

Determination of Effect on Historic Properties

Author:	Heather Carpini-Prescott	Date:	January 5, 2026
Project:	State No.: 0107-0181 F.A.P. No.: 0034(124) Project Title: Replacement of Temporary Bridge No. 00944 on Route 34 over Eight Mile Brook Town: Oxford		
Finding of Effect:	No Adverse Effect to Historic Properties with Conditions		

Project Description:

The Connecticut Department of Transportation (CTDOT), with funding support from the Federal Highway Administration (FHWA), proposes to replace the temporary bridge on Route 34 over Eight Mile Brook, in Oxford. This is the location of Bridge No. 00944, which was heavily damaged in August 2024, during the historic flooding event. As a result of this damage, the original bridge was removed and an Acrow temporary pre-manufactured thru-truss vehicular bridge, which is supported on temporary concrete slab abutments, was constructed.

This project proposes to replace the Acrow temporary bridge at the location of Bridge No. 00944 with a permanent bridge structure. The original Bridge No. 00944, which had been constructed in 1924, was undermined in August 2024, during the historic flooding event. As a result of this damage, the original bridge was removed and an Acrow temporary pre-manufactured thru-truss vehicular bridge, which is supported on temporary concrete slab abutments, was constructed. This project proposes to construct a permanent replacement for Bridge No. 00944.

The current temporary bridge has a span of 79.5 feet, with a width of 38 feet; the replacement bridge is planned to have an 83.5-foot superstructure span, with a clear span of 80 feet, and a 36-foot curb-to-curb width, to carry two 11-foot-wide travel lanes and two seven-foot-wide shoulders, with a 39.5-foot total width. The proposed replacement structure is a steel rolled beam bridge, with a concrete deck, in integral abutments; the foundation of the bridge will be micropiles drilled into the soil. The new bridge will have three-tube open bridge rails installed on the curb of the bridge. As part of remediation from storm damage, the channel of Eight Mile Brook was moved to the west of the

original bridge location; the new bridge will span both the original bridge arch location and the existing channel location. Additionally, as part of the emergency replacement project, the road at the bridge was realigned approximately four feet to the north; during this project, the roadway at the bridge will be realigned along its original geometry. During construction, the temporary bridge will be shifted on the existing abutments to allow one-lane alternating traffic to remain open. Temporary water handling and dewatering for new foundation during construction will be controlled by sandbags (water-handling-cofferdam) and steel sheet pile cofferdams, respectively, which will be constructed and removed in stages.

As part of the Emergency Declaration associated with the August 2024 flooding, CTDOT submitted preliminary information on the removal of Bridge No. 00944 to the Connecticut State Historic Preservation Office (CTSHPO), FHWA, and the Native American tribes with interest in Connecticut, via e-mail, on August 22, 2024, with updates provided on September 3 and September 10, 2024. The same information was also submitted to the United States Army Corps of Engineers (USACE) via e-mail on September 6, 2024. During this exchange, CTSHPO expressed concerns about the potential for archaeological resources along the east approach to the bridge and recommended that “stockpiling, storage, and staging for the temporary bridge installation” be confined to the western side of the bridge. None of the other agencies contracted expressed concerns about the information included with the Emergency Declaration. On February 21, 2025, CTDOT submitted a “Post-Review Emergency Repair Work” email to CTSHPO evaluating the potential for the replacement with the Acrow temporary bridge to adversely affect cultural resources. This email recommended that *no historic properties were affected* by the project. On March 12, 2025, SHPO concurred with CTDOT’s finding.

It is anticipated to have temporary right-of-way (ROW) easements, for installing a temporary abutment extension and for the relocation of overhead utilities during construction.

Under the provisions of the Programmatic Agreement executed between CTDOT, FHWA, the Connecticut State Historic Preservation Officer (CT SHPO), and the Advisory Council on Historic Preservation regarding compliance with Section 106 of the National Historic Preservation Act (NHPA) for minor transportation projects¹, the Office of Environmental Planning (OEP) intends to make a determination of effect on historic properties for the described undertaking.

