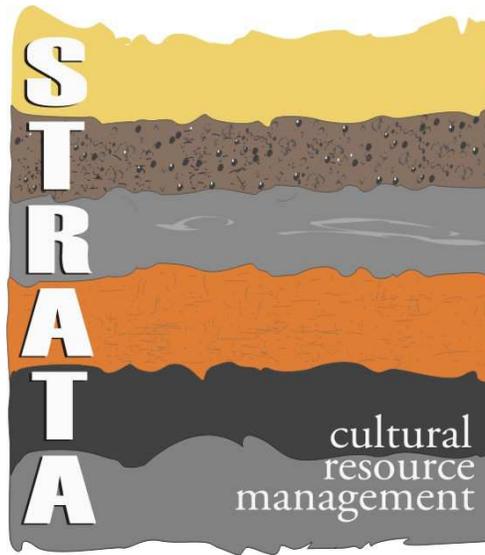
# New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Stiff Cowbane <i>Oxypolis rigidior</i>	Other Flowering Plants	Possible but not Confirmed		Endangered		SH	G5
Stiff Tick-trefoil <i>Desmodium obtusum</i>	Other Flowering Plants	Historically Confirmed		Endangered		S1	G4G5
Sweet-scented Indian-plantain <i>Hasteola suaveolens</i>	Asters, Goldenrods and Daisies	Historically Confirmed	1899	Endangered		S1	G4
Tall Bellflower <i>Campanulastrum americanum</i>	Other Flowering Plants	Possible but not Confirmed		Endangered		S1	G5
Toothed Rock-cress <i>Boechera dentata</i>	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Troublesome Sedge <i>Carex molesta</i>	Sedges	Possible but not Confirmed		Threatened		S2S3	G4
Velvet Panic Grass <i>Dichantherium scoparium</i>	Grasses	Historically Confirmed		Endangered		S1	G5
Velvety Bush-clover <i>Lespedeza stuevei</i>	Other Flowering Plants	Historically Confirmed		Threatened		S2	G4?
Violet Bush-clover <i>Lespedeza frutescens</i>	Other Flowering Plants	Possible but not Confirmed		Rare		S3	G5
Violet Wood-sorrel <i>Oxalis violacea</i>	Other Flowering Plants	Historically Confirmed	1920	Threatened		S2S3	G5
Wild Hydrangea <i>Hydrangea arborescens</i>	Other Flowering Plants	Recently Confirmed	2006	Threatened		S2	G5
Wild Lupine <i>Lupinus perennis</i>	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Winter Grape <i>Vitis vulpina</i>	Other Flowering Plants	Historically Confirmed	1939	Endangered		S1	G5

## Plant: Ferns and Fern Allies

Blunt-lobed Grape Fern <i>Botrychium oneidense</i>	Ferns	Historically Confirmed	1911	Threatened		S2S3	G4
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This list only includes records from the databases of the NY Natural Heritage Program, the second NYS Breeding Bird Atlas Project, and the NY Amphibian and Reptile Atlas Project. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities.



**PHASE IA/IB ARCHEOLOGICAL INVESTIGATION**

**AND**

**PHASE II SITE EVALUATION**

# **Halsey Valley Road Realignment**

Town of Tioga, Tioga County, New York

**OPRHP #15PR06529**

January 2016

Prepared by:

STRATA Cultural Resource Management, LLC

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Warwick, New York, 10990

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36CFR61 Archeological Consultants

**MANAGEMENT SUMMARY**

SHPO Project Review Number: 15PR06529

Involved State and Federal Agencies: NYSDOT

Phase of Survey: Phase IA/IB, Phase II

Location Information: Halsey Valley Road, Town of Tioga, Tioga Co.,NY

Survey Area (Metric & English)

Number of Acres Surveyed: ±10 acres

Number of Square meters & Feet excavated:

USGS 7.5 Minute Quadrangle Map: 1954 Owego, NY.

Archeological Survey Overview

Number and Interval of Shovel Tests: 136 STPs @ 15-Meter (50-ft) interval, 100 STPs @ ≤5m-Meter (15-ft) interval

Number and Size of Units: 0

Results of Archeological Survey

Number and name of historic sites identified: 1) The Armstrong Site

Number and name of prehistoric sites identified: 0

Results of Architectural Survey

Number of buildings/structures/cemeteries adjacent to Project Area: 12

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

Report Author: Jim Turner, RPA, Principal Investigator

Date of Report: January 2016

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## PHASE IA ARCHEOLOGICAL SENSITIVITY ASSESSMENT

### INTRODUCTION

STRATA Cultural Resource Management was contacted on May 21, 2015 by Michael Pappalardo of AKRF, Inc. to conduct a Phase IA/IB Archeological Investigation on a property in the Town of Tioga, Tioga County, New York. The project is part of the NYS CDBG-Disaster Recovery Program.

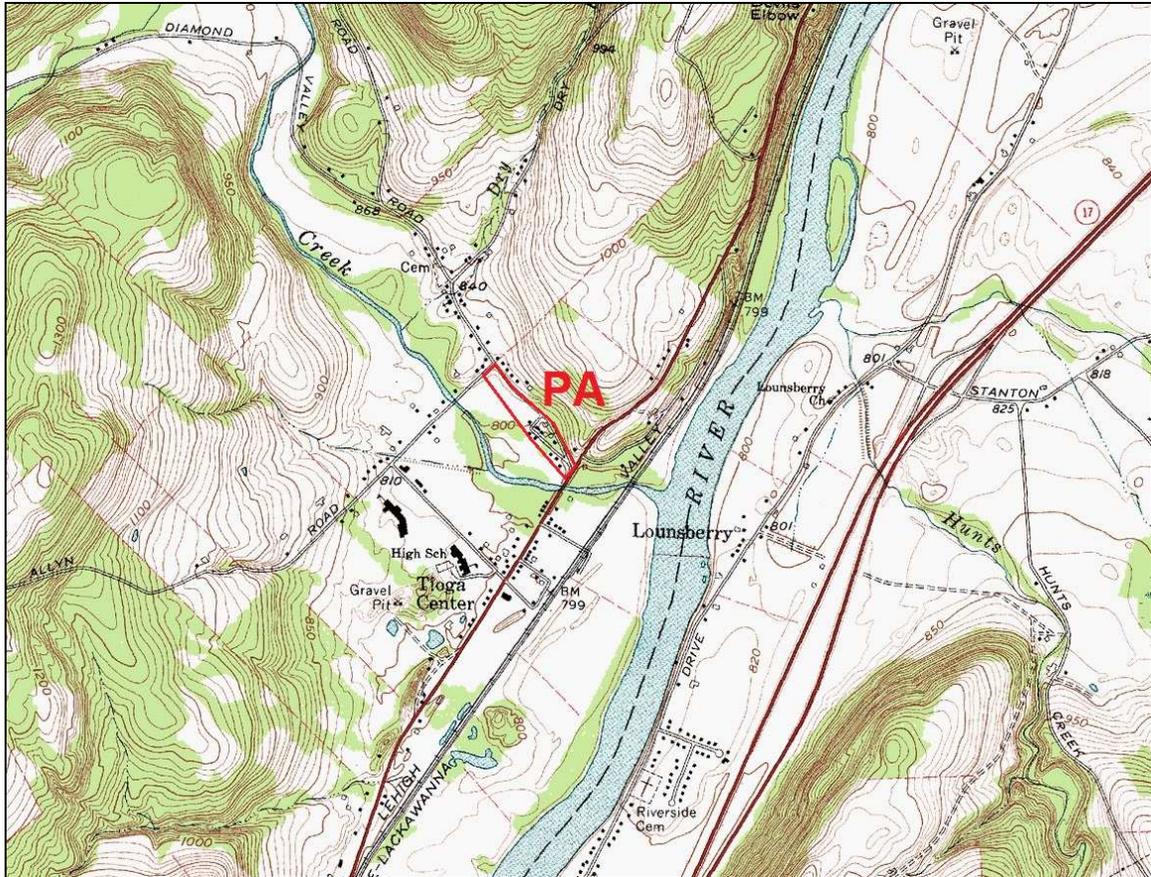
### PROJECT INFORMATION

The Town of Tioga proposed to utilize CDBG-DR funding to raise the low-lying southern portion of Halsey Valley Road to match the elevation of the perpendicular crossing road, NY State Route 17C. The project boundary consists of Halsey Valley Road between Allyn Road and Highway 17C. The purpose of the project is to ensure that this critical connector will be accessible during future storm events. Extreme rains associated with Tropical Storm Lee forced the waters of the Susquehanna River and Pipe Creek to overrun their banks, forcing the closure of many roads in the Town of Tioga. The closure of Halsey Valley Road cut off Tioga residents from access to medical assistance, groceries, and emergency services and supplies. The project activities include elevating approximately 1,800 linear feet of the southern portion of Halsey Valley Road, right of way acquisition, clearing and grubbing, fill materials for elevating roadway, soil stabilization, base coarse material, installation of driving surface material, roadway drainage activities, utility relocation, installation of guard rails where necessary, and replacement of private driveways and culverts where necessary.

The Project Area lies to the west of NYS Route 17C encompassing both sides of Halsey Valley Road below Allyn Road and extending westward around Maple Avenue (Photo 1; Maps 1 & 2). Elevations within the Project Area are approximately 790 feet (241 m) above mean sea level (AMSL) at bottom of the embankment adjacent to NYS Route 17C and rise to elevations of 822 feet (251 m) AMSL at the intersection of Allyn and Halsey Valley Roads.



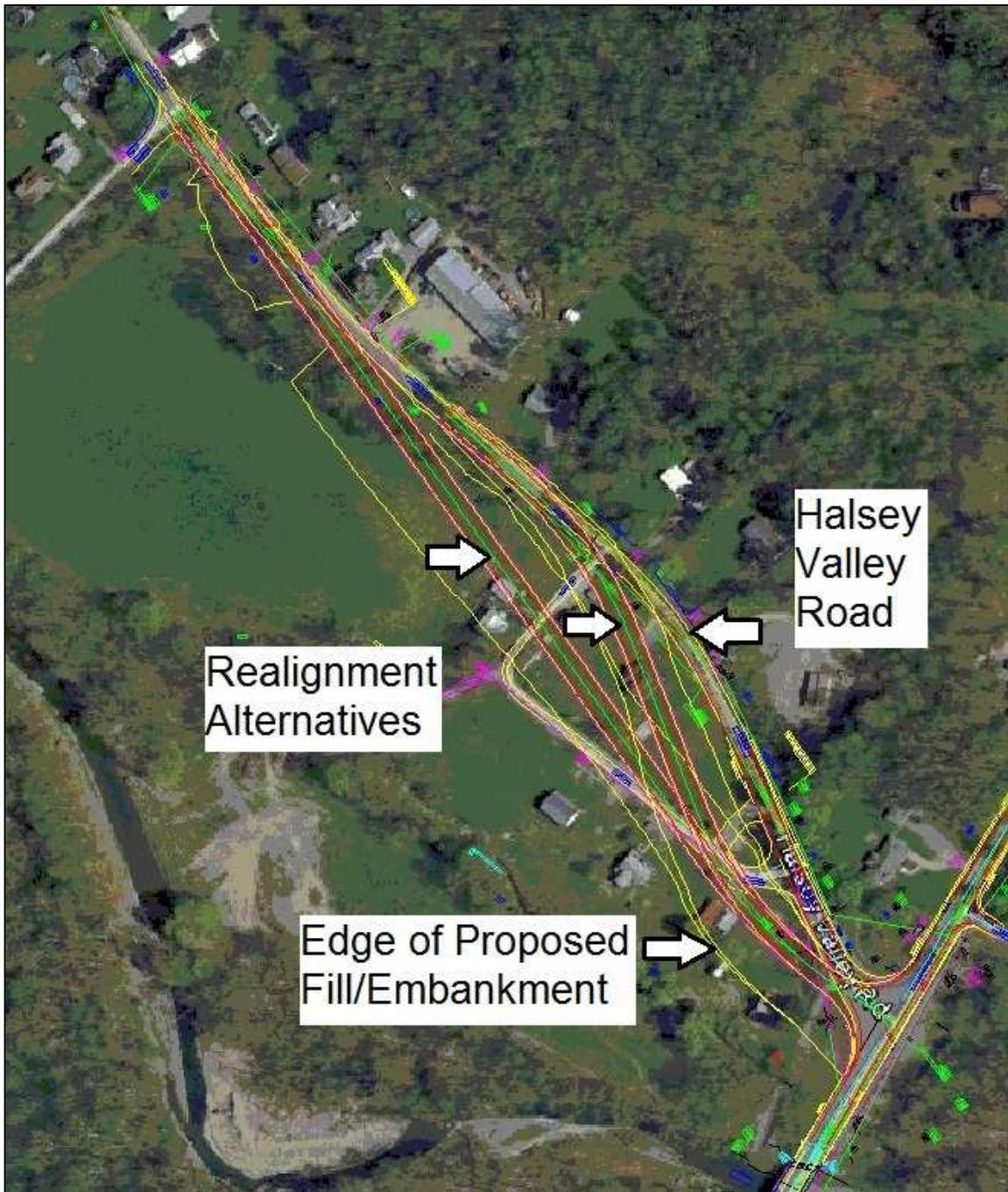
**Photo 1:** Aerial view of Project Area (Google Earth).



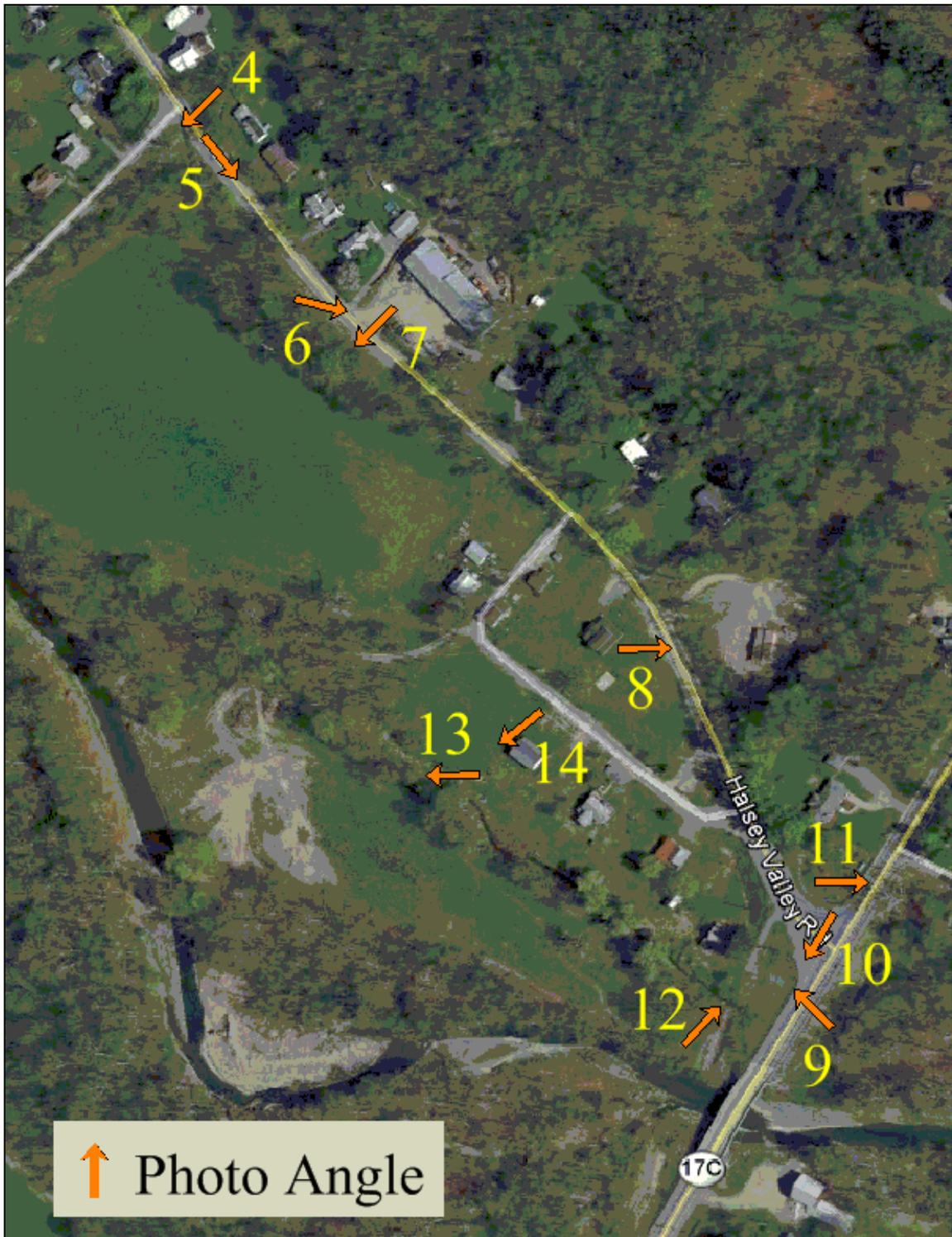
Map 1: Project Area on 1954 USGS 7.5' Topographic Quadrangle (Owego, NY).



Map 2: FEMA Floodplain map showing current alignment of Halsey Valley Road.



Map 3: Aerial imagery overlaid with proposed realignment alternatives.



Map 4: Report photo angles depicting Project Area on Existing Conditions map.



**Photo 2:** Aerial view northwest showing top of Maple Ave. with Halsey Valley Road at right.



**Photo 3:** Aerial view northwest showing Route 17C at front and Pipe Creek at left.



**Photo 4:** View southwest from corner of Allyn and Halsey Valley Roads showing location of MDS.



**Photo 5:** View southeast along Halsey Valley Road near intersection with Allyn Road.



**Photo 6:** View east across Halsey Valley Road toward Highway Dept. building. Note road cut at right.



**Photo 7:** View southwest at wooded area opposite Highway Dept. Vicinity of former School No. 3.



**Photo 8:** View east toward low stone wall near edge of Halsey Valley Road.



**Photo 9:** View northwest from NYS Route 17C showing Project Area with Maple Avenue at rear.



Photo 10: View southwest toward NYS Route 17C and bridge over Pipe Creek showing embankment fill.



Photo 11: View east outside of Project Area showing historic skating rink adjacent to NYS Route 17C.



**Photo 12:** View northeast to mortared stone remains of former bridge abutment outside of Project Area.



**Photo 13:** View west of stone cistern or well at head of Spring Brook outside of Project Area.



Photo 14: View southwest of rusted metal scatter in field near former house site adjacent to Project Area.



