News Release
Chequamegon-Nicolet National Forest

For Immediate Release
Contact: By Mark Bruhy, Heritage Program Manager, Chequamegon-Nicolet National Forest

Historic Red Bridge saved by friends, partners and ARRA funding

By Mark Bruhy, Heritage Program Manager, Chequamegon-Nicolet National Forest

Armstrong Creek, Wis., (Aug. 25, 2010) -- Old bridges have a way of capturing our imagination, beckoning us back to times long past. Times change, however, and so do requirements for efficient and safe stream crossings. The dilemma of balancing historic preservation and transportation safety is not always resolvable. Thanks to the support of energetic local citizens, creative partnerships and American Recovery and Reinvention Act (ARRA) funding, the apparent conflict has been resolved in the case of the historic Red Bridge.

The Red Bridge, a steel "Pratt pony truss" design located south of the community of Armstrong Creek, Wisconsin, was constructed in 1908, its name derived from its striking red color. It replaced an earlier wooden bridge that served as a stream crossing along Old 101 Road, originally a 19th century wagon connecting the city of Shawano with logging camps and mines to the north. Around 1940 the Red Bridge could no longer accommodate heavier vehicles and construction of a new bridge was required. Fortunately, bridge replacement included realignment of Old 101 Road, and though it no longer carried traffic the historic Red Bridge remained standing.

A recently restored Red Bridge stands ready to carry traffic across Armstrong Creek and offer visitors a look into the past. *Photo by Mark Bruhy, Heritage Program Manager, Chequamegon-Nicolet National Forest.*

Highway safety issues were again identified in 2005 requiring Old 101 Road reconstruction, though this time the realignment appeared to require the removal of the Red Bridge.

As plans for bridge removal became public, a group of citizens opposing the action formed the "Friends of the Red Bridge." With their call for preservation, and a determination by the Wisconsin Historical Society that the Red Bridge was eligible for the National Register of Historic Places, planners sought alternatives to Red Bridge removal. They arrived at a simple solution, that is, shift the bridge's location to parallel the newly aligned road. Finding funding to do the work, however, proved to be more complex.

While all agreed the Red Bridge must be saved, cost estimates for removal, restoration and resetting the bridge were significant. Numerous attempts to secure funding were unsuccessful and once again the Red Bridge appeared doomed. That is, until the 2008 passage of ARRA and President Barack Obama's call for project proposals that would provide employment opportunities and support local economies. The Forest Service argued that Red Bridge restoration met these criteria and received ARRA funding to move forward with the restoration. At the same time the Forest Service partnered with the University of Wisconsin-Stevens Point to develop interpretive panels to be placed alongside the historic bridge as a means of enhancing its value as a tourist attraction.

Though it has