

The Bridger



The Vermont Covered Bridge Society Newsletter - Spring 2009

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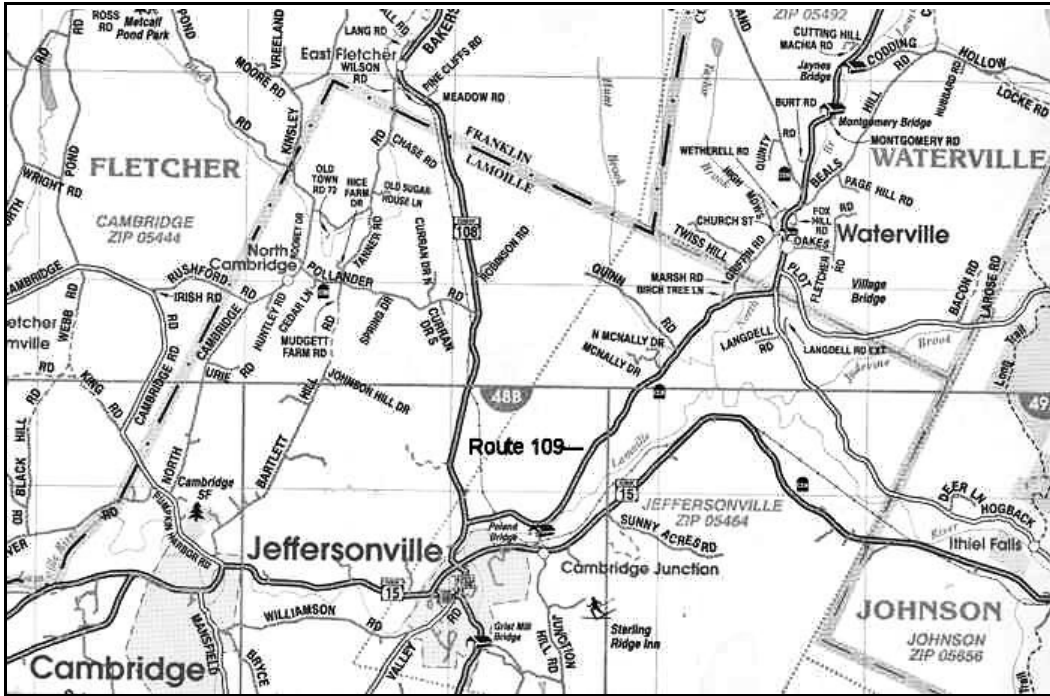


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Vermont Covered Bridge Society 9th Annual Spring Meeting
 Waterville Town Hall,
 VT Route 109, Waterville, Vermont
 April 25, 2009



Agenda

- 10:00 a.m. - Welcome
- Business Meeting
- Reading of minutes of last meeting
- Committee reports
- Old Business
- New Business - Archivist William Carroll will present his work with the VCBS collections.

Adjourn

11:15 a.m. - Presentation: The Bridges of Lamoille County, by Joe Nelson

12:00 p.m. - Break, Drawing for prizes, Memorabilia Table

1:00-3:00 p.m. - Tour Area Covered Bridges

There will be coffee, tea and snacks to be had during our meeting. **Bring your own lunch.**

Directions: (also, see map) The Town Hall stands on Rt 109 across from the Church Street intersection.

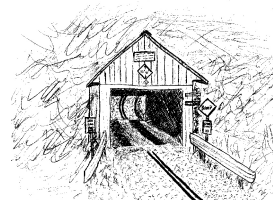
From Burlington: Take Vt. Route 15 east to Jeffersonville, turn left at flashing red light onto Vt. Route 108 north 1/8 mi. then turn right on Vt. Route 109 North to Waterville.

From I89: Leave I89 at Exit 12. Go North on Vt, Rt 2A to Essex Junction Five Corners. Take Vt. Route 15 east to Jeffersonville, turn left at flashing red light onto Vt. Route 108 north 1/8 mi. then turn right on Vt. Route 109 North to Waterville.

Parking: Roadside.

Lodging:

- Deer run Motor Inn, Route 15, Jeffersonville, Vt, 800-354-2728
- Sinclair Inn Bed & Breakfast, 389 VT Route 15, Jericho, Vt, 802-899-2234 <http://sinclairinnbb.com>
- Homeplace Bed & Breakfast, Old Pump Road, Jericho, Vt, 802-899-4694
- Smuggler's Notch Inn, 55 Church Rock Path, Cambridge, Vt, 802-644-6607
- Holiday Inn, 1068 Williston Road, S. Burlington, Vt, 800-799-6363 www.hiburlington.com
- Comfort Inn & Suites, 5 Dorset Street, S. Burlington, Vt, 802-863-5541 www.innvermont.com



**The VCBS Annual Board of Directors Meeting
February 23, 2009**

This year, the Board of Directors considered nine proposals:

- 1) The rules for Nominations and Voting are simplified.* Yes 13, No 0
- 2) To update the bylaws to reflect changes in the types of memberships offered and to remove the voting restriction from the Student Membership.** Yes 13, No 0
- 3) The requirement that the vote for officers must take place at the Annual Meeting is deleted. Yes 13, No 0
- 5) A cross-reference in the bylaws is corrected. Yes 13, No 0
- 6) To simplify the budgeting procedure by removing a redundant step.*** Yes 13, No 0
- 7) Should the terms of office for President, Vice President, Secretary, and Treasurer be increased from one year to two? **** Yes 13, No 0
- 8) The proposed budget is presented for adjustment and approval. Yes 13, No 0
- 9) Shall Ellen Everitz be inducted into the VCBS Board of Directors? Yes 13, No 0
- 10) Shall the donations received in 2008 be put into the Save-a-bridge Fund? Yes 13, No 0

Note: There are 14 directors on the board. Eight directors constitute a quorum.

*Item 1: The rules for Nominations and Voting are simplified.

The original nomination system required the Board to select a three person nominations committee each year. Due to the lack of volunteers, this effort has never been successful. The nomination process contacted the membership looking for candidates, mailed out ballots to the membership with write-in slots, received and counted ballots and announced the winners. A write-in using this method is lost.

The new Nomination and Voting process eliminates the need for a nominations committee, an expensive ballot mailing, and gives potential candidates an opportunity to make themselves known to the membership.

