

BUREAU OF ENVIRONMENT CONFERENCE REPORT

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

DATE OF CONFERENCES: January 9, 2020

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Sheila Charles
Keith Cota
Ron Crickard
Jill Edelman
Bob Juliano
Ron Kleiner
Marc Laurin

FHWA

Jamie Sikora

NHDHR

Laura Black
Nadine Miller
David Trubey

ACOE

Rick Kristoff

Quantum

Jim Bouchard
Anna Giraldi
Rick Wolf

VHB

Nicole Benjamin-Ma
Hannah Beato
Peter Walker

Town of Dover

Christopher Parker

Consulting Parties

Kitty Henderson (via
telephone)
Lulu Pickering

PROJECTS/PRESENTATIONS REVIEWED THIS MONTH:

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Newington-Dover 11238S, NHS-027-1(037)

Participants: Peter Walker, Nicole Benjamin-Ma, Hannah Beato, VHB; Keith Cota, Ron Crickard, Bob Juliano, Marc Laurin, NHDOT; Christopher Parker, Town of Dover; Kitty Henderson, Lulu Pickering - Consulting Parties

The intent of this meeting was to discuss potential mitigation for this project, now that the adverse effects memo has been executed (January 2, 2020). The potential mitigation ideas list was updated with suggestions by the City of Dover and circulated via email on January 6, 2020 prior to the meeting. Discussion included categorizing mitigation ideas into ones that should be further explored, and ones that can be set aside for now (they aren't directly related to the adverse effect, or there are alternative on-site mitigation suggestions that are better options).

Nadine M. suggested that some of the suggestions may be a bit outside of mitigation specifically intended for Section 106 adverse effects, but may be appropriate as other DOT commitments made as a result of this project. Pete W. noted that the SEIS will contain an outline of environmental commitments.

Keith C. further noted that while the current list of suggestions has been compiled with input from the Consulting/Interested Parties, additional input will be solicited from the public at the public informational meeting following release of the draft SEIS.

NHDOT Bridge Inventory and Bridge Management Plan:

- DOT and DHR discussed the need to promote this work once finalized.
 - Jill E. and Nadine M. suggested presenting at the NH Municipalities Association annual conference
 - DOT would like to see the bridge inventory integrated into EMMIT. DHR and VHB will discuss the technical requirements and budget needed to add the inventory information into the system.
- Laura B., Nadine M., and Lulu P. addressed internal implementation of the management plan – how is this going to be integrated into the culture of DOT and its processes?
 - Laura B. and Nadine M. noted the management plan will include steps relating to improved community engagement and outreach
 - Nadine M. mentioned that the compilation of the bridge inventory has brought to light some great examples of DOT success stories – can these be used to demonstrate how the best practices in the plan can be implemented? Keith C. said that DOT has recognized they don't highlight their successes enough.
- This was considered by all attendees to be an important component of the mitigation package going forward. While the inventory and plan are not yet finalized for publication, an MOA stipulation can include a commitment to pursue likely outreach opportunities including ACEC, the NHMA annual conference, internal training and education (DOT and its consultants), and public outreach.

Interpretive Program:

- Jill E. and Nicole B. emphasized this is envisioned to be the biggest mitigation component. Keith C. mentioned the benefit that there are numerous interpretation locations on and around the site.
- Lulu P. cautioned that she favors hard-copy documentation (like a book) over digital products because technology changes so quickly. Laura B. noted that this is a large project, so the interpretive program will have multiple components. Keith C. also reported that state agencies have a responsibility to ensure their communications and electronic file systems have longevity and are accessible, even when technology changes.

