



THE STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION

October 12, 2010



GEORGE N. CAMPBELL, JR.  
COMMISSIONER

JEFF BRILLHART, P.E.  
ASSISTANT COMMISSIONER

Russell Marcoux, Town Manager  
Town of Bedford  
24 North Amherst Road  
Bedford, NH 03110

RECEIVED

OCT 22 2010

RE: **CRITICAL BRIDGE DEFICIENCY**  
**Bedford Bridge #130/117**  
**Wallace Road over Riddle Brook**

TOWN MANAGER

Dear Mr. Marcoux:

During a recent municipal bridge inspection, the following critical bridge deficiency was noted:

The condition of this metal pipe structure has deteriorated rapidly since being added to the municipal red list in 2006. There are large areas of the culvert invert (floor) with extensive section losses and corrosion holes. Additionally, water is flowing underneath the deteriorated floor of the pipe and undermining the bedding material. There is no remaining safe live load carrying capacity for this structure.

The bridge is currently posted "E-2."

We recommend that this bridge be posted **'BRIDGE CLOSED'** and **barricaded at both ends**.

**A potential repair technique for this pipe could be "invert paving." Invert paving is a rehabilitation technique where reinforced concrete floor is installed over the deteriorated floor of a metal pipe and attached to the sound portions of the existing pipe. If this repair method is employed, it is advisable to replace the missing bedding material below the pipe and install cut-off walls to reduce susceptibility to undermining at the inlet and outlet ends.**

Due to this structural deficiency, this bridge is included on the Department's Municipal Red List of deficient bridge structures. It is in need of complete replacement or extensive rehabilitation to carry all legal loads.

We are enclosing a copy of the inspection report for your use. Please keep us informed of any actions taken by the Town so we can keep our records current. If you have any questions or comments, please contact us.

Enclosed are copies of biennial bridge inspection reports for seven municipally owned bridges in the Town of Bedford. Included are a suggested guardrail detail sheet, location map, bridge-listing sheet, and a sheet explaining the condition ratings used on the reports. Please note that Red List bridges are in bold type.

Sincerely,

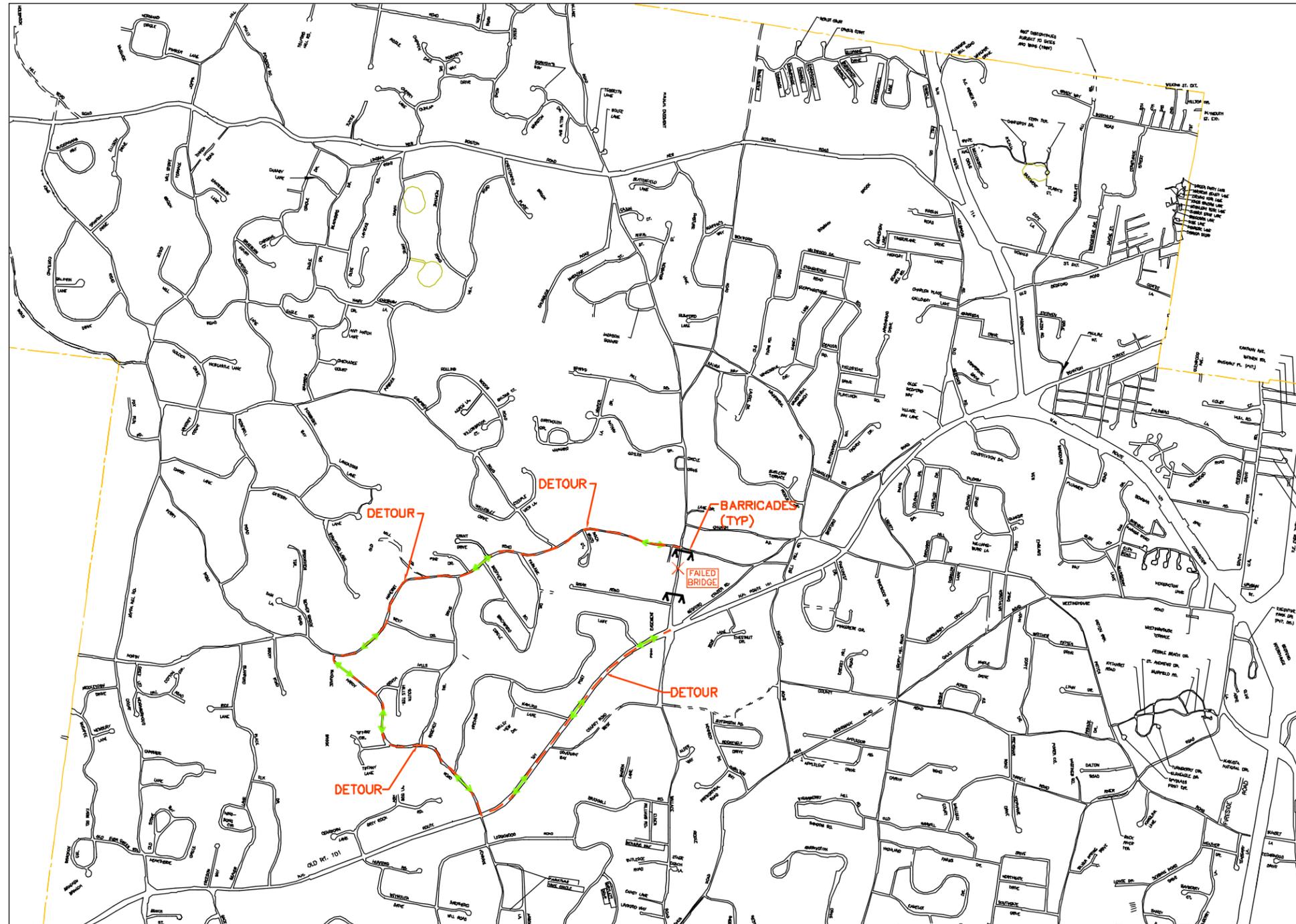
Nancy J. Mayville, P.E.  
Municipal Highways Engineer  
Bureau of Planning & Community Assistance  
Telephone: (603) 271-2107 / Fax: (603) 271-8093

NJM/sa

Enclosures

cc: District 5  
Bedford Public Works Director  
Commissioner, Department of Education  
Risk Management Representative, Local Government Center  
M:\1-Municipalities\Bedford\BridgeInspections\Critical 130-117 10-20-10.doc

# FAILED BRIDGE DETOUR PLAN



SCALE: 1" = 1500'±