Each election year the society newsletter summer issue will elicit candidates for president, vice president, secretary, and treasurer. Candidates will submit bios to be published in the fall issue with the ballot. Voters will return the ballots provided in the fall issue of the society newsletter by the published deadline for the winter issue of the society newsletter, in which the winners will be announced. (The incumbent officers will serve until midnight, December 31.)

Every member in good standing is entitled to vote. This includes the adult members listed on a Family membership and the contact person on a Business or Organization/Municipality membership.

**Item 2: To update the bylaws to reflect changes in the types of memberships offered and to remove the voting restriction from the Student Membership. Three types of membership are recognized:

"Active" memberships, which are renewed each year, are renamed "Annual." These include Individual, Family, Student, Business and Organization/Municipality memberships

The Associate membership is discontinued. There have been no Associate members for a number of years. Life memberships are updated to include Life-couple and Honorary. Contributing Member (CM) memberships are recognized.

***Item 6: To simplify the budgeting procedure by removing a redundant step.

Under the current rules, the Budget Committee is charged with allocating Society funds among the several standing committees using data collected by the Treasurer from the chairs of those committees. The resulting proposed budget is then presented to the Board of Directors for approval.

Under the new rules the Budget Committee is deleted as redundant because the chairs of the standing committees are on the board of directors. The treasurer will present his budget proposal directly to the Board of Directors and let the board accept or adjust the allocated amounts.

****Item 7: Two year terms will begin with the 2010 election.

The revised Member's Handbook with VCBS By-laws will be sent to members on request. It will be available in print or PDF.

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Prez Sez

This is an important time of the year for bridge-watch. The snows of late winter/early spring are often the most stressful time for covered bridges - especially those without metal roofs to shed the heavy loads.

We are having our 2009 elections a little late this year - per Bridger ballot. The reason is that with all the exciting covered bridge events going on late last fall (2008), we simply forgot to conduct elections. This election will be for the 2009 term only. Please mark your Bridger ballots.

I look forward to seeing everyone at our VCBS Spring meeting in April.

John Weaver, President, VCBS

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VCBS 2008 Election of Officers for One-Year Terms

Please find and complete the ballot included in this issue of the bridger. Send your vote to: VCBS Election, c/o Joe Nelson, P.O. Box 267, Jericho, VT 05465, or email your choices to jcnelson@together.net. All ballots must be cast by April 1 to be counted.

The membership was not canvassed for candidates this year, so this ballot will serve that purpose. Members wishing to run for office are asked to write themselves in for the office of their choice and return their ballot with a bio. The election results will be presented at the Annual Spring Meeting to be held in Waterville, Vt., April 25. Write-ins will be considered at that time.

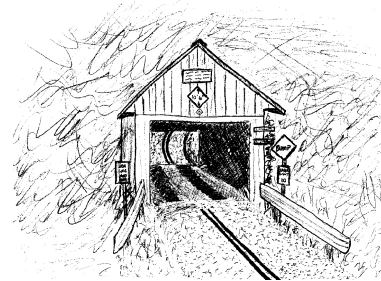
If you wish to add your name to the Society Birthday and Anniversary announcement list please fill in the bottom of the ballot. If you have entered dates before, you need not do so again. If you have a new email address you may enter it here. Signing up for the PDF version of the quarterly Bridger newsletter will save the Society mailing costs and you will receive your newsletter in full color in a timely manner (the website version is always posted at the end of the quarter. Dial-up customers might not be happy with the transfer rate of the PDF data set).

VCBS Officers

- John Weaver, President
- Joseph Nelson, Vice President
- Irene Barna, Secretary
- Neil Daniels, Treasurer

Bridger Newsletter Staff

- Ray Hitchcock, Editor
 - Joseph Nelson, Staff Writer
- 802.899.2093 jcnelson@together.net



Please return this ballot by April 1, 2009			
Individual memberships use column A, Family or Couple memberships (2 adults) use columns A & B, one check for each office per column			
Office	Candidate	A	B
President	John Weaver		
Write-in			
Vice President	Joseph Nelson		
Write-in			
Treasurer	Neil Daniels		
Write-in			
Secretary	Irene Barna		
Write-in			
Name _____ Birthday _____			
Name _____ Birthday _____			
Anniversary: _____ Email Address _____			
Would you like to receive The Bridger as a PDF file through Email? _____			



THE COVERED BRIDGES OF ORLEANS AND ESSEX COUNTIES, VERMONT*

by C. Ernest Walker

The LaMoille River formerly had its origin in the southern outlet of a small pond in a high saddle between two hills in the eastern part of Orleans County. The grist mill at Glover on the north side of the saddle lacked water and it was suggested that a small ditch from the high pond would provide the additional water supply needed.

Unfortunately the ditch broke a thin seal of hard-pan which overlaid a deep bed of quicksand. The pressure of water quickly undermined the whole north end as the entire pond surged down the valley, destroying the mill. As it joined the Barton River, it continued, and emptied into Lake Memphremagog that same night. A granite tablet by the side of a large grassy depression marks the site of "Runaway Pond". (June 6, 1810.)

Three of the covered bridges of this County have been lost so recently that they are included in this article.

The "Orne" Bridge over Lord's Creek was taken apart in nineteen hundred and fifty-eight and its timbers removed to the LaBland Farm, with the intention of being used in building a private bridge over the Black River. The original bridge, built by John D. Colton in 1881, was very attractive with an arched portal, and having winged curves to the eaves. It was a short bridge, not long enough for its new location.

The Coventry Bridge in Irasburg over the Black River is unique in the feature that all members of the frame are gained in one inch at all intersections making a frame which is flush at all points. It has long light plank auxiliary diagonal braces which run by the uprights at top and bottom - a common practice in Northern New England. Built in 1881 by John D. Colton with a roadway of sixty-six feet, it is without arch or middle pier and has an extended arched and winged portal.

The small "Morgan Bridge" over Sucker Brook - the highest above sea-level in Vermont, (fourteen hundred and fifty feet) was removed in nineteen hundred and fifty-eight. It was of queen-post construction and was built in eighteen hundred and eighty-nine by Lorenzo and Osborne Farr.

The Westfield bridge, known as the "Taft Brook Bridge", is over a tributary of the Missisquoi River. Lying over a very deep ravine, its lattice frame is buttressed and it appears well cared for.