Locations

- Chris P. said that including interpretation on the new bridge is not preferable, because it isn't very accessible and people shouldn't have to go "off the beaten path" to get to it.
- Dover also supports interpretation in local libraries and/or municipal buildings. Nadine M. noted that for the Seacoast Reliability project, they are preparing concurrent interpretive programs in multiple locations because interpretation on-site is not feasible for that project.
- There was discussion about Dover's suggestion of rebuilding the former fish pier in Hilton Park (removed 2010):
 - Chris P. noted it would represent a good interpretive location because it overlooks the crossing. Also, the pier was significant from a recreational point of view. Lulu P. agreed that a rebuilt fish pier is a good vantage point to discuss multi-modal transportation at the crossing.
 - Nadine M. said that Section 106 mitigation should really be tied to the adverse effect; the fish pier sounds like a great project, but may not be appropriate for Section 106-specific

mitigation. Keith C. further noted that it could be used to mitigate a loss of recreation if that was a result of the project, but this project does not result in any recreational loss. Lulu P. suggested that the evolution of Hilton Park (like the removal of the fish pier) may represent a type of cultural loss; however, it was noted that Hilton Park was determined not eligible for the National Register.

- Keith C. noted that reconstruction of the fishing pier would require permitting. Who is responsible for the pier once built?
- Rick K. cautioned that construction of the fish pier may result in other adverse effects, and therefore mitigation upon mitigation.
- Kitty H. emphasized that mitigation is for the loss of a significant bridge, which is the top priority and should be the focus of the mitigation efforts. She doesn't support doing non-bridge mitigation measures if they are in lieu of bridge mitigation.
- Lulu P. asked how non-Section 106 mitigation is developed, and who is involved. Keith C. answered that agencies as well as the public is involved; it is discussed at the public meetings (Section 106 mitigation will be, as well). Therefore, everyone has input. Further discussion noted that public meetings are recorded, all comments and decisions are included in the ROD, and that FHWA tracks mitigation commitments.

Interpretive Plan Components

- There is interest in including a Video/Documentary in the program.
- Jill E. will send out a link to a recent short film completed as mitigation for a bridge removal in Ossipee
- Laura B. mentioned a documentary completed in (possibly) KY for a historic resource, which was broadcast on a local TV station.
- It was suggested that the video could be shown on NH public broadcasting.
- The video, along with other film shorts, could be shown in various places – perhaps at/near the sites of the Lake Champlain Bridge, Cape Cod Canal Bridges, and GSB.
- Lulu P. suggested that the loss of other historic bridges nearby along the Piscataqua River could be considered as a topic in the documentary.

Book

- Nadine P. noted that a coffee table book is great for covering the history of towns, but a smaller book may work better here. Jill E. and Lulu P. suggested that the transportation network history would be a good topic for a book of this size.

Non-Priority Mitigation Suggestions:

- It was decided that oral histories and preparation of planning documents for Newington can be set aside in favor of more meaningful and appropriate mitigation.

Dover Historic Marker

- Dover noted that some historic markers appear to have been moved/removed during the Spaulding Turnpike improvements construction. Since this is about stewardship, DOT will investigate internally; doesn't need to be considered a mitigation measure. (Note: the marker was located by DOT; it was still at the DMV building, but couldn't be seen behind staging materials.)

Conclusions/Next Steps:

- Since the group was unable to cover the full list of mitigation suggestions, an additional meeting is necessary. Jill E. offered to send a poll of possible times to meet in 2-3 weeks.
- Nicole B. and Jill E. will brainstorm about possible interpretive program components and topics. Nadine M. noted this will be helpful in estimating costs of these measures.

Jaffrey 41401 (no federal number)

Participants: Ron Crickard, Ron Kleiner, NHDOT; Jim Bouchard, Anna Giraldi, Rick Wolf, Quantum Construction Consultants, LLC

Initial consultation to discuss Nutting Road over Contoocook River (159/094) rehabilitation project, proposed alternatives, and receive comments with the intention of determining effect for completion of Section 106. The project addresses deficiencies with the existing stone arch bridge.

J. Bouchard presented a brief overview of the existing bridge which is a single span stone arch bridge constructed circa 1914 and which has a concrete deck which was constructed in the mid 1900's. Existing span is 29 feet and with narrow travel way lanes of 9'-6". Bridge has a scour hole and undermining at the southwest corner. An upstream training wall was constructed to guide the river into the arch. This wall is a mortared wall with granite capstones and a subsequent concrete scour protection measure added later at the toe of wall. This training wall is also in very poor condition and in need of replacement as there are signs of settlement and migration of soil behind the wall and areas of undermining along the base of the training wall.

