

# STATE OF CONNECTICUT

## DEPARTMENT OF TRANSPORTATION

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### Determination of Effect on Historic Properties

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<b>Project:</b>	State No.:	130-186
	F.A.P. No.:	1130(003)
	Project Title:	Rehabilitation of Bridge No. 07042
	Town:	Southbury

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<b>Finding of Effect:</b>	<b>No Historic Properties Affected</b>
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#### *Project Description:*

The Connecticut Department of Transportation (CTDOT), with funding support from the Federal Highway Administration (FHWA), proposes rehabilitation of State Bridge No. 07042 carrying Interstate 84 Westbound (WB) over Bullet Hill Brook in the Town of Southbury. The structure is located 1.3 miles east of the I-84 Exit 15 interchange, at Mile Post 23.3. Built in 1961, Bridge No. 07042 consists of a 108-inch-wide asphalt coated corrugated metal pipe supported by concrete headwall, endwall, and wingwalls at the inlet and outlet. The culvert is under approximately 10 to 20 feet of fill with sloped embankments at the inlet and outlet.

The preferred construction alternative consists of rehabilitating the existing structure by constructing a corrugated aluminum pipe liner within the existing pipe. This will involve construction of a 7.5-foot corrugated aluminum pipe within the existing pipe. The annular space between the existing pipe and the new corrugated aluminum pipe may be filled with flowable fill. Prior to the construction of the corrugated aluminum pipe liner, the existing pipe will be cleaned and any voids around the existing pipe should be filled with pressure grout. Angled corner baffles will be installed to facilitate fish passage and may be fastened to the proposed liner between the corrugations. Additionally, this alternative includes the construction of a concrete fishway installed at the outlet to complete proposed fisheries enhancements.

The monolithic headwall and wingwalls at the inlet shall be repaired and the artificial channels need to be removed and replaced with natural streambed materials. Water handling will likely consist of cofferdams and low flow pumping through the existing culvert. The endwall and wingwalls shall be removed and replaced in concert with the construction of the concrete fishway.

Temporary construction access roads will be built to reach the upstream and downstream sides of the structure to complete the proposed work. Downstream access will be routed off of I-84 WB. The upstream access road will connect with I-84 EB; sections of the existing three-cable guiderail will need to be removed and replaced/upgraded. An approximately 50' x 90' permanent easement will also be required for the concrete fishway.

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 projects<sup>1</sup>, the Office of Environmental Planning (OEP) intends to make a determination of effect on historic properties for the described undertaking.

### ***Resources Potentially Affected:***

#### ***Above Ground Architectural***

The NPGallery digital asset management database maintained by the National Park Service was consulted for the purpose of locating any historic properties listed on the National Register of Historic Places (NRHP) in the project vicinity. No NRHP-listed resources were found to exist within a half-mile of the target culvert. The target culvert itself was originally placed in 1961 as part of construction of I-84. It is therefore exempt from NRHP consideration under the ACHP's Interstate Highway exemption dated 2005.<sup>2</sup>

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 area of potential effect (APE). Historic map review yielded no indication that post-contact structures of significance might lie within the project APE. The area was almost completely undeveloped well into the 20<sup>th</sup> Century, as revealed by Fairchild Series aerial photographs from 1934.

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<sup>1</sup> *Programmatic Agreement among the Federal Highway Administration, the Connecticut Department of Transportation, the Connecticut State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Implementation of Minor Transportation Projects*, signed October 26, 2012 and revised May 4<sup>th</sup>, 2018. Accessible online at: [www.ct.gov/culturalresources](http://www.ct.gov/culturalresources)

<sup>2</sup> Section 106 Exemption Regarding Effects to the Interstate Highway System, *Federal Register* # 11928, March 10, 2005.



Fairchild Series aerial photo from 1934 showing vicinity of bridge/culvert 7042.

### *Below Ground Archaeological*

Digital site records maintained by the Office of the State Archaeologist (OSA), as well as OEP's own internally maintained cultural resource geodatabase, were consulted for the purpose of identifying any previously known archaeological sites within the APE. No archeological resources are documented within the project area. OEP finds no evidence, however, that any formal archaeological surveys have ever been conducted in the general vicinity.

Soil classification maps obtained from the U.S. Natural Resources Conservation Service were examined in conjunction with predictive models developed internally at OEP to assess the sensitivity of the project area for previously unknown pre-European Contact indigenous resources. Said maps predict the entire project APE to consist of either Urban Land of poor quality for retention of intact archaeological resources or soils of variable integrity. Review of the original I-84 design plans did not support the purported extensive disturbance just north of the Interstate where the temporary access road is proposed.

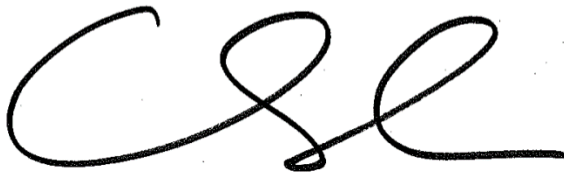
A field review was therefore conducted by OEP qualified cultural resource staff on June 22<sup>nd</sup> of 2022, which revealed stone features and alignments possibly associated with relict structural foundations of unknown date within and adjacent

to the proposed north side access road. Parts of this alignment appeared to retain pre-Contact archaeological potential as well. As a result, the access routes were subsequently revised to run from the highway itself down the adjacent embankment—avoiding the areas of archaeological potential—and thereby obviate the need for formal Phase I cultural resource field identification survey.

***Determination of Effect:***

Consultation was carried out with Federally-recognized Native American Tribal authorities with ancestral ties to the State of Connecticut for this undertaking in October of this year. Only the Mohegan Tribe responded to the invitation to consult within the allotted time frame and they had no concerns with the project as proposed.

Given the lack of historic properties found to exist within the project limits in the course of assessment, OEP hereby determines that there will be *no historic properties affected* in association with the present undertaking. 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.

A handwritten signature in black ink, appearing to read 'C. Speal', written in a cursive style.

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C. Scott Speal  
National Register Specialist  
Office of Environmental Planning  
Connecticut Department of Transportation