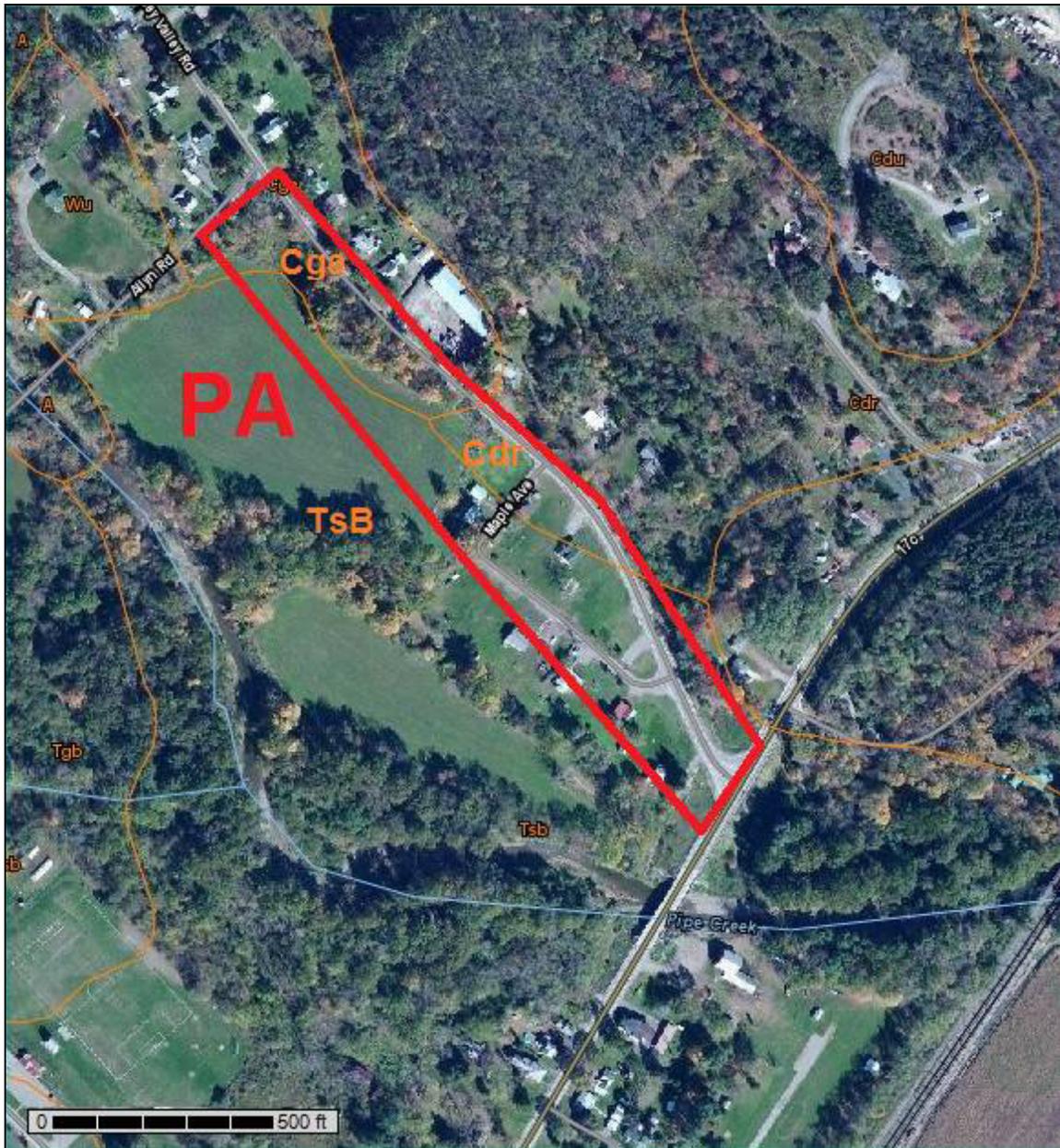
Photo 15: Aerial view northwest showing cultural remains in vicinity of Project Area.

### Bedrock and Surficial Geology

The Project Area lies within the Upper-Devonian age West Falls Group containing shale and siltstone. The surficial geology of the Project Area consists of glacial till.

### Soils and Drainage

Soils within the Project Area consist primarily of Tioga silt loam (**Tsb**) with smaller areas of Chenango gravelly loam (**Cga**) and Canfield gravelly silt loam (**Cdr**) underlying Halsey Valley Road (Map 5, Table 1) (USDA 1994).



Map 5: Project Area soils (<http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>).

**Table 1:** Project Area soils (USDA 1994).

Name	Soil Horizon Depth	Color	Texture, Inclusions	Slope %	Drainage	Description
Tioga silt loam (TsB)	A 0-9 in (0-23 cm) B 9-26 in (23-66 cm) C 26-35 in (66-89 cm) D 35-60 in (89-152 cm)	Br Pl Br Pl Br Dk Br	Silt loam Silt loam Very fine sandy loam Coarse sand and gravel	3-5%	Well drained	Recent alluvium
Chenango gravelly loam (Cga)	A 0-5 in (0-13 cm) B 5-17 in (13-43 cm) C 17-29 in (43-74 cm) D 29-42 in (74-107 cm) E 42-76 in (107-193 cm) F 76-88 in (193-224 cm)	Dk Br Br Strong Br Br Dk Br Dk Br	Gravelly loam Very gravelly loam Very gr. sandy loam Very gr. coarse sand Very cobbly sand/grav Very gr. coarse sand	0-3%	Well drained	Glacial outwash

**Current Conditions and Previous Disturbance**

The Project Area is currently an active roadway (Halsey Valley Road) alongside residences to the east with additional lands to the west including portions of an agricultural field and the remains of Maple Avenue. Numerous structures were demolished on Maple Avenue recently and the land smoothed over. At the southeast end of the Project Area there have been multiple disturbances associated with the Route 17C highway construction and adjacent bridge. In particular, fill material 12'-16' deep was placed to elevate the highway and bridge. The wooded area opposite the Highway Department has evidence of overbank dumping activity.

**LITERATURE REVIEW**

**Site File Search**

A site file search conducted on August 16, 2015 at the Office of Parks, Recreation and Historic Preservation (OPRHP) identified five (5) New York State Museum (NYSM) sites and five (5) OPRHP sites within 1,000 feet of the Project Area. The results of the Site File Search are described below in Table 2.

**Table 2:** OPRHP Site File Search results

Identifier	Distance from APE ft (m)	Time Period	Site Type
NYSM 4981	Adjacent E	Precontact	Village Site straddling both sides of Susquehanna River
NYSM 4983	Overlapping PA	Precontact	Camp
NYSM 4984	Overlapping PA	Precontact	Camps
NYSM 4986	Overlapping PA	Precontact	Camps
NYSM 4988	Adjacent E	Precontact	Village
A107.09.00006	1000 ft (304 m) SE	Transitional	"Soapstone pots and exotic flint collected at this site"
A107.09.00013	1000 ft (304 m) SE	Late Archaic, Woodland	"Pottery, debitage, poss. Snook Kill PP, flakes"
A107.09.00040	Adjacent W	Historic	The Shaw Site (NYSM #10582)
A107.09.00041	200 ft (61 m) SE	Historic	The Ransom Saw Mill Site (NYSM #10580)
A107.09.00042	500 ft (152 m) SW	Historic	The Quirin Site (NYSM #10581)

### National Register Listed and Eligible Properties

There are no National Register Listed or Eligible properties on or adjacent to the Project Area. The former J. Martin House at 15 Halsey Valley Road was determined NRE but has since been demolished.

### Town of Tioga History (By Carole LaPlante, Town Historian; <http://www.tiogahistory.org/>)

A general treaty was made in Canandaigua on November 11, 1794 between the Six Nations and Colonel Thomas Pickering representing the United States. The land that now comprises New York State was purchased for \$10,000.00 The Hartford Convention awarded Massachusetts 6,000,000 acres, which included what was later to become Tioga County. 230,000 acres of this land became known as the Boston Ten Town Purchase and was sold to sixty land speculators for the sum of a little less than \$5,000 payable over a two-year period.

Town of Tioga was surveyed and platted by Peter W. Yates and associates. It became known as the "Yates Location." Some of the early settlers in the "Yates Location" were Ransom, Schoonover, Draper, Canfield, and Alden.

On March 22, 1788, the legislature was passed to organize the "Old Town of Chemung" which had the same boundaries as the present Town of Tioga. This designation was changed by legislation on February 16, 1791 when the County of Tioga was formed. A portion of "Old Town of Chemung" became a new town called Owego; which it was from 1791 to 1813. By the act of April 12, 1813, the names of the two towns, Owego on the west side of Owego Creek, Tioga on the east side, were exchanged one for the other and remain as such today.

The present boundaries of the Town of Tioga are as follows: easterly, by the Owego Creek, which separates it from the Town of Owego, southerly, by the Susquehanna River, which the Town of Nichols: westerly, by the Town of Barton: northerly, by the towns of Candor and Spencer.

The Town of Tioga includes 35,805 acres, which are primarily upland with small areas of riverbed flats. The chief watercourses are the Pipe and Catatunk Creeks. Major William Ransom built three sawmills and two gristmills on Pipe Creek. Major Ransom also built the first log house in Tioga, in the area that B.B. Franklin's flouring mill would later be erected.

David Pixley built the first gristmill on Owego Creek sometime around 1793. Prior to the building of the gristmill, grain had to travel to Wilkes-Barre by canoe. The trip usually took about two weeks.

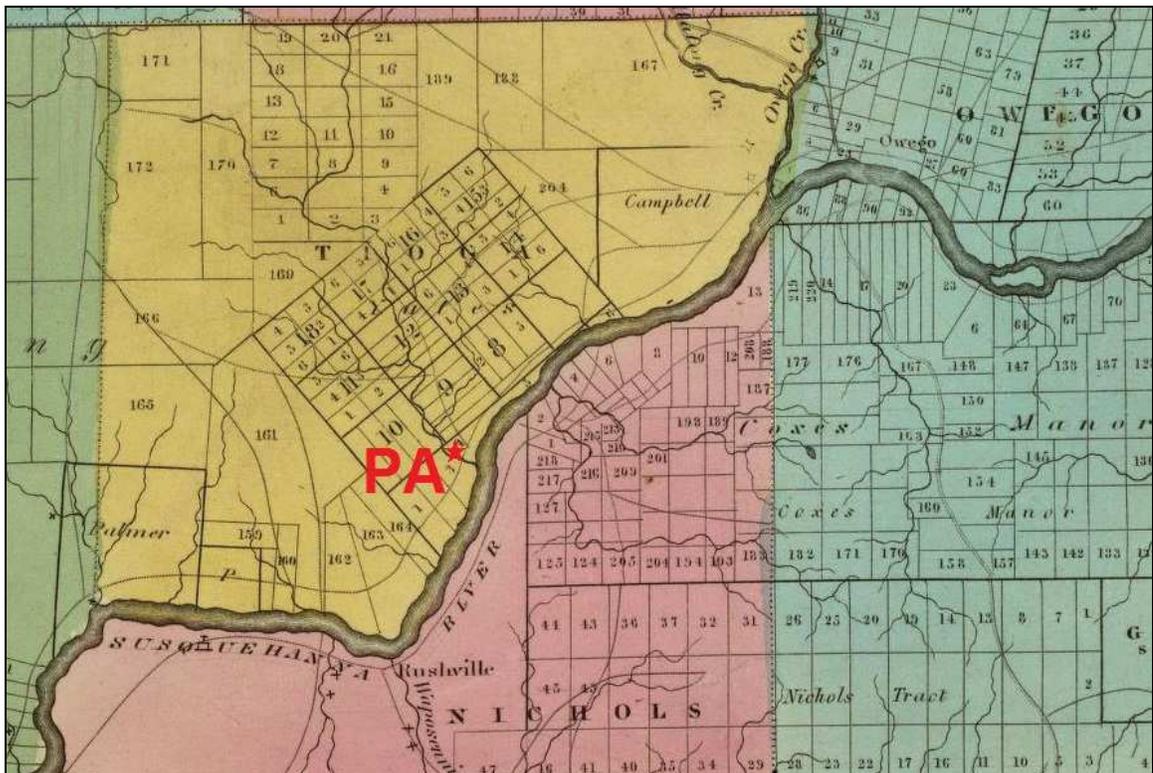
Town of Tioga has several hamlets, Tioga Center, Smithboro, Halsey Valley, Straits Corners and Goodrich Settlement. Thomas Nicholson bought 2000 acres, including what is now Halsey Valley. He had a daughter born after his untimely death. The daughter died at the age of eighteen and this area was known as "Girl's Flat" for many years afterward.

The early settlers opened a variety of businesses: hotels, blacksmith-shops, flouring mills, steam sawmills, shingle mills and tanneries. The Erie and Southern Central Railroads ran through the town along the Susquehanna River and had depots at Tioga Center and Smithboro.

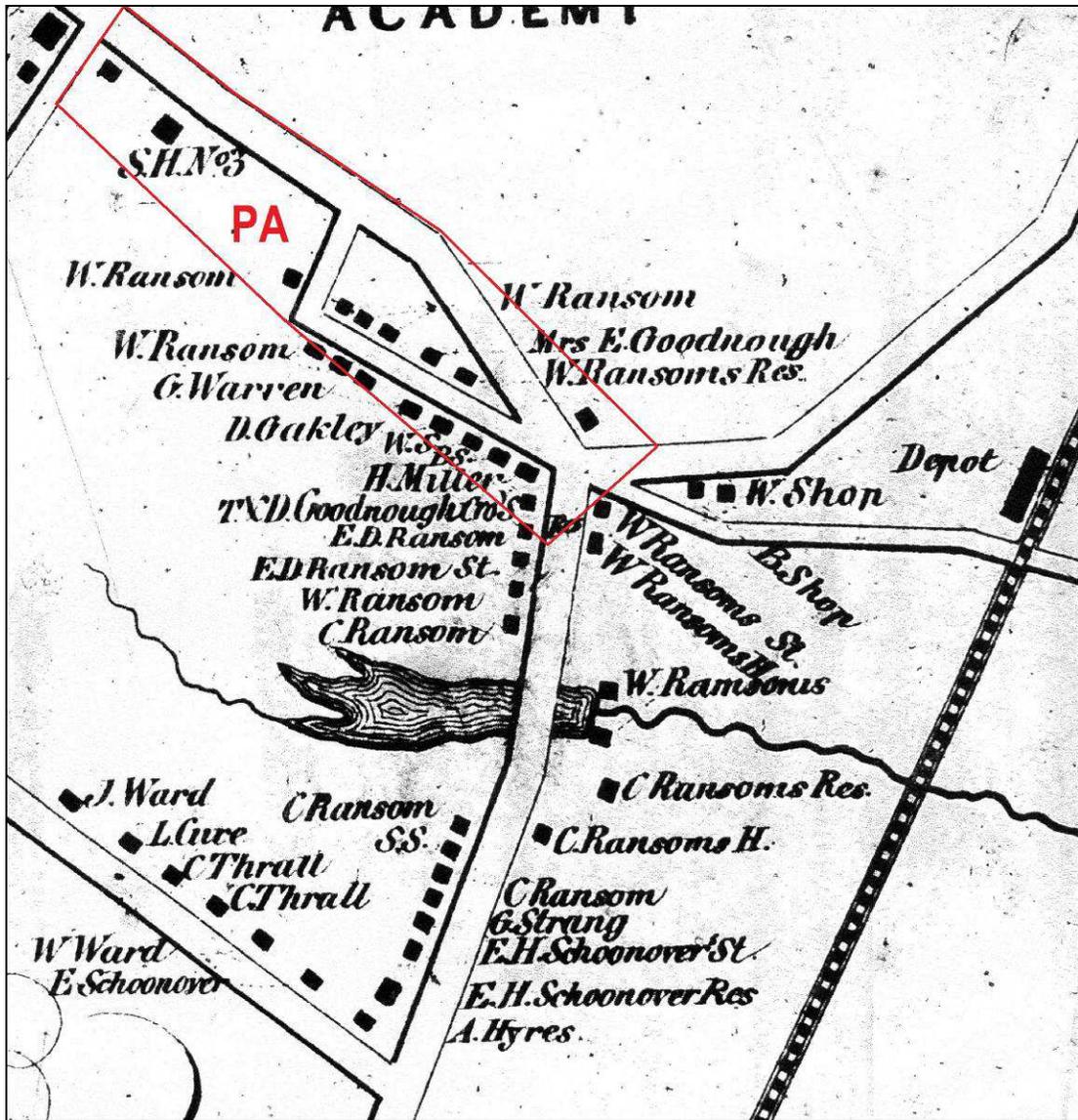
The first school was built before 1800, but the records were lost in a fire. A union school was organized in 1871. The value of the schoolhouses and land was \$13,985.00. The teachers' salaries in 1877 were a total of \$4,280.79. The amount raised by taxes was \$2,041.77 and used money on hand for the rest of the school budget. Town of Tioga had 19 country schools at the turn of the century with a total enrollment of 320. District #8 in Smithboro had the greatest number of students at 43, and Ross Hill School District #5 had the fewest at 5.

### Historic Map Review

Six historic maps were reviewed to provide background context for the Project Area. These maps dated from 1829, 1855, 1867, 1903, 1912 and 1956 (Maps 6-12). The earliest map by Burr shows the Project Area within a large tract of land identified as the Yates Military Location (Map 6). The 1855 Geil map shows more than a dozen structures within the Project Area including School No. 3 (Map 7; Photos 16 & 17). The 1869 Beers map shows the further development of Tioga Center including the house of J.H. Martin (Maps 8 & 9); this house was determined National Register Eligible (15 Halsey Valley Road, USN 10709.000053) but has since been demolished. The 1912 map shows a close-up of the old highway alignment in the vicinity of the Armstrong House to the east of Spring Brook that will be explored in the Phase II Site Evaluation (Map 11). The 1956 USGS map shows the realigned highway (Map 12).



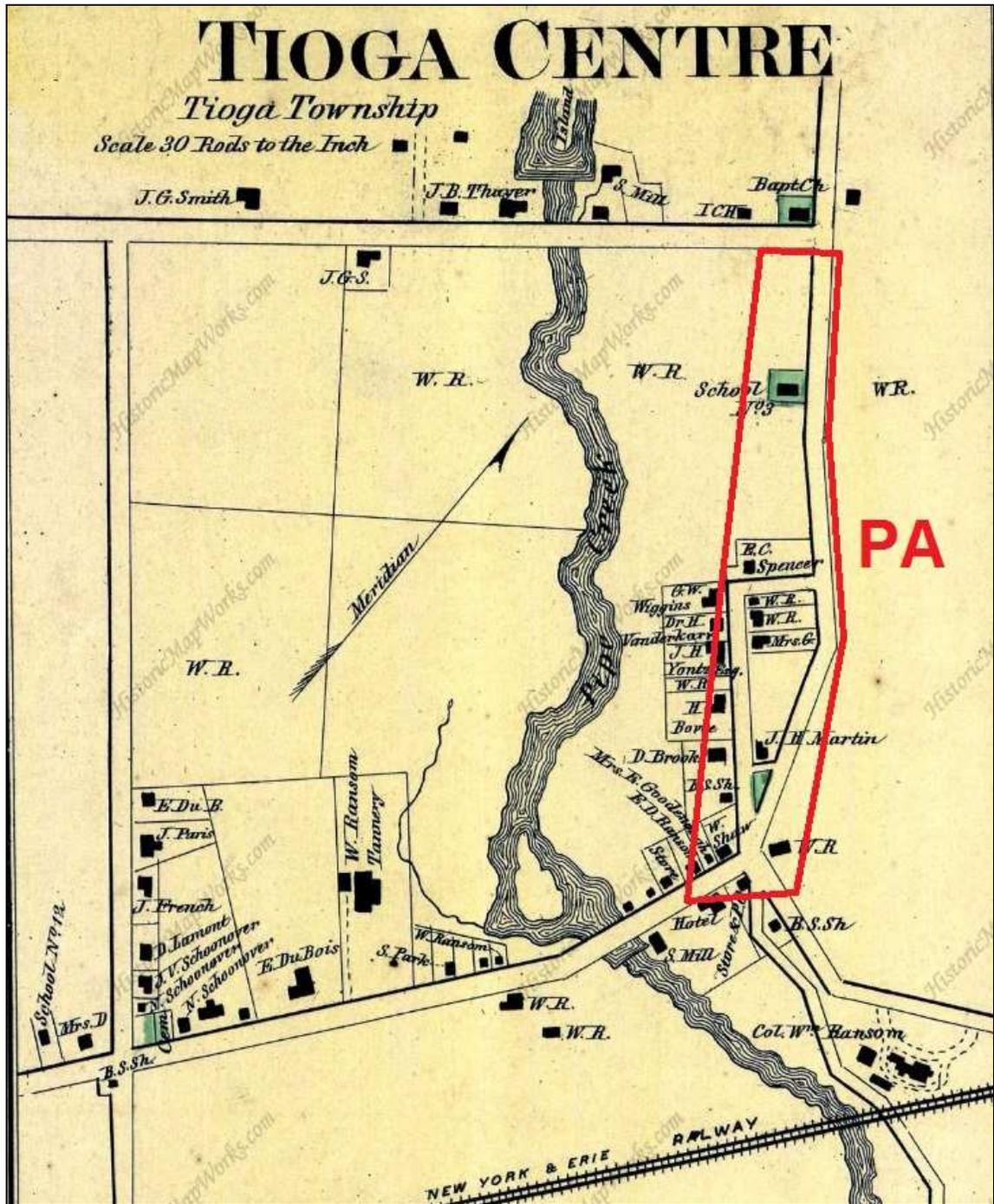
Map 6: 1829 *Atlas of New York State* (David H. Burr).