The existing bridge deck is severely deteriorated allowing for water intrusion as evidenced by efflorescence on the arch stones and yielding a sufficiency rating of 29% deck condition. An independently supported 12-inch water main exists on the downstream side of the bridge which is protected by the concrete deck extending over it. Standard guardrail is present at roadway edge but the concrete at the mountings is extremely fractured and eroded. The bridge is on the Municipal Redlist due to the deck.

This project is being funded by the Town of Jaffrey and the NHDOT through the Municipally-Managed Bridge Aid Program and is funded in FY 2021 with construction anticipated in 2022.

An Individual Inventory Form has been developed and submitted to NHDOT and NHDHR for the bridge. The bridge has been determined to be National Register Eligible.

QCC is proposing to correct the bridge's structural deficiencies by replacing the concrete slab, bridge and approach rails, replacement of the training wall, and rehabilitating the stone masonry arch bridge with chinking and repointing of mortar. QCC has evaluated two rehabilitation alternatives and two replacement alternatives have been evaluated in the Engineering Study:

- Rehabilitation with cast-in-place (CIP) concrete deck of 52' in length – Preferred Alternative
- Rehabilitation with precast prestressed concrete deck sections of 52' in length – dismissed due to high costs, multiple longitudinal joints requiring sealing.
- Replacement of the bridge with a precast prestressed concrete deck beams founded on CIP abutments – This was developed as a “red herring” option at Town request for consideration of costs for complete replacement. It is not intent to remove the historic bridge
- Replacement of the bridge with structure meeting NHDES Stream Crossing rules per NHDOT guidelines. Intent is not to remove historic structure.

The preferred alternative is a cast-in-place concrete slab that will sit on geosynthetic reinforced soil (GRS) foundation which is geogrid base reinforcement wrapped around crushed stone (explained as “mattresses” as there are several layers of this). This will allow the loads to be taken off the arch and transferred from the slab into the

GRS foundations. Sand would also be placed over the apex of the arch to reduce point loads on the keystones. Shallow foundations for the new concrete slab cannot be used as their construction would disturb the existing stone arch. Piles are also not an option as ledge is too close to the surface.

The reconstructed roadway will remain very close to the existing horizontal alignment; however, the vertical alignment would be raised approximately 4-inches in order to allow for positive drainage and to direct the water away from the bridge. The replacement cast-in-place concrete slab will have a new membrane applied and will receive bituminous pavement.

The southwest training wall will be replaced with a new sheet pile wall with stone veneer facing reusing the existing stones as much as possible. There will also be channel protection installed at the upstream side of the bridge to minimize scour.

The existing bridge does not pass the 50-year flood event with two feet of clearance as required by the NHDOT so a Hydraulic Exception Report will be submitted.

This project is being funded by the Town of Jaffrey and the NHDOT through the Municipally-Managed Bridge Aid Program and is authorized for construction in fiscal year 2021.

J Edelmann asked if the existing stones from the wingwall would be used and J Bouchard said the existing stones would be used as much as possible.

L. Black asked if there would be any impacts to the 1939 property located at the southwest corner of the bridge. J Bouchard explained that a small drainage swale will be constructed behind the new wingwall, but the roadway embankment would then be restored and seeded. Some modern shrubs will need to be removed.

J Edelmann was wondering if there were any concerns about vibrations while driving the sheet piles for the wingwall causing damage to the existing arch. J Bouchard answered that there are some concerns so the undermining would need to be addressed first and then the driving of sheet piles could be performed. It was discussed and agreed that vibration monitoring should be performed during sheet pile installation efforts.

R. Crickard asked if QCC had met with the NHDES yet. He mentioned there may be geomorphology changes. J. Bouchard replied that QCC had not met with them yet but will do so.

N. Miller wondered what kind of mortar and color would be used for chinking and re-pointing work to occur for the existing arch. J Bouchard explained that typically the existing mortar is sampled for mortar type for replication on the project. Color samples would be used to assess what colors are available to match as closely as possible the existing mortar color.

L Black asked if the arch was dry laid. J Bouchard said the arch is but the spandrels and training wall are not.

