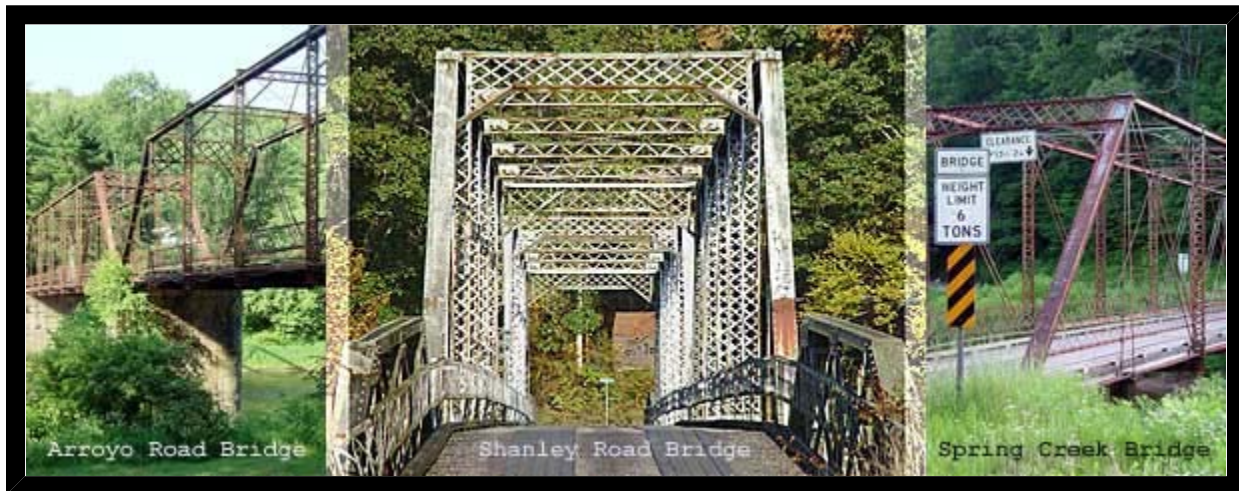


The Below Content Was Recovered From The Internet Archive For The Now-Dead Website "Disappearing Bridges" [www.venangoil.com/Bridges.html](http://www.venangoil.com/Bridges.html) by Daniel C. Alward. All content is the work of Daniel Alward and is not associated in any way with HistoricBridges.org. Some of the images from the original website were not recoverable and so are omitted. This has been provided as a courtesy by HistoricBridges.org since the website no longer exists.

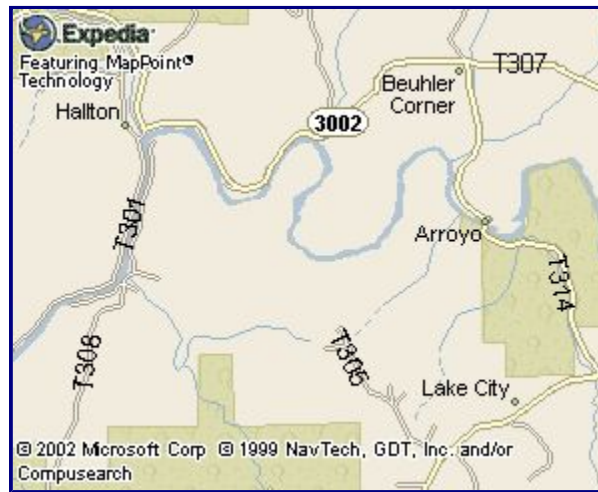
## What Is Wrong With The Way We Treat Historic Bridges?



WASTED WORDS UPDATE: Two of the three bridges featured on this page were destroyed in 2004. The text below was written when I thought there might actually be a chance that the people in charge of destroying historic bridges might come to their senses.

As I write this article near the end of 2002, the policy for saving historic metal truss bridges from destruction seems to exist in my imagination only. Actions would suggest that the real policy, when it comes to historic bridge preservation, is to go through a few motions that seem to suggest preservation would be nice, but then decide in the end that preservation is just too much trouble. At least that's the way it seems when I look at all of the great Western Pennsylvania bridges that have been recently destroyed or are slated for destruction in the very near future.

The three bridges pictured above serve to illustrate that point. Let's call them *the Spring Creek Trio*. They exist within a few miles of each other in Spring Creek Township, Elk County, Pennsylvania. Two of the bridges cross the beautiful, wild Clarion River. The third crosses a smaller stream at its confluence with the Clarion. All three bridges are worth preserving. One is such a treasure that the very thought that it would be willfully destroyed seems absurd. Yet all three of these historic structures are supposed to be demolished and replaced - and soon.



[Spring Creek Township vicinity map provided by Expedia.com](#)

For some reason the Expedia map doesn't show the Shanley Road Bridge. Maybe they updated their map a little too soon! Shanley Road is T-308, Arroyo Road is T-314, Spring Creek Bridge is on T-301.

The [Arroyo Road Bridge](#) and the [Shanley Road Bridge \(aka Maxwell Run Bridge\)](#) could be destroyed as early as 2003. The third bridge, the [Spring Creek Bridge](#) at Hallton might survive just a little bit longer. Click on the links and take a good look at the symbols of our heritage that are awaiting the fast approaching time when they will be cut up into little pieces and hauled away in dumpsters.

And what is truly amazing is that \$3,000,000 is available to destroy and replace the [Shanley Road Bridge](#) and \$2,750,000 is available to destroy and replace the [Arroyo Road Bridge](#). When they say there is no money available for historic bridge rehabilitation and preservation, one has to wonder where the priorities are. Would 3 million dollars not be enough to do whatever it takes to somewhat authentically keep the [Shanley Road Bridge](#) standing as an active vehicular bridge.

Is preservation just too hard to do with the pool of resources available to the highway folks? Is condemning an historic bridge so it can be replaced by a new bridge just an easy way for the parties involved in bridge maintenance to satisfy an obligation? Do the companies with an interest in building new bridges have an undue amount of influence in the outcome?

I find it hard to believe that the millions of dollars that is freely spent to eliminate an old bridge couldn't be more wisely spent preserving an old bridge. A lot of the historic metal bridges haven't been maintained like they should have been down through the years. There is no question that rehabilitation could require the replacement of many structural components of an old bridge. But there surely must be those with the know-how to get the job done. And there surely must be some industries out there that would jump at the chance to make some money fabricating some bridge parts to help get the job done.

Now it's not like I'm the first person to think it would be a good idea to preserve as much of our historic bridge heritage as possible. Consider the following federal guidelines surrounding destruction of historic bridges. The text in the white box was found at the [Federal Highway Administration Indiana Division Web Site](#), but would apply throughout the USA:

**Alternatives to Consider and Document  
when considering replacement of an Historic Bridge**

**Posted February 22, 2002**

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On Federally Funded projects involving bridges on or eligible for inclusion in the National Register of Historic Places, when replacement of the structure is proposed, a broad range of alternatives to avoid the impact to the historic resource must be considered. The alternatives should be analyzed and considered sequentially, beginning with those alternatives that have no impact, or minimal impact, to the resource. The list below is generally arranged from the least to the most substantial impact. The Section 106 documentation, developed to support FHWA's effect finding, should describe the alternatives analyzed and document the evaluation of the alternatives. The list of alternatives below is not all inclusive; if a reasonable avoidance alternative is discovered during the development of the project, or proposed by the SHPO or a consulting party, the alternative should also be addressed in the alternatives analysis.