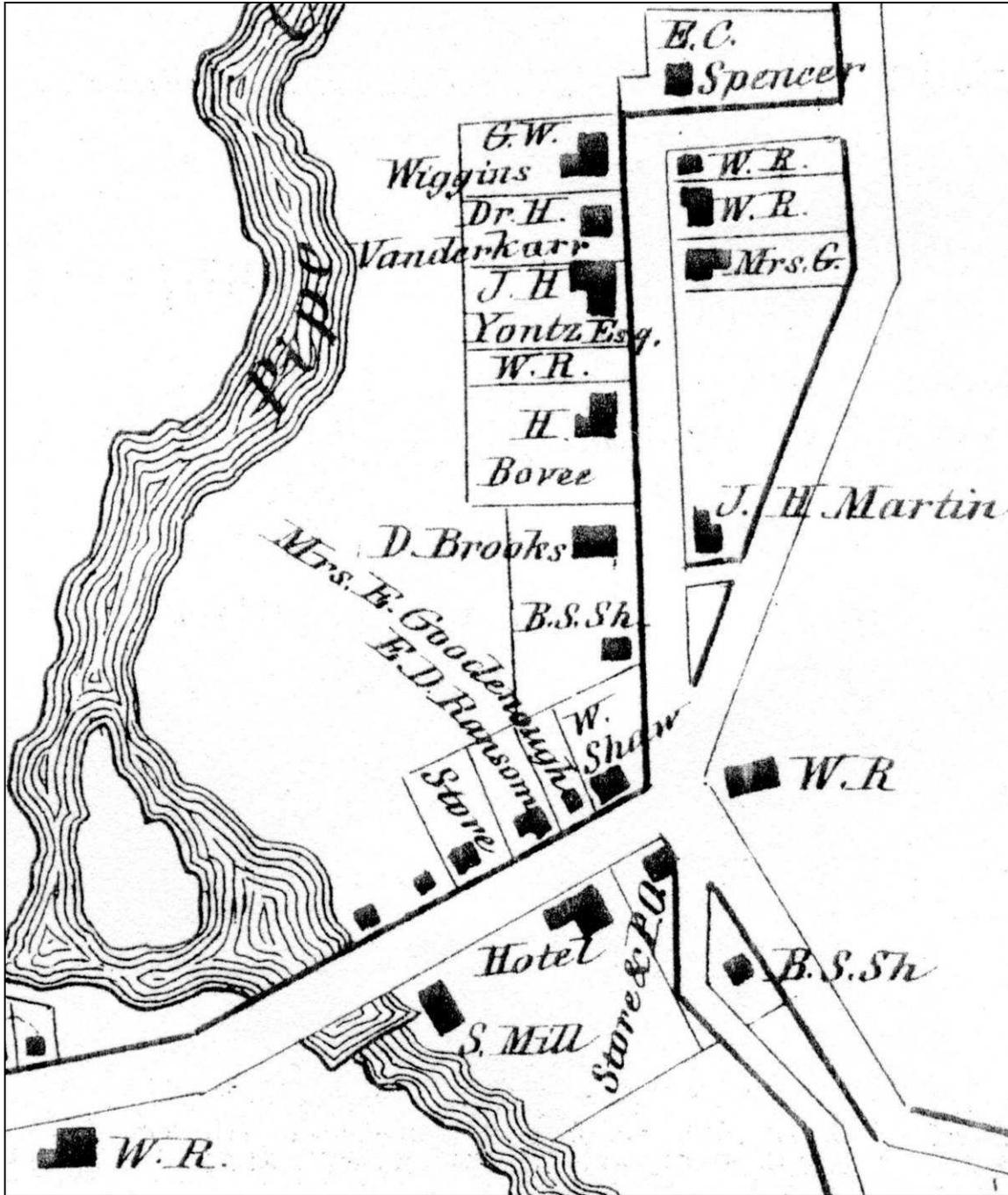
Map 7: 1855 Geil map.



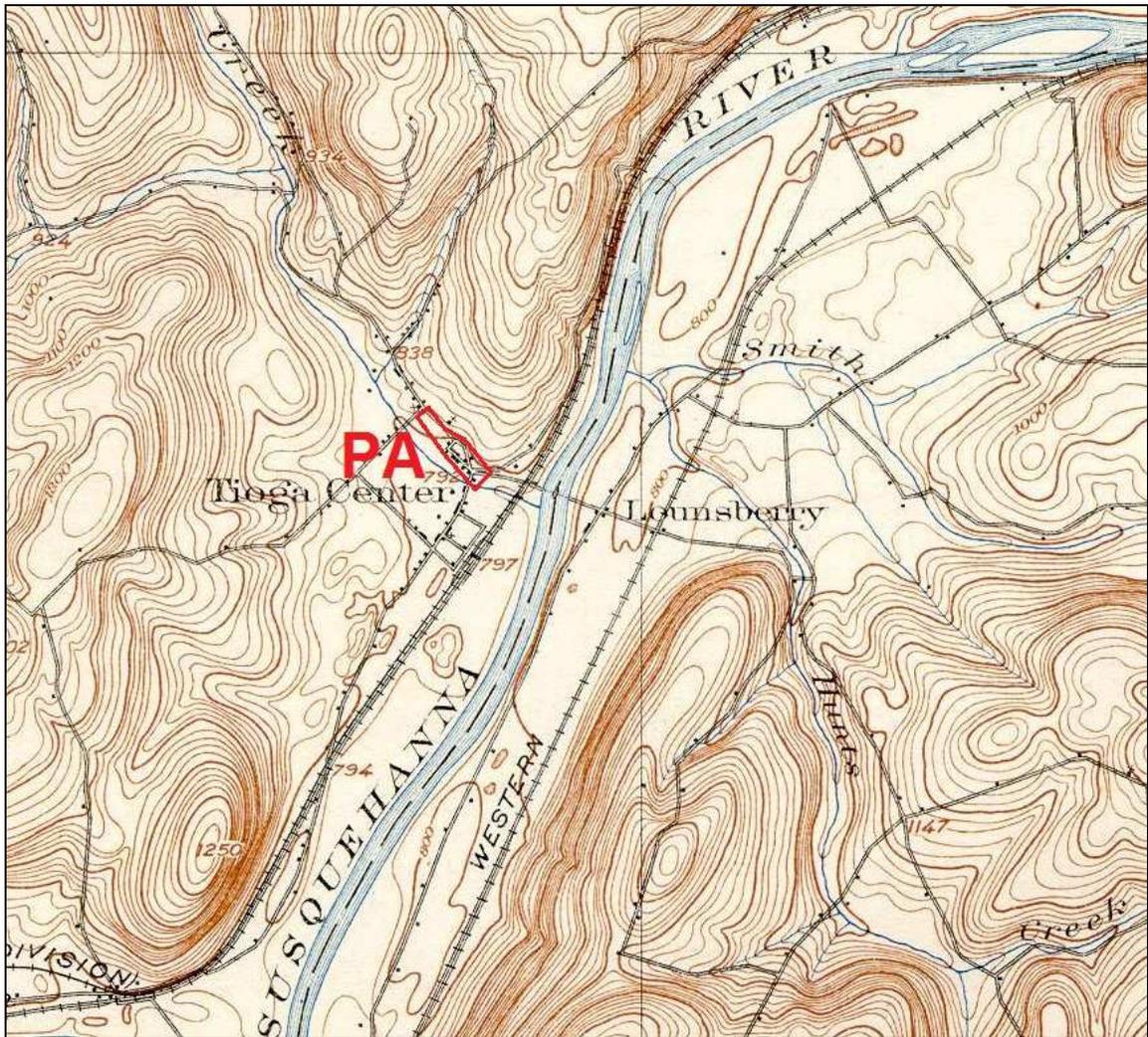
Photos 16 & 17: Historic photos of School No. 3.



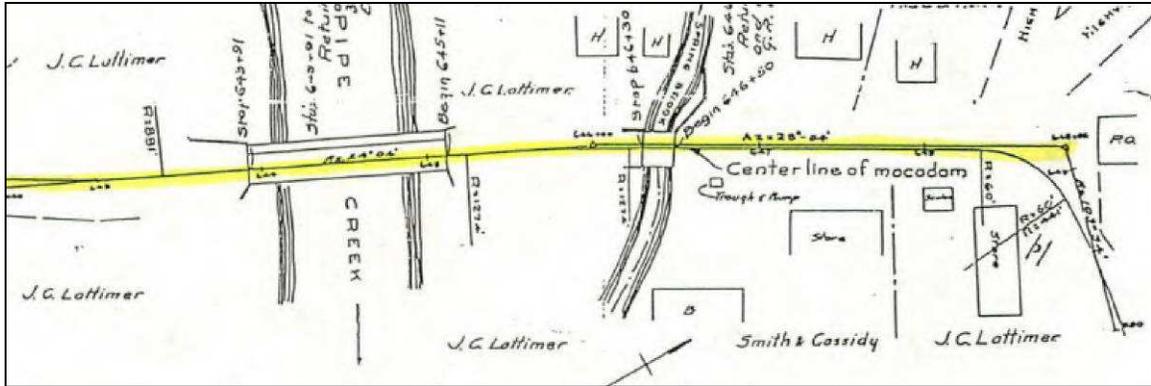
Map 8: 1869 Atlas of Tioga County (F.W. Beers).



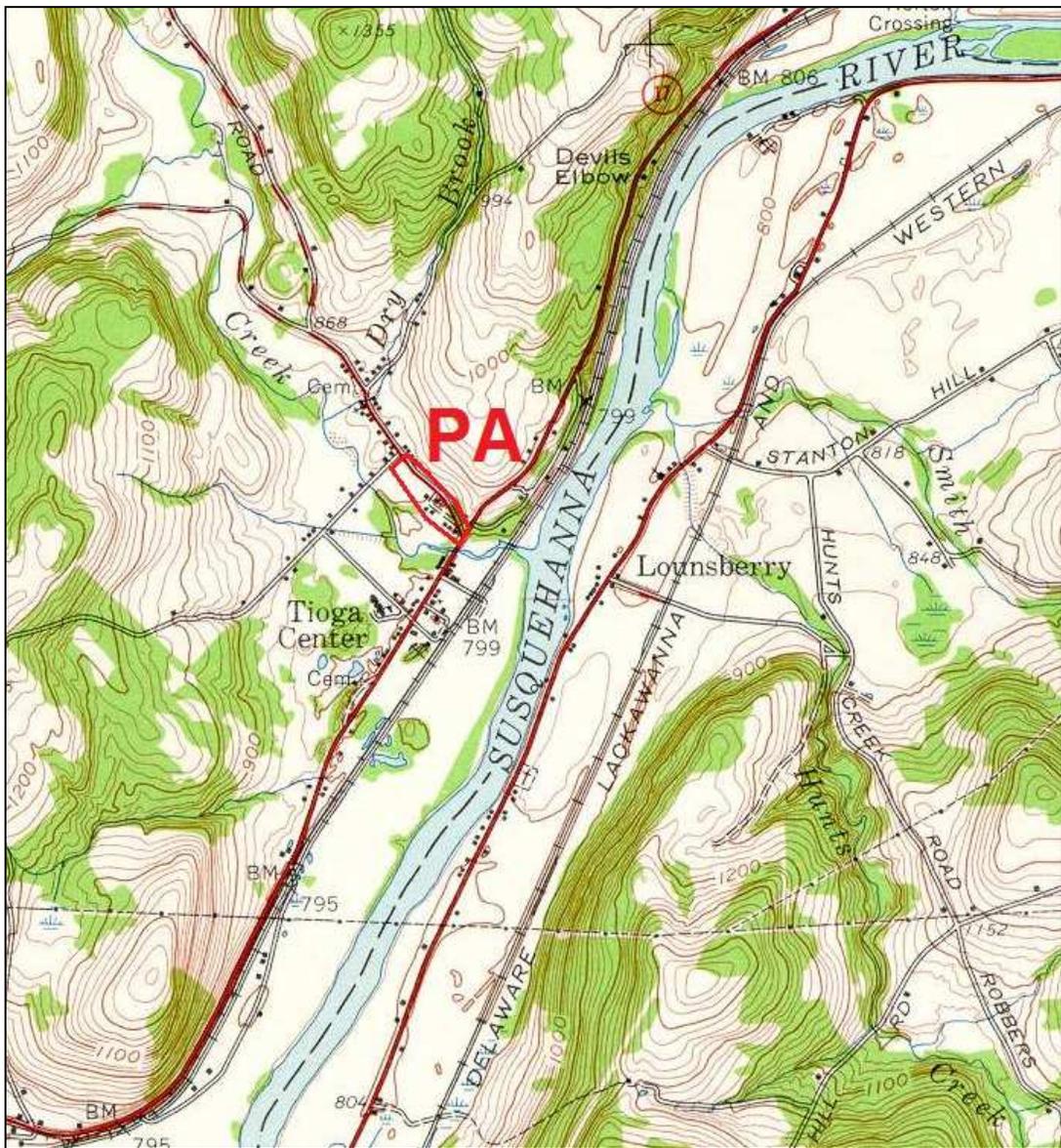
Map 9: Detail of Beers 1869.



Map 10: 1903 USGS 15' Topographic Quadrangle (Oswego, NY).



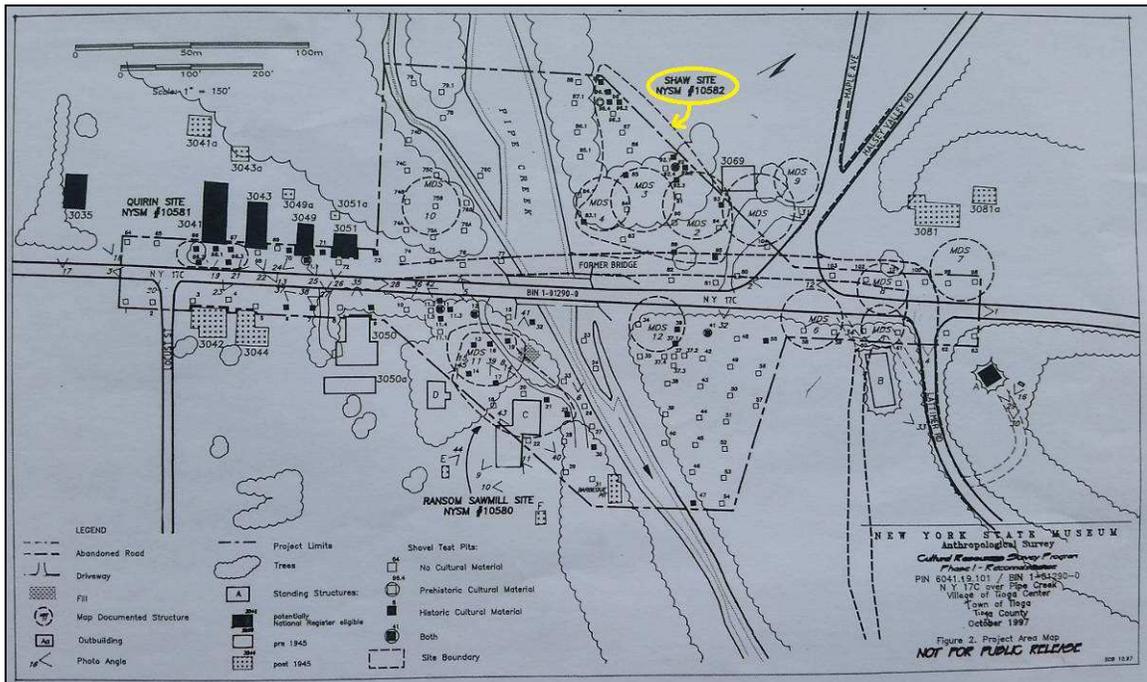
Map 11: 1912 NYSDOT State Highway Construction Map No. 5257 (from 1997 NYSM report).



Map 12: 1956 USGS Topographic Quadrangle (Owego, NY).

### Previous Surveys

As part of the background literature review for the current project, a previous survey performed nearby by the NYS Museum in 1997 was reviewed. Associated with a bridge replacement project over nearby Pipe Creek (97PR2769), the survey identified three archeological sites including **The Shaw Site (NYSM #10582)** which overlaps with the current Project Area in the vicinity of NY Route 17C. The Shaw Site was a multi-component site containing both prehistoric chert artifacts as well as historic artifacts from the settlement and development of Tioga Center (Map 13). The crossroads represented by Halsey Valley Road and the current NY Route 17C belie a colorful history as the original heart of Tioga Center that once contained stores, a post office, a hotel and numerous residences. The Shaw Site was recommended for avoidance and appears to have been spared significant disturbance from the bridge replacement project as built. If avoidance had not been possible the NYSM recommended a Site Examination to determine National/State Register eligibility.



**Map 13:** The Shaw Site as defined in the 1997 NYSM report.

**NOTE:** Subsequent research has indicated that the reporting and mapping done by the NYSM of the Shaw Site was problematic. To begin, there is no depiction of the course of Spring Brook, a small spring-fed stream flowing parallel to the east of Pipe Creek, which separates the previous NYSM bridge project from the current Project Area. In addition, the NYSM report apparently failed to recognize the historic nature of the house at #3069 and instead indicated a general vicinity for "MDS 1" which overlapped the then-extant house which was, in fact, the map documented structure shown on historic maps. The oversights contained within the NYSM maps and report, coupled with the significant changes that had occurred to the surrounding landscape as a result of the bridge project as well as the more recent demolition of the house at #3069, led to the erroneous conclusion that the Shaw Site limits extended into the current Project Area when it should have been bounded by the course of Spring Brook which creates a natural division within the landscape. Further explication of these issues occurs below in the Phase II Site Evaluation.