Post Meeting Note: After further photographic review, it appears that the arch is not dry laid as mortar can be seen on the arch as well. L. Black stated that there are minimal impacts to the 1939 property at the southwest corner and the other abutting properties are modern or have been modernized negating historic concerns.

The meeting concluded with a “No Adverse Effects” determination. QCC will prepare and electronically forward the Section 106 memo to NHDOT Cultural Resources.

New Hampshire Department of Transportation Cultural Resources Agency Coordination Meeting

Date January 9, 2020

Please initial next to your name. Guests: Please use reverse side to sign in.

Initial	Name	Agency	Email Address
<i>LB</i>	Laura Black	NH Division of Historical Resources	<u>Laura.Black@dncr.nh.gov</u>
<i>SC</i>	Sheila Charles	NHDOT – Bureau of Environment	<u>Sheila.Charles@dot.nh.gov</u>
<i>KC</i>	Keith Cota	NHDOT – Project Development	<u>Keith.Cota@dot.nh.gov</u>
<i>RC</i>	Ronald Crickard	NHDOT – Bureau of Environment	<u>Ronald.Crickard@dot.nh.gov</u>
<i>MD</i>	Mark Doperalski	NH Division of Historical Resources	<u>Mark.Doperalski@dncr.nh.gov</u>
	Loretta Doughty	NHDOT – Highway Design	<u>Loretta.Doughty@dot.nh.gov</u>
	Meli Dube	NHDOT – Bureau of Environment	<u>Melilotus.Dube@dot.nh.gov</u>
	Michael Dugas	NHDOT – Highway Design	<u>Michael.Dugas@dot.nh.gov</u>
<i>JE</i>	Jill Edelmann	NHDOT – Bureau of Environment	<u>Jillian.Edelmann@dot.nh.gov</u>
<i>RK</i>	Ron Kleiner	NHDOT – Project Development	<u>Ron.Kleiner@dot.nh.gov</u>
	Bob Landry	NHDOT – Bridge Design	<u>Robert.Landry@dot.nh.gov</u>
<i>ML</i>	Marc Laurin	NHDOT – Bureau of Environment	<u>Marc.Laurin@dot.nh.gov</u>
	Don Lyford	NHDOT – Highway Design	<u>Donald.Lyford@dot.nh.gov</u>
	Rebecca Martin	NHDOT – Bureau of Environment	<u>Rebecca.Martin@dot.nh.gov</u>
<i>NM</i>	Nadine Miller	NH Division of Historical Resources	<u>Nadine.Miller@dncr.nh.gov</u>
	Kevin Nyhan	NHDOT – Bureau of Environment	<u>Kevin.Nyhan@dot.nh.gov</u>
	Jennifer Reczek	NHDOT - Highway Design	<u>Jennifer.Reczek@dot.nh.gov</u>
<i>JS</i>	Jamie Sikora	Federal Highway Administration	<u>Jamie.Sikora@fhwa.dot.gov</u>
<i>DT</i>	David Trubey	NH Division of Historical Resources	<u>David.Trubey@dncr.nh.gov</u>
	Benjamin Wilson	NH Division of Historical Resources	<u>Benjamin.Wilson@dncr.nh.gov</u>

Please fill in all of the requested information.

January 9, 2020

Name	Agency	Phone #	Email Address
Allegre Benjamin, M	VHBS	617-602-2657	benjamin.m@vhs.com
Pete Walker	VHRS	603-391-3942	pwalker@vhs.com
Hannah Beato	VHB		hbeato@vhs.com
Richard Kristoff	USACE	978 318 8171	Richard.C.Kristoff@usace.army.mil
Bob Sullivan	NHDOT	603-271-2731	Robert.Sullivan@DOT.NH.gov
Lulu Pickering	Newington	603-436-8158	pickering@informagen.com
Chris Parker	Dover	603-516-6008	c.parker@dover.nh.gov
Jim Rouchard	QCC	603.224.0859	JRouchard@quantum.cc.com
Rick Weber, Jr.	QCC	" "	Rweber@quantum-cc.com
Anna Giraldi	QCC	-11-	agiraldi@quantum-cc.com
Kathy Henderson	QCC	ON	telephone