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1. **Do Nothing Alternative**

- a. The original Owner does nothing to the existing bridge and it remains in its existing condition. If the bridge is currently closed to traffic, or it has a posted weight restriction, document the detour route around the bridge.

2. **Rehabilitation Alternatives (in its existing location)**

- a. Rehabilitate the bridge for vehicular use, in accordance with the treatment approaches recommended by the Secretary of Interior's Standards for Rehabilitation.
- b. Rehabilitate the bridge and retrofit the structure to carry legally loaded vehicles.
- c. Either the owner or another party rehabilitates the bridge for vehicular use, with size/weight limitations, or rehabilitate the bridge for non-vehicular use.
- d. Either the owner or another party avoids the bridge only and closes the bridge for possible future rehabilitation at its existing location.

3. **Bypass Alternatives**

- a. Build a bridge next to the existing bridge, forming a one-way couplet, using both bridges for vehicular use.
- b. Either the owner or another party bypasses the historic bridge and maintains the historic bridge for either light vehicular use or non-vehicular use.
- c. The owner bypasses the historic bridge and leaves the historic resource at its existing location for future potential re-use, either by the owner or by another party.

#### 4. Relocation Alternatives

- a. The bridge is relocated and rehabilitated, by either the owner or another party, for the purpose of serving vehicular or non-vehicular traffic, at a public location.
- b. Another party relocates and rehabilitates the bridge at a location not available to the public.
- c. The owner retains ownership and the bridge is stored for possible future rehabilitation and use.
- d. The owner sells the bridge to another party for storage and possible future rehabilitation and use.
- e. The bridge is photo documented and then demolished.

The way it looks from where I sit is that around here, we pretty much go directly to step 4e with maybe a brief attempt at trying to sell bridges in accordance with step 4d. The attractive "win win" situation of step 3b never seems to happen.

It would seem that the widespread practice of destroying and replacing historic bridges will continue until the people who decide the fates of our bridges become openly and demonstrably sympathetic to the idea of keeping the historic bridges intact. Maybe time will bring about a change in attitude. Unfortunately time also allows the destruction of too many more historic metal truss bridges. The supply of these bridges is finite and they are irreplaceable!

Maybe public sentiment will sway the opinions of the public servants who destroy our bridges, If the public speaks more, the servants will probably listen more.

Time is of the essence here. The best old truss bridges are disappearing fast.

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### Photographs of the Spring Creek Trio



Arroyo Road Bridge: Three spans with variety.



Spring Creek Bridge: Single Span in scenic setting.

Let's get back to those three bridges described toward the top of this page now. Unless there is a massive public outcry, those bridges will be destroyed as planned. I don't know if all or even any have a ghost of a chance of survival, But of the three, I think that saving the [Shanley Road Bridge](#) is a no-brainer.



Shanley Road Bridge: Four spans of beauty in metal and stone.

Ideally, all three of these bridges could be left for future generations to admire and enjoy. I hope for a miracle that will allow that to happen. But if I had to pick just one of the three to save, it would have to be the [Shanley Road Bridge](#). The 1891 bridge has a lot going for it. Just look at the photo. It's a remarkably beautiful structure. It's the Perfect Bridge.

But beauty isn't the only reason that saving this bridge should be a no-brainer.

Shanley Road is a very lightly traveled road for one thing. It is a hilly, dirt road that often doesn't see a car's tires for long periods of time. There is not a lot of civilization in the area south of the Clarion around here. Not a lot to the north, east or west either for that matter. Performing minimal repairs to keep the bridge open at a posted weight limit does not seem unreasonable if bringing it up to higher load limits seems to expensive.

The style of bridge represented by the [Shanley Road Bridge](#) is not common in this area by a long shot. The two pony truss approach spans coupled with the two through truss main spans give this bridge a

unique appearance. And it's been a while since bridge builders used the pin-connection method of holding the bridge pieces together. Furthermore, the cut stone work of the abutments and piers are monuments in and of themselves. This bridge is full of craftsmanship and reminders of the old ways.

But even if the powers that be are insistent that a new bridge must be built, there seems to be no compelling reason to destroy the old [Shanley Road Bridge](#) once its replacement is completed. (It is my understanding that the planned replacement bridge is to be built downstream 50 feet or so.) If a new bridge must be built, every effort should be made to keep the existing [Shanley Road Bridge](#) standing.

It costs a lot of money to tear a bridge down. I wouldn't be surprised if the bill for destroying the [Shanley Road Bridge](#) is between \$100,000 and \$200,000. An awful lot of minor repairs could be done to the old bridge for that amount of money. And if I understand correctly, the Federal Government can provide funds for preserving a replaced bridge up to the amount it would cost to destroy it.

Let's leave the [Shanley Road Bridge](#) standing, even if only as a pedestrian or bicycle bridge. The elegant old structure could please many generations of visitors to the Clarion River valley if left in place. We need to at least preserve the best of our historic metal truss bridges if we can't preserve them all, and the [Shanley Road Bridge](#) is certainly among the best of the breed. If we don't save this and many of our other great bridges, future generations will rightly think of us as boneheads.

Even though the [Shanley Road Bridge](#) has been singled out in this article as the one bridge of the Spring Creek Trio that *must* be spared, the [Arroyo Road Bridge](#) and the [Spring Creek Bridge](#) are also certainly worth saving. Just take a look at that pony truss span on the [Arroyo Road Bridge](#) if you need convincing. What a pin-connected beauty it is! And then there's the [Spring Creek Bridge](#) ...

You know what? I've just convinced myself that saving all three of these historically significant bridges is a no-brainer. We shouldn't have to be in a position to pick and choose just one. They're all important!

The absolute best option is to leave all three standing. Their future existence will make the area they reside in a desirable destination for years to come. Clarion River tours will become the thing to do! People will want to see the famous, historic Spring Creek Trio with their own eyes and spend some peaceful time enjoying these secluded country trusses!