**SENSITIVITY ASSESSMENT**

**Prehistoric Sensitivity**

The Project Area is considered to have a high sensitivity for the presence of prehistoric cultural remains based on its geographic features including its location within the Pipe Creek floodplain, a tributary of the nearby Susquehanna River. Additionally, several large NYSM precontact sites including villages and camps are either overlapping the Project Area or located in the vicinity.

**Historic Sensitivity**

The Project Area is considered to have high sensitivity for the presence of historic cultural remains. Halsey Valley Road was the former heart of the community of Tioga Center and included a schoolhouse, Post Office, hotel, stores and residences. No extant structures exist within the current Project Area although satellite imagery depicts numerous houses within the PA up to the recent past, in particular within the lands surrounding Maple Avenue.

**TESTING RECOMMENDATIONS**

Subsurface archeological testing is recommended for all portions of the Project Area that do not exhibit steep slopes or prior disturbance.

### PHASE IB FIELD INVESTIGATION

The Phase IB Field Investigation was conducted on September 10-11 & 15-16, 2015 beginning with a site walkover and visual surface survey of the Project Area. Shovel testing was performed by Mike Thomas, Field Technician, and Jim Turner, the Principal Investigator. For testing results see Appendix 1: Phase IB Shovel Test Records and Appendix 2: Phase IB Artifact Catalog.

#### **Shovel Testing Results**

A total of 136 shovel test pits (STPs) were laid out within the Project Area (Map 14). The tests were distributed with STPs 1-24 on the east side of Halsey Valley Road while STPs 25-136 were excavated along the west side of Halsey Valley Road. The transects and shovel tests were spaced at 50-foot intervals except in areas of steep slope or prior disturbance and extended from Allyn Road in the northwest to NY Route 17C in the southeast.

STP 1 produced a single chert flake that was comingled with modern artifacts indicating a disturbed context. This location, at the northernmost extreme of the Project Area opposite Allyn Road, will likely not be disturbed by the proposed construction.

On the opposite side of Halsey Valley Road on the south side of Allyn Road STP 25 produced a clay pipe stem as well as domestic and architectural artifacts. The 1855 Geil map indicates a structure at this location although no structural remains were encountered. Again, this location will likely not be disturbed by the proposed construction.

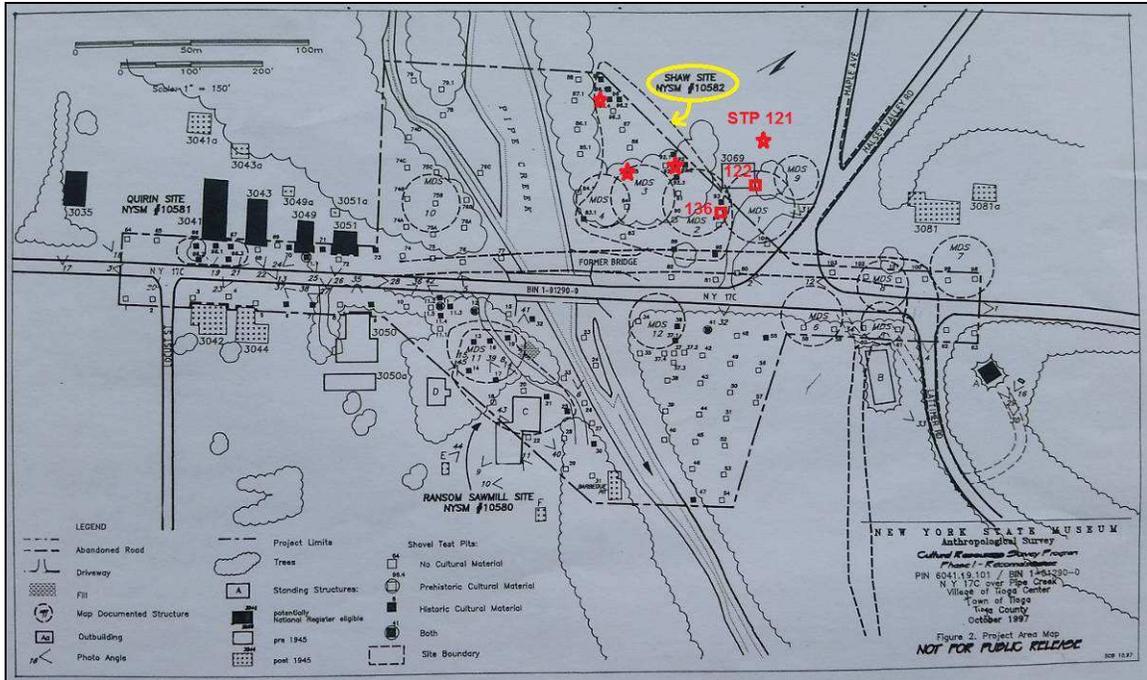
No traces of the former Schoolhouse #3 were observed on the surface of the ground or in any tests in and around the area opposite the Highway Department where the schoolhouse is depicted on historic maps. Evidence of over bank dumping was seen suggesting that the foundation or other surviving remains possibly could be buried deeper than the testing depth. Potential project impacts at this location are minor and would involve additional fill material to elevate the roadway.

Down in the floodplain to the west of Halsey Valley Road STP 73 recovered a single chert flake. Eight radial tests around STP 73 failed to produce additional precontact materials and the flake was considered a stray find.

As expected, the tests in and around the Maple Avenue lands produced a variety of domestic and architectural artifacts as evidence of the numerous homes that until recently occupied this location. Of note were several of the tests toward the southern end of Maple Avenue and Route 17C. The soil profiles closely matched those reported by the NYSM during their earlier bridge replacement project. The artifact assemblages also reflected the multi-component nature of the NYSM collection from the Shaw Site and included both precontact and historic artifacts. An examination of the original NYSM map depicting the Shaw Site suggests that the current Project Area contains similar deposits as those identified in the adjacent site although, as discussed above and again below, the accuracy of the NYSM map appears questionable thereby confounding any intersite analysis (Map 15). Given the results of the current Phase IB fieldwork it is concluded that the cultural remains identified within the current Project Area comprise an archeological site, hereafter referred to as "The Armstrong Site" in honor of Joseph Armstrong who owned the property between 1846-51 and likely constructed the historic residence that once occupied this location.



Map 14: Shovel testing locations within the Project Area.



Map 15: NYSM map of Shaw Site showing precontact artifacts at starred locations including STP 121.

**RECOMMENDATIONS**

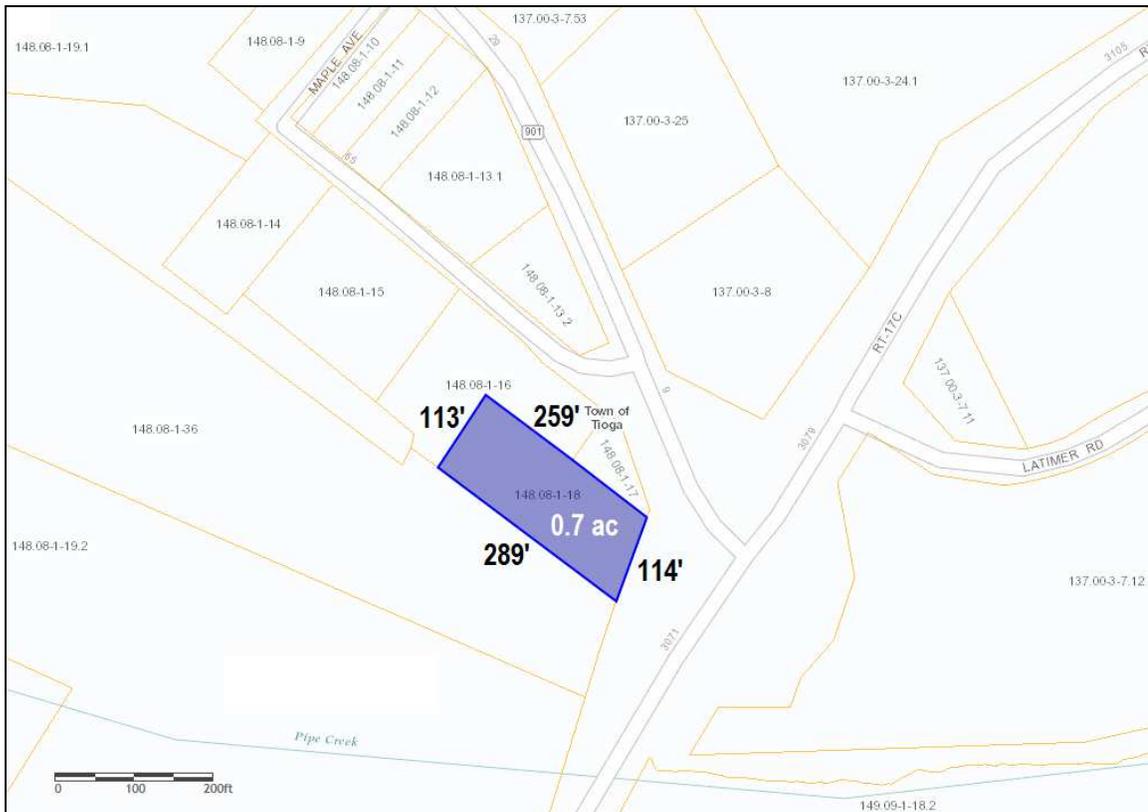
The Phase IA Literature Review and Sensitivity Assessment indicated a high sensitivity for both precontact and historic cultural resources. The Phase IB Archeological Fieldwork identified significant cultural resources within the Project Area in the vicinity of Maple Avenue and the previously identified NYSM Shaw Site. Discussions with the project engineers indicate that, in order to keep Halsey Valley Road open during construction of the newly aligned road, the new road will be built to the west of the current intersection with NY Route 17C and will therefore impact the recently identified Armstrong Site. Ground disturbing activities include potential topsoil stripping and undercutting of the current embankment as well as the placement of approximately 10 feet of fill material. Since avoidance of the Armstrong Site does not seem to be possible at this time a Phase II Site Evaluation was recommended to properly delineate the site limits and to better assess its potential eligibility for the National/State Register.

**PHASE II SITE EVALUATION**

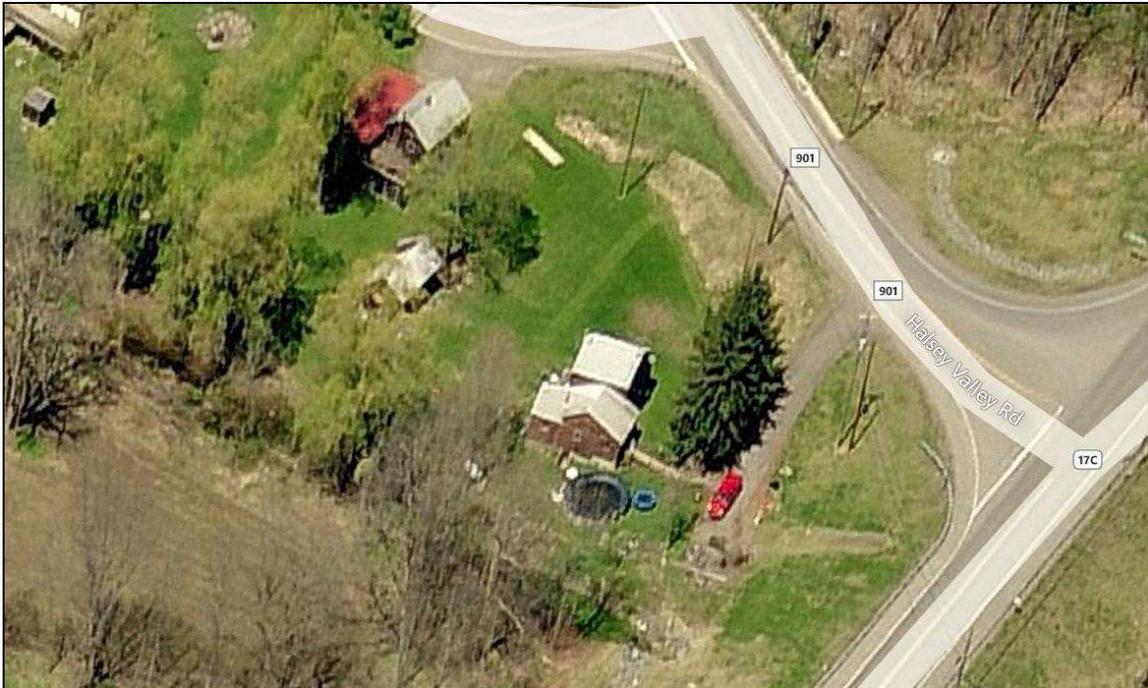
The Phase II Site Evaluation of the Armstrong Site was undertaken from November 11-18, 2015. The weather was generally clear and unseasonably warm. Testing was performed by Mike Thomas and Dylan Lewis, Field Technicians and Jim Turner, Principal Investigator. For testing results see Appendix 3: Phase II Shovel Test Records and Appendix 4: Phase II Artifact Catalog.

**Additional Background Research**

The lands being investigated in this Phase II primarily lie within Lot 148.08-1-18 with a street address of 3069 Route 17C (Map 16). The former structure, hereafter referred to as the Armstrong House, was recently demolished after being acquired on 6/24/2014 by the Town of Tioga from Beverly Atkinson in a flood buyout program. In fact, the demolition was so recent that current Internet mapping programs still depict the structure in satellite and street-view imagery, allowing for a type of digital archeology (Photos 18-19). Other historic photos show the structure as a three-bay, gable-end to the street wood frame building with asymmetric extensions off either side. The unusual building configuration makes it easily recognizable as the same structure shown in historic photos lying immediately northeast of the small bridge over Spring Brook. For unknown reasons, the structure was not identified as historic during the 1997 NYSM survey even though the subsequent insurance appraisal photo from the flood buyout distinctly shows a stone foundation (Photos 20 & 21). The oversight is evident in the NYSM map depicting the Shaw Site where the then-standing structure is identified by its street number (3069) while a dashed circle shows the approximate location of "MDS 1" (Map 17). Not clearly defined on the NYSM map is the course of Spring Brook and the former bridge whose stone remains were located which suggest the oversight resulted in an insufficient understanding of the change to the local landscape resulting from the realignment of the highway in the 1930s (Map 18).



**Map 16:** Tax parcel map showing Lands formerly of Beverly Atkinson with property dimensions added.



**Photo 18:** Bird's-eye view of Armstrong House (center) with possible blacksmith barn at top (Bing).



**Photo 19:** View northeast from NY Route 17C showing former location of Armstrong House.

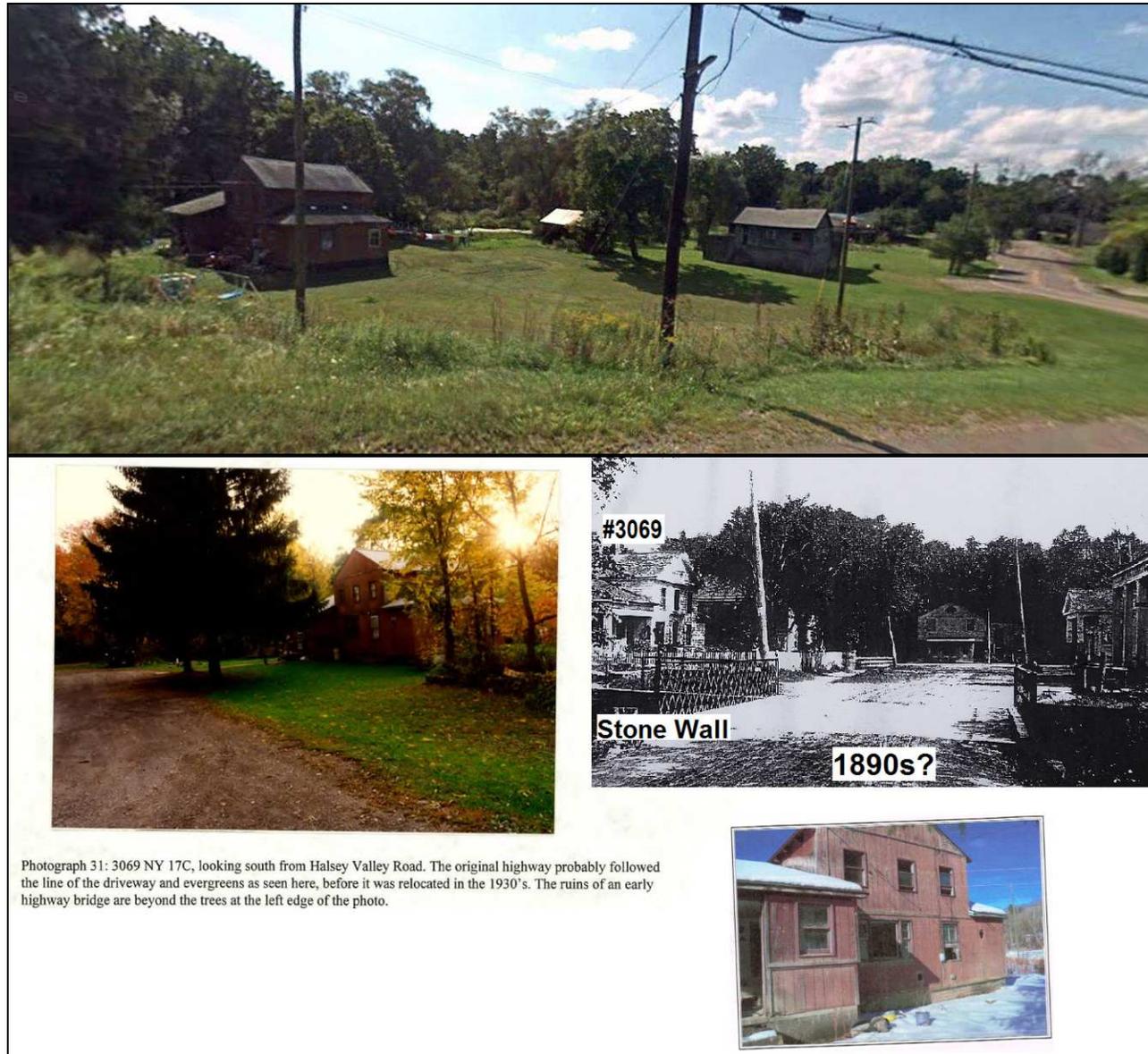
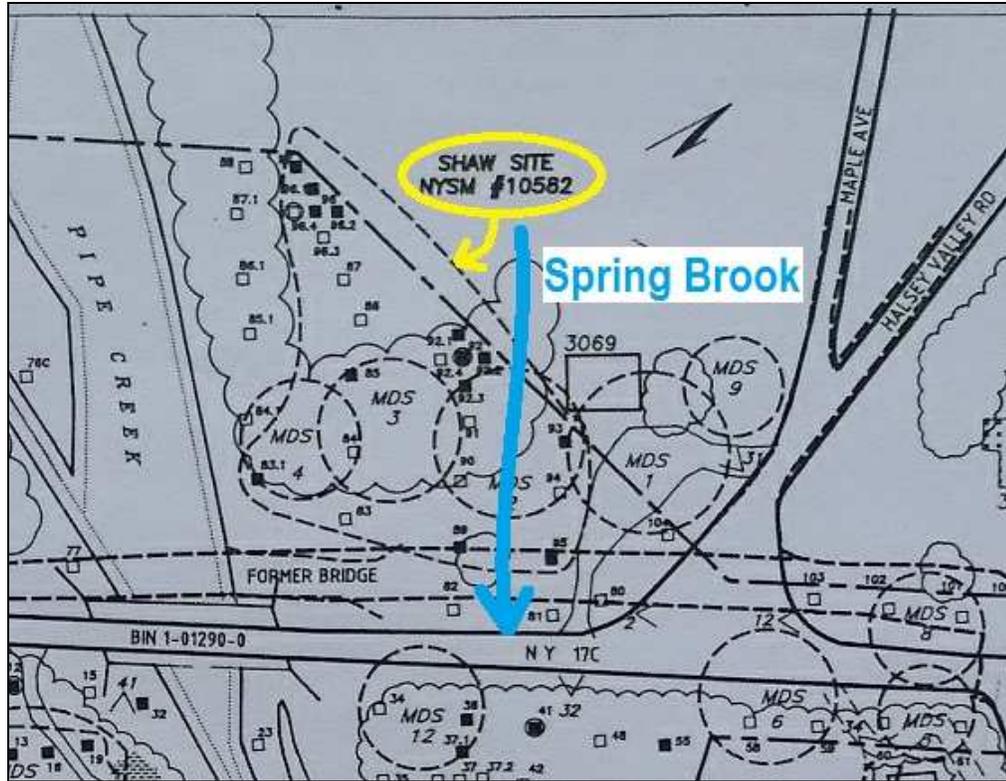
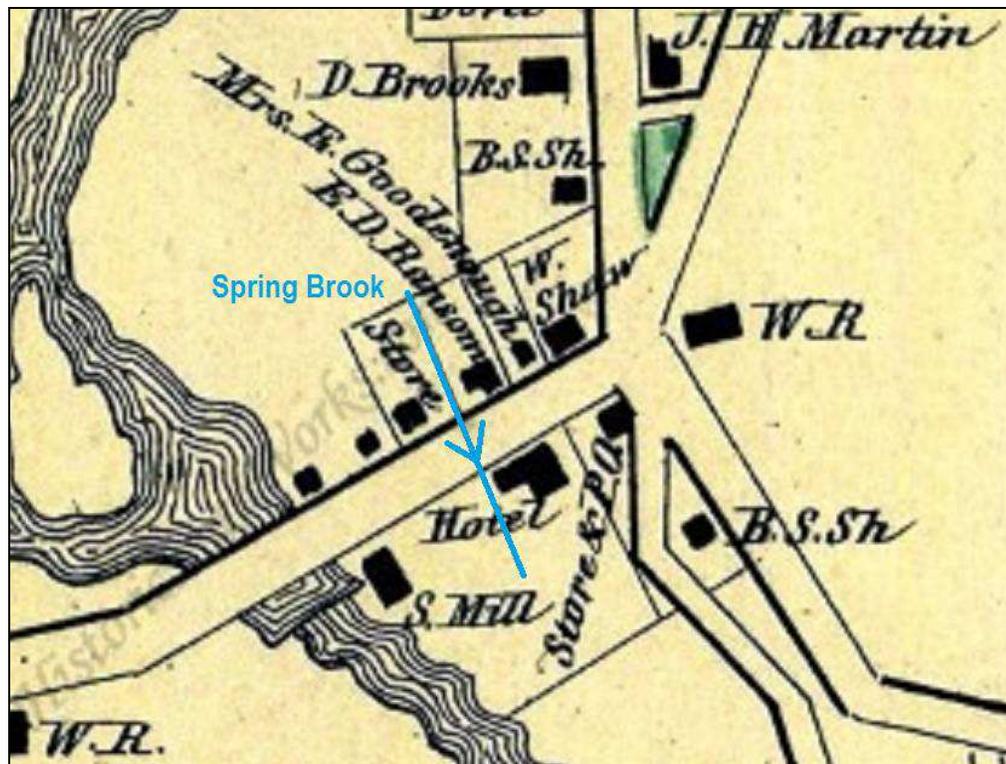