¹ *Programmatic Agreement among the Federal Highway Administration, the Federal Transit Administration, the Federal Railroad Administration, the Connecticut Department of Transportation, the Connecticut State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Transportation Programs in Connecticut (signed May 5, 2025). Accessible online at: <https://portal.ct.gov/dot/bureaus/policy-and-planning/environmental-planning/cultural-resources>*

Resources Potentially Affected:

The proposed Area of Potential Effects (APE) for this project includes the footprint of the bridge, as well as approximately 125 feet to the north and 75 feet to the south of Bridge No. 00944, as well as 250 feet to both the east and west of the end of the bridge and approximately 125 feet along Loughlin Road, in order to accommodate the increased width of the bridge, potential construction access, and earthmoving activities.

Aboveground Resources

Both the National Park Service’s digital asset record system and ConnCRIS, the online cultural resource geodatabase maintained by the Connecticut State Historic Preservation Office (CTSHPO), were consulted for the purpose of locating any properties listed on the State or National Register of Historic Places (NRHP) in the project vicinity.

According to OEP’s most recent historic structures inventory research, State Bridge Number 00944, which was heavily damaged during August 2024 flooding and removed as part of the Emergency Declaration in response to that flooding, was constructed in 1924; the concrete arch bridge was determined eligible for the NRHP as an intact example of standardized bridge designs from the 1920s. However, the bridge was damaged beyond repair during the August 2024 flooding and had lost significant integrity, making no longer eligible for the NRHP.

There are no previously recorded aboveground resources within the APE for the project. The closest building to the project area, which was identified in the February 2025 Post-Review Emergency Repair Work e-mail from CTDOT to CTSHPO, is a circa 1900 multi-family residence that is located at 670 Roosevelt Drive, at the northeast corner of Roosevelt Drive (Route 34) and Loughlin Road. At the time, it was outside of the project footprint for the temporary replacement bridge. However, the parcel on which it stands is currently within the APE for the permanent replacement bridge and there are two additional structures greater than 50 years of age adjacent to the project area.

- The house at 666 Roosevelt Drive is identified in town tax records as being constructed in 1900. This structure is a two-and-one-half-story, front-gabled house, which is currently a multi-family residence; the full-width porch on the front elevation is supported by tapered square columns and is inset under the second story. On either side of the roofline, there is a large shed-roofed dormer. The siding and most windows appear to be replacement. Based on the form of the house, it is possible that it predates the date in the tax records.

- The house at 670 Roosevelt Drive is a two-and-one-half-story, front-gabled residence with a daylight basement on its south elevation; it is dated to 1900 in the town tax records. The south elevation of the house contains a basement level entrance, with a full-width, shed-roofed, two-story porch is enclosed with modern siding and windows; the north elevation may have been the original front elevation and also has a two-story porch. The west side of the roof has a gabled dormer, and the east side has a large shed-roofed dormer. Based on the form of the house, it is possible that it predates the date in the tax records.
- The house at 305 Loughlin Road is a one-and-one-half-story, Craftsman residence that is dated to circa 1935 in tax records. The side-gabled residence, which has German siding on its exterior, has a large gabled wall dormer on the front elevation and a full-width, shed-roofed porch that has been enclosed. On the north elevation, a one-story, side-gabled extension is visible; on the south elevation, there is an exterior stone chimney.

None of these structures have been evaluated for NRHP eligibility. However, based on the project plans OEP believes that the replacement of the temporary bridge will not have an adverse effect on any of the three adjacent structures greater than 50 years of age.

