

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: Monthly SHPO-FHWA-ACOE-NHDOT Cultural Resources Meeting

DATE OF CONFERENCES: September 5 and 11, 2014

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT	Federal Highway Administration	Jason Gallant	Bruce Kudrick
Steven Babalis	Jamie Sikora	Hooksett Heritage Commission	Leo Lessard
Sheila Charles	NHDHR	Kathie Northrup	Dean Shankle
Ronald Crickard	Laura Black	Town of Hooksett	Christine Soucie
Michael Dugas	Edna Feighner	Sidney Barnes	Town of Sullivan
Jillian Edelmann	CMA	John Duffy	Chris Pratt
Marc Laurin	Britt Audet	Frank Kutowski	
Stephen Liakos			
Don Lyford			
Nancy Mayville			

PROJECTS/PRESENTATIONS REVIEWED THIS MONTH:

(minutes on subsequent pages)

<i>September 5, 2014</i>	1
Hooksett 29655 (no federal number).....	1
<i>September 11, 2014</i>	3
Roxbury-Sullivan 10439, F-X-0121(034).....	3

September 5, 2014

Hooksett 29655 (no federal number)

Participants: Britt Audet, Jason Gallant, CMA Engineers; Kathie Northrup, Hooksett Heritage Commission; Sidney Barnes, John Duffy, Frank Kutowski, Bruce Kudrick, Leo Lessard, Dean Shankle, Christine Soucie, Town of Hooksett; Ron Crickard, Stephen Liakos, Nancy Mayville, NHDOT

Initial consultation regarding the structurally deficient Lilac (Hooksett Village) Bridge (083/150) over the Merrimack River, north of College Park Drive, and the proposed emergency repairs.

1. Introductions of various attendees, including representatives of the Town of Hooksett, Hooksett Sewer Commission, NHDOT Bureau of Planning and Community Assistance, NHDOT Bureau of Environment, NHDHR and CMA Engineers.

2. Project Overview

a. Existing conditions

- i. Three span High Pratt Truss 1909, 1936 (166’-6” – 166’-6” – 148’-0”)
- ii. Not in service since bypassed in 1976
- iii. Active 10” gravity sewer carried on bridge (upstream side)
- iv. Overhead lines also attached to upstream side (unknown if active)

b. Inspection

- i. NHDOT noted critical deficiency 8/12/14 at North Span Upstream L6. Inspection

personnel ordered off bridge

ii. CMA Engineers conducted inspection by boat 8/26/14 - probed areas of concern obtained and photo / video documentation of present conditions on primary and secondary bridge structural elements.

c. Findings

i. Critical deficiencies

1. Fractures found in north and middle 1909 spans (8 total locations). Photographs of the failures were presented. Significant section loss has occurred on some floor beams and stringers. There is severe rusting on lateral bracing under bridge. Some bracing elements have already fallen off the bridge. There is a potential for additional items to fall off bridge.
2. Generally, the upstream side (sewer utility side) is in worse condition than the downstream side

3. Action plan for stabilization

a. Restricted access to boat traffic

- i. Town and NH F+G posted advisory on website alerting boaters to avoid travelling under the middle and north spans of the bridge.
- ii. NH Marine Patrol has been notified of the advisory.
- iii. Town is working to have buoys and ropes installed to block boat access under the middle and north spans of the bridge.

b. Sewer bypass plan

i. The Hooksett Sewer Commission has developed an emergency bypass plan in the event the gravity sewer main hung from the bridge becomes compromised.

c. Temporary bridge shoring in accordance with draft bridge management plan

- i. A conceptual stabilization plan was presented. The plan includes extending three steel girders above the existing deck. The girders will be supported by the existing abutments and piers. Supplemental floor beams will be connected to the steel girders with steel tie rods and used to support the bottom chord of the truss.
- ii. The proposed stabilization structure can be designed to accommodate the gravity sewer main.
- iii. The existing timber deck and stringers will be removed during the shoring project to reduce snow load and dead loads on the bridge.
- iv. The proposed structure is a temporary solution for stabilizing the bridge and sewer main. Temporary structures are typically designed for a service life not to exceed five years. Further study will be needed to develop a long-term plan for the bridge.

