

December 6, 2004

**STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DESIGN**

CONFERENCE REPORT

PROJECT: CONCORD
BRF-X-5099(021)
12004
Sewalls Falls Bridge

DATE OF CONFERENCE: November 16, 2004

LOCATION OF CONFERENCE: Beaver Meadow School, Concord

ATTENDED BY: DEPARTMENT OF TRANSPORTATION

Don Lyford	Bill Oldenburg
John Butler	Mark Hemmerlein

OTHERS

See attached Sign-Up sheet

SUBJECT: Public Informational Meeting

Don Lyford opened the meeting by explaining that the purpose of the project is to replace the bridge on Sewalls Falls Road over the Merrimack River. The project was initiated around 1994 and has been worked on intermittently by the Department and the City since then. This is the first public meeting. He noted that the bridge is owned by the City of Concord, therefore, the funding for the project will be 80% Federal funds, 20% City funds.

Bill Oldenburg described the need for the project and the alternatives that have been studied to date. The existing truss bridge was constructed in 1915 and the trestle extension on the south (west) side was constructed in 1937. The truss portion is 330 feet long and the trestle portion is 330 feet long, for a total bridge length of 660 feet. The bridge is on the Department's Red List, which means it is in poor structural condition, and is posted for a 14 ton maximum weight limit. The traveled way width on the truss bridge is narrow (approximately 18 feet) and is signed for alternating one-way traffic. There are no shoulders or sidewalks on the bridge or on Sewalls Falls Road, which is a safety concern for vehicles, bicyclists, and pedestrians. The grade on Sewalls Falls Road on the north (east) approach to the bridge is steep (8%) with abrupt vertical curvature in the profile. The posted speed limit is 30 mph. The current average daily traffic across the bridge is approximately 3000 vehicles, which is projected to increase to about 4500 vehicles by 2018. Crash records indicate there is about 1 accident per year at the bridge. A gas line and a City sewer line cross the river on the existing bridge.

Environmentally sensitive issues and properties in the project area include the following:

- The existing truss bridge is historic. It is eligible for listing on the National Register of Historic Places. Impacting the bridge can only be approved if there is no “prudent and feasible” alternative that doesn’t impact the bridge.
- The Fish & Game boat launch facility.
- The wooded property opposite the Fish & Game boat launch was purchased or enhanced with Land Conservation Investment Program (LCIP) funds, which carries strict protective covenants.
- The U.S. Fish & Wildlife Service is concerned with preserving the large pine trees on the upstream side of the bridge as potential bald eagle perch and roost trees.
- Brook Floater mussels, a protected State species, exist in the river near the bridge.

All four design alternatives share some common features. They all propose to construct a new bridge that will have two 12 foot wide lanes, 5 foot wide shoulders, and 5 foot wide sidewalks on both sides. The sidewalks would extend from the Fish & Game boat launch driveway to the Concord Monitor driveway. Approximately 2300 feet of Sewalls Falls Road would be reconstructed, beginning near the railroad crossing on the south (west) side of the river and extending across the bridge to the I-93 southbound overpass bridge. The proposed width of the roadway is the same as for the bridge, with sidewalk limits as noted above. The profile across the bridge and on the north (east) side of the bridge would be modified to meet current criteria for the proposed 40 mph design speed. This will flatten the steep grade approaching the bridge and result in a 9 to 15 foot raise in elevation at the north (east) bridge abutment.

The four alternatives (out of 8 originally) were described in detail:

Alternative #4

This alternative would construct a new bridge just upstream of the existing bridge. Traffic would be maintained on the existing bridge while the new bridge is constructed. The existing bridge could remain in place for non-vehicular use (pedestrians, bicyclists, snowmobiles). Property impacts would be primarily to the Concord Monitor (no impacts to parking areas) and the LCIP property. Difficult environmental issues with this alternative would be the LCIP property impact and impacts to potential bald eagle perch trees. Current estimated construction cost is \$6,000,000.