Photo 20: Google StreetView of Armstrong House and blacksmith shop (top) with additional photos of Armstrong House including historic 19th Century view.



Map 17: Detail of NYSM Shaw Site map showing course of Spring Brook alongside #3069 Route 17C.



Map 18: 1869 Beers map showing location of Spring Brook to west of E.D. Ransom residence and Hotel.

### Deed History

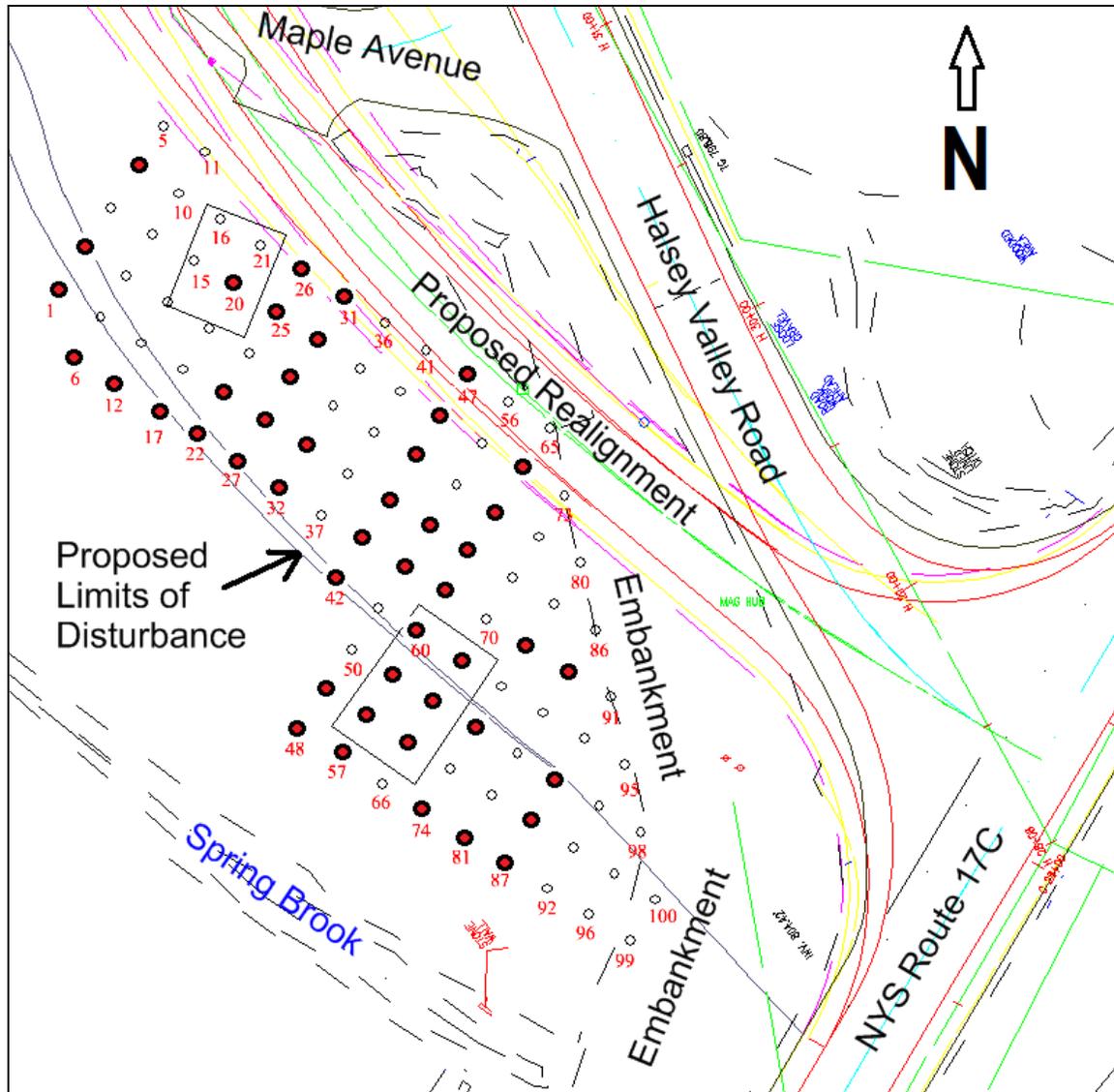
A deed history traced ownership of the property at 3069 Route 17C back to 1790 when it was part of a 100-acre parcel bought for £200 by Major William Ransom, the founder of Tioga Center. Next, a one-acre lot was divided off and sold to Zachariah Prentice who lost the land to seizure a few years later. The deed references the north line of the highway as well as Spring Brook as the western line. The sale from Armstrong to Edwin Schoonover in 1851 represent a nearly six-fold increase in the value of the property over five years suggesting significant improvements were undertaken in this period, possibly including the construction of the former dwelling at #3069. The deed now represents a smaller property that included not only a dwelling but also a store, barn and tannery. These would appear to represent the respective buildings aligned along the north side of the highway on the 1869 map with the tannery beside Pipe Creek, a typical location. It is not clear how these buildings relate to the deed in question. The 1874 deed indicates that "one rod of ground" had been sold along the western line of the property and concludes "the westerly line is where the fence now stands". The westerly property line formerly ran up the middle of Spring Brook and the change likely was responsible for the property thereafter to contain 0.8 acres instead of the original one acre.

**Table 3:** Property deed history for 3069 Route 17C (SBL 148.08-1-18).

Date	Grantor	Grantee	Acreage	Price	Deed Ref.
5/14/1790	Prince Alden	William Ransom	100	£200	B8:195
1/14/1818	William Ransom	Zachariah Prentice	1	\$1,000	B13:401
3/13/1822	Zachariah Prentice (land seized)	Ira Ransom	1	\$35	B27:P325
3/1833	Ira Ransom	Clark Hyatt	1	\$150	B27:438
6/6/1846	Clark Hyatt	Joseph Armstrong	1	\$365.65	B44:135
11/18/1851	Joseph Armstrong	Edwin H. Schoonover	0.8	\$2,000	B50:388
	(excepting 25'x30' lot to Chancery Goodenough; including dwelling, store, barn and tannery)				
10/30/1852	Edwin H. Schoonover	Elisha D. Ransom	0.8	\$1,600	B51:341
4/4/1874	Elisha D. Ransom	David Earl	0.8	\$1,600	B97:309
10/3/1883	David Earl	J.G Quirin	0.8		B111:474
2/21/1910	E.J.F. Quirin (Power of Attorney)	Jonathan C. Lattimer	0.8	\$1	B156:233
12/17/1915	Jonathan C. Lattimer	Edwin Levitt	0.8	\$800	B165:159
	Edwin Levitt	Beverly Atkinson	0.8		
06/24/2014 flood buyout	Beverly Atkinson	Town of Tioga	0.7	\$47,000	B14000:2638

### Testing Strategy

The Phase II Site Evaluation focused on an irregularly shaped area approximately 130 feet wide by 260 feet long (40m x 80m) to the west of Halsey Valley Road and bounded by the toe of the embankment at the intersection with NY Route 17C (Map 19). A total of 100 STPs were arrayed at 15-foot (4.5m) intervals in a number of transects of various lengths. The first half of the Phase II tests covered the proposed Limits of Disturbance for the realigned Halsey Valley Road surrounding the positive Phase IB STP 121 which produced the precontact and historic artifacts. The second half of the Phase II tests expanded outside of the current project limits in order to approach the NYSM Shaw Site and determine the overall site limits of the Armstrong Site. Of particular interest were any remains associated with the former Armstrong (aka Ransom) house that was recently demolished at this location. However, no intact remains were encountered.



**Map 19:** Phase II shovel testing locations with approximate footprints of former structures.

### Testing Results

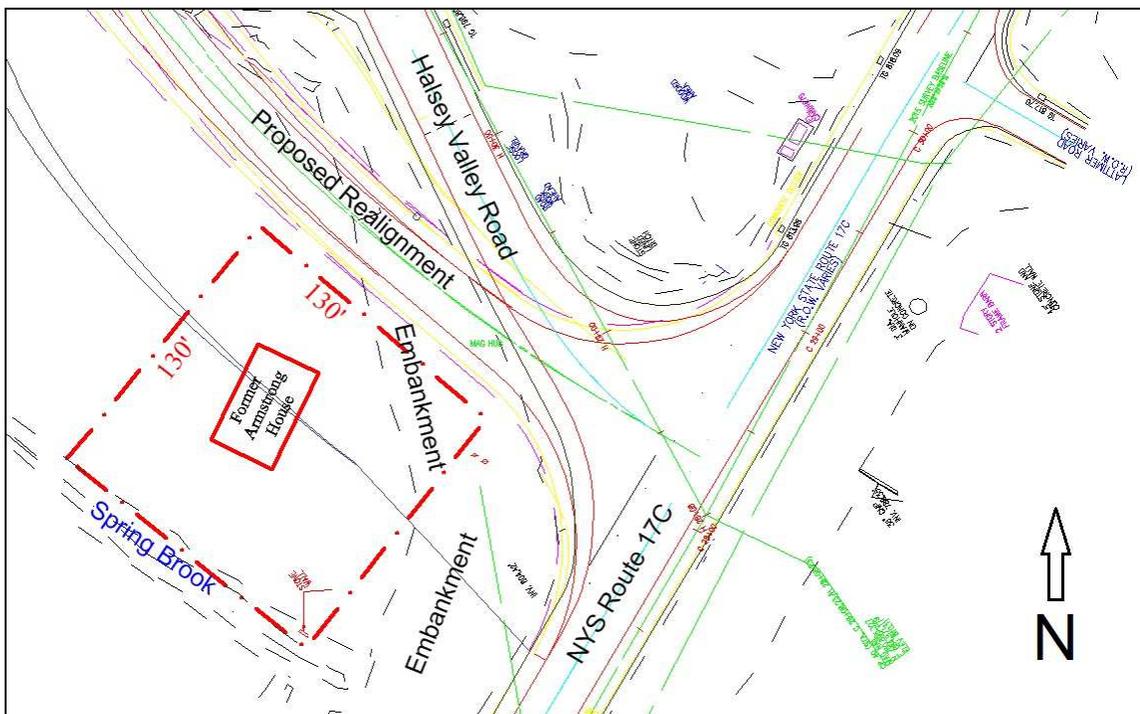
Testing began in the north and progressed south toward the highway. The northernmost transects encountered some apparent disturbance from the demolition of the barnlike structure (thought to be a historic blacksmith shop) that once stood at that location. No structural remains or blacksmith related artifacts were recovered. The Phase II STP 19 was excavated as a 50cm-x-50cm test unit adjacent to the Phase I STP 121 which produced the three chert flakes along with historic artifacts (Photo 21). The larger test showed a 20cm-thick upper soil horizon above an armored cobble surface overlying a gravel and cobble base (Photo 22). The lack of stratigraphic definition above the cobble layer suggests the precontact artifacts are in a secondary deposition context and therefore do not represent a significant resource. Also observed was gravelly fill material possibly related to the driveway that extended from the asphalt apron at the edge of Maple Avenue.

Other positive tests occurred throughout the remainder of the field including a small cluster outside of the Project Area near the site of the former Armstrong house. No structural remains were

identified within these tests. The artifact assemblage consists of small quantities of historic artifacts including whiteware and yellowware ceramics. The widespread distribution of artifacts indicates the site consists of a sheet scatter of artifacts recently redeposited following the demolition of the structures. None of the artifacts are diagnostic or provide research potential.

### The Armstrong Site

The site limits of the Armstrong Site were estimated at 130'x130' roughly centered on the former site of the Armstrong House (Map 20). The northwest limit follows a transect of negative STPs while the width approximates that of the original property line. The southwest line follows the edge of Spring Brook and includes the former bridge remains shown above in Photo 12.



**Map 20:** Approximate Site Limits of Armstrong Site shown in red surrounding former Armstrong House.

### National Register Eligibility

The cultural remains explored during the Phase II Site Evaluation of the Armstrong Site represent a dispersed scatter of artifacts primarily related to the historic occupation of the area but later disturbed by highway construction and the recent demolition of numerous standing structures. No intrasite patterning of artifacts was in evidence and no structural remains were identified. The extensive disturbance across this location has degraded the research potential of any extant cultural remains. No portion of the current Project Area appears to fulfill any of the criteria for inclusion in the State/National Registers.

### RECOMMENDATIONS

The Phase IA/IB Archeological Investigation and Phase II Site Evaluation of the Armstrong Site for the Halsey Valley Road Realignment Project failed to identify significant cultural resources within the Project Area. Therefore, the project is considered to have **No Effect** on cultural resources and no further archeological investigations are warranted.



**Photos 21 & 22:** View of Phase II 50cm-x-50cm STP 19 adjacent to positive Phase IB STP 121 (circled). The second strata is an armored cobble surface overlying a gravel and cobble base.