Further north in North Troy two bridges spanned the Missisquoi River. The "Lower" Bridge led to a privately

owned farm. Its latticed and side buttressed frame appeared solid, but there must have been a weak spot in either the bridge or the abutment, for about Christmas time in nineteen hundred and fifty-seven the longer span of ninety-one feet fell in the river and floated around a bend before it lodged and collapsed. It was not far from the spectacular picnic ground at Great Falls, on the River Road.

The "Upper" Bridge over the Missisquoi is of one long span of ninety-three feet. The bridge has a pronounced crown or camber, has red portals and three side buttresses on each side. Both the Troy bridges were originally clapboarded one-half way up, and were built of Town lattice construction.

So now there are only three covered bridges standing in Orleans County, Vermont.

Probably there never were very many covered bridges in Essex County, and only two now are standing; the responsibility of the upkeep in each case being assumed by New Hampshire, beyond Vermont's mean water-line, on the Connecticut River.

I have been told that the cover of the Private Crate Farm Bridge in Canaan has been removed. It was a low king-post bridge, only thirty feet long over Leach Creek. Andrew Holmes had the bridge built on a pasture lane of his farm in nineteen hundred and twenty-seven and still used it for cattle in nineteen hundred and fifty-four.

There are two Connecticut River Bridges still standing between Lemington, Vermont and "Columbia Bridge", New Hampshire; and between Lunenburg, Vermont and Lancaster, New Hampshire.

The former is one hundred and forty-eight feet long of one span, built an nineteen hundred and twelve by Charles Babbitt to take the place of the one burned in nineteen hundred and eleven. It has a strong Howe truss frame, creosoted, and has its own electric light meter. The bridge is picturesque, very well kept up and very important to its locality.

The Lunenburg or "Mt. Orne" bridge has two spans; two hundred and eight-five feet over all, and was built by the Babbitt Brothers, in nineteen hundred and eleven. The same Howe truss type of frame was used. The Guildhall, Vermont to Lancaster, New Hampshire bridge over the Connecticut River was removed about nineteen hundred and fifty.

*[This article was taken with permission from the January, 1960 issue of Covered Bridge Topics. Since this writing, the Lower, or River Road Bridge was arsoned (1997). A replica stands in its place today. The Westfield Bridge was replaced with a culvert in 1961. If you would like to read more of C. Ernest Walkers work, go to the VCBS Members Library and sign out his *Covered Bridge Ramblings in New England*. See the Library column in this issue - Ed.]

Letters

February 1, 2009 - Dear Mr. Nelson: This is to acknowledge receipt of your Society's check in the amount of \$700, representing the balance of Katherine Ramsey's bequest. It has been deposited with our Town Clerk in the Lyndon Heritage Fund account and earmarked toward the rehabilitation of the Randall Covered Bridge here in Lyndon. Please relay our thanks to President Weaver, Treasurer Daniels, and the membership of the Vermont Covered Bridge Society for their "due diligence" in carrying out Mrs. Ramsey's wishes.

I can't report any exciting news with regard to the project. As I advised some time back, Dubois and King are working on the rehab design specifications and RFP's to be provided to prospective contractors in accordance with the (fully-funded) \$32,000 contract. Lyndon municipal administrator Dan Hill is our liaison with the engineering consultants and has been very supportive of the project. I doubt that we will see the results until late spring or summer. We still have to solicit some sizable preservation grants to help finance the actual construction work. While I understood that such funding was "readily available," we wonder whether the state of the economy will alter that picture. Perhaps there is a covered bridge bailout fund...? ;o)

At any rate, we will keep you posted whenever there are developments worthy of reporting.

Once again Thank you - A. Richard Boera for the Lyndon Historical Society

December 29, 2008 - Haunted Bridges

Hi Joe: Apropos of haunted covered bridges, there is an article in the bridge files about an experience someone had at the Hammond Bridge in Pittsford, which led them to believe it might be haunted.

When I stopped there last summer or early fall, it didn't feel haunted to me. But that was daylight hours, and with other people around - Bill Carroll

[VCBS Life Member Bill Carroll is an archivist working with the Society's historical collections - Ed.]

The following was taken from the article sent by Bill Carroll. It came from the October/November issue of *Country Magazine*: - While vacationing in Vermont, a couple from Connecticut visited the Hammond Covered Bridge in Pittsford. The wife stayed in the car while the husband walked through the bridge. Suddenly, the car door locks clicked shut, then open, then shut and open again.

Her first thought was that the husband was pressing the keyless remote, but the keys and remote were hanging from the ignition switch. Just then, the husband returned to

the car. "I heard such strange noises on that bridge, like people talking and working, but I walked all the way to the end of the bridge, and no one was there."

December 13, 2008 - Haunted Bridges

Joe: We just got our copy of *The Bridger* this morning. I read with interest your article on the haunted bridges. One of our ex members took the attached pictures at the Bob White Covered Bridge in Woolwine, Virginia. I had the pictures analyzed by a photo expert and he said he thought it was sprocket marks.

The member, Don Overman thought they were ghost pictures. When Mom and I were talking to the people of Stuart, Virginia, I showed them these pictures as kind of a joke. They became very serious and said it was a HALO. They said they had seen this several times when people were baptized in the creek next to the church.

Thanks Much; Steve Pierce, Covered Bridge Society of Virginia, Inc.



The Halos at the Bob White Bridge VA-68-01
Photo by Don Overman

December 11, 2008 - Hi Joe, I received the Vermont newsletter and enjoyed it very much. A good job was done on it!

The articles about the "Authenticity" of covered bridges is a very interesting one. Most bridgers use this term to describe a covered bridge that is fully truss supported (not supported by stringer beams, etc.). Therefore a covered bridge can be "authentic" regardless of it's age.

(Letters Dec 11, 2008 continued on page 7)

(Letters December 11, 2008 continued from page 6)

I fully support the rebuilding of the Moscow Covered Bridge in Indiana. It is a classic old covered bridge that must be saved. With Jim Barker in charge of the project, the chances of it being properly restored is very good. This was my overall favorite covered bridge. I should note (with no intentions of nit-picking) that the dues for the Oregon Society are \$15.00 for B&W issues, not \$25.00. (page 4). Also George and Tina Conn's anniversary is listed on two different days (page 11). [Oops! We mistook! Tina and George Conn celebrated their wedding anniversary on February 14, not February 24, and Tina Conn's birthday was on December 24. Richard Howrigan's birthday was on February 14, not February 2 - Ed.]