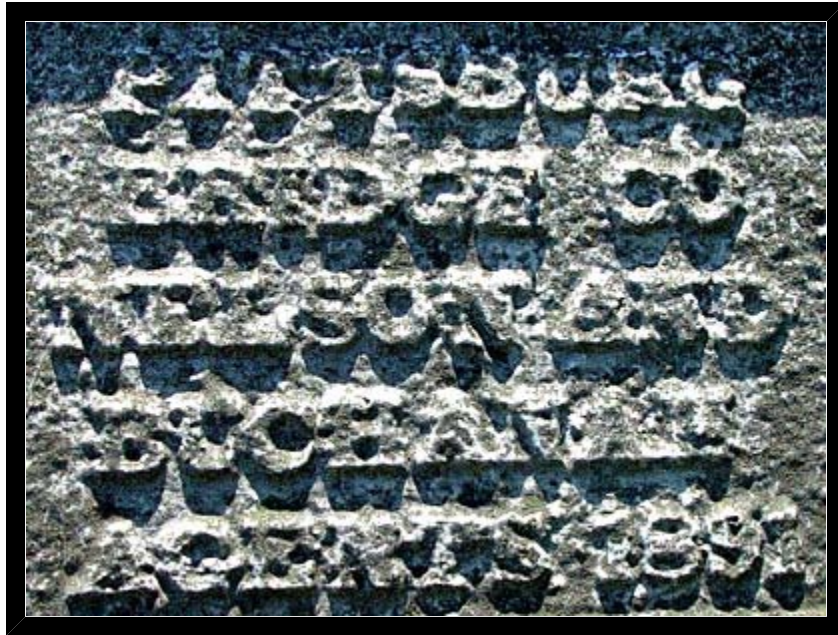
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For further thoughts on the state of bridge preservation, take a look at our [Pennsylvania Historic Bridge Inventory and Evaluation Page](#). That page offers insight into what Official Pennsylvania says it is doing and what is actually being done.

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## Historic Shanley Road Bridge, Spring Creek Township, Elk County, PA

The builder plates are hard to read, but 1891 is the date shown on plaques on the main, through truss spans. The center of the builder plaque is enlarged below.



PITTSBURG  
BRIDGE CO  
NELSON AND  
BUCHANAN  
AGENTS 1891

UPDATE: Destroyed in 2004. Original text follows.

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When you get to the Shanley Road Bridge, you can bet that you are *way* out in the county! It's hard to pick favorites, but this four-span beauty owned by Elk County is among my favorite bridges. I've learned that the bridge is also referred to as the Maxwell Run Bridge locally. Maxwell Run empties into the Clarion River just upstream from this bridge.

There are two main through truss spans in this crossing along with pony truss approach spans on each end. The deck is wooden. The supports are cut stone. The river is scenic. Wow!

At the location of this bridge, the Clarion River is traveling in a north to south direction, just getting ready to make a bend to the west. The orientation of this bridge is roughly east/west with the west end slightly more north than the south end. I mention this because the Clarion is roughly an east to west river in western Elk County and it's easy to overlook the bends in the river and lose track of orientation.

The 1891 Shanley Road Bridge is fairly close to the [Spring Creek Bridge](#) and the [Arroyo Road Bridge](#). There are plenty of good reasons to take a River Road Drive along the Clarion River. Unfortunately, just like the Spring Creek and Arroyo Road bridges, the PennDOT 2003 Twelve Year Plan lists this bridge among those it will be destroying in the near future. I've heard that destruction could begin in 2003.

So if you're gonna take that scenic Clarion River bridge tour, don't wait too long!

Or maybe - just maybe - those who control the destiny of our bridges will realize what a

special treat it is to be able to see three 100 or so year old metal truss bridges in such close proximity and find a way to leave them all standing. Oops! There I go off into fantasy land again!

We have an [Historic Bridge Preservation Page featuring the Spring Creek Township Trio](#) that you may also find of interest. The Shanley Road Bridge is featured prominently in that article.

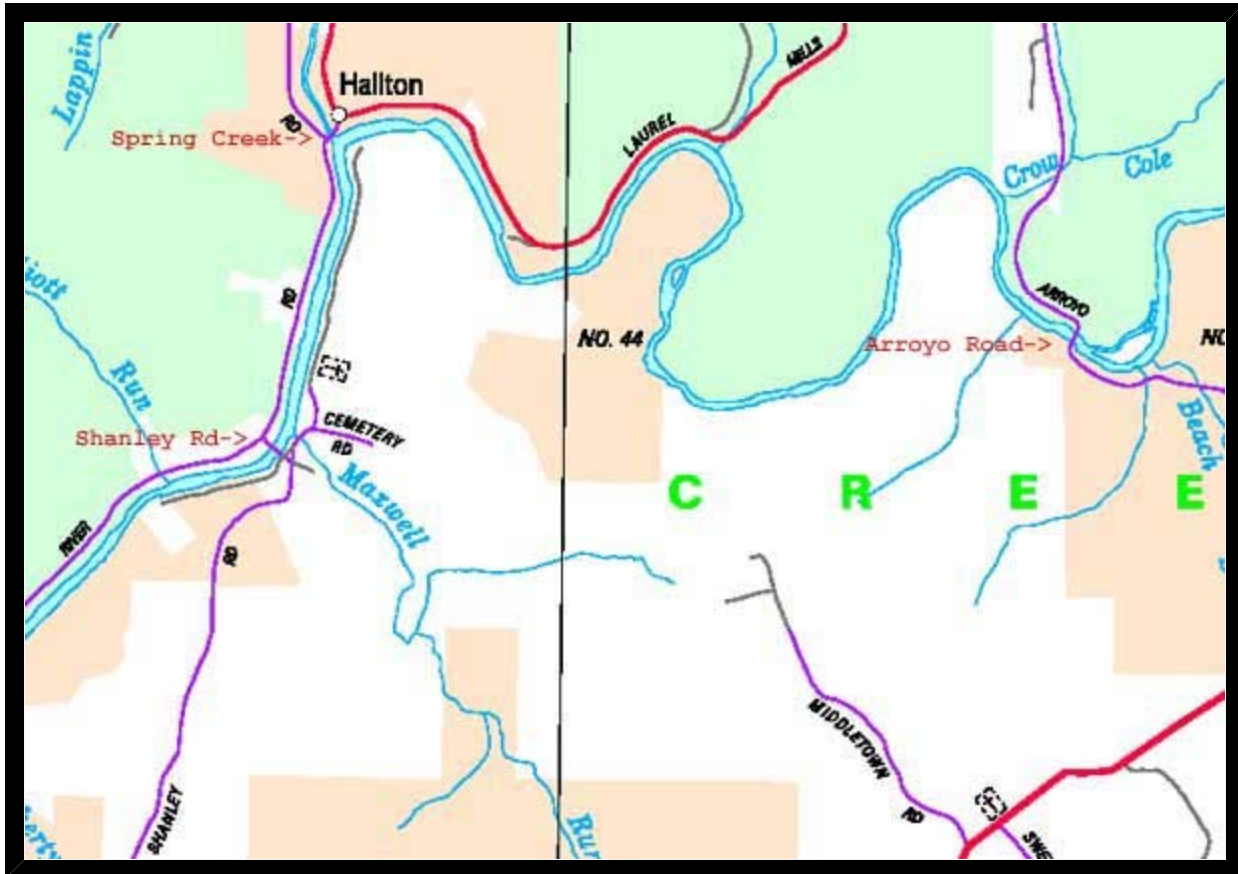


**Clicking small photos usually provides enlargements and information**

### **An Account Of Replacing The Deck Of This Bridge**

Ever wonder how the wooden decks on old bridges are built? Eric Patton of Sigel worked on the crew that repaired the decks of this bridge and the Arroyo Road Bridge the last time it was done back in 1997. Take a look at [his account of replacing the bridge decks](#) for a little insight into bridge maintenance as well as some general observations about the bridges.