A series of historic maps and aerial photographs obtained from the University of Connecticut Map and Geographical Information Center (MAGIC) were examined to assess the potential for previously unidentified historic properties to be located within the project's area of potential effects (APE). The Griswold/Speiss Map of reconstructed Native settlements in Connecticut circa 1625 (1930) shows this area as the territory of the Paugussetts, with the Squantuck settlement concentration located to the southeast, along the Housatonic River. The Warren Map of Connecticut (1811) does not show settlement concentrations within the vicinity of the project area; however, it does depict multiple gristmills and an ironworks along Eight Mile Brook, north of the "turnpike road" that roughly follows the path of Route 34. The Whiteford Map of New Haven County (1852) shows the project area as being along a main thoroughfare running parallel to the Housatonic River, roughly following the footprint of Route 34, as well as Loughlin Road and a bridge over the Housatonic near its junction with Eight Mile Brook; there are structures shown near the east side of the intersection, identified as B. Downs and J. B. Hinman, as well as a factory belonging to J. Dawton on Eight Mile Brook. The map of Oxford from the 1868 *Atlas of New Haven County* indicates that over the preceding decade significant growth to the built environment had occurred in this area; the mill landscape along Eight Mile Brook now included a Stocking and Yarn Factory, a Wool Cleaning factory, a visible millrace, and multiple buildings identified as being owned by Radcliffe and Brother, presumably the mill owner (Figure 1). Additional buildings are also identified on both sides of Laughlin Road and Eight Mile Brook. An aerial photograph from 1934 shows that the Stevenson Dam and Hydroelectric Plant, to

the west, had been constructed and had altered the footprint of the river; however, Eight Mile Brook still flowed into the river at this location and the remnants of the milling of the river are visible, although the buildings do not seem to have been extant (Figure 2). All three houses that are currently within the project area are visible in 1934. Little appears to have changed aerial photographs from the 1950s to 1970, outside of the former farmland to the east of Laughlin Road largely reverting to forested areas (Figure 3–Figure 5).