The winter has arrived here much too early this year and I have been extra busy getting firewood out of the woods when it isn't too damp. This coming week will be very wet, though. I much prefer to gather and cut wood when it is below freezing. My furnace runs on propane and it is too expensive to turn it on! -

Take care, Brian McKee

[Brian, residing in Ohio, is Editor of the NSPCB newsletter, and author of *Historic American Covered Bridges*, 1997, ASCE Press -Ed.]

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August 1, 2008 - by William Carroll

Kidder Hill Bridge. On past visits to this bridge I have noticed that Town of Grafton trucks use it, apparently to access a gravel pit up the hill. These trucks are pretty large, and heavy when filled. Now there has been a ford cleared and graded adjacent to the bridge, and I assume that the trucks are using this rather than the bridge. As usual with this bridge there is considerable gravel on the deck, a result of rain water sheeting down the road. There should be a concrete or blacktop apron for a few feet at the portals with a transverse drainage channel, like the covered bridges on gravel roads in Quebec.

Victorian Village Bridge. The owners have done an excellent job of clearing undergrowth and brush in and near the stream channel.

Grafton Cheese Bridge. According to a plaque on the bridge recently installed by the Windham Foundation, the name of this bridge is the McWilliam Bridge, named after an early farming family in the area.

Worrall Bridge. No rehabilitation work has been done on this bridge at this time. There are recent numbers chalked on the truss members.

December 16, 2008 - by Ron Bechard

Cambridge Junction or Poland Bridge. Winter barriers to exclude vehicular traffic are in place by the town road crew.

Prior to placing the winter barriers, I noticed damage to the approach-curb-rails has recurred, this time on both ends of the bridge, but not as severe as the last time.



Cambridge Junction Bridge, Broken Curb-rail. Photo by Joe Nelson

That damage was repaired and restored to its original state, but I expect repeated incidents will cause the structure damage that might be quite costly as well as presenting hazards to structure and any traffic passing through.

The same conditions and possible causes of these problems still exist as I explained in my reports dated 6/28/07 and 6/17/08. The bridge is in otherwise, great condition.

January 13, 2009 - by Ray Hitchcock

Field Report - I stopped in city hall and visited with Everett Hammond, Public Works Director for the town of Rockingham.

We visited on the Rockingham covered bridges in general and my two assigned ones Bartonsville and Worrall specifically. We discussed signage as suggested by Joe. He was agreeable to modifying the existing signs

(Bridge Watch January 13, 2009 continued on page 8)

(Bridge Watch January 13, 2009 from page 7)

posted at State Hwy's 103 & 11 which mention only the load limits. He intends to add height restrictions as well next summer. Load limits and height restrictions are posted only at the bridge. The Worrall bridge only has a historic sign on 103 with no reference to load limit or height restrictions at this intersection. The arch bridge over the railroad tracks on the way to the bridge looks worse – if that is possible. I suck air each time I go over this old metal structure with pocketed concrete deck.

He indicated that Rockingham is proud of its covered bridges and intended to keep them for a long time. He also reviewed with me the biannual maintenance that the town provides to its bridges. This includes, vacuuming and then cleaning the bridge with compressed air. They no longer wash the bridges with pressure washers.

He did express an interest again in having volunteers do light maintenance such as weed whacking or mowing. He thought that the insurance concerns could be managed in a variety of ways including temporary hiring of "volunteers" by the town or the Society getting its own insurance. I intend to follow up more on the insurance issue when I have a specific project in mind.

He does appreciate the other set of eyes and really likes digital picture of specific concerns. Even would like them marked up with a close up shot.



Worrall Bridge VT-13-10, Photo by Ray Hitchcock January 2009

It turns out a truck driver admitted damaging the Worrall bridge. He apparently had the bed tilted up somewhat.

Although the damage on the adjacent Bartonsville bridge looks extremely similar it did not occur in the same time period. They have repair orders in on both bridges but crews have been extremely busy with our wild winter weather. Seen on the following photo is Frank Anderson of the Rockingham Highway maintenance working on the replacement timbers from a local sawmill. He replaced the broken hemlock roof support beams with hemlock.



Frank Anderson Rockingham Highway Maintenance
Photo by Raymond Hitchcock February 2009

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VCBS Library News

Don't forget, we have books, a lot of them, seventy-plus volumes on covered bridges, authored by Richard Sanders Allen, H.W. Congdon, Eric Sloan, E.W. Walker, H.R. Howard, and many others. All of these books were donated to the Vermont Covered Bridge Society and are available for sharing with members in good standing.

To borrow an item or request a book listing, please call or write Warren Trip, P.O. Box 236, Groton, VT, phone (802) 584-3545 (no email, for a listing in PDF, email Joe Nelson at jcnelson@together.net).

If you have some books about covered bridges you would like to donate to the library, please contact Warren, he'll be happy to take them.

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Events

The Events Committee will be making arrangements for the Fall 2009 meeting in Windsor at the old toll house and property in the shadow of the Cornish Windsor Bridge. The meeting, hosted by Neil and Suzanne Daniels, will take place in late September or early October, the date will be announced in the VCBS website, www.vermontbridges.com, and in the Fall Bridger (August 31). The Spring 2010 meeting will be held in Jeffersonville at Terry and Jane's Art Gallery, the date not yet set.

Covered Bridge Fiction or Fact

Question number 10 - *When Delaware County, New York decided to refurbish the 173 foot span bridge in Downsville, they designed a single span beam. Unadilla Laminated Products took that as a challenge and proceeded to manufacture and deliver the longest engineered glue laminated beam. Covered bridge builders and restorers are familiar with the glulam timber option. Often glulam is acceptable because the installation is dubbed reversible. Glulam is also a more acceptable option over steel beams because, among other things, its expansion and contraction characteristics are compatible with that of a wooden bridge. Civil engineers may favor this choice when they restore a bridge to increase its capacity. On the other hand, preservationists reject the option because the option is not traditional.* - Trish & Bob Kane

In your opinion, do you feel glulam beams are an acceptable option in restoring or rehabilitating our covered bridges today? Is it an acceptable option over steel beams?

