

New Hampshire Department of Transportation
BUREAU OF BRIDGE DESIGN
 Office Meeting Minutes - October 26, 2017

In Attendance (X):

<u>Administration</u>		<u>Consultant Section</u>			<u>In-House Design</u>			
X	Bob Landry	LRL	X	Joe Adams	JCA		David Scott	DLS
	Lynn Paquette	LP	X	Bob Juliano	RAJ	X	Bill Saffian	WPS
			X	Mike Licciardi	MGL	X	Jason Tremblay	JAT
			X	John Sargent	JAS	X	Tony Weatherbee	ANW
			X	Ron Kleiner	RLK	X	Sue Guptill	SMG
						X	Aaron Janssen	ACJ
						X	Pete Parenteau	PJP
			X	Nick Goulas	NBG	X	Angela Hubbard	ABH
				Ken Morrison	KLM	X	Chelsea Noyes	CKN
				John Poisson	JTP	X	Kevin Daigle	KFD
				Jerry Zoller	JSZ	X	Phil Brogan	PAB
						X	Mark Wagner	MGW

Trainees

Guests

Existing Br Section

Items:

1. NBG gave a summary of how the BOW 093/139 bridge failed. The bridge is a multi-plate squash pipe red listed in 2011. In 2015, NHDOT recommended that the bridge be closed and the town acted to close the bridge. The collapse occurred on Oct 18, 2017. NBG described how on a typical squash pipe, the water fills only the bottom portion of the pipe and the zone of steel section loss occurs around the water line which is in the bottom corners where the arch curves and attaches to the bottom culvert section. Even with section loss, the arched plates still provide adequate support to the surrounding soil over the bridge. In the case with this bridge, the pipe was acting as an equalizer pipe and ran nearly full. This pushed the zone of corrosion much higher than usual and once holes began to form, soil could fall through. Once this happened, the pipe became unbalanced in the soil loading causing the pipe itself to fail and flatten. Therefore, the level of flow within a squash pipe is important to note along with the level of deterioration. As a result of this, all MP structures with condition evaluation of 5 have been moved higher on R&R list.
2. ABH gave an update of the Bridge Design Manual as follows: The Deck section is under review as is the bearings section. The rest of Chap 7 is expected to be done by the end of 2017.
3. LRL noted a recent newspaper article that indicated in a survey that 38% of respondents didn't know the infrastructure was in poor condition and that we need to sell what we do. Bridge Design now required to update what we do to the front office quarterly under performance metrics and that we need to keep the bridge database updated.
4. LRL noted that the front office recognized the efforts of the Department to get projects advertised by the end of the FY. 40% of the year's program advertised in the last two months. The goal is to spread that out more uniformly over the entire year. Expect changes to the FOPIS document so that it more accurately reflects changes over the history of the projects such as changes in scope, changes in estimate etc. Being directed by Pete Stamnas.

5. LRL noted that Steve LaBonte is the new assistant administrator for the Bureau of ROW.
6. LRL: New Bureau of Highway Design: PM's; Roadway Section; Pavement Section; Safety Section; Special Section; Design Services and Specifications. For older projects, personnel currently assigned to project should remain with project through completion. For newer projects, expect to find different personnel assigned per new org chart. Survey Section is moving to Bureau of ROW. Records Section moving back under Highway Design.
7. LRL noted that a list of 27 items is being tabulated that will be used to rank bridges on the rehab and replace priority list (R&R List). Items to be determined by committee.

Round the Table:

JAT: Asked if a ROW cert is needed if no ROW impacts expected on project? Per BoROW, still need cert.

ABH: Inventory numbers needed for bridge mounted sign supports as well as sign structures and are issued through Highway Design. ABH will suggest a min girder depth below which analysis of the sign supports is required. LRL indicated that this will not be determined In-House but rather by a Consultant.

ABH discussed the deck reinforcing table for the new Bridge Design Manual which allows spacing up to 8". This conflicts with the bridge rail sheets that reflect hoop spacing of 6" based on how it was crash tested. LRL directed that the deck reinforcing be spaced at no greater than 6" regardless of whether design would allow for greater spacing.

LRL discussed the inservice deck haunch detail at girder/beam top flanges that extend beyond the edges of the flanges. He directed that in light of recent instances where pieces of haunch concrete have fallen from bridges and damaged vehicles below that precast panels be used over all roadways for all future projects. Partial depth deck panels have been in service for many years and there is no history of spalling occurring on projects that have use the PC/PS panels. By using them over roadways, we eliminate future hazards of falling concrete.

LRL indicated that we can expect to see ABC training prepared by consultants in the future.

Prepared by: WPS

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