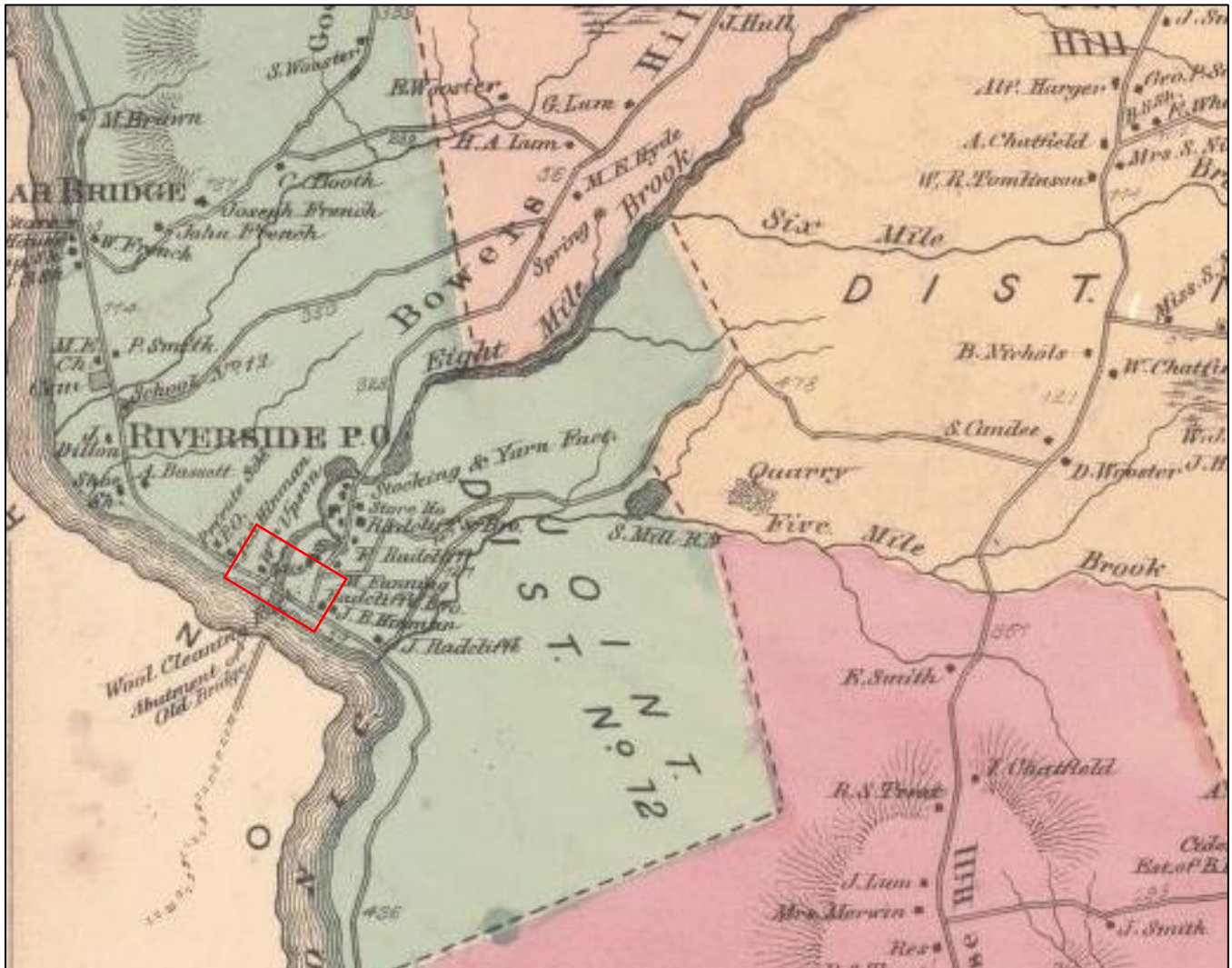


Figure 1: Portion of map of Oxford, Atlas of New Haven County (1868), showing approximate project area.



Figure 2: Fairchild Series aerial photograph from 1934, showing approximate project area.



Figure 3: United States Department of Agriculture (USDA) aerial photograph from 1951, showing approximate project area.



Figure 4: Connecticut Department of Public Works (DPW) aerial photograph from 1965, showing approximate project area.



Figure 5: CTDOT aerial photograph from 1970, showing approximate project area.

Archaeological Resources

Digital site records from ConnCRIS and the internal files of CTDOT were consulted for the purpose of identifying previously known archaeological sites within the APE. There are no previously identified archaeological sites within the project area. The closest documented archaeological site is located approximately 0.8-mile to the northwest; the Garno site (108-002) was recorded in 1979 as a limited activity Pre-Contact site, but it was not evaluated for NRHP eligibility. Two previously archaeological surveys cover portions of the project area. A 1996 survey for improvements to the Stevenson Dam/Route 34 bridge identified a stone sluice run or bridge culvert at the southwest corner of the dam abutment, but was not evaluated for NRHP eligibility.² In the communication about the replacement of the bridge for the August 2024 emergency declaration, CT SHPO identified the recorded location of this historic feature, but indicated that it was potentially destroyed by floodwaters; a field visit by an OEP archaeologist in August 2024 did not find evidence of the feature. A 2008 survey conducted for the relicensing of hydroelectric dams on the Housatonic River did not conduct shovel testing east of the Stevenson Dam and no archaeological sites near the project area were notes.³

The predictive site model developed internally by the Office of Environmental Planning (OEP), based upon U.S. Natural Resources Conservation Service soil classifications, was consulted to assess the potential of the project area to contain as yet undocumented archaeological resources. The soil survey identifies the soils in the western portion of the project area as Udorthents-Urban Land Complex, with slopes between 0 and 35 percent, which is classified as having poor potential for containing undocumented archaeological sites; the soils in this area were also affected by the August 2024 flood event, with significant washout and shifting of the brook channel west of the original bridge. The soils in the eastern portion of the project area are identified as Hinckley gravelly, sandy loam, with between 3 and 15 percent slope; these soils are characterized as having a high potential for containing undocumented archaeological sites.

Although roadside photography, aerial photography, and LiDAR imagery shows that portions of the project area east of Eight Mile Brook appear to have areas of undisturbed soils (Figure 6), recent project photography shows that the entire area around the bridge was heavily affected by floodwaters in August 2024, leaving little potential for undisturbed archaeological deposits.

² Historical Perspectives, Inc., Phase I Cultural Resources Studies, Stevenson Dam/CT Route 34 Bridge Improvement/Replacement Project No. 84-93, prepared for CTDOT (January 1996):15.

³ Michael S. Raber and Ernest A. Wiegand, Archaeological Reconnaissance of Sensitive Areas Subject to Potential Erosion, Housatonic River Hydroelectric Project, Federal Energy Regulatory Commission No. 2576, Salisbury, Kent, New Milford, Southbury, and Oxford, Connecticut, prepared for FirstLight Power Resources Services, LLC, Hartford, Connecticut, prepared by Raber Associates, South Glastonbury, Connecticut (May 2008).