Joseph Conwill, ME

I do not think that glulam is ever acceptable in covered bridge restoration.

Robert Durfee, NH

There is no clear yes or no answer to this question. It is a matter of application and under what circumstances. I will answer this question in two parts: restoration or rehabilitation. **Restoration:** Restoration of a covered bridge is to bring the bridge back to its former state, to repair it in kind, to return it to its' original condition. I do not feel glulam beams are an acceptable option when restoring a covered bridge. Glulam members are not historically accurate (traditional) for a restoration. In almost all incidences of restoration I know of, a broken, rotted or insect damaged member can be repaired or replaced with sawn timber of the same species. If a higher strength member is needed, the member can be repaired or replaced with sawn timber of a stronger species (usually Southern Yellow Pine or Douglas Fir).

Rehabilitation: Rehabilitation of a covered bridge is to re-adapt it for a different use, add to it in some fashion, or to improve its current condition. Rehabilitation many times includes adapting the bridge for use by pedestrians only, strengthening the bridge to carry heavier truck loads, adding fire protection and fire prevention systems, or adding other features such as lighting and windows. I feel glulam beams are an acceptable option when rehabilitating a covered bridge, if sawn timber addition or replacement cannot satisfy the structural requirements. Glulam if used, should be installed

in compliance with the "Secretary of the Interior- Standards for Rehabilitation" in that any beams added are revisable, and can be removed in the future under a restoration. There are several covered bridges in New England where full length glulam beams are added under the trusses, to support heavier truck loads, while the trusses remain and support lighter truck loads and cars.

Is it an acceptable option over steel beams? I would say yes to this question. If a steel beam is being considered for rehabilitating and strengthening a bridge, using glulam beams would be preferable over a steel beam. Glulam beams are preferred over steel beams because its' expansion, contraction and deflection (stiffness) characteristics are compatible with that of a wooden bridge. For the same length of beam needed, glulam beams are deeper than steel beams. It is not always possible to "fit" a deeper glulam beam under a bridge, and sometimes the only option is to install a smaller steel beam that fits.

Eric Gilbertson

It would certainly be better not to use glulam. It does have the advantages of more strength and longer lengths (and thus fewer connections which are often weak points).

Vermont has taken the position that it is best to keep covered bridges on the transportation system if possible. This often means higher loads and traffic as well as provable engineering. I agree with that premise.

Keeping them in use provides funding and maintenance opportunities that don't exist for unused bridges. Besides covered bridges are practical crossings that can most often be rehabilitated to meet needs and still meet the /Secretary of Interior's Standards for Historic Preservation Projects.

Therefore the use of glulam makes sense under some limited conditions. If, for example, additional strength is needed in the bottom chord of a bridge to meet reasonable weight limits, glulam can often be used in a way that holds the dimensions of all the timber framing. If larger timbers were used it changes the cuts and angles for timbers fit to the chord. This is what makes it reversible.

The Windsor Cornish Bridge is a good example of this use. New Hampshire passed a law that required this bridge to meet H20 (semi-truck) loading. The only way that could be achieved was through the use of bolster beams and 160 ft. long glulam bottom chords.

Another more radical use was in the small very lightly framed covered bridge in Grafton VT. In that case two large glulam beams were placed in the bridge to provide support. Otherwise the entire bridge would have had to be rebuilt with larger timbers etc. It is reversible and the original

(C.B. Fiction or Fact continued from page 9)

bridge is in place. I will say that it's not pretty. It is important to remember that each covered bridge is an individual with its own strengths, weaknesses and needs. There is no single answer that we should never use glulam that we should use it wherever we can.

Jan Lewandoski

I believe preservationists object to the use of glulams and other non-traditional materials only when the historic structure is functioning well without them. In the case of wooden truss bridges, timber and timber connections (particularly tension connections) are often stressed to and beyond their limits, but we don't wish to either subdivide the bridge or alter its use. The question then becomes: what is the least intrusive intervention? Sometimes it is glulam.

Glulam has the virtue of being made of wood (and glue) and coming in long pieces, thus eliminating the section loss at tension joinery. Glulams have generally higher design values, making them appealing to engineers who cannot get "the numbers to work" for a given timber structure, but paradoxically it doesn't mean glulams are any stronger than a piece of timber of similar species and quality. The higher design values come from the assumption that all glulams are at the high end of any distribution of strength properties for a given dimension and species. It is thought that the process of factory selecting which lamina to use and where to locate them in a glulam beam produce a beam remarkably free of defects, but some glulams are better than others and I have had to reject several.

Overall, I could probably restore almost any bridge to its original camber without the use of glulams. In a bridge such as Cornish-Windsor however, it probably would have required increasing the dimensions of the natural timber chords substantially. In other cases the tension joinery needs improvement. Engineers should not specify glulams merely to make their calculations work. They should spend adequate time at the bridge to determine whether the member or category of members they are tempted to replace is actually distorting or failing in any way. If not, keep the member or replace

it in kind or with a stronger species, or with a slight increase in cross section, et. al.

Sometimes glulam, steel or aluminum members are specified under the assumption that you can't get natural timber of certain long lengths. There are actually large trees standing in the woods, you just have to find them and arrange to get them. In the year 2000 I replaced two bottom chords on the Warren, VT. Village Bridge with 12" x 12" x 60 ft. spruce, acquired in northern Vermont and not even old growth. In many regions of the east, south and Midwest there are immense oak and yellow poplar waiting to be put into bridges that were originally built of these species. These large

and long sticks can't reasonably be dried but can be graded at some cost. Glulams, as well as SYP and Douglas Fir and other timbers not indigenous to the bridges of the Northeast all have aggressive marketing agencies that solve these problems for the engineer. But why be a victim of advertising and consumerism; in 99% of the cases bridges can be restored using the local species in which they were built.

John Weaver, VT

Regarding historic covered bridge structures: I think that there are no hard and fast rules for glulam member use. I have always recommended its use rather sparingly and then only when its incorporation in the structure would allow the retention of other historic covered bridge members which would have to be replaced otherwise due to condition and bridge loading. Also, I think visibility of the new glulam should be kept to a minimum. Further, the glulam members so incorporated could be removed and replaced in the future, should better rehabilitation alternatives be developed.