Section of [PennDOT Type 10 Map](#) of Elk County showing the proximity of three nearby bridges. Bridge names added for clarity. It's probably about 4 miles as the crow flies between the Arroyo Road Bridge and the Shanley Road (Maxwell Run) Bridge.

## **FACT SHEET\***

**PENNDOT DISTRICT: 2**

**COUNTY: ELK**

**OWNER: ELK COUNTY**

**MUNICIPALITY: SPRING CREEK**

**LOCATION: 1.25 MILES SOUTH OF HALLTON**

**FACILITY CARRIED: TR 308 (SHANLEY ROAD)**

**NAME/FEATURE INTERSECTED: TR 308 OVER CLARION RIVER**

**TYPE: THRU TRUSS**

**DESIGN:** PRATT

**MATERIAL:** METAL

**#SPANS:** 4

**LENGTH (feet):** 344

**WIDTH (feet):** 13.9

**YEAR BUILT:** 1891

**ALTERATION:** 1905

**DESIGNER/BUILDER:** PITTSBURGH BRIDGE CO/NELSON & BUCHANAN  
CO

**NATIONAL REGISTER STATUS AT TIME OF SURVEY:** Previously Not  
Evaluated

**SURVEY NATIONAL REGISTER RECOMMENDATION:** Eligible

**COMMENTS:** The 344'-long bridge consists of a pin connected, 2 span, Pratt thru truss main span and 1 riveted Pratt pony truss approach span at each end. The traditionally composed bridge is supported on ashlar abutments and ashlar cutwater piers. The bridge is historically and technologically significant as a complete example of an increasingly rare type and design. Adding to its significance is its documentation to the Pittsburgh Bridge Company and its agents, Nelson & Buchanan Company, regionally prominent and prolific fabricators of highway bridges in the late 19th and early 20th centuries.

Ever wonder *why* bridges of this "historically and technologically significant" type and design have become "increasingly rare"? Might it have something to do with blind progress?

Don't forget about the [Spring Creek Bridge](#) and the [Arroyo Road Bridge](#), two near neighbors of this bridge that are facing destruction very soon as well. Speak out against the destruction of these three wonderful bridges if you can. It might make a difference.

\* The data in this FACT SHEET is a subset of the data found in the [Pennsylvania Historic Bridge Inventory and Evaluation](#) database (data circa 1997). That survey evaluated bridges for potential eligibility to the [National Register of Historic Places](#). In the database, MUNICIPALITY is most often given as a township name, but could be a borough or city name. COMMENTS here are generally taken directly from comments in the database, although they may be summarized. Additional comments, if any, added by Venangoil.com are in **orange**.

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## Historic Arroyo Road Bridge in remote Elk County, PA



View from north side of river

Arroyo Road is the first Clarion River road crossing downstream from Ridgway. Its Spring Creek Township location is pretty remote. The bridge is owned by Elk County.



Looking at the Arroyo Road Bridge up close

UPDATE: Destroyed in 2004. Original text follows.

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With a pony truss span and two through truss spans, the Arroyo Road Bridge is one of three impressive, very old iron truss bridges in close proximity on and along the Clarion River in this area.

It looks like some minor repair/replacement parts work was done on south end of bridge where the metal is obviously newer. The wooden deck is pretty spongy feeling (rotting) and could probably stand to be replaced.

There is a boat launch and parking area on the south side of the river. The Allegheny National Forest borders on the Clarion River to the north for much of the length of the Clarion River in this area.

With regret I must report that plans are in the works to destroy this historic structure. See the online [PennDOT notice dated July 27, 2001](#) for a little bit more information. The word is that the bridge replacement project will begin in 2003.

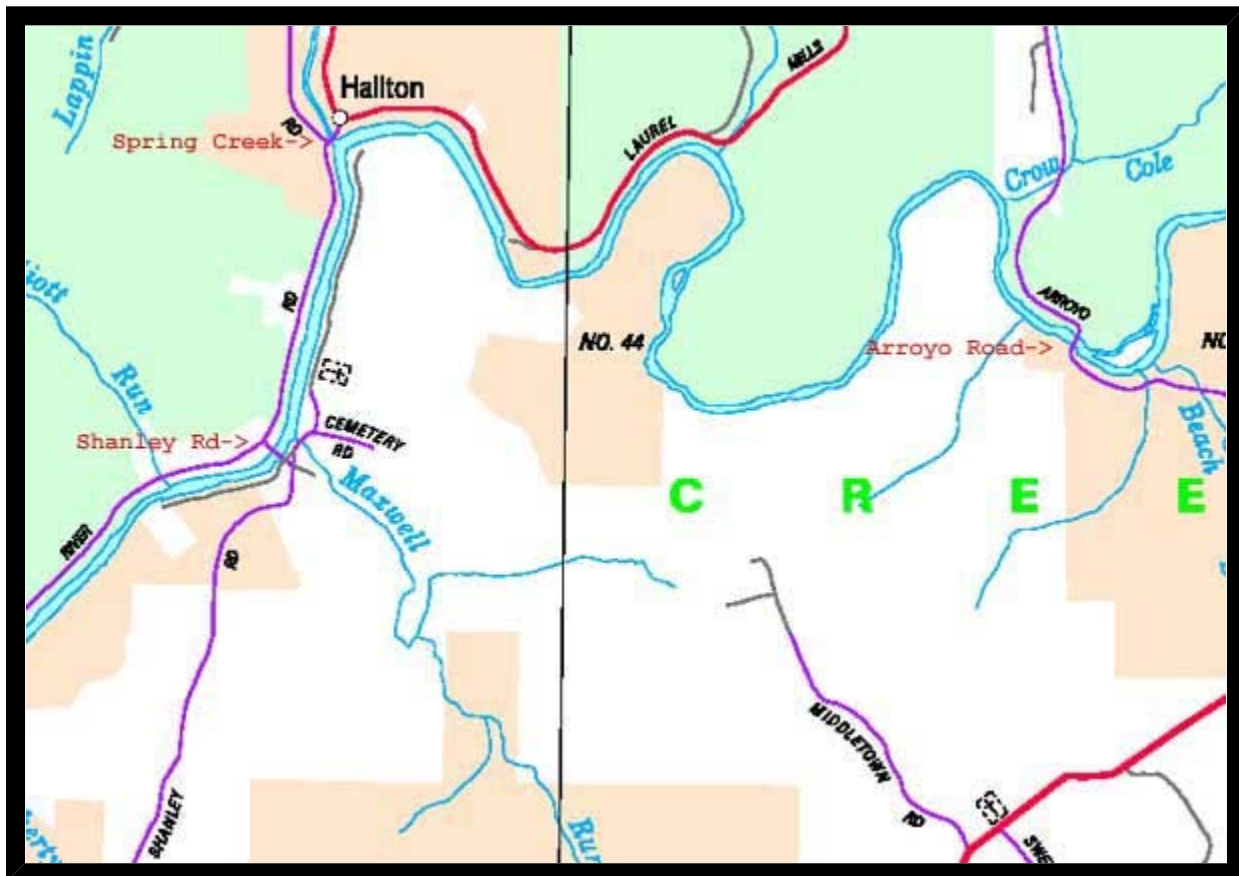
The Arroyo Road Bridge is fairly close to the [Spring Creek Bridge](#) and the [Shanley Road Bridge](#). All three bridges are supposed to be destroyed soon, so you might not want to wait too long to get a good look at them.