Additionally, terracing of the residential lot at the northeast corner of Laughlin Road and Route 34 may have affected the potential for archaeological resources at this location. During the communication associated with the emergency declaration for the flooding event, CT SHPO indicated that their “office assumes that intact deposits may exist...for the eastern approach” to the bridge; however, based on current condition photos, OEP believes that the area has a low potential to contain undocumented archaeological sites. OEP does recommend that staging and access to the bridge site use the western approach, which was the location used during the installation of the temporary bridge.

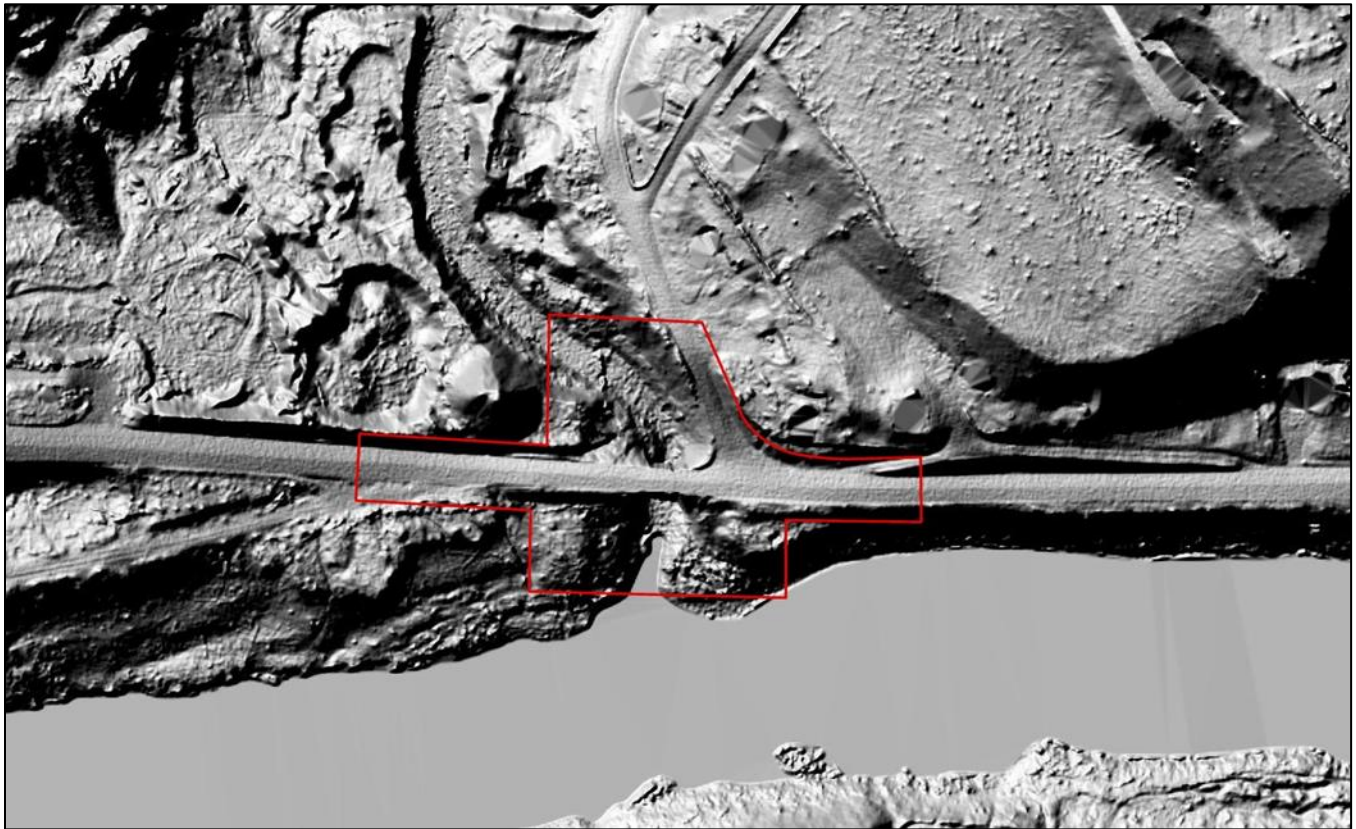


Figure 6: LIDAR image (2023), showing approximate project area.