Two specific cases I recommended for glulam use were replacing the lower bottom chords of plank lattice trusses, the Brattleboro Creamery CB, and providing a co-functioning structural beam load carrying system for a covered bridge superstructure, the Randolph Gifford CB. In the case of the Brattleboro CB, the use of continuous glulam lower bottom chords

allowed retaining much more of the original fabric of the lattice trusses. This bridge is heavily used by vehicle traffic. In the case of the Gifford CB, glulam side beams were recommended because the existing trusses are in such poor condition that they cannot carry but a small portion of the total bridge live and dead loads. Gifford CB presently has steel side beams, but these members are not structurally compatible with the timber trusses. The only other location where I recommended glulam side beam carrying members was for the Williamsville CB in Newfane. However their use at this location was anticipated to be temporary, pending another permanent alternative.

The Vermont Covered Bridge Society reserves the right to edit all submissions to the *Bridger*. Those that are deemed derogatory in nature will not be printed. The views expressed on these pages are not necessarily those of the Vermont Covered Bridge Society.

Historical Committee Report

Vermont Covered Bridge Society Archives by William Carroll, Archivist

To date, most of the materials from the six New England states has been processed, and finding aids written.

The collections include several of postcards and photographs, and for each state a 'bridge files' collection, which includes clippings, personal notes, and miscellaneous other documents.

Archival processing includes sorting the materials into specific collections, arranging them by county and then by bridge, using the World Guide numbers, and writing an inventory list which identifies and describes each item.

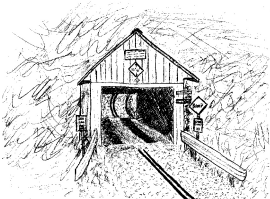
Each item is preserved by housing it in archival quality enclosures, either non-acidic file folders for clippings and papers, or in chemically inert print protectors for photographs and postcards. So far 15 collections have been fully processed, and two more are being processed. Some will be available for viewing at the Spring meeting.

Some of the more interesting items turned up so far include a pre-1907 postcard, many photographs and postcards of bridges no longer in existence, a manuscript description and history of the Cornish-Windsor Bridge, written in the 1930s, and many more items.

A request to anyone who might be saving clippings or taking photographs to send along, please

identify the newspaper or magazine and the date of publication, and please identify any photographs and write the month/year the picture was taken. And if you write on the backs of photos or clippings, always, always, ALWAYS use pencil.

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Membership

Membership Chairman, Sue Richardson

Going through the membership list of VCBS, there are several members who live in close proximity to Waterville, Vermont where our spring meeting on April 25, 2009 will be held. I have contacted these VCBS members and suggested that they invite their friends and neighbors to attend.

An invitation has also been extended to the members of the historical societies in the area as well as to members of the select boards of the towns of Waterville, Hyde Park, Morristown, Cambridge, Belvedere, Johnson, and Bakersfield.

The history and construction of the covered bridges of Vermont are objects of interest and historical pride to the communities located on the Lamoille River, therefore I feel that we should extend an invitation to all who wish to attend the presentation by Joe Nelson, VCBS vice president and author of "Spanning Time, the Covered Bridges of Vermont".

And now, our Early Renewal Contest. Many thanks to each of you who mailed your membership dues on time. As in years past, the drawing was done by Ruth Nelson's first grade reading group at the Jericho Elementary school. (The little rascals have fun doing it.) The winners are: **Robert Moore**, a copy of *Spanning Time, Vermont's Covered Bridges*, by Joseph C. Nelson; **Laurie Tolmasoff**, a copy of *New England's Covered Bridges*, by Ben and June Evans; and **Sean James**, two years free membership to the VCBS. Congratulations all, and thank you for your membership.

Upcoming Birthdays and Anniversaries

March

- 2 John Billie
- 3 Gordon O'Reilly
- 4 Sarah Ann Gallagher
- 8 Neil Daniels
- 16 Bruce Laumeister
- 12 Priscilla Farnham
- 21 Thomas & Lisette Keating
- 23 Steve Miyamoto

April

- 13 Gary Krick
- 22 Anthony Daniels

(Membership continued on page 12)

(Membership continued from page 11)

May

3 William Carroll
 3 Tom Davis
 3 Thomas Keating
 4 Sarah Ann Gallagher
 9 Erwin Eckson
 10 Charles Lovastik
 11 Hank & Sally Messing
 11 Steve Wheaton
 12 James Crouse
 15 Andy Behrens
 17 Ron Bechard
 19 Mary Ann Waller
 22 Irene Barna
 22 Lisette Keating
 27 June Gendron
 28 Bill McKone

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Reflections on Covered Bridges

By Ellen Everitz

Covered Bridge Adventures

I spent many Saturday afternoons driving around photographing the covered bridges in Vermont. Two incidents stand out in my mind.

One day I drove from Burlington to Rutland County to photograph the bridges. I ended my trip at Kingsley Bridge in East Clarendon. After driving through the bridge, which was on a narrow dirt road, I looked for a side road leading to Route 7. The only ones were narrow and probably were private farm roads. Not wanting to back into or out of a narrow driveway or road, I continued on and ended up in Wallingford.

Another time I got the surprise of my life when I met master bridge builder Milton Graton at a construction site. He was very pleasant and took time to visit with me. We talked about the middle bridge in Woodstock, which he built. What a thrill!

Vermont's Covered Bridges

Vermont's covered bridges are beautiful pieces of architecture. Vermont is fortunate in having so many of these lovely structures still standing to be enjoyed for many years to come.

The beauty is in the design, as well as in the location in most cases. The various styles are what makes them so attractive.

Fortunately, there are people who recognize the need to preserve these historic structures and see to it that they are properly cared for. With the cooperation of the various towns, government agencies, historic preservation and the Vermont covered bridge society, this is being accomplished here in Vermont.

Memories

After I joined NSPCB in the 1950's or '60's, I was paid a visit by Elmer and Phyllis Jackson when they were in the area. This was a most delightful visit. I also started corresponding with Althea Boxell, with whom I exchanged postcards. She also sent me photos she had taken in Vermont. This continued until her death.

Barbara Brainerd and her husband and I belonged to the Green Mountain Folklore Society, of which I'm a long-time member. We met at a meeting and got into a conversation, which resulted in my being invited to visit them at their home. It was quite a memorable experience.