We have an [Historic Bridge Preservation Page featuring the Spring Creek Township Trio](#) that you may also find of interest.

Clicking small photos usually provides enlargements and information

### An Account Of Replacing The Deck Of This Bridge

Ever wonder how the wooden decks on old bridges are built? Eric Patton of Sigel worked on the crew that repaired the decks of this bridge and the Shanley Road Bridge the last time it was done back in 1997. Take a look at [his account of replacing the bridge decks](#) for a little insight into bridge maintenance as well as some general observations about the bridges.



Section of [PennDOT Type 10 Map](#) of Elk County showing the proximity of three nearby bridges. Bridge names added for clarity. It's probably about 4 miles as the crow flies between the Arroyo Road Bridge and the Shanley Road (Maxwell Run) Bridge.

**FACT SHEET\*****PENNDOT DISTRICT: 2****COUNTY: ELK****OWNER: ELK COUNTY****MUNICIPALITY: SPRING CREEK****LOCATION: 7900' SOUTH OF SR 3002****FACILITY CARRIED: TR 314 (ARROYO ROAD)****NAME/FEATURE INTERSECTED: TR 314 OVER CLARION RIVER****TYPE: THRU TRUSS****DESIGN: PRATT****MATERIAL: METAL****#SPANS: 3****LENGTH (feet): 281****WIDTH (feet): 14****YEAR BUILT: 1901****DESIGNER/BUILDER: NELSON & BUCHANAN COMPANY****NATIONAL REGISTER STATUS AT TIME OF SURVEY: Eligible. SHPO  
Finding.**

**COMMENTS:** The pin connected, 3 span, 281'-long bridge consists of 2 Pratt thru truss spans over the channel and a single half-hip Pratt pony truss approach span. The bridge is supported on ashlar piers and abutments. The structure is historically and technologically significant as a complete example of an increasingly rare bridge type and design. Adding to its significance is its documentation to the Pittsburgh Bridge Company and its agents, Nelson & Buchanan Company, regionally prominent and prolific fabricators of highway bridges in the late 19th and early 20th centuries.

It's pretty obvious that the experts who evaluated this bridge thought it was pretty special. It's too bad that the people who control the Arroyo Road Bridge's fate don't seem to think so.

Don't forget about the [Spring Creek Bridge](#) and the [Shanley Road Bridge](#), two near neighbors of this bridge that are facing destruction very soon as well. Speak out against the destruction of these three wonderful bridges if you can. It might make a difference.

\* The data in this FACT SHEET is a subset of the data found in the [Pennsylvania Historic Bridge Inventory and Evaluation](#) database (data circa 1997). That survey evaluated bridges for potential eligibility to the [National Register of Historic Places](#). In the database, MUNICIPALITY is most often given as a township name, but could be a borough or city name. COMMENTS here are generally taken directly from comments in the database, although they may be summarized. Additional comments, if any, added by Venangoil.com are in **orange**.

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### River Road Bridge Over Spring Creek At Hallton Along The Clarion River



No - this Spring Creek Township bridge is not a Clarion River crossing, but it is right along the Clarion River and you will cross it if you follow River Road between Arroyo Road and the Shanley Road Bridge. It seems fitting to include this old single span Pratt Through Truss in the Clarion River Bridges collection. The bridge is owned by the township.

#### Clarion River From Bridge

The voice of experience can tell you that when following River Road from Arroyo Road to here, it is extremely easy to miss the sharp left that River Road makes at an intersection near this bridge. If you find yourself driving through high-country farmland for a while, you'll know you missed the turn!

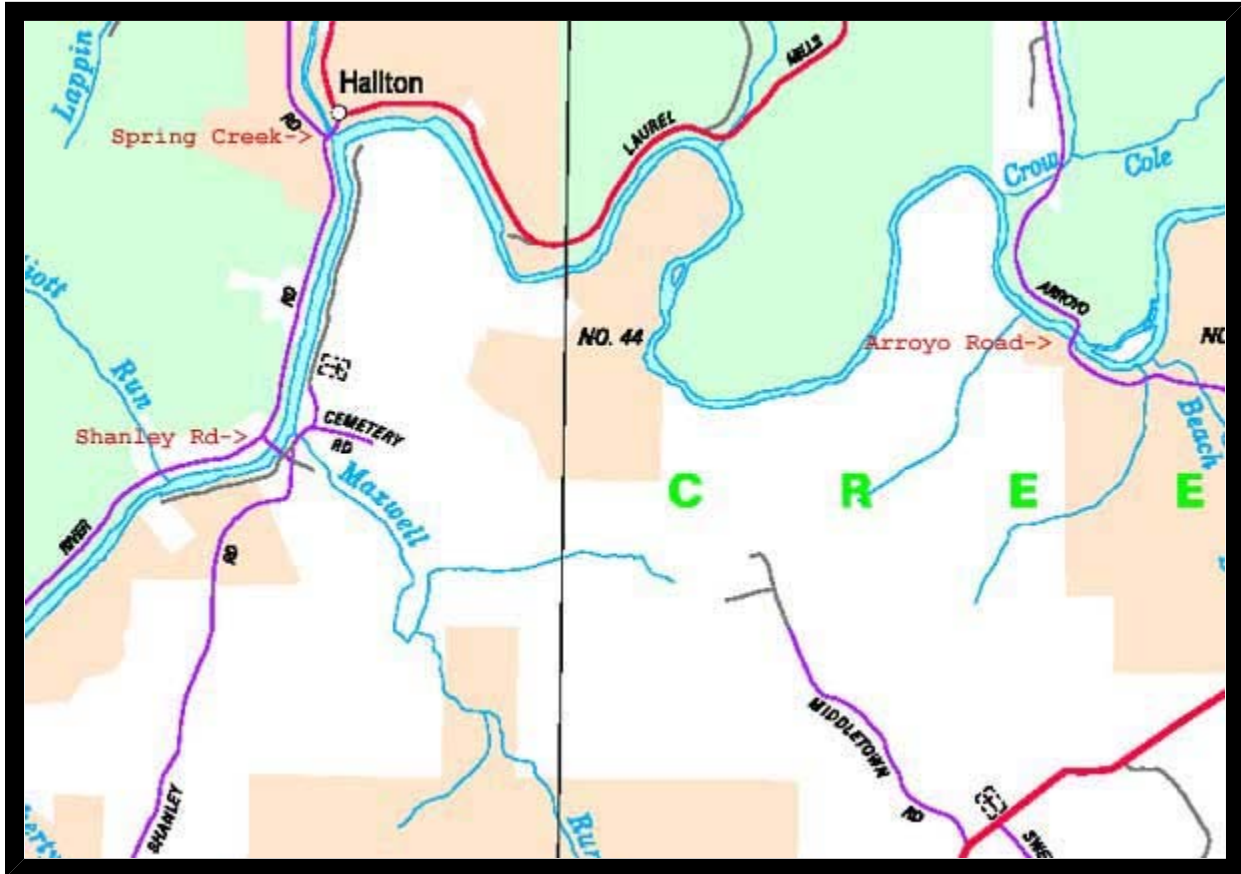
A parking area for State Game Land 28 is at one end of bridge.