Determination of Effect:

There are no previously recorded aboveground historic resources within the project area, since the original State Bridge No. 00944, which was a concrete arch bridge that was built in 1924 and was eligible for the NRHP, was damaged beyond repair during the August 2024 flooding event and is no longer extant. However, there are three previously unrecorded structures greater than 50 years old adjacent to the project area, which have not been evaluated for NRHP eligibility. Although the

project is unlikely to adversely affect these structures, if easements are necessary from any of these three properties, 4(f) documentation may be necessary.

There are no previously recorded archaeological sites within the project area and no archaeological sites were identified by two reconnaissance-level survey that covered portions of the project area. A fieldstone arch near the southwest corner of the bridge abutment was noted during these surveys but was not re-located in field evaluations following the August 2024 flooding event. Although OEP's site sensitivity model characterizes portions of the soils within the project area as having a high potential for containing undocumented archaeological sites, damage to the area surrounding the bridge footprint during the August 2024 flooding, which necessitated the removal of State Bridge No. 00944 and its replacement with a temporary bridge, also affected the soils to the east of the bridge. During construction of the temporary bridge, no archaeological deposits were discovered. Therefore, OEP believes the project area has a low potential for containing undocumented archaeological sites. However, based on SHPO comments in correspondence associated with the emergency declaration and the removal of the bridge, OEP recommends that the staging area and construction access areas be limited to the area along the western approach to the bridge.

Consultation was carried out with Federally recognized Native American Tribal authorities with ancestral ties to the State of Connecticut for this undertaking in October and November of this year. The Mohegan Tribe expressed no concerns about the project, as long as construction staging and access is limited to the western approach to the bridge. None of other the solicited Tribes expressed any concerns with the undertaking within the allotted time frame.

Based on the factors detailed above, OEP hereby determines a finding of *No Adverse to Historic Properties* for this undertaking so long as the following condition is met:

- Construction staging and access should be limited to the area west of the bridge, as occurred during the installation of the temporary bridge. This specification should be included in the project plans and written into the Environmental Commitments for this project.

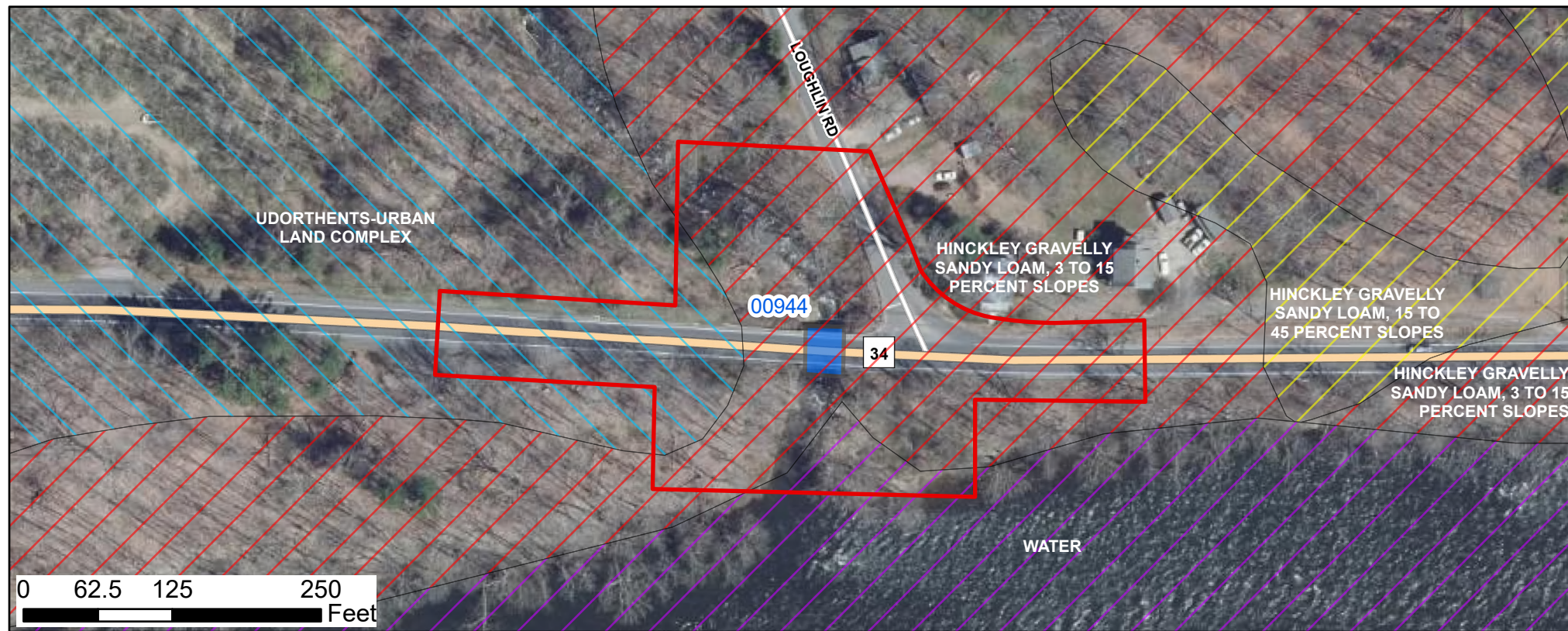
No further consultation with the Connecticut State Historic Preservation Officer (CTSHPO) is required. A copy of this determination will be included in the quarterly report of Minor Transportation projects that is submitted to CTSHPO and FHWA.