As you already know, I sometimes get caught up in a thought and pass it on. Such is the case with my reflections on covered bridges. I was thinking about how fortunate we are to have such attractive bridges, except for a few. Some of the covered bridges in some other states have no style at all. Those with flat roofs are not attractive. I think about the roofs caving in after a heavy snowstorm like those sweeping the country this winter.

[Ellen is our new Publicity Committee chair. Our congratulations go to her for her article about the VCBS and covered bridges appearing on pages 5 and 6 in the March/April edition of *Vermont Magazine* - Ed.]

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Willard Covered Bridge BR-22 gets tuned up

Hartland, VT, March 6, 2009 - Willard CB in Hartland will receive a new roof, fire retardant, insecticide, stone wall re-pointing, and new railings, starting in early May 09. Wright Construction is the prime contractor. Construction cost is approx. \$142,000.

[Our thanks to John Weaver for this information -ED Jr]

Williamsville Bridge for sale

Williamsville, VT, March 2009 - Various news media are reporting that this tired old bridge will be replaced with a more modern structure which will handle the heavy modern traffic. The bridge was built around 1870 over the Rock River in Williamsville. Interested parties need to meet state requirements and should be prepared to spend a sizeable wad of money on the dismantling and transportation of this old friend. It will be replaced with a replica.

(C.B Community News Notes continued on page 13)

(C.B. Community News Notes continued from page 12)

Repairs to Bumps Intervale Covered Bridge

WGN 29-05-08

Campton NH, February 10, 2009 - The Town of Campton on the recommendation of the New Hampshire Department of Transportation (NHDOT) recently closed the Bumps Intervale Bridge in July due to severe deterioration of the substructure (piers and abutments). The Town selected the design/build team of DuBois & King, Inc. (D&K) Consulting Engineers, Nashua, NH and 3G Construction Inc., Holderness, NH to complete emergency repairs this past fall and reopen the bridge.

"This is a unique type of covered bridge for New England" says D&K project manager Robert H. Durfee, PE. "The main span consists of a queen post type truss but the piers are constructed of timber and are located in the middle of the river. Timber approach spans (uncovered) are supported by the timber piers and by the stone abutments."

"The approach spans were removed and the covered bridge span was jacked up in order to make repairs" says 3G President Stan Graton. "The timber piers were completely decayed and needed total replacement. The east abutment stone work was reconstructed where a failure of the abutment wall occurred."

The first bridge at this site was built in 1877. The bridge collapsed into the river in 1971 due to decay. Milton Graton advised the Town at the time that the old bridge could not be repaired and proposed a new covered bridge at this site.

"I have a special connection to this bridge", says Stan Graton. "Milton Graton, my grandfather, built the new bridge in 1972. Me and my cousin (Arnold Graton) helped move the bridge onto the piers. I was only 10 years old at the time."

Repairs to the piers and abutments proceeded on schedule and were completed for a bridge re-opening in late December 2008. "The processes to design repairs, obtain permits, and acquiring heavy timbers needed for repairs on such short notice were a challenge" says Durfee and Graton. "We always like to be challenged" said the design/build team.

Teens to be charged in Deming Park Bridge Fire

Terre Haute, IN, February 10, 2009 - Three teens will be charged in juvenile court with burning the Deming Park replica bridge in May, 2008. The three used homemade napalm, getting the recipe from the internet

Stone Ridge Bridge Site Examined For Replacement

Fredrickton, NB, February 13, 2009 - Stone Ridge and Morehouse Corner residents have been pressuring the government to replace the bridge lost to arson last October 10.

The 4th Engineer Support Regiment from the Canadian Forces Base at Gagetown have been conferring with the provincial Department of Transportation on a replacement structure.

Authorities, because of cost, had not planned on replacing the destroyed bridge which connected the communities of Stone Ridge and Morehouse Corner over the Keswick River. A single-lane Bailey Bridge would cost up to \$300,000.

Delaware Besieged With Graffiti

New Castle County, DE, February 17, 2009 - Travelers of I-95 from Pennsylvania into Delaware are treated to the sight of graffiti on nearly all prominent spaces, on commercial buildings, fences, overhead signs, and overpasses.

Graffiti taggers have attacked the Wooddale Covered Bridge [WGN DE-02-03] in Greenville three times since it reopened in December following a \$3.4 million restoration, and defaced the Ashland Covered Bridge WGN DE-02-03] on Barley Mill Road in Yorklyn, rebuilt between December 2007 and May 2008. The taggers like to graffiti the new siding of the restored bridges, areas traditionally not painted.

Citizen volunteers of the Citizen Anti-Graffiti Brigade, organized in the fall of 2007, are helping DelDOT clean up, using supplies donated by the state and paint companies.

Last year, Delaware increased the penalties for painting graffiti and possessing the tools used to draw it. The penalties increase the offense from misdemeanor to felony if the damage exceeds \$1,500, a minimum fine of \$500, restitution for property damage and 200 hours of community service.

[Our thanks to Trish Kane for finding this story - Ed.]

County to restore Clarkson Covered Bridge

WGN AL-22-01

Cullman County, AL, February 18, 2009 - The Cullman County Commission approved a proposal with Almon Associates of Birmingham for an engineering study on the bridge, also approving an extension of an agreement with the state of Alabama until 2011 for a \$400,000 grant to restore the bridge. In all, the commission has \$750,000 in grants for the restoration as well as approximately \$160,000 set aside for matching funds.

Listed on the National Register of Historic Places, the Clarkson Covered Bridge was constructed in 1904. At 270 feet in length, the bridge crosses Crooked Creek in two spans using a Town truss. It is the last of two remaining covered bridge in Cullman County. The other was the 50-foot Lidy Walker bridge [AL-22-12] that crossed Lidy's Lake outlet using a Town truss. This bridge was replaced in the summer of 2001.

[Our thanks to Tom Keating for finding this story - Ed.]

(C.B. Community News Notes continued on page 14)

(C.B. Community News Notes continued from page 13)

Bartonsville Bridge to Close for Repairs

WGN VT-13-11

Bartonsville, Vt., February 17, 2009 - The Bartonsville Bridge will be closed next week for repairs of roof supports portal sheathing, damage caused by an unknown truck. The bridge, will be closed from 8 am to 2 pm Feb. 24 through 26. The 158-foot Bartonsville Bridge was built in 1871 by Sanford Granger to cross the Williams River using a Town truss.