There is a plan to destroy this bridge included in PennDOT's 2003 Twelve Year Plan.

The River Road Spring Creek Bridge is fairly close to the [Arroyo Road Bridge](#) and the [Shanley Road Bridge](#). All three bridges are supposed to be destroyed soon, so you might not want to wait too long to get a good look at them.

We have an [Historic Bridge Preservation Page featuring the Spring Creek Township Trio](#) that you may also find of interest.

**Clicking small photos usually provides enlargements and information**



Section of [PennDOT Type 10 Map](#) of Elk County showing the proximity of three nearby bridges. Bridge names added for clarity. It's probably about 4 miles as the crow flies between the Arroyo Road Bridge and the Shanley Road (Maxwell Run) Bridge.

**FACT SHEET\***

**PENNDOT DISTRICT: 2**

**COUNTY: ELK**

**OWNER: SPRING CREEK TWP**



**MUNICIPALITY:** SPRING CREEK

**LOCATION:** 400' SOUTH OF SR 3002 AT HALLTON

**FACILITY CARRIED:** TR 301 (RIVER ROAD)

**NAME/FEATURE INTERSECTED:** TR 301 OVER SPRING CREEK

**TYPE:** THRU TRUSS

**DESIGN:** PRATT

**MATERIAL:** METAL

**#SPANS:** 1

**LENGTH (feet):** 129

**WIDTH (feet):** 14

**YEAR BUILT:** 1898

**DESIGNER/BUILDER:**

**NATIONAL REGISTER STATUS AT TIME OF SURVEY:** Previously Not Evaluated

**SURVEY NATIONAL REGISTER RECOMMENDATION:** Eligible

**COMMENTS:** The 1898, single span, 129'-long, pin-connected Pratt thru truss bridge is supported on ashlar abutments. It has eye bars and rods for the tension members, and built-up compression members. Rolled floorbeams with U-shaped hangers support timber stringers and a wood deck. The stringers and deck in one panel are failed, accounting for the bridge's closure. (The bridge was closed for repairs when it was evaluated.) The failure does not affect integrity of original design. The bridge is finished with lattice railings and lattice portals with built-up curved knee braces with twisted bars in a fan shape. According to the township supervisor, the 1898 date of construction was recorded from a bridge plaque before the plaque was lost. The builder is undocumented. The bridge is a long example of its type and design with its original decorative elements. Pin-connected truss bridges are increasingly rare, especially in this region of the state, with fewer than 20 documented examples from ca. 1880 to 1910 surviving in PADOT Dist. 2-0. This is one of the most complete and earliest to document the all standard details that came to characterize the pin-connected Pratt truss type/design in the 1890s. It is historically and technologically significant.

When I go on and on and on whining about the lack of significant preservation of historic bridges it's because of situations like that affecting this bridge. The bridge couldn't have received a more glowing review. But will it be preserved with historic authenticity? Not unless a whole lot of people start opposing the bridge's planned

destruction - and fast!

And don't forget about the [Arroyo Road Bridge](#) and the [Shanley Road Bridge](#), two near neighbors of this bridge that are to be demolished in 2003.

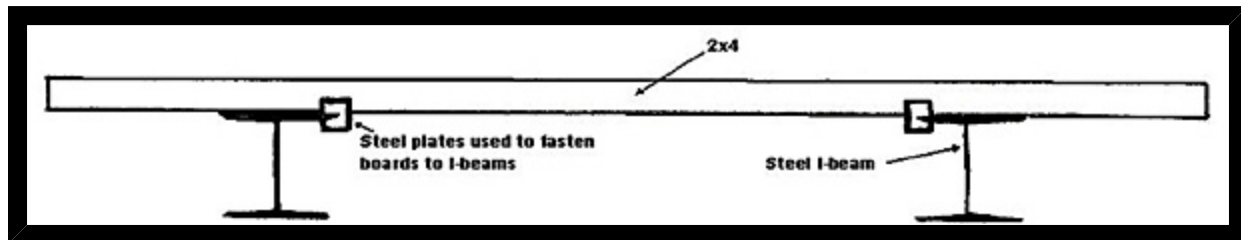
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## Replacing The Decks Of Two Old Clarion River Bridges

*Local historian and Disappearing Bridge Pages visitor, Eric Patton, provides his recollections of the time when he was very intimate with the [Arroyo Road Bridge](#) and the [Shanley Road \(Maxwell Run\) Bridge](#). His account appears below ...*

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In the late summer of 1997 I was one of the crew who re-decked the [Arroyo](#) and [Maxwell Run](#) bridges over the Clarion River. I had no experience doing such work, but soon found out it was a very simple and straightforward job. Both bridges are very similar in construction and are of the same general age. The only difference between the decks of the two bridges was in the use of "running planks" on the Maxwell Run Bridge. The running planks are 2x8 planks, placed 5 wide that follow the direction of travel and are placed so the vehicle wheels ride only on the running planks. The running planks are almost directly above the steel I-beams of the bridge.

The first step was to remove the old deck. The condition of the old deck was bad enough that our feet would go through the deck in places. The only thing that kept a vehicle from going through was the weight distribution allowed by the running planks. The bridge frame is made of 2 I-beams set about eight feet apart. The deck is made up of 2x4's set on edge on these I-beams. At the end of the bridge, the first 2x4 goes into a boxed frame welded onto the I-beams. Of course modern 2x4's are smaller than the old ones, so there was a little slop in the fit. From this end 2x4, a 2x4 was placed beside it and the two are nailed together on the front side with 16 penny deck nails. This was done in succession for about 6 boards. On each 6th board was placed a 4-inch square plate that has a notch cut into it that allows it to be placed over the top of the I-beam. These plates are all that holds the deck

down onto the I-beams. All in all, a very simple system. Our crew of four men was able to replace a 40-50 feet section of deck each day.