With this determination, FHWA, through OEP, has concluded its responsibility to consider the potential effects of the described project on cultural resources under Section 106 of the NHPA via the provisions of the Programmatic Agreement referenced above.



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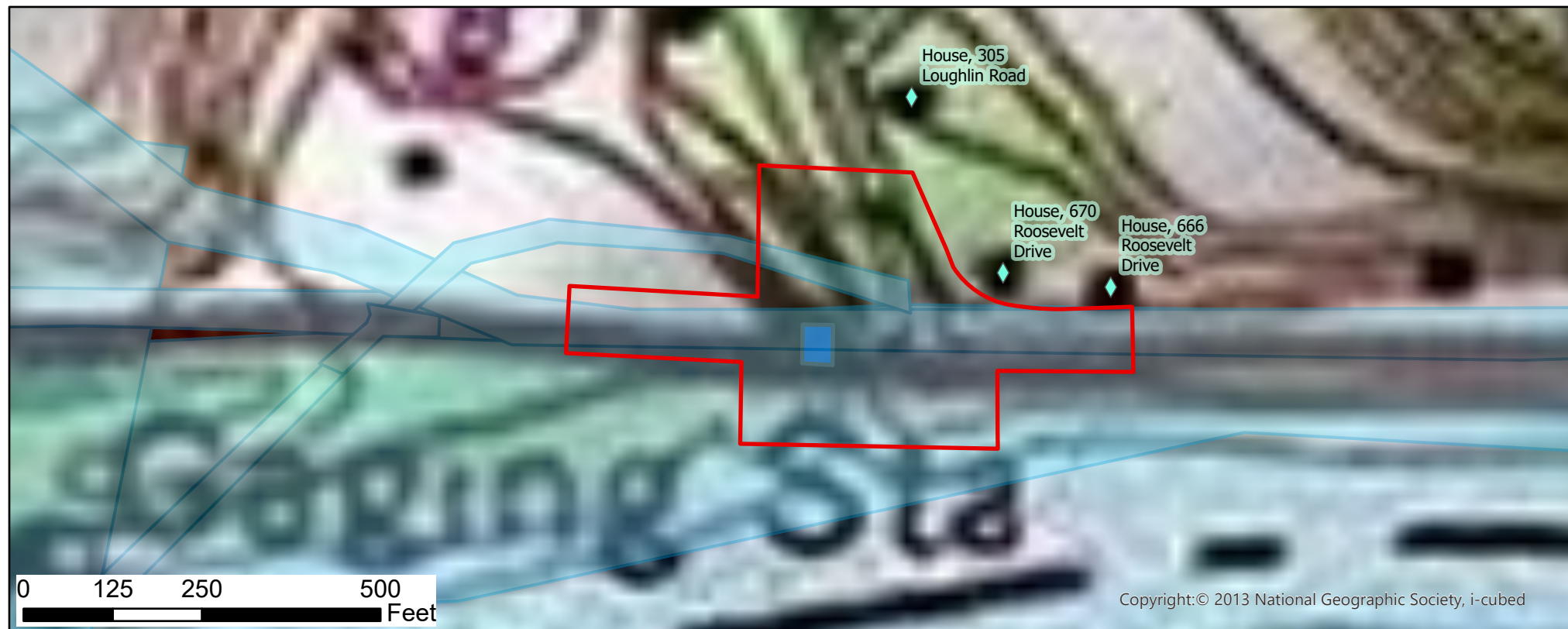
Recent Aerial Imagery (w/Soil Sensitivity Overlay)