[Our thanks to Johnny Esau and Ray Hitchcock finding this story - Ed.]

Wind Takes Roof Off Millmont Covered Bridge

WGN PA-60-01

Union County, PA, February 13, 2009 - A windstorm with 55 to 65 mile per hour gusts took the roof off Union Counties Millmont Bridge in Hartley Township.

Also called the Red Bridge and Glen Iron Bridge, the 154-foot span was built in 1855 to cross Penns Creek using a Burr Truss. The bridge had been closed to traffic since 1998 but was slated for renovations this coming spring.

[Our thanks to Tom Walczak, President of Theodore Burr Covered Bridge Society of PA, Inc., Tom Keating, and Bob & Trish Kane, for finding this story - Ed.]

Larwood Covered Bridge Damaged, Reward Offered

WGN OR-22-06

Albany, OR, January 27, 2009 - Twice damaged by was thought to be a logging truck, Linn County offers a standing reward of \$500 for information leading to the arrest and conviction of any bridge vandal.

Damage done by the two incidents made it necessary to limit bridge traffic to one lane. Repairs could cost between \$1,500 and \$2,000.

The 105-foot Larwood bridge was built in 1939 to cross Crabtree Creek using a Howe Truss.

Brattleboro's Creamery Bridge to Close

WGN VT-13-01

Brattleboro, Vt., January 27, 2009 - The Creamery Bridge is slated to be closed to vehicular traffic this summer, however the new bypassing span will not be ready for traffic until 2010.

Bath, NH, Covered Bridge Renovation to be Funded

WGN 29-05-03

Washington, December 22, 2008 - New Hampshire's Bath Village covered bridge is getting \$2.3 million from the federal government for renovation. The renovation will replace the metal roof and all deteriorated members. In addition a

laminated timber arch will be installed to increase load capacity. A fire protection system will be installed.

Wooddale Covered Bridge Reconstruction Complete

Greenville, Del, December 17, 2008 - The Delaware Department of Transportation has finished work on the Wooddale Covered Bridge on Rolling Mill.

The bridge, which spans the Red Clay Creek on Rolling Mill Road, was washed off its abutments by Tropical Storm Henri in 2003 and deposited downstream.

Reconstruction of the bridge began on Sept. 4, 2007, by Middletown contractor Mumford & Miller Concrete, Inc., which finished the project for \$3.374 million.

The bridge was rebuilt using **Bongossi woo**, a super-strong type of African timber that was also used to make repairs on Ashland Covered Bridge.

Gudgeonville Bridge Replacement Years Away

WGN PA-25-03

Gudgeonville, PA, February 04, 2009 - A temporary bridge will be placed on the site of the arsoned Gudgeonville covered bridge at a cost of up to \$150,000. The site of the permanent bridge has not been determined.

Girard Township supervisors have selected a Conneaut, Ohio, company to demolish the ruins of the Gudgeonville covered bridge, which was heavily damaged by arson in November. The company will also salvage main timbers from the bridge deck and take them to the township building on West Ridge Road.

The Gudgeonville bridge was arsoned November 8. On December 17, Joshua M. Bell, 21, of Albion, and Jeffrey A. Gleason, 23, of Conneautville, were charged by the State police with setting the fire. Bell is in Erie County Prison on charges related to the arson. Gleason is in the Crawford County Correctional Facility on burglary and other charges unrelated to the burning of the bridge. State police said the pair doused the Gudgeonville Covered Bridge with gasoline "for fun," then watched as the historic structure went up in flames.

Gilbertville Bridge Will be Reopened

WGN MA-08-04/NH-14-01

Hardwick, Mass., December 10, 2008 - Voters at a special town meeting held Monday, December 8, approved obtaining temporary easements to clear the way for the state to put the \$3.3 million Gilbertville Covered Bridge restoration project out to bid later this month. Work on the bridge is to begin this spring.

(C.B. Community News Notes continued on page 15)

(C.B. Community News Notes continued from page 14)

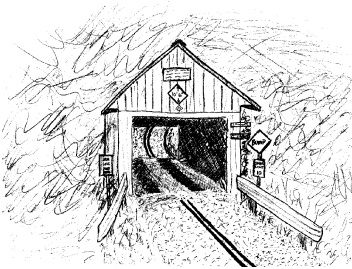
Similar easements were recently approved in neighboring Ware, New Hampshire. The 137-foot Gilbertville bridge was built in 1886 to cross the Ware River using a Town truss. The old span has been closed since 2002 when the State Highway Department determined its capacity to be inadequate to support traffic. It was last reconstructed in 1986 at a cost of \$230,000.

Since 1886, the quickest route between Hardwick, Massachusetts and Ware, New Hampshire was by way of the Gilbertville Covered Bridge. The bridge is owned jointly by the towns.

The easement approved at the Hardwick Town Meeting allows machinery and other equipment to be placed on private property during the repairs, the last hurdle in a long approval process. Voters in Ware passed a similar easement in November. The \$3.3 million renovation can begin. Federal funds will cover 80 percent of the cost, with the state providing the balance. Bids for the work will be sought by year's end..

The renovation will include steel beams under the floor system, curbing in the roadway to protect the trusses and allow for pedestrians on each side. The bridge will be treated with fire suppression chemicals and a fire detection system. [Thank you Johnny and Joanne Esau for alerting us to the Gilbertville bridge project - Ed.]

□□□



Please sign me up or renew my membership in the VCBS:

(Business or Society please provide name of contact person)

New member Renewing member

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Street _____

City _____

State/Zip _____

Telephone _____

e-mail _____

Check type of membership:

Individual-\$10 Family-\$15 Student-\$8

Life-single-\$150 Life-couple-\$200

Business/Organization/Municipality-\$15

Sign me up for PDF version of newsletter

Check type of donation:

Palladio - \$2 Palmer - \$5

Hale - \$10 Powers - \$50 Town - \$75

Tasker - \$100 Paddleford - \$200 Whipple - \$250

(Memberships valid to end of current calendar year

Dues and Donations will be used to promote preservation of Vermont's covered bridges.)

Make all checks for dues and donations payable to the

Vermont Covered Bridge Society. Mail to:

The V.C.B.S., Inc.

Attn: Treasurer

P.O Box 97

Jeffersonville, VT 05464-0097