**Phase IA/IB Archeological Investigation: Halsey Valley Road Realignment**

**APPENDIX 1:**

**PHASE IB SHOVEL TEST RECORDS**

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
1	0-32 32-47	Very dark grayish brown silty loam Grayish brown silty loam	Nails, ceramics, glass, chert flake, brick fragment, charcoal NCM	1 bag Fill Sterile subsoil
2	0-30 30-46	Brown silty loam Dark grayish brown silty loam	Charcoal (discarded) NCM	Sterile subsoil
3	0-32 32-41	Brown gravelly silty loam Dark grayish brown silty loam	Charcoal (discarded) NCM	Sterile subsoil
4	0-26 26-44	Brown gravelly silty loam Dark grayish brown silty loam	Charcoal (discarded) NCM	Sterile subsoil
5	0-44 44-53	Brown gravelly silty loam Brown silty loam	Charcoal (discarded) NCM	Sterile subsoil
6	0-36 36-50	Brown gravelly silty loam Grayish brown sandy loam	Charcoal (discarded) NCM	Sterile subsoil
7	0-19 19-51	Dark grayish brown gravelly silty loam Light yellowish brown silty loam	Ceramics, brick fragment macadam and charcoal discarded Charcoal (discarded)	Fill 1 bag Fill
8	0-26 26-38	Dark grayish brown silty loam Light brownish gray silty loam	Window glass, brick fragment, macadam, charcoal (all discarded) NCM	1 bag Sterile subsoil
9	0-43 43-56	Dark grayish brown silty loam Pale brown silty loam	NCM NCM	Sterile subsoil
10	0-29 29-51	Dark grayish brown silty loam Grayish brown silty loam	Nail, blue bottle glass, ceramic charcoal (discarded) NCM	1 bag Sterile subsoil

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
11	0-50	Dark grayish brown silty loam	Metal object, brown bottle glass charcoal and slag (discarded)	1 bag
	50-63	Pale brown silty loam	NCM	Sterile subsoil
12	0-33	Brown silty loam	Charcoal and metal brace object (both discarded)	Sterile subsoil
	33-48	Yellowish brown silty loam	NCM	
13	0-33	Brown gravelly silty loam	Charcoal (discarded)	Sterile subsoil
	33-54	Pale brown silty loam	NCM	
14	0-24	Dark grayish brown silty loam	Plastic (discarded)	Root + rock impass
15	0-13	Brown gravelly silty loam	NCM	Rock impass
	13-38	Yellowish brown gravelly silty sandy loam	NCM	
16	0-21	Brown gravelly silty loam	Charcoal (discarded)	Sterile subsoil
	21-45	Yellowish brown gravelly silty loam	NCM	
17	0-11	Yellowish brown silty loam	Charcoal (discarded)	Test next to storm drain Fill
	11-41	Dark grayish brown silty loam	Charcoal (discarded)	Fill
18	0-16	Brown silty loam	NCM	Fill
	16-33	Yellowish brown silty loam	Plastic bag (discarded)	Fill
	33-38	Dark grayish brown silty loam	NCM	Fill
19	0-23	Dark grayish brown loamy clay	Charcoal and plastic wrapper (discarded)	Fill
	23-46	Grayish brown loamy clay	NCM	Sterile subsoil
20	0-31	Dark grayish brown gravelly silty loam	Charcoal (discarded)	Rock impass
21	0-37	Brown gravelly silty loam	NCM	

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
	37-47	Yellowish brown gravelly silty loam	NCM	Sterile subsoil
22	0-36	Dark grayish brown gravelly silty loam	Plastic wrapper and macadam (discarded)	Fill Rock impass
23	0-9	Brown gravelly silty sandy loam	NCM	
	9-48	Brown gravelly silty loam with pale brown silty loam spot	NCM	Sterile subsoil
24	0-14	Brown gravelly silty sandy loam	NCM	
	14-38	Brown gravelly silty loam	NCM	Sterile subsoil
25	0-43	Dark grayish brown gravelly silty loam	Nails, glass, ceramic, Pipe stem, brick fragement - plastic, charcoal, macadam (discarded)	Fill 1 bag gravelly soil with rock impass
26	0-24	Very dark grayish brown gravelly silty loam	Concrete, macadam, brick fragment (discarded)	Fill
	24-35	Brown loamy clay	NCM	
	35-48	Dark grayish brown gravelly silty loam	NCM	Sterile subsoil
27	0-29	Very dark grayish brown gravelly sandy loam	Macadam and slag (discarded)	Fill
	29-50	Dark grayish brown gravelly silty loam	Slag (discarded)	Fill sterile subsoil
28	0-53	Dark yellowish brown gravelly silty loam	Slag and plastic (discarded)	Fill
29	0-42	Very dark grayish brown gravelly silty loam	Macadam, slag, plastic (discarded)	Fill
	42-56	Dark grayish brown gravelly silty loam	NCM	Sterile subsoil
30	0-35	Dark grayish brown gravelly silty loam	Charcoal and window glass (discarded)	

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
	35-50	Brown gravelly silty loam	NCM	Sterile subsoil
31	0-27	Dark grayish brown gravelly silty loam	Glass, nail, ceramic Charcoal (discarded)	
	27-49	Yellowish brown gravelly silty loam	NCM	Sterile subsoil
32	0-27	Dark grayish brown gravelly silty loam	Macadam and slag (discarded)	
	27-59	Yellowish brown gravelly silty loam	NCM	Sterile subsoil
33	0-40	Dark grayish brown gravelly silty loam	Ceramic tea cup fragment, ceramic, bolt	Fill
	40-51	Yellowish brown gravelly silty loam	NCM	Sterile subsoil
34	0-26	Dark grayish brown silty loam	NCM	
	26-43	Brown silty loam	NCM	Sterile subsoil
35	0-39	Very dark grayish brown gravelly silty loam	Slag, plastic wrapper, rubber hose, clear modern bottle glass (all discarded)	Fill
	39-51	Brown silty loam	NCM	Sterile subsoil
36	0-40	Very dark grayish brown gravelly silty loam	Slag, charcaol, macadam (discarded)	Fill
	40-55	Brown gravelly silty loam	NCM	Sterile subsoil
37	0-25	Very dark grayish brown gravelly silty loam	Macadam, Charcoal, Slag (all discarded)	Fill
	25-37	Yellowish brown gravelly silty loam	NCM	Sterile Subsoil
38	0-23	Dark grayish brown gravelly silty loam	Metal wire, clear glass, slag, ceramic	
	23-45	Yellowish brown gravelly silty loam	NCM	Sterile subsoil
39	0-31	Dark grayish brown gravelly silty loam	NCM	Very Rocky

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
	31-53	Yellowish brown gravelly silty loam	NCM	Sterile subsoil
40	0-27	Dark grayish brown gravelly loam	Nails, slag, charcoal ( all discarded)	
	27-43	Brown gravelly loam	NCM	Sterile subsoil
41	0-23	Dark grayish brown silty loam	Charcoal and slag (discarded)	
	23-49	Yellowish brown loam	NCM	Sterile subsoil
42	0-22	Dark grayish brown gravelly silty loam	Slag, brick fragment, and macadam ( all discarded)	Rock impass
43	0-14	Brown gravelly silty loam	Macadam (discarded)	
	14-20	Dark grayish brown gravelly silty loam	NCM	
	20-28	Brown gravelly silty loam	NCM	Sterile Subsoil
44	0-12	Brown gravelly silty loam	NCM	Gravel dump Disturbed
45	0-22	Brown gravelly loam	Modern clear bottle glass	
	22-27	Dark grayish brown gravelly loam	NCM	
	27-44	Brown gravelly loam	NCM	Sterile subsoil
46	0-31	Brown gravelly loam	Concrete chunk (discarded)	Fill
	31-49	Dark grayish brown gravelly loam	NCM	Fill
47	0-27	Brown gravelly silty loam	Macadam and plastic (both discarded)	
	27-58	Very dark grayish brown loam	Charcoal (discarded)	
	58-64	Yellowish brown gravelly loam	NCM	Sterile subsoil
48	0-5	Brown silty loam	NCM	Corner or Allyn Rd
	5-32	Brown gravelly loam	Macadam (discarded)	
	32-51	Yellowish brown gravelly loam	NCM	Sterile subsoil

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
49	0-29	Brown Silty loam	Ceramic	1 Bag
	29-46	Grayish brown silty loam	NCM	Sterile subsoil
50	0-39	Dark grayish brown silty loam	Charcoal specks (discarded)	Sterile subsoil
	39-57	Grayish brown silty loam	NCM	
51	0-30	Brown silty loam	Brown bottle glass fragment (discarded)	Sterile subsoil
	30-46	Grayish loam silty loam	NCM	
52	0-24	Grayish brown silty loam	NCM	sterile subsoil
	24-41	Yellowish brown silty loam	NCM	
53	0-24	Brown gravelly silty loam	NCM	Sterile subsoil
	24-63	Yellowish brown gravelly silty loam	NCM	
54	0-25	Brown silty loam	NCM	Sterile subsoil
	25-48	Yellowish brown silty loam	NCM	
	48-55	Grayish brown silty loam	NCM	
55	0-18	Dark grayish brown silty loam	NCM	Across from highway Dept.
	18-46	Yellowish brown silty loam	NCM	Sterile subsoil
	46-56	Grayish brown silty loam	NCM	
56	0-57	Brown gravelly silty loam	NCM	Sterile subsoil
	57-64	Grayish brown gravelly silty loam	NCM	
57	0-43	Brown gravelly silty loam	Charcoal speck (discarded)	Large rock impass
58	0-51	Brown gravelly silty loam	Charcoal (discarded)	Sterile subsoil
	51-63	Yellowish brown gravelly silty loam	NCM	

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
59	0-21	Grayish brown gravelly silty loam	Brown + clear glass fragments and charcoal (discarded)	Sterile subsoil
	21-39	Yellowish brown gravelly silty loam	NCM	
60	0-20	Grayish brown gravelly silty loam	NCM	Sterile subsoil
	20-41	Brown gravelly loam	NCM	
61	0-23	Brown silty loam	Charcoal speck (discarded)	Sterile subsoil
	23-48	Light yellowish brown silty loam	NCM	
62	0-26	Brown gravelly silty loam	Charcoal and brown bottle glass (discarded)	Sterile subsoil
	26-42	Light yellowish brown silty loam	NCM	
63	0-28	Brown silty loam	Clear window glass and charcoal (discarded)	Sterile subsoil
	28-52	Yellowish brown loam	NCM	
64	0-28	Brown loam	Clear bottle glass and charcoal (discarded)	Sterile subsoil
	28-39	Grayish brown gravelly loam	NCM	
65	0-37	Grayish brown gravelly loam	1 button                      Charcoal (discarded)	Very hard compact gravel
66	0-42	Brown gravelly loam	Macadam and charcaol (discarded)	Very hard compact gravel
67	0-26	Brown gravelly loam	Charcoal (discarded)	Sterile subsoil
	26-40	Grayish brown gravelly loam	NCM	
68	0-29	Dark grayish brown silty loam	1 clear bottleneck fragment	1 bag
	29-41	Grayish brown loam	NCM	Sterile subsoil
69	0-26	Brown silty loam	NCM	Sterile subsoil
	26-44	Grayish brown gravelly loam	NCM	
70	0-11	Very dark grayish brown loam	NCM	

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
	11-38	Olive gray loamy clay	NCM	Sterile subsoil
71	0-20	Very dark grayish brown loam	Charcoal specks (discarded)	
	20-39	Olive gray loamy clay	NCM	Sterile subsoil
72	0-29	Dark grayish brown loam	NCM	
	29-43	Yellowish brown loam	NCM	Sterile subsoil
73	0-56	Dark grayish brown silty loam	1 chert flake clear glass fragment	1 Bag edge of field Sterile final 30cm plow zone
74	0-43	Dark grayish brown silty loam	NCM	edge of field plow zone
75	0-31	Brown loam	Charcoal (discarded)	
	31-46	Yellowish brown loam	NCM	Sterile subsoil
76	0-30	Brown loam	NCM	
	30-42	Yellowish brown loam	NCM	Sterile subsoil
77	0-36	Brown gravelly loam	NCM	
	36-46	Yellowish brown loam	NCM	Sterile subsoil
78	0-25	Dark grayish brown silty loam	Charcoal (discarded)	
	25-41	Yellowish brown loam	NCM	Sterile subsoil
79	0-36	Brown loam	Charcoal (discarded)	
	36-49	Light brownish gray loam	NCM	Sterile subsoil
80	0-27	Brown loam	Charcoal and clear window glass (discarded)	
	27-48	Yellowish brown loam	NCM	Sterile subsoil
81	0-27	Brown loam	Clear glass fragments and charcoal (discarded)	

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
	27-59	Yellowish brown loam	NCM	Sterile subsoil
82	0-18	Brown gravelly loam mixed with dark yellowish brown gravelly loam	NCM	
	18-55	Dark grayish brown loam	Ceramic fragments, pottery Charcoal (discarded)	1 bag Fill modern demolished house site
83	0-36	Dark brown gravelly loam	NCM	Gravel fill modern demolished house site
84	0-19	Brown gravelly loam	Nail, brown bottle glass, chert flake	1 bag Fill
	19-60	Dark brown gravelly sandy loam	NCM	Fill Sterile soil
85	0-43	Brown gravelly loam	1 nail	1 bag
	43-50	light brownish gray gravelly loam	NCM	Sterile subsoil
86	0-39	Brown gravelly loam	NCM	
	39-46	Yellowish brown gravelly loam	NCM	Sterile subsoil
87	0-31	Brown gravelly loam	NCM	
	31-48	Brown gravelly loam	NCM	Sterile subsoil
88	0-33	Brown gravelly loam	Clear glass fragment, and plastic tarp (discarded)	Rock impass
89	0-22	Brown loam	Macadam and charcoal (discarded)	
	22-35	Dark yellowish brown loam	NCM	
	35-45	Light brownish gray loam	NCM	Sterile subsoil
90	0-40	Brown gravelly silty loam	Rusted metal, charcoal, plastic (all discarded)	
	40-56	Yellowish brown gravelly loam	NCM	Sterile subsoil
91	0-32	Brown gravelly loam	1 modern round head nail and plastic (discarded)	Multiple rock impass

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
92	0-30	Brown loam	NCM	Sterile subsoil
	30-44	Yellowish brown loam	NCM	
93	0-42	Brown loam	NCM	Sterile subsoil
	42-60	Yellowish brown loam	NCM	
94	0-33	Brown loam	Clear window glass fragment (discarded)	Sterile subsoil
	33-47	Yellowish brown loam	NCM	
95	0-35	Brown loam	NCM	Sterile subsoil
	35-44	Yellowish brown loma	NCM	
96	0-10	Dark grayish brown loam	NCM	Sterile subsoil
	10-36	Brown loam	NCM	
97	0-37	Brown loam	Charcoal specks (discarded)	Sterile subsoil
	37-50	Yellowish brown loam	NCM	
98	0-43	Dark grayish brown loam	NCM	Sterile subsoil
	43-56	Grayish brown loam with Yellowish brown loam mixed	NCM	
99	0-65	Dark grayish brown gravelly loam	Ceramics, modern nail, concrete block on surface	Modern demolished house site FILL
100	0-41	Dark grayish brown gravelly loam	NCM	Sterile subsoil
	41-60	Yellowish brown loam	NCM	
101	0-47	Brown gravelly loam	Ceramics, nails, glass, brick frag., shotgun shell, metal object, fabric	1 bag Fill old house site
	47-60	Dark grayish brown gravelly loam	NCM	Sterile subsoil
102	0-40	Brown gravelly silty loam	Slag and charcoal (discarded)	Hard compact gravelly soil

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
	40-50	Yellowish brown gravelly loam	NCM	Sterile subsoil
103	0-32	Brown gravelly silty loam	Charcoal (discarded)	Fill
	32-48	Dark yellowish brown gravelly loam	NCM	Sterile
104	0-28	Brown gravelly silty loam	Charcoal (discarded)	Fill
	28-43	Yellowish brown loam	NCM	Sterile subsoil
105	0-33	Brown gravelly loam	Charcoal (discarded)	Fill
	33-42	Yellowish brown loam	NCM	Sterile with rock impass
106	0-46	Dark grayish brown gravelly silty loam	Slag, brick fragment, ceramics charcoal, glass and mortar (discarded)	1 bag Large rock impass
107	0-23	Dark grayish brown silty loam	Thin clear glass, mortar, charcoal, brick fragment (discarded)	
	23-29	Brown loam	NCM	
	39-47	Very dark grayish brown	NCM	Sterile subsoil
108	0-25	Dark grayish brown silty loam	Charcoal and macadam	Fill
	25-44	Dark grayish brown silty loam with Brown silty loam mix	Brick frag and charcoal (discarded)	Fill
	44-58	Dark olive gray loamy clay	NCM	Sterile subsoil
109	0-36	Brown gravelly silty loam	Charcoal and clear glass fragments (discarded)	
	36-42	Grayish brown gravelly loam	NCM	Sterile
110	0-48	Brown gravelly silty loam	2 1/2" lead rod and plastic (discarded)	Hard compact gravelly soil. Fill Rock Impass
111	0-72	Brown gravelly silty loam	Charcoal (discarded)	Fill
112	0-27	Brown gravelly silty loam	NCM	Fill

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
	27-63	Dark brown gravelly silty loam	Charcoal, window glass, modern nail (discarded)	Fill
113	0-25	Brown gravelly silty	Metal rod and charcoal (discarded)	Fill
	25-60	Dark brown gravelly silty loam	Brown bottle glass, brick frag. Window glass, and charcoal (all discarded)	Fill
114	0-60	Brown Gravelly silty loam	Ceramic and macadam (discarded)	Fill
115	0-34	Brown gravelly silty loam	Macadam, charcoal, window glass, nails, electronic car part (all discarded)	Multiple rock impass
116	0-16	Brown gravelly loam	Plastic, macadam, concrete	Fill
	16-31	Dark brown gravelly loam	NCM	Fill
	31-51	Dark gray loam	Sheet metal and plastic (discarded)	metal at 33cm oil smell
	51-60	Dark greenish gray loamy clay	NCM	Sterile subsoil
117	0-24	Dark grayish brown silty loam	Plastic, charcoal, concrete, and metal brace (discarded)	Fill
	24-45	Very dark grayish brown loam	Charcoal, brick frag., window glass, aluminum can, roof shingle, nail, plastic (discarded)	Fill
	45-55	Very dark gray loamy clay	NCM	Sterile subsoil
118	0-11	Brown gravelly silty loam	Macadam (discarded)	Impacted poured asphalt
119	0-20	Brown gravelly silty loam	Charcoal, green bottle glass, plastic (discarded)	Fill
	20-38	Dark yellowish brown sandy loam	Plastic, clear bottle glass, charcoal (discarded)	Fill
	38-59	Grayish brown sandy gravelly	NCM	Sterile
120	0-39	Brown gravelly silty loam	Charcoal (discarded)	Fill Rock Impass
121	0-63	Dark grayish brown loam	2 chert flakes possible chert core. Glass, nails, brick frag., roof shingle, metal, metal spoon	1 bag Disturbed mixed Fill
122	0-78	Dark grayish brown loamy clay	Charcoal ceramic, nail, glass (discarded)	Disturbed Fill

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
123	0-45	Dark grayish brown gravelly loam	Clear window/bottle glass, plastic, charcoal. Concrete, nail, macadam (discarded)	Fill
	45-55	Very dark grayish brown loam	NCM	Sterile subsoil
124	0-18	Brown gravelly silty loam	Charcoal and red plastic auto light (discarded)	
	18-27	Dark brown gravelly loam	NCM	Rock Impass
125	0-6	Brown gravelly silty loam	NCM	Hard compact gravelly soil
	6-30	Yellowish brown and grayish brown Gravelly loam	NCM	Sterile subsoil
126	0-31	Brown gravelly silty loam	Charcoal, plastic, brick fragment, screw with bolt (discarded)	Rock Impass
127	0-27	Brown gravelly silty loam	Metal objects	Fill 1 bag
	27-36	Dark grayish brown gravelly loam	NCM	Sterile subsoil
128	0-12	Brown gravelly silty loam	NCM	Fill
	12-26	Dark yellowish brown gravelly loam	Metal, Iron, Screw	Disturbed Fill
129	0-38	Brown gravelly silty loam	Metal, Iron, soda can pull tab, glass, plastic (discarded)	Fill
130	0-53	Brown gravelly loam	Charcoal and plastic (discarded)	Gravel Fill
131	0-60	Brown gravelly loam	Childrens toy doll, AA battery, red plastic,	Gravel Fill 1 Bag
132	0-9	Dark grayish brown silty loam	Plastic, charcoal, brick fragment	Fill
	9-46	Dark grayish brown loam	NCM	
	46-54	Light brownish gray loamy clay	NCM	Sterile
133	0-8	Dark grayish brown loam	NCM	
	8-11	Light brownish gray loam	NCM	

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
134	0-39	Dark grayish brown loam	Modern glass, plastic, plastic bottle, concrete on surface, painted glass, computer chip	All discarded
	39-53	Olive gray loamy clay	NCM	Sterile
135	0-43	Dark grayish brown loam	Linoleum, styrofoam, charcoal (discarded)	
	43-67	Olive gray loamy clay with organics	NCM	Sterile subsoil
136	0-40	Dark grayish brown gravelly loam	nails, glass, tile, charcoal, ceramic	1 bag
	40-53	Dark yellowish brown gravelly loam	NCM	Sterile subsoil
RADIALS				
73	0-55	Brown silty loam	Clear glass fragment (discarded)	Radial 1m West
	55-67	Brown silty loam	NCM	Sterile subsoil
73	0-33	Brown silty loam	NCM	Radial 3m west Rock impass
73	0-41	Dark yellowish brown silty loam	Green bottle glass (discarded)	Radial 1m North
	41-57	Grayish brown silty loam	NCM	Sterile
73	0-46	Dark grayish brown silty loam	NCM	Radial 3m North
	46-40	Grayish brown silty loam	NCM	Sterile subsoil
73	0-44	Dark grayish brown silty loam	Bottle glass	1 bag Radial 1m South
	44-53	Grayish brown silty loam	NCM	Sterile subsoil
73	0-39	Dark grayish brown silty loam	NCM	Radial 3m south Rock impass compact soil
73	0-60	Dark grayish brown silty loam	NCM	Radial 1m East
	60-73	Grayish brown silty loam	NCM	Sterile