Alternative #5

This alternative would construct a new bridge just downstream of the existing bridge. As with Alternative #4, traffic would be maintained on the existing bridge during construction and the existing bridge could remain in place for non-vehicular use. Property impacts would be primarily to the Fish & Game facility and to the residential property opposite the Concord Monitor. The boat ramp turnaround would be impacted to some degree, requiring relocation of the ramp or construction of a flanking span on the bridge to span over the turnaround. In addition, the boat ramp would be temporarily out of service during construction to allow for construction access. Car-top boat access could be maintained. The difficult environmental issue with this alternative is the impacts to the Fish & Game facility. Current estimated construction cost is \$6,000,000.

Alternative #6

This alternative would construct a new bridge in essentially the same location as the existing bridge, but with a slight upstream shift. The proposed bridge would be constructed in 2 phases, allowing traffic to be maintained on the existing bridge during Phase 1 and on a portion of the new

bridge in Phase 2. The existing bridge would be removed. Temporary closure of the boat ramp during Phase 2 of construction may be required. This alternative would take the longest to construct and would be the most expensive due to the phased construction, but it would reduce impacts to the Concord Monitor and LCIP property as compared to Alternative #4. Difficult environmental issues with this alternative would be removal of the historic bridge, impacts to the LCIP property, and potential impacts to bald eagle trees. Current estimated construction cost is \$6,500,000.

Alternative #8

This alternative would construct a new bridge on the same alignment as the existing bridge. The bridge crossing would require closure during construction. Increased emergency response times for fire and ambulance services may be an issue. The existing bridge would be removed. Relocating the sewer and gas lines from the existing bridge to the new bridge would be difficult. It appears that no property acquisition would be required, but slope and drainage easements would be required on all four properties adjacent to the bridge. Difficult environmental issues with this alternative would be removal of the historic bridge, impacts to the LCIP property, and potential closure of the boat ramp during construction. Current estimated construction cost is \$5,800,000.

It was noted that Alternatives 4, 5, and 8 are all estimated to take two construction seasons (spring through fall) to construct. Alternative 6 is estimated to take three construction seasons because of the new bridge being built in two phases.

Computer-rendered photographs were presented for Alternatives 4 and 5, showing how the new bridge would look adjacent to the old bridge. The renderings showed the new bridge as a basic steel girder/concrete deck design, but it was noted that architectural enhancements would be possible if the City desires them. Photos of past projects with different types of architectural enhancements were shown. It was also noted that there has been some discussion about the new bridge being either a covered bridge or another truss bridge. The Department has constructed one covered bridge recently in Plymouth (with a much shorter span) and considered one in another location. Based on these examples, it is estimated that a covered bridge would cost roughly 2 to 3 times as much as a conventional bridge design.

Don Lyford concluded the presentation, stating that the project is currently programmed in the Department's 10 year plan to advertise in the spring of 2007, with construction in 2007 to 2008 (or 2009). If consensus on a preferred alternative is reached after tonight's meeting, a Public Hearing could be held as early as next summer.

Discussion:

1. It was asked why the existing bridge is considered historic. Jim Garvin, State Division of Historical Resources, stated that there are several reasons. It is one of only two remaining bridges in the State of this particular type of truss design and length. It's designer, John Storrs, served as mayor of Concord in the 30s and 40s. There are only a few bridges remaining in the State that were designed by Storrs, and this is the last one in Concord.
2. A wide range of opinions were voiced on the alternatives presented, as well as some other alternatives for consideration. The general sentiments are summarized below, with more specific comments following:

- Rehabilitate the existing bridge, keep one-way alternating traffic.
 - Rehabilitate the existing bridge, build a new one lane bridge next to it.
 - Build a new covered bridge, with or without removing the existing bridge.
 - Build a new truss bridge, with or without removing the existing bridge.
 - Build a new bridge upstream, unspecified type, retain the existing bridge.
 - Build a new bridge, unspecified type, remove the existing bridge.
3. Those who recommended rehabilitating the existing bridge generally lived in the area and didn't speak about the historic aspect, but felt that the bridge serves to reduce speed, volume, and amount of truck traffic on Sewalls Falls Road. They also wanted to preserve the rural, scenic nature of the existing bridge setting. Some were afraid that replacing the bridge would be the first step toward building a new interchange on I-93, which would lead to increased traffic volumes. Don Lyford noted that the traffic pattern implications of this potential interchange (Exit 16 ½) are being evaluated by the Bow-Concord project, a study of I-93 from I-89 to Exit 15.
 4. Many spoke in favor of building a new covered bridge. It was noted that a covered bridge would be aesthetically appropriate in this location, and would still serve as a traffic calming measure even if it's two lanes wide. Don Lyford reiterated that a covered bridge is expected to be much more expensive than a conventional bridge design. The amount of Federal money that is currently earmarked for this project would not be adequate to cover the additional cost. Likely the City would need to supply the difference in cost between a basic bridge and a covered bridge.
 5. Some people felt that preserving the scenic view of the river from the bridge was an important issue. It was noted that a covered bridge would not provide this.
 6. One person recommended consideration of a new prefabricated truss bridge, noting that it may be less expensive than a conventional steel and concrete design.
 7. Some people felt that the existing bridge is unattractive aesthetically, and removing it would be a benefit. They were concerned with future maintenance costs if the bridge is retained adjacent to a new bridge. Don Lyford noted that the City would retain ownership and maintenance responsibility of the old bridge.
 8. Some spoke in favor of saving the bridge as a historic resource, and building a new bridge upstream.
 9. It was suggested that the existing bridge be preserved by moving it to another location. One location that was noted was over the Contoocook River near Lehtinen Park, former location of a railroad bridge, providing a connection to an existing trail system.
 10. Several people noted that keeping speed down on Sewalls Falls Road was important. They felt that a 40 mph design speed is excessive.
 11. A representative from the Concord Monitor was happy to see that none of their parking lot was being impacted by any of the alternatives, and asked that impacts to their landscaping be minimized. He noted that there are rapids in the river just upstream of the bridge and didn't want to see them impacted by the construction.

12. Mrs. Pinkham, owner of the house opposite the Concord Monitor, stated that she doesn't want to see the downstream shift alternative constructed.
13. It was suggested that impacts could be reduced if the sidewalks were eliminated from the proposed bridge with Alternative 4 or 5, as the old bridge could be used by pedestrians. Another person suggested adding a sidewalk to the outside of the existing bridge if it is rehabilitated for vehicular use.
14. Kit Morgan, Concord Conservation Commission, recommended that land along the river be protected as mitigation if the LCIP property is impacted.

Don Lyford stated that the Department, in consultation with City officials, will review the input from the meeting and will further investigate the covered bridge and new truss bridge alternatives, as well as the feasibility of rehabilitating the existing bridge for vehicular use.

Submitted by:

John D. Butler, P.E.
Preliminary Design Supervisor

NOTED BY: D. Lyford, B. Oldenburg

cc:	J. Brillhart	Roger Hawk, City of Concord
	D. Lyford	Rob Faulkner, Clough, Harbour & Associates
	R. Barry	
	J. Kieronski	
	M. Hemmerlein	
	W. Oldenburg	
	J. Butler	

MEETING SIGN-UP SHEET

PROJECT CONCORD
 LOCATION Sewalls Falls bridge
 PROJECT NO. BRF-X-5099(021) 12004
 Federal State

Name	Agency	Comments
Judith Dargin	Resident East Concord - wrote in penacook -	to be determined
Scott McPherson Jerry Dwyer	Penacook East Concord	Covered Bridge
Ed Welch	356 Mt Rd E. Concord	A TIMBER COVERED BRIDGE IS THE BEST OPTION FOR TRAFFIC, ROW AND APPEARANCE
Nan Welch	356 Mountain Rd, E Concord	Involve the community build a covered bridge make it a historic area not a speedway!
Joe Nadeau	363 Mt Rd.	If we are going to not restore the existing bridge then we should remove it.
Bob Bos A	97 Manson Rd	What Impact with TRAFFIC? Already Traffic has increased dramatically.
Fred & Grace Pinckham	214 Sewalls Falls Rd	To be decided.
Bill & Jennifer Kretovic	8 Gallen Dr	New Bridge w/old Bridge preserved.
Lee LAJOIE	499 Mountain Rd Concord	IMPROVE SIGHT LINES ON APPROACH FROM MOUNTAIN RD!
Peter & Christy Bartlett	77 Sanborn Rd	Concern re the bldg of new homes on Hoyt Rd using Sanborn Rd as the shortest line to Thirty Pines