4. NHDOT

a. The Department has agreed to provide funding for the project under the State Aid Bridge program which is intended for bridges that carry vehicles. Long-term rehabilitation will need to consider re-opening the bridge to vehicular use.

b. Cultural Resources and NHDHR were given copies of the complete Request for Project Review. They did not expect that any further documentation would be needed for the stabilization project. NHDHR did encourage the Town to consider that the community's interest is preserving bridge as long term plans are considered.

5. CONSTRUCTION CONSIDERATIONS

a. Bidding –

- i. A two week bid period is anticipated. Advanced notice of the project will be

distributed to Construction Summary and the Town's website.
ii. Bidding will be in accordance with NHDOT and Town of Hooksett requirements.

The Town requires an open bid.

b. Materials

i. The proposed shoring plan has been developed with consideration for readily available steel elements. (Steel mills are currently closed and will reopen in October; estimated lead time for new steel is 16 weeks)

c. Staging –

i. It is anticipated that the open space at the south end of the bridge will be used for construction staging and that the new girders will be launched from the southern end of the bridge.

ii. It is anticipated that barges will be needed for deck removal work.

d. Deck –

i. The temporary bridge design accounts for the construction of a work platform that will facilitate removal of the existing bridge deck. All materials removed from the bridge will be disposed of properly.

e. Sewer –

i. Relocation of the sewer main onto the new structure will be included with the bid package. This work will not be eligible for SAB funding.

September 11, 2014

Roxbury-Sullivan 10439, F-X-0121(034)

Participants: Steve Babalis, Marc Laurin, Don Lyford, NHDOT; Christopher Pratt, JoAnn Lincoln, Consulting Party

Steve Babalis provided an update on the project. A temporary detour of NH 9 traffic through the East Sullivan Historic District (along Valley Road and Center Street) is being proposed during the replacement of the Otter Brook bridge. There will be minor realignment to the intersections of Center Street with NH 9 and Valley Road. To accommodate the detour, Valley Street will be paved, though not widened. After completion of the bridge these intersections will be returned to their original configurations. This proposal was presented at a Public Informational meeting held in Sullivan on August 5th, and was well received by the public and Town officials. The profile of the bridge will raise about 6 feet, but as shown in a rendering provided, the viewshed from residences on Valley Road will remain virtually unchanged. The permanent impacts to the contributing property located adjacent to the bridge, at 439 Valley Road (SUL0015), will be minor (± 50 square feet). However, a new retaining wall and the taller bridge abutments will be noticeable.

Due to large trucks not being able to negotiate the sharp turns of Valley Road intersection with Center Street without tracking into the opposite lane, signage will direct truck traffic to use NH 101 and NH 202 to avoid this area during construction. Chris Pratt commented that Valley Street is narrow and hopes that large trucks and wide loads will use the detour. S. Babalis stated that wide loads will need to follow the truck detour that will be established on NH 101 and NH 202 as it will be required by the permit that allows them to haul wide loads on state highways.

Laura Black stated that the replacement of the bridge would result in an Adverse Effect on the District. As shown by the renderings, the visual impacts to the District would not be a great concern. Due to the rehab of the Hubbard Brook bridge and the NH 9 roadway work, there will not be an effect on the individually eligible property at 526 Route 9 (ROX 0001). Jamie Sikora stated that the 4(f) on the contributing property will be minor and likely a *de minimus* determination. C. Pratt stated that there would not be a concern with any impacts to the Goodnow mill foundations, as the area is quite be disturbed and there is not a whole lot left

Discussion of mitigation ensued. The following will be stipulations in the MOA. Coordination with the owner of 439 Valley Road (SUL 0015) and the community on the treatment options of the bridge abutment and retaining wall, and; the development of a pamphlet/brochure on the history of the roadway post 1920's. In the discussion, coordination with the adjacent property will also include issues pertaining to landscaping and vegetation, in addition to design of the structures, the viewshed and/or sound issues.

L. Black pointed out the stone retaining wall inventory form needs to be completed. J. Edlmann will check on its status and submit a completed form to DHR.

Submitted by: Sheila Charles and Jill Edlmann, Cultural Resources