STP #	Depth (cm)	Soil Description	Cultural Material	Bags/Notes
73	0-3 3-34 34-40	Dark brown organic silty loam Dark grayish brown silty loam Grayish brown silty loam	NCM NCM NCM	Radial 3m East  Sterile subsoil

**Phase IA/IB Archeological Investigation: Halsey Valley Road Realignment**

**APPENDIX 2:  
PHASE IB ARTIFACT CATALOG**

Phase I Archaeological Investigations: Halsey Valley Road Realignment

STP #	Level	Count	Material	Artifact Summary	Dimensions	Weight	Description
1	1	1	gray chert	secondary flake	1.3 x 1.0 x 0.2 cm	0.3 g	
		1	ceramic	sherd	2.4 x 1.0 x 0.4 cm	0.9 g	whiteware
		2	ceramic	sherds	7.4 x 4.3 x 0.8 cm	38.2 g	unrefined earthenware, exterior: lead glaze, interior: black glaze, body: cream
					6.8 x 3.0 x 0.8 cm	22.5 g	unrefined earthenware, exterior: lead glaze, interior: black glaze, body: cream
		1	glass	tableware fragment	1.7 x 1.3 x 0.2 cm	0.6 g	clear
		1	ferrous	bolt	6.0 x 0.7 cm	8.7 g	
		1	ferrous	unidentified nail fragment	1.6 x 1.0 cm	1.8 g	
7	1	1	ceramic	sherd	1.6 x 0.9 x 0.4 cm	0.5 g	whiteware with purple and yellow hand painting
		1	ceramic	sherd	1.3 x 1.0 x 0.2 cm	0.4 g	whiteware
		4	ceramic	sherds	1.7 x 1.2 x 0.6 cm	3.1 g	unrefined earthenware, unglazed, body: buff
					2.6 x 1.6 x 0.5 cm	1.9 g	unrefined earthenware, unglazed, body: buff
					1.8 x 1.8 x 0.5 cm	2.7 g	unrefined earthenware, unglazed, body: buff
					1.5 x 1.0 x 0.2 cm	0.5 g	unrefined earthenware, unglazed, body: buff
		1	bone	fragment	2.2 x 1.2 x 0.3 cm	0.8 g	
1	brick	fragment	1.6 x 1.3 x 0.8 cm	1.3 g			
10	1	2	ceramic	sherds	2.2 x 1.3 x 0.5 cm	1.2 g	unrefined earthenware, unglazed, body: buff
					1.8 x 1.1 x 0.3 cm	0.7 g	unrefined earthenware, unglazed, body: buff
		1	glass	fragment	1.6 x 1.0 x 0.3 cm	0.5 g	blue
		1	ferrous	barbed wire fragment	4.9 x 1.8 x 0.2 cm	6.9 g	
11	1	2	glass	bottle fragments	5.0 x 1.9 x 0.5 cm	5.8 g	amber
					3.4 x 2.8 x 0.3 cm	5.4 g	amber
		1	lead	finial fragment	3.6 x 1.0 cm	10.7 g	
25	1	1	ceramic	pipe stem fragment	2.1 x 0.7 cm	2.0 g	5/64" bore, c.1680-1800
		1	ceramic	rim sherd	1.6 x 0.8 x 0.2 cm	0.3 g	whiteware with green
		2	ceramic	sherds	2.3 x 1.1 x 0.3 cm	1.0 g	whiteware
					1.5 x 1.3 x 0.3 cm	0.7 g	whiteware
		1	ceramic	rim sherd	2.8 x 1.8 x 0.4 cm	1.7 g	burned
		1	glass	bottle fragment	1.3 x 0.7 x 0.4 cm	0.6 g	aqua
		1	glass	bottle fragment	1.3 x 1.0 x 0.5 cm	0.7 g	clear
		1	glass	window fragment	1.6 x 1.1 x 0.3 cm	0.7 g	aqua
		3	ferrous	cut nail fragments	3.5 x 0.5 x 0.4 cm	3.7 g	
					2.7 x 0.6 x 0.5 cm	4.2 g	
					2.2 x 0.6 x 0.4 cm	2.0 g	
1	brick	fragment	2.9 x 2.5 x 1.3 cm	7.1 g			
1	coal	fragment	1.6 x 1.4 x 0.9 cm	2.6 g			

Phase I Archaeological Investigations: Halsey Valley Road Realignment

STP #	Level	Count	Material	Artifact Summary	Dimensions	Weight	Description
31	1	1	ceramic	sherd	1.0 x 0.8 x 0.2 cm	0.2 g	whiteware with blue transfer
		1	ceramic	sherd	2.1 x 1.5 x 0.4 cm	1.0 g	whiteware
		9	glass	window fragments	1.5 x 0.9 x 0.2 cm	0.4 g	aqua
					1.0 x 0.6 x 0.2 cm	0.2 g	aqua
					2.3 x 1.7 x 0.15 cm	1.1 g	aqua
					1.8 x 1.7 x 0.15 cm	0.8 g	aqua
					1.6 x 1.5 x 0.15 cm	0.6 g	aqua
					1.9 x 1.3 x 0.15 cm	0.7 g	aqua
					0.9 x 0.7 x 0.15 cm	<0.1 g	aqua
					1.2 x 0.7 x 0.1 cm	<0.1 g	aqua
		0.7 x 0.7 x 0.1 cm	<0.1 g	aqua			
1	ferrous	unidentified nail fragment	3.1 x 0.6 cm	3.0 g			
33	1	1	ceramic	rim sherd	4.0 x 1.6 x 0.4 cm	2.9 g	porcelain with brown banded border
					5.3 x 4.1 x 0.5 cm	20.0 g	porcelain with green, pink, yellow, blue fruit motif transfer
		1	ferrous	nut	1.9 x 1.5 cm	20.8 g	
38	1	1	ceramic	sherd	1.8 x 1.4 x 0.2 cm	0.8 g	burned
		3	glass	bottle fragments	4.5 x 2.7 x 1.1 cm	11.4 g	clear
					3.8 x 2.3 x 0.5 cm	5.6 g	clear
					3.2 x 1.0 x 0.5 cm	2.5 g	clear
		1	coal slag	fragment	3.0 x 2.5 x 2.5 cm	7.3 g	
40	1	4	ferrous	unidentified nail fragments	3.2 x 1.2 cm	5.9 g	
					4.1 x 0.5 cm	2.9 g	
					3.3 x 0.4 cm	1.5 g	
					2.2 x 0.3 cm	1.4 g	
49	1	1	ceramic	sherd	1.7 x 1.5 x 0.3 cm	0.7 g	whiteware with black transfer
65	1	1	ferrous/plastic	push pin	0.9 x 0.9 cm	0.6 h	white
68	1	1	glass	bottle lip fragment	3.5 x 2.6 x 0.6 cm	8.3 g	clear with rounded lip
73	1	1	brown chert	secondary flake	2.4 x 1.7 x 0.6 cm	2.1 g	
		1	glass	bottle fragment	1.0 x 0.8 x 0.5 cm	0.5 g	clear
73 radial 1	1	2	glass	bottle fragments	2.5 x 1.7 x 0.3 cm	1.8 g	aqua
					2.0 x 1.3 x 0.3 cm	1.0 g	aqua

Phase I Archaeological Investigations: Halsey Valley Road Realignment

STP #	Level	Count	Material	Artifact Summary	Dimensions	Weight	Description
82	1	3	ceramic	sherds	1.8 x 1.5 x 0.3 cm	1.2 g	whiteware
					1.0 x 1.0 x 0.3 cm	0.4 g	whiteware
84	1	1	glass	bottle fragment	3.5 x 2.8 x 0.4 cm	5.3 g	amber
		1	ferrous	unidentified nail fragment	7.3 x 0.9 cm	15.8 g	
85	1	1	ferrous	unidentified nail fragment	3.3 x 0.7 cm	4.3 g	
99	1	1	ceramic	rim sherd	2.0 x 1.4 x 0.3 cm	1.2 g	porcelain with blue transfer
		1	ceramic	rim sherd	1.8 x 1.4 x 0.4 cm	1.4 g	whiteware
		1	ceramic	sherd	2.5 x 1.4 x 0.4 cm	2.0 g	whiteware with green hand painting
		4	ceramic	sherds	2.3 x 1.7 x 0.5 cm	3.1 g	whiteware
					1.8 x 1.5 x 0.4 cm	1.5 g	whiteware
					1.6 x 0.8 x 0.4 cm	0.8 g	whiteware
					1.3 x 1.0 x 0.4 cm	0.8 g	whiteware
101	1	1	ceramic	sherd	1.9 x 1.5 x 0.6 cm	1.6 g	porcelain with pink hand painting
		2	ceramic	rim sherds	4.8 x 4.5 x 0.6 cm	9.4 g	whiteware with blue transfer
					2.5 x 1.8 x 0.5 cm	1.3 g	whiteware with blue transfer
					4.6 x 4.5 x 0.7 cm	11.2 g	whiteware with blue transfer
		1	ceramic	sherd	2.1 x 1.5 x 0.4 cm	1.5 g	whiteware with black transfer
		1	ceramic	sherd	1.2 x 0.8 x 0.3 cm	0.4 g	whiteware with green and pink hand painting
		2	ceramic	sherds	1.0 x 0.9 x 0.3 cm	0.3 g	whiteware
					1.0 x 0.7 x 0.3 cm	0.3 g	whiteware
		1	ceramic	sherd	3.8 x 3.7 x 0.5 cm	6.1 g	unrefined earthenware, exterior: unglazed with black hand painted banding, interior: black glaze, body: cream
		6	glass	window fragments	3.1 x 2.3 x 0.2 cm	1.9 g	aqua
					1.3 x 1.2 x 0.2 cm	0.6 g	aqua
					2.6 x 0.9 x 0.15 cm	1.0 g	aqua
					1.4 x 0.8 x 0.15 cm	0.4 g	aqua
					1.6 x 0.6 x 0.15 cm	<0.1 g	aqua
					1.0 x 0.8 x 0.15 cm	<0.1 g	aqua
		1	brass	suspender ratchet adjuster	3.7 x 1.5 x 0.5 cm	2.1 g	
		1	brass	shotgun shell	2.2 x 1.1 cm	4.6 g	"Winchester Blue Rival No.12" c. 1894-1904
1	ferrous	wire nail	7.4 x 0.4 cm	7.3 g			
4	ferrous	unidentified nail fragments	3.1 x 1.0 cm	5.6 g			
			4.1 x 0.6 cm	4.3 g			
			3.4 x 0.7 cm	4.5 g			
			2.7 x 0.9 cm	4.1 g			
1	textile	fragment	2.3 x 1.6 x 0.2 cm	<0.1 g			
1	brick	fragment	2.1 x 1.4 x 0.8 cm	1.2 g			

Phase I Archaeological Investigations: Halsey Valley Road Realignment

STP #	Level	Count	Material	Artifact Summary	Dimensions	Weight	Description
106	1	2	ceramic	sherds	3.9 x 3.2 x 0.7 cm	9.1 g	porcelain
					2.8 x 2.6 x 0.6 cm	7.2 g	porcelain
		1	brick	fragment	6.9 x 3.4 x 1.7 cm	33.1 g	
		1	coal slag	fragment	2.6 x 1.5 x 1.5 cm	2.1 g	
114	1	1	ceramic	rim sherd	1.8 x 1.0 x 0.4 cm	0.9 g	whiteware
121	1	1	gray chert	trim flake	1.1 x 0.8 x 0.1 cm	0.2 g	
		1	gray chert	secondary flake	2.0 x 1.3 x 0.5 cm	1.7 g	
		1	gray chert	shatter fragment	3.4 x 2.0 x 1.2 cm	8.3 g	
		1	glass	bottle fragment	1.9 x 1.2 x 0.3 cm	1.4 g	green
		1	glass	bottle fragment	2.9 x 2.8 x 0.3 cm	4.6 g	clear
		1	ferrous	roofing nail	2.2 x 0.4 cm	1.3 g	
		1	ferrous	wire nail fragment	5.8 x 0.4 cm	6.4 g	
		3	ferrous	unidentified nail fragments	6.6 x 0.7 cm	7.9 g	
					4.3 x 0.7 cm	4.3 g	
					3.8 x 0.5 cm	3.4 g	
		1	brick	fragment	2.9 x 1.9 x 1.9 cm	6.0 g	
122	1	1	ceramic	sherd	2.6 x 1.3 x 0.5 cm	2.4 g	whiteware
		1	glass	bottle fragment	3.9 x 2.8 x 0.3 cm	5.2 g	clear, "RRRAN"
		1	glass	bottle fragment	4.2 x 2.1 x 0.3 cm	3.2 g	clear
		1	ferrous	wire nail	7.1 x 0.5 cm	12.1 g	
127	1	1	brass	unidentified fragment	1.8 x 0.7 x 0.5 cm	0.4 g	
		2	ferrous	unidentified fragments	6.5 x 2.2 x 0.8 cm	35.1 g	mend
					3.4 x 2.4 x 1.0 cm	15.0 g	mend
1	ferrous	unidentified rod fragment	7.4 x 0.9 cm	26.0 g			
131	1	1	plastic	doll	8.9 x 7.5 x 3.1 cm	33.9 g	Cabbage Patch Kids, McDonald's toy c. 1994
136	1	2	ceramic	sherds	2.7 x 2.0 x 0.4 cm	3.2 g	whiteware
					1.6 x 1.1 x 0.2 cm	0.5 g	whiteware
		1	glass	bottle fragment	2.5 x 1.3 x 0.7 cm	2.5 g	aqua
		1	ferrous	roofing nail	2.8 x 0.3 cm	2.1 g	
		1	ferrous	wire nail	3.3 x 0.3 cm	1.5 g	
		1	ferrous	unidentified nail fragment	4.2 x 0.7 cm	4.6 g	
1	sheetrock	fragment	2.7 x 2.0 x 0.5 cm	3.1 g			

**Phase IA/IB Archeological Investigation: Halsey Valley Road Realignment**

**APPENDIX 3:  
PHASE II SHOVEL TEST RECORDS**

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
1	0-15 15-28	Very dark grayish brown silt loam Black gravelly clay	Window glass (disc)	
2	0-19 19-35	Very dark grayish brown silt loam Black gravelly clay	Wire nail (disc)	
3	0-20 20-31	Very dark grayish brown silt loam Black gravelly clay		
4	0-21 21-35	Very dark grayish brown silt loam Black gravelly clay	Coal, nail (disc)	
5	0-18 18-31	Very dark grayish brown silt loam Black gravelly clay		
6	0-24 24-53	Dark grayish brown loam Dark gray clay loam	Modern clear bottle/auto/window glass and wood board (all discarded) NCM	Sterile subsoil
7	0-21 21-37	Dark grayish brown loam Black gravelly clay		
8	0-23 23-38	Very dark grayish brown silt loam Black gravelly clay		
9	0-20 20-35	Dark grayish brown loam Dark gray clay loam		
10	0-22 22-33	Dark grayish brown loam Dark gray clay loam		
11	0-19	Very dark grayish brown silt loam		

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
	19-35	Dark gray clay loam		
12	0-34	Dark grayish brown loam	Wood boards, plastic, charcoal, clear window glass (all discarded)	
	34-40	Dark gray clay loam	NCM	Sterile subsoil
13	0-27	Dark grayish brown loam		
	27-39	Dark gray clay loam		
14	0-25	Very dark grayish brown silt loam		
	25-38	Black gravelly clay		
15	0-19	Dark grayish brown loam		
	19-32	Dark gray clay loam		
16	0-16	Dark grayish brown loam		
	16-30	Dark gray clay loam		
17	0-23	Dark grayish brown loam	Aluminum can, auto glass, charcoal (all discarded)	
	23-38	Dark gray clay loam	NCM	Sterile with water at 30cm
18	0-16	Very dark grayish brown silt loam		
	16-32	Black grayish clay		
19	0-20	Very dark grayish brown silt loam		
	20-43	Black grayish clay		
20	0-40	Very dark gray gravelly loam	Coal and glass (disc)	
	40-50	Burned garbage layer	Coal, charcoal, slag, mortar and glass (disc)	
21	0-10	Gravel	NCM	
	10-gravel	Gravelly road disturbance	NCM	

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
22	0-30	Very dark gray gravelly loam	Glass and coal (disc)	
	30-water	Water pooled at bottom	NCM	
23	0-40	Very dark gray gravelly loam	Glass, coal and brick (disc)	
	40-50	Very dark grayish brown	NCM	
24	0-15	Dark yellowish brown gravelly loam		
	15-26	Very dark gray clay gravelly loam		
	26-45	Dark gray clay		
25	0-25	Very dark gray gravelly loam		
	25-46	Very dark gray gravelly loam burn/garbage layer	Nails, glass, plastic, coal, charcoal,	
26	0-30	Very dark gray gravelly loam	Coal, glass, and brick (disc)	
	30-concrete	Concrete block on bottom	Large concrete block on bottom	
27	0-43	Dark grayish brown clay loam	Ceramics, nails, glass charcoal (discarded)	1 bag
	43-50	Dark gray clay	NCM	Sterile with rock impasse
28	0-27	Dark grayish brown clay loam	Window glass, bottle glass, metal staple, charcoal (all discarded)	Water at 25 cm
29	0-36	Dark grayish brown gravelly loam	Plastic, window glass, alluminum foil (all discarded)	Water at 35 cm
30	0-46	Dark grayish brown gravelly loam	Brick fragment, metal and glass (sampled) charcoal (discarded)	1 bag fill rock impasse
31	0-34	Dark grayish brown	Charcoal (discarded)	Rock impasse
32	0-25	Dark gray clay	NCM	
	25-34	Very dark gray gravelly loam	NCM	
	34-40	Black sandy burned material	Glass and modern beer bottle (disc)	

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
	40-50	Very dark gray gravelly loam	NCM	
33	0-25	Very dark gray gravelly loam	NCM	
	25-40	Very dark gray gravelly loam with burn layer	Glass and coal (disc)	
34	0-34	Very dark gray gravelly loam	NCM	
	34-water	Water pooled at bottom	NCM	
35	0-20	Very dark gray gravelly loam	NCM	
	20-rock	Large rock obstruction and water pooling	NCM	
36	0-20	Very dark gray gravelly loam	NCM	
	20-gravel	Shale roadway	NCM	
37	0-20	Dark gray clay	NCM	
	20-47	Very dark gray gravelly loam	NCM	
38	0-30	Very dark gray gravelly loam	NCM	
	30-water	Water pooled at the bottom	NCM	
39	0-40	Very dark gray gravelly loam	NCM	
	40-rocks	Large rock obstruction at bottom	NCM	
40	0	Very disturbed and filled with water from drainage	NCM	
41	0	Very disturbed and filled with water from drainage	NCM	
42	0-57	Dark grayish brown gravelly loam	Rusted bottle cap, charcoal and slag (all discarded)	Fill/disturbed soil