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Name	Agency	Comments
Jim Van Dongen Robert Brasche SYAVIA LARSEN	10 Farmwood Rd 119 Manor Rd NH SENATE - STATEHOUSE	Covered bridge Remove & Replace or go to 2nd street UPSTREAM BRIDGE w/ RESIDED PEDESTRIAN-O.
STEPHEN HEININGER Julie Smith Candace White Bouchard Jan McClure Karin Knowles Roy Schweiker	CITY OF CONCORD PANG. 9 FOX RUN NH State Representative Concord City Councilor 18 Alder Creek Concord resident	rehab existing for light trucks or build new one downstream
Phyllis Merrill Pam Sheldon	101 MANOR RD. 34 Swells Falls Rd.	Prefer to <u>not</u> be without any bridge during construction - for emergency vehicles and school busses.
Laura Deming	NH Audubon	The scenic qualities of this area are worth preserving as much as possible. ~ 2 bridges in the spot would be a dominating feature - it is possible - although expensive - to build an aesthetically pleasing structure. (covered bridge).
Sharon Silva	East Side Drive	Keep the esthetics and ambiance of the area - we don't need a bridge to accommodate YUMPH - either a covered bridge or preserve the existing.

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Name	Agency	Comments
STEPHEN TAYLOR	SEWALLS FALLS RD	NOT THE CONCRETE SPEEDWAY BUT REFURBISHMENT OR STEEL REPLACEMENT - I WOULD NOT WANT TO HAVE THE CROSSING SHUT DOWN FOR 2 YEARS
Douglas James	Sewalls Falls / Flume St.	Replace upstream - leave existing open during const. \$20,000 for PAINT? of old bridge?
Sim KIWITAN	LOCAL USER OF BRIDGE	NEED PLANS & FIGURES TO REFURBRISH, BEFORE ANY OTHER OPTION DECIDED
Roger Hawk	CITY OF CONCORD	
Tom BROWN	Concord Monitor Publisher	Consider option of one bridge in current location (keep one lane open at a time, if possible) Up river option the might impact important river habitat.
Doug Woodward	City of Concord	one new bridge - consider the Down Point bridge design with sidewalks for fishermen & bicyclists.
Roderick CYN	CONCORD RESIDENT	one new bridge on existing location - Relocate existing bridge to north end of Letchinw Park over the Concord River
Kit Morgan	Resident / Conservation comm.	Protect riparian land Relocate bridge to Concord? Design for lower vehicle speeds

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Name	Agency	Comments
Liz Blanchard Penacook	City Councilor + State Rep.	Build new bridge & Keep the old
Maexha Clapp	neighborhood resident	
Juli Curley	neighborhood resident	keep old bridge & build new bridge
Gary & JoAnn Fillion	Neighbors	Keep old bridge
Dale Pennock	"	improvement + Keep old bridge
Steve Shortkoff	State Rep	
Christine Wanta	resident on Sewalls Falls Rd	Build new preserve for recreation in the old bridge
Steve Wanta	resident Sewalls Falls	Preserve Old
Linda Schmidt	resident Sewalls Falls	Re-forbish old-
TOM DUFFY	RESIDENT	BUILD NEW BRIDGE -
Adam + Eileen Levine	Resident	build upstream bridge
Rose Mary + Ed Harger	residents	want safety, efficiency & low cost
Collette L Fairbank Vogt	RESIDENT	more info desired
Alex Vogt	Resident	re: impact of LCIFP /end
JERRY ZOLLER	Neighbor/resident on Sewalls Falls Rd	- Build new br. upstream off-line Old bridge is v. expensive to maintain and dangerous - should be removed
Phyllis Mackown	Resident	Initially, I favor upstream pla. save old for pedestrian use.

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Name	Agency	Comments
Michael Pepin	12 Yarrow Way.	I would like to build a new Bridge with keeping the old on the down stream side - either refurbish, build covered or close it altogether for good!
Peter Roth	238 Mountain Rd.	
Lynne Parker	283 Mountain Rd.	I favor refurbishing the current bridge + maintaining it with one lane crossing
Tom EVINS	4 FLUME ST (OFF SEWALLS FALLS RD)	PUT IN NEW TRUSS BRIDGE WITH THE MINIMUM WIDTH REQUIRED FOR 2 LANES AND LIMIT PROFILE GRADE RAISE

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