The condition of the steel superstructure on both bridges was very poor, especially Arroyo. The I-beams are rusted through in many spots, particularly on the vertical portions. I would have thought the horizontal sections would have held water and been in worse shape, but I think the original thickness of steel was less on the vertical portion of the I-beam. Another problem was that most of the I-beams are twisting along their length. I believe this is probably caused by the years of traffic flexing the I-beams. The part of each bridge which has survived in the best condition are the stone abutments, which are in fairly good condition.

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*Eric Patton has written a book entitled "History of Millstone Township Elk County, Pennsylvania" which is expected to be published early in 2003. Mr. Patton can be contacted by mail at 11539 Route 3002, Sigel, Pa 15860*

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## Thoughts About the Pennsylvania Historic Bridge Survey

**First: Some facts on FACT SHEETS**

**Then: A lot of thoughts on bridge preservation ...**

### FACT SHEET\*

**FACT SHEET FACTS:** FACT SHEETS that look something like this one are being added to many of the individual bridge pages at this web site. These FACT SHEETS will generally specify where a bridge is located, who owns it, year built, builder, etc.

FACT SHEET data for Pennsylvania roadway bridges comes primarily from a comprehensive survey of 12,000 or so bridges of all types in the state. The survey, performed by A.G. Lichtenstein and Associates, Inc., was commissioned by PennDOT for the purpose of identifying the historically significant bridges in Pennsylvania. All bridges over 40 years old and longer than 20 feet were evaluated. The bridge evaluators made recommendations concerning bridge eligibility to the [National Register of Historic Places](#).

When absorbing the FACT SHEET data, keep in mind that some facts may have changed since gathered for the bridge survey database around 1997. Ownership may have changed hands. Alterations or other maintenance may have occurred. The bridge may have been destroyed. Conclusions based on 1997 data may need to be revised when events from the years since 1997 are taken into consideration.

Additionally, when reviewing the Historic Bridge Survey comments presented in FACT SHEETS, keep in mind that if the bridge evaluators list seemingly negative qualities of a bridge, that doesn't mean that the bridge is not worthwhile. The bridge evaluators were looking at *historical* significance and were not evaluating pure beauty or local importance. For example, the bridge survey rarely has positive comments on the historic value of rivet-connected trusses even though many important, eye-pleasing bridges have riveted connections.

FACT SHEET data for railroad bridges and for bridges outside of Pennsylvania is a little harder to come by. For such bridges, the source of data is indicated when FACT SHEETS are included.

Comments in ORANGE are added to FACT SHEETS by VenangOil.com for various reasons. For instance, it might be a good idea to point out that below this fake FACT SHEET, there is a page full of reading that questions why, it seems, so many of the bridges recognized as significant are being annihilated nonetheless - and at a rapid pace.

\* The data in this FACT SHEET was compiled from the sources indicated. Additional comments, if any, added by Venangoil.com are in orange.

### **Thoughts About the Pennsylvania Historic Bridge Survey of the Late 90's and the Historic Bridge Preservation Effort that Spawned the Survey**

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#### **Warm and Fuzzy Feelings**

Reading about Pennsylvania's commitment to preserving its historic bridge treasures at the [PennDOT Cultural Resources Management Program Web Site](#) can give a person the feeling that the state's historic bridges are in good hands and that there is no need to worry about them.

Someone reading about PennDOT's sensitivity to historic bridges might come away thinking that there is no need for we ordinary citizens to be alarmed at the rapid disappearance of the best bridges in the state's collection.

A few quotations from the [PennDOT Cultural Resources Management Program Web Site](#) from the pages dealing with bridges will illustrate. The quotes were current when this was written in December of 2002:

*No matter where one travels in the Commonwealth, historic bridges dot the landscape. These graceful monuments to Pennsylvania's transportation and engineering history are a tangible link with the past that visitors and residents statewide can enjoy today. Few states rival Pennsylvania in sheer diversity of bridge design, construction, and thematic styles.*

*...Due to the number, history and importance of Pennsylvania bridges, significant efforts are expended to ensure that transportation projects are sensitive to the historic character*

*of these resources. A delicate balance is required to design, build and maintain safe bridges, while at the same time preserving the integrity of historically significant bridges.*

*...Maintaining the safety and capacity of the Commonwealth's bridge network, while preserving and protecting our legacy of historic bridges, is one of our most important goals.*

*...PennDOT ... has undertaken the monumental task of compiling an inventory of all state and locally owned bridges that are greater than 20 feet in length and constructed prior to 1957. ... In 1996, PennDOT contracted with A.G. Lichtenstein and Associates, Inc., to evaluate each of the approximately 12,000 bridges, both individually and thematically, for their potential eligibility to the [National Register of Historic Places](#). The ultimate goal of this project ... is the creation of a Bridge Management Plan that will identify which bridges can and should be preserved.*

*... Through this inventory, more than 12,000 of Pennsylvania's state, county, railroad-related, and highway bridges have been evaluated for [National Register](#) eligibility. Of this number approximately 597 were recommended as eligible, and roughly 100 bridges were already listed on the [National Register](#).*

## **Reality**

But even as the soothing message proclaiming Pennsylvania's official love for historic bridges is disseminated, a reality check by anyone caring to take a look around reveals that historic bridges are still being destroyed at an alarming rate.

Major historic bridge preservation projects are a rarity. Tributes to destroyed bridges are much more common.

## **The Survey**

If you are interested in looking at the Historic Bridge Survey, it can be downloaded from the [PennDOT Cultural Resources Management Program Web Site](#). A link to the survey database and some words of warning also appear on our [Bridge Resources Links Page](#). The facts and notes included in the survey database have proven valuable to me as a researcher. The simple fact that all old road bridges are listed in the database makes finding *all* of the old metal trusses in an area quite a bit easier.

I've looked at the data compiled for the bridge inventory mentioned above. The people gathering the data and making judgments about the worth of specific bridges seem to have executed their task well. The goal was to go through all of the remaining historic bridges and identify the best in the bunch. If it had been me filling in the blanks and making those judgments, just about every metal truss bridge I know would be deemed special (because they all are). But the survey folks couldn't get away with that and had to use criteria to narrow down the field of historic - mostly metal truss - bridges that should be singled out for special attention.

In the end, most bridges were classified as being essentially "common," while a handful were classified as being historically significant. Often the bridge evaluators would conclude that a particular bridge was nice enough, but that there were other examples of its kind that were just a little bit nicer. The bridge that wasn't at the top of the niceness

heap would end up not being declared historically significant. Attributes like age, style, builder and historical integrity are a few of the factors that determine a bridge's niceness rating.

Now, evaluating bridges in such a manner, where only the most special bridges get to be called historically significant, seems like a reasonable way to narrow down the total number of bridges declared eligible for inclusion in the [National Register of Historic Places](#). But what happens when the bridge destroyers come and destroy most of the bridges that are declared historically significant anyway, regardless of their declared historic value?