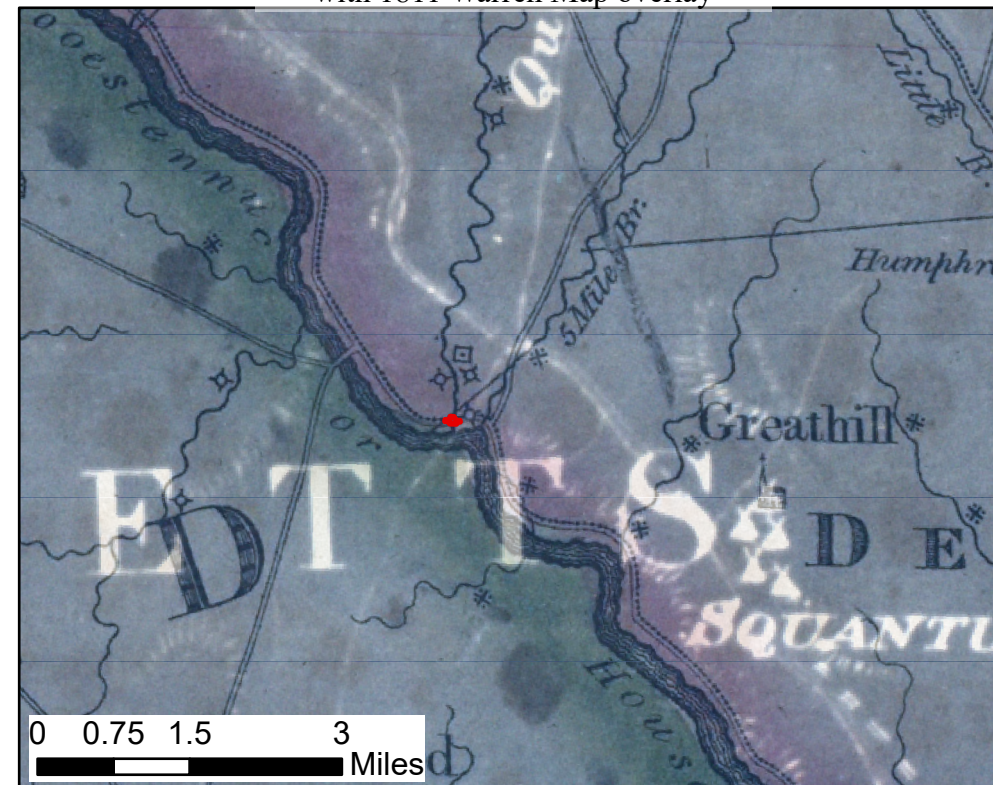
Detail of 1852 Whiteford Map of New Haven County



Detail of USGS Topographic Map (with Historic Resources Overlay)



Griswold/Spiess Map of Reconstructed Native Settlement c1625 with 1811 Warren Map overlay



Legend

- | | | |
|--------|-------------------------|-------------------------------------|
| Bridge | Soil Sensitivity | Aboveground Resources |
| High | Moderate | Unrecorded Structures >50 years old |
| Poor | Unknown | Archaeology |
| | | Previous Archaeological Surveys |

**CT Department of Transportation
Office of Environmental Planning
Environmental Review
Historical and Archaeological Resources**

September 22, 2025



State Project No: PP107-0003/PP107-0007
Replacement of Temporary Bridge on
Route 34 over Eight Mile Brook
Oxford, CT