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
43	0-19	Dark grayish brown clay loam mottled with olive gray clay loam	Plastic and modern wire nail (both discarded)	
	19-39	Dark gray loam	NCM	Sterile subsoil
44	0-35	Dark grayish brown clay loam	Bone, rope net and macadam (discarded)	1 bag
	35-47	Dark gray fine sandy loam	NCM	Sterile subsoil
45	0-18	Dark grayish brown gravelly sandy loam	Macadam and charcoal (discarded)	
	18-32	Dark gray loam	NCM	
	32-40	Gray fine sandy loam	NCM	Sterile subsoil
46	0-14	Brown gravelly sandy loam	Plastic bottle cap and macadam (discarded)	Fill
	14-39	Dark grayish brown gravelly sandy loam	NCM	Sterile subsoil
47	0-16	Brown gravelly sandy loam	Macadam and charcoal (discarded)	Fill water at 14 cm
48	0-45	Very dark gray gravelly loam	Nails and coal (disc)	
	45-55	Burn layer filled with debris	Plastic, coal, charcoal, metal bits (disc)	
49	0-35	Very dark gray gravelly loam	NCM	
	35-46	Brown gravelly clay	Nails and coal (disc)	
50	0-36	Very dark gray gravelly sandy loam	NCM	
51	0-60	Very dark gray gravelly sandy loam	NCM	
	60-71	Brown gravelly clay	NCM	
52	0-40	Very dark gray gravelly sandy loam	Mortar and coal	
53	0-37	Dark grayish brown gravelly sandy loam	Metal hook, brick fragment, glass charcoal and macadam (discarded)	Organic material at bottom of level 1 Fill
	37-48	Dark olive gray clay loam	Charcoal (discarded)	Fill

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
	48-78	Very dark gray gravelly clay loam	Brick fragment, ceramics, nails, glass charcoal (discarded)	Fill water at 75 cm.
54	0-20 20-black top	Very dark brown gravelly clay black top	NCM pavement and black top	
55	0-40	Very dark gray gravelly sandy loam	NCM	
56	0-35	Very dark gray gravelly sandy loam	NCM	
57	0-52	Dark gray clay loam	Bone, ceramic, brick (sampled) charcoal and concrete (discarded)	Fill 1 bag
58	0-28	Dark grayish brown clay loam	Concrete, wood boards, metal pipe, electrical cord and charcoal (discarded)	Fill wood boards in test
59	0-52	Very dark grayish brown gravelly sandy loam	Rusted paint can, plastic and slag (all discarded)	Fill
60	0-26 26-35	Dark gray gravelly loam Dark gray loam mottled with brown loam	Metal, auto glass, flower pot fragment, macadam, plastic and charcoal (all discarded) Charcoal and metal (discarded)	Rock impasse
61	0-40	Dark grayish brown gravelly loam mottled with pale brown loam	Charcoal and concrete chunk (discarded)	Fill rock impasse
62	0-37	Dark grayish brown gravelly sandy loam	Macadam, charcoal and slag (discarded)	Fill rock impasse
63	0-33 33-48	Dark grayish brown gravelly sandy loam Brown gravelly sandy loam	Charcoal, macadam, slag and plastic wrapper NCM	Fill Sterile with rock impasse

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
64	0-38	Dark grayish brown gravelly sandy loam	Macadam and charcoal (discarded)	Fill
	38-60	Grayish brown sandy loam	NCM	Sterile subsoil
65	0-27	Dark grayish brown gravelly sandy loam	Charcoal slag and window glass (discarded)	Fill
	27-59	Brown gravelly sandy loam	Charcoal (discarded)	Sterile subsoil
66	0-31	Very dark gray gravelly sandy loam	NCM	
	31-45	Brown gravelly clay	NCM	
	45-56	Very dark gray gravelly sandy loam	NCM	
67	0-37 37-concrete	Very dark gray gravelly sandy loam	concrete and lumber on bottom	
68	0-43 43-concrete	Very dark gray gravelly sandy loam	concrete glass concrete and lumber on bottom	
69	0-41 41- concrete	Very dark gray gravelly sandy loam concrete blocks and rocks at bottom	plastic, nails, lumber, white wear concrete pieces,	
70	0-29	Very dark gray gravelly sandy loam	Black top and plastic	
	29-36	Brown gravelly clay	NCM	
	36-48	Layer of dense gravel	NCM	
71	0-28	Very dark gray gravelly sandy loam	Black top	
	28-40	Brown gravelly clay	NCM	
	40-47	Very dark brown gravelly clay	NCM	
72	0-20	Very dark brown gravelly clay	NCM	
	20-Rock	Rock obstruction	NCM	

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
73	0-30	Very dark brown gravelly clay	NCM	
	30-bt	Black top	Black top	
74	0-41	Dark gray gravelly sandy loam mottled with brown gravelly sandy loam	Metal rod and coal (discarded)	Rock impasse
75	0-25	Dark grayish brown gravelly loam	Macadam and charcoal (discarded)	Fill
	25-41	Yellowish brown gravelly loam	NCM	Sterile subsoil
76	0-40	Dark grayish brown gravelly loam	Ceramic and glass fragment macadam and charcoal (discarded)	1 bag rock impasse
77	0-44	Dark gray gravelly loam	Plastic bag, macadam and charcoal (discarded)	Fill rock impasse
78	0-48	Dark gray gravelly loam	1 nail, plastic, charcoal and macadam (discarded)	Fill rock impasse
80	0-35	Dark yellowish brown gravelly sandy loam	NCM	
81	0-24	Very dark grayish brown gravelly loam	glass and coal (disc), nails and pottery	
	24-50	Brown gravelly clay	Bricks and coal (disc)	
	50-78	Very dark brown gravelly clay	NCM	
82	0-13	Very dark grayish brown gravelly loam	NCM	
	13-29	Brown gravelly clay	NCM	
	29-45	Very dark brown gravelly clay		
83	0-15	Very dark grayish brown gravelly loam	NCM	
	15-32	Brown gravelly clay	NCM	
84	0-35	Very dark gray gravelly sandy loam	NCM	
	35-43	Brown gravelly clay	NCM	

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
85	0-20	Very dark gray gravelly sandy loam	NCM	
	20-45	Dark grayish brown silty sand	Mortar, Coal, charcoal, coal slag	
	45-53	Dark yellowish brown gravelly sandy loam	NCM	
86	0-30	Dark yellowish brown gravelly sandy loam	NCM	
	30-39	Very dark gray gravelly sandy loam	Black top	
	39-67	Yellowish brown sandy loam	NCM	
87	0-14	Dark grayish brown gravelly loam	Charcoal (discarded)	
	14-24	Black loam	Nails, ceramics, glass and metal Charcoal (discarded)	1 bag ash midden
	24-40	Dark grayish brown gravelly loam	NCM	Sterile subsoil
88	0-16	Dark grayish brown gravelly sandy loam	nail and ceramic charcoal(discarded)	1 bag Fill
	16-43	Dark gray gravelly loam	Brick frag and charcoal (discarded)	Fill
	43-57	Brown gravelly loam	NCM	Sterile subsoil
89	0-23	Dark grayish brown gravelly loam	Charcoal and macadam (discarded)	Fill
	23-47	Very dark gray gravelly loam	Bone, window glass fragment nail fragment (discarded)	1 bag fill
	47-52	Yellowish brown sandy loam	NCM	Sterile subsoil
90	0-40	Dark grayish brown gravelly sandy loam	Macadam, charcoal and slag (discarded)	Fill rock impasse
91	0-30	Brown gravelly sandy loam	NCM	
	30-46	Very dark gray loamy clay	NCM	Sterile subsoil
92	0-26	Dark gray gravelly sandy loam	Coal and macadam (discarded)	
	26-33	Very dark gray gravelly loam	NCM	
	33-41	Dark grayish brown gravelly loam	NCM	
	41-51	Yellowish brown loam	NCM	Sterile subsoil

TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
93	0-19	Dark grayish brown gravelly sandy loam	Plastic (discarded)	Fill
	19-33	Grayish brown gravelly sandy loam	Modern nail and metal wire (discarded)	Fill
	33-38	Dark gray sandy loam	NCM	Rock impasse
94	0-26	Dark grayish brown gravelly sandy loam	Modern brown bottle glass, metal chunk and charcoal (discarded)	Impacted asphalt
95	0-13	Brown gravelly sandy loam	Charcoal (discarded)	Rock impasse
	13-36	Dark gray and brown gravelly loam mixed	Macadam (discarded)	
96	0-11	Brown gravelly sandy loam	NCM	Fill
	11-27	Dark gray gravelly sandy loam	Plastic (discarded)	Fill
	27-33	Yellowish brown gravelly loam	NCM	Large rock impasse
97	0-14	Dark grayish brown gravelly sandy loam	Plastic, macadam and charcoal (discarded)	Fill
	14-25	Dark gray gravelly loam	Charcoal and macadam (discarded)	Old road surface
	25-35	Very dark gray gravelly loam	NCM	Water at 36cm.
	35-38	Dark grayish brown gravelly loam	NCM	
98	0-24	Dark grayish brown gravelly sandy loam	Charcoal (discarded)	Fill
	24-47	Very dark gray clay loam	Plastic wrapper, plastic straw and charcoal (discarded)	Fill
	47-50	Grayish brown and gray gravelly loam mixed	Charcoal (discarded)	Water at 46cm.
99	0-31	Dark grayish brown mottled with brown gravelly sandy loam	NCM	Rock impasse
100	0-15	Dark grayish brown gravelly loam	Charcoal (discarded)	Sterile subsoil with rock impasse
	15-39	Dark grayish brown gravelly loam	NCM	

● TP #	Depth (cm)	Soil description	Cultural material	Bags/Notes
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**Phase IA/IB Archeological Investigation: Halsey Valley Road Realignment**

**APPENDIX 4:  
PHASE II ARTIFACT CATALOG**

Phase II Site Evaluation: Halsey Valley Road Realignment

STP #	Level	Count	Material	Artifact Summary	Dimensions	Weight	Description	
25	2	1	ceramic	sherd	4.2 x 3.2 x 0.4 cm	8.1 g	whiteware	
		1	glass	bottle fragment	1.7 x 0.9 x 0.5 cm	0.5 g	amber	
		1	glass	bottle fragment	4.8 x 2.2 x 0.3 cm	6.4 g	clear	
		1	glass	bottle fragment	4.3 x 0.7 x 0.4 cm	1.6 g	clear with red decal	
		2	glass	window fragments	3.1 x 1.6 x 0.3 cm	3.4 g	aqua	
					1.4 x 0.6 x 0.25 cm	0.g	aqua	
		1	ferrous	rivet	0.9 x 0.8 cm	0.4 g		
		1	ferrous	wire nail	5.2 x 0.4 cm	0.4 g		
		1	ferrous	unidentified nail fragment	2.4 x 0.9 cm	3.6 g		
		1	shell	fragment	1.2 x 0.7 x 0.2 cm	0.3 g		
27	1	1	ceramic	sherd	2.2 x 1.3 x 0.4 cm	1.3 g	porcelain with cream glaze, molded	
		1	ceramic	teacup rim sherd	5.6 x 4.4 x 0.5 cm	21.7 g	whiteware	
		1	glass	bottle fragment	3.3 x 2.2 x 0.5 cm	4.7 g	aqua	
		1	ferrous	wire nail	7.9 x 0.4 cm	9.2 g		
		1	ferrous	wire nail fragment	4.6 x 0.6 cm	8.2 g		
30	1	1	glass	bottle fragment	3.0 x 1.4 x 0.4 cm	2.6 g	amber	
		2	glass	window fragments	3.7 x 2.2 x 0.2 cm	2.2 g	aqua	
					2.1 x 1.3 x 0.2 cm	1.0 g	aqua	
		1	ferrous	unidentified fragment	3.7 x 1.7 cm	11.8 g		
1	brick	fragment	4.2 x 3.4 x 1.8 cm	26.9 g				
44	1	1	bone	fragment	6.6 x 3.4 x 2.2 cm	21.3 g		
53	1	1	glass	window fragment	1.0 x 0.7 x 0.4 cm	0.4 g	aqua	
		1	ferrous	lock pin	4.2 x 2.9 x 0.3 cm	8.4 g		
	3	ceramic	1	ceramic	sherd	2.8 x 1.8 x 0.3 cm	2.1 g	whiteware with brown hand painted floral motif
			12	ceramic	rim sherds	1.9 x 1.3 x 0.5 cm	1.6 g	whiteware
						2.4 x 1.1 x 0.4 cm	1.3 g	whiteware
						3.6 x 1.6 x 0.4 cm	2.8 g	whiteware
						2.9 x 1.9 x 0.4 cm	3.3 g	whiteware
						3.4 x 1.3 x 0.6 cm	2.3 g	whiteware
						2.7 x 1.4 x 0.4 cm	1.8 g	whiteware
						2.1 x 1.3 x 0.5 cm	2.2 g	whiteware
						1.6 x 1.6 x 0.4 cm	1.6 g	whiteware
						2.1 x 1.1 x 0.3 cm	1.0 g	whiteware
	1.6 x 1.4 x 0.2 cm	0.6 g				whiteware		
1.3 x 1.0 x 0.3 cm	0.8 g	whiteware						
1.3 x 0.8 x 0.3 cm	0.4 g	whiteware						
1	glass	tableware fragment	2.0 x 1.7 x 0.3 cm	0.9 g	clear, ribbed			

STP #	Level	Count	Material	Artifact Summary	Dimensions	Weight	Description
		1	glass	bottle fragment	2.7 x 1.8 x 0.3 cm	2.4 g	aqua
		1	glass	bottle fragment	2.4 x 0.8 x 0.4 cm	1.1 g	clear
		5	glass	window fragments	3.1 x 1.4 x 0.2 cm	1.3 g	aqua
					3.0 x 1.2 x 0.2 cm	1.4 g	aqua
					1.8 x 0.9 x 0.2 cm	0.6 g	aqua
					2.2 x 1.0 x 0.2 cm	0.5 g	aqua
					2.9 x 1.8 x 0.15 cm	1.1 g	aqua
		5	ferrous	unidentified nail fragments	4.0 x 0.6 cm	4.1 g	
					2.9 x 0.6 cm	4.2 g	
					3.0 x 0.6 cm	3.1 g	
					2.1 x 0.9 cm	2.9 g	
					1.7 x 0.4 cm	0.7 g	
		1	brick	fragment	2.3 x 1.3 x 1.3 cm	4.2 g	
57	1	3	ceramic	rim sherd	4.8 x 4.4 x 0.5 cm	17.0 g	pearlware with blue shell-edge, c. 1775-1830
				sherds	5.6 x 3.5 x 0.5 cm	11.6 g	pearlware c. 1775-1830
					3.0 x 1.8 x 0.5 cm	3.1 g	pearlware c. 1775-1830
		2	bone	fragments	5.2 x 4.1 x 1.8 cm	9.6 g	
					2.4 x 1.3 x 1.0 cm	1.0 g	
		1	brick	fragment	5.9 x 3.2 x 1.3 cm	18.4 g	
69	1	1	ceramic	rim sherd	2.6 x 1.2 x 0.3 cm	1.2 g	porcelain
		1	ceramic	sherd	2.1 x 1.7 x 0.4 cm	1.4 g	whiteware
		1	ceramic	sherd	4.2 x 2.4 x 0.7 cm	17.1 g	unrefined stoneware, interior: brown glaze, exterior: salt glaze, body: cream
76	1	1	ceramic	sherd	2.3 x 1.5 x 0.3 cm	1.0 g	whiteware
		1	glass	bottle fragment	2.5 x 0.8 x 0.4 cm	1.5 g	aqua
81	1	1	ceramic	sherd	5.7 x 2.8 x 0.6 cm	18.2 g	yellowware c. 1780-1940
		1	ceramic	rim sherd	5.2 x 3.3 x 0.5 cm	10.8 g	whiteware with blue transfer
		3	ceramic	sherds	2.2 x 1.6 x 0.5 cm	2.0 g	whiteware
					2.1 x 1.6 x 0.5 cm	1.9 g	whiteware
					1.3 x 0.6 x 0.5 cm	0.5 g	whiteware
		1	glass	tableware rim fragment	2.0 x 1.5 x 0.15 cm	0.6 g	clear
		3	glass	bottle fragments	3.0 x 1.8 x 0.2 cm	2.0 g	clear
					3.3 x 1.7 x 0.4 cm	2.7 g	clear
					2.6 x 1.7 x 0.3 cm	1.8 g	clear
		1	glass	window fragment	2.7 x 1.2 x 0.15 cm	0.8 g	aqua
		3	glass	window fragments	2.5 x 1.8 x 0.2 cm	1.5 g	clear
					1.8 x 1.3 x 0.2 cm	0.8 g	clear
					1.5 x 1.5 x 0.2 cm	0.7 g	clear

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STP #	Level	Count	Material	Artifact Summary	Dimensions	Weight	Description
		1	ferrous	cut nail fragment	3.6 x 0.6 x 0.5 cm	7.2 g	
		1	ferrous	wire nail	5.4 x 0.4 cm	3.9 g	
		4	ferrous	unidentified nail fragments	4.1 x 0.5 cm	7.7 g	
					4.0 x 0.4 cm	2.2 g	
					3.8 x 0.7 cm	4.9 g	
					3.5 x 0.4 cm	4.6 g	
87	2	2	ceramic	sherds	2.7 x 2.2 x 0.5 cm	2.8 g	whiteware
					1.1 x 1.0 x 0.5 cm	0.6 g	whiteware
		2	glass	window fragments	2.4 x 0.8 x 0.4 cm	1.4 g	aqua
					1.9 x 1.0 x 0.2 cm	0.5 g	aqua
		1	glass	fragment	1.5 x 0.8 x 0.7 cm	0.7 g	burned
		1	aluminum	fragment	5.1 x 2.0 x 0.3 cm	3.2 g	
		1	ferrous	cut nail	7.1 x 0.5 x 0.3 cm	6.2 g	
		6	ferrous	wire nails	8.4 x 0.4 cm	8.6 g	
					6.7 x 0.3 cm	5.2 g	
					5.4 x 0.3 cm	3.4 g	
					5.3 x 0.3 cm	3.2 g	
					5.1 x 0.3 cm	2.9 g	
					3.1 x 0.4 cm	1.4 g	
		4	ferrous	wire nail fragments	4.2 x 0.3 cm	2.4 g	
					4.0 x 0.4 cm	2.4 g	
					3.3 x 0.4 cm	1.8 g	
					1.2 x 0.3 cm	0.7 g	
		2	ferrous	unidentified nail fragments	3.2 x 0.7 cm	4.2 g	
					1.9 x 0.6 cm	1.5 g	
88	1	2	ceramic	sherds	2.5 x 1.7 x 0.3 cm	1.6 g	whiteware
					2.4 x 1.5 x 0.4 cm	1.7 g	whiteware
		1	ferrous	unidentified fragment	4.9 x 0.8 x 0.5 cm	8.4 g	
89	1	1	bone	fragment	4.5 x 1.1 x 0.8 cm	2.8 g	