The massive bridge survey does not seem to have affected the rate of demolition of great old bridges. And many of the bridges destroyed are ones that the bridge evaluators declared historically significant. The end result is that the best bridges are being taken down without regard to their survey status. So what's left? The second string bridges are left. And since they've already been determined to be not historically significant, they lack the false protection that historically significant status gave their destroyed bridge brethren!

### **Smokescreen or Lack Of Policy Implementation?**

I sure don't know how to reconcile the difference between stated policy toward bridge preservation and the reality of the destruction of historic bridges that I see all around. Maybe all of the preservation efforts are going toward the high profile old bridges that define cities like Pittsburgh. Maybe all of the effort is concentrated around the state capitol. Maybe there is a communication problem between the policy makers and the bridge replacers. All I can say for sure is that bridge preservation does not seem to be going on in any big way in the vast, rural countryside where I travel.

I see a great, but dwindling collection of old metal truss bridges around me. But the money that should be spent on maintaining these bridges with historical authenticity is instead being spent on destruction and new bridges.

Is all of the talk of a plan for historic bridge preservation just a distraction to lull us into thinking our historic interests are being looked after when the real plan is to simply let the bridge contractors have a field day replacing vintage bridges until they're all gone? Nah - they wouldn't do that to us!

To be fair, I have seen a few examples of minor preservation done on some local historic bridges. For example, someone added some support beams to help keep the [Williams Road Bridge](#) standing in recent years. And when the [Jersey Bridge](#) near Drake Well was replaced, the truss portion of the bridge was used as an ornament on the new bridge. And some effort recently went into the deck of the [Miller Farm Road Bridge](#), although the sorely needed paint job was not performed.

These minor preservation efforts demonstrate that total bridge destruction can be avoided. I applaud the preservation minded among the bridge owners and hope to see them in action more often.

What I see more of though, is the elimination of bridges that have been deemed historically significant by the PennDOT survey. Examples abound of bridges viewed as significant by the bridge survey evaluators or already listed in the [National Register of](#)

[Historic Places](#), but which have nonetheless been destroyed or are awaiting imminent destruction. A list of just a few recently destroyed or threatened favorites includes the [Uitca Bridge](#), the [Grant Street Bridge](#), the [Arroyo Road Bridge](#), the [Shanley Road \(Maxwell Run\) Bridge](#), the [Spring Creek Bridge](#), the [Benezette Bridge](#), the [West Hickory Bridge](#), the [Millers Station Bridge](#), the [Venango Veterans Memorial Bridge](#) and the [Kreitz Road Bridge](#). The list could go on and on just with bridges I'm personally familiar with.

What I would *like* to see is more full scale preservation instead of destruction and scattered partial preservation measures. We need to keep authenticity in mind and keep as many bridges as is possible standing in their intended configuration as working truss bridges. Isn't there some way to redirect destruction and replacement bridge money into full scale preservation where worn parts are replaced with like materials? Can't we keep the authentic look of historic metal truss bridges in our lives? Load limits and single lanes can generally be lived with, without too much inconvenience.

Are historic metal truss bridges replaced simply because replacement is the easier route? Do we need more people with preservation skills in the employ of bridge custodians? What will it take to make preserving old trusses a more attractive option to those who maintain our bridges and decide their fates? Is it just too much trouble to fix up old metal truss bridges with historic authenticity because our bridge fixers are only geared up for installing modern versions of bridges?

### **A Venango County Example: Significant Decline In Bridge Population**

A little ways up on this page a reference was made to the fact that part of the decision making process in evaluating a bridge was to consider the bridge as a member of a group of similarly described structures. Pin connected truss bridges represent one general classification of bridges. The earlier trusses were generally pin connected, while later trusses were generally riveted. Pin connected trusses generally have more historic value simply because they came into being earlier in the history of truss bridge building. They represent an earlier technology.

A review of the Venango County bridges in the bridge survey database revealed that some comments associated with pin connected truss bridges referred to their total numbers. For instance, part of the survey comments for one western Venango County bridge reads "*Pin connected truss bridges are common in Venango County. Sixteen examples ranging in date from 1880 to 1904 remain.*"

Such a statement would seem to indicate that pin connected truss bridges should not be an area of preservation concern in Venango County. But that would not be the case at all.

Since the Historic Bridge Survey data was gathered in 1997 or so, things have changed. In the 5 years between 1997 and 2002, 5 of those 16 pin connected truss bridges that were said to be so common have been destroyed. One has been turned into an ornament and is no longer in the category. Another is on the list of bridges to be replaced in the very near future. **The bottom line is that in a 5 year period, the Venango County pin connected truss bridge collection went from 16 to 10 and 1 more is on the way to the bridge graveyard in the immediate future! That's what can happen in only 5 years.**

And that is what can happen even when Pennsylvania is supposedly embracing its historic bridges! This Venango County, pin connected example is not unique. Venango County

riveted bridges are also in decline as are the historic bridge collections in other counties.

The list of those 16 Venango County, pin connected truss bridges follows. The status of each of the bridges is shown:

<a href="#">Harper Road Bridge</a>	Survives, but authenticity compromised due to alterations
<a href="#">Hale Road Bridge</a>	Survives
Rynd Hill Road Bridge	Destroyed
<a href="#">Williams Road Bridge</a>	Survives with large steel beams for support
<a href="#">Petroleum Center Bridge</a>	Survives
<a href="#">SR 3005 (Scrubgrass Creek) Bridge</a>	Survives
<a href="#">Liodean Road Bridge</a>	Survives, but with joints encased in concrete
<a href="#">Miller Farm Road Bridge</a>	Survives
<a href="#">Dotter Road Bridge</a>	Survives
<a href="#">Woolen Mills (Cooperstown) Bridge</a>	Survives
School St (Polk) Bridge	Destroyed
<a href="#">Uitca Bridge</a>	Destroyed
<a href="#">Jersey Bridge</a>	No longer a full pin connected truss bridge (partially destroyed)
Nogel Road Bridge	Destroyed
<a href="#">Kennerdell Bridge</a>	Destroyed
<a href="#">Sunville Road Bridge</a>	Scheduled to be destroyed, probably in 2003 (This Venango County bridge is said to have "National Significance" in the bridge survey.)

There is one more Venango County bridge that is pin connected but was not included in the list of 16 because it is considered a new bridge now. Perhaps it should have been included and one of the other ones omitted? I didn't include it because the Historic Bridge Survey did not document it as an historic bridge.

<a href="#">Leshler Road (Pithole) Bridge</a>	Survives, but load carrying functionality replaced by stringer bridge. This could be considered a partial preservation success though. Although not full historic preservation, the method used to keep the old truss bridge in existence is a good second choice, since it is at least still with us. The full preservation option can be explored at a later date.
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### **Enough Already!**

There you have it - plenty of fun facts surrounding the Historic Bridge Survey (a good thing) and the Pennsylvania Historic Bridge Preservation Plan (something we need to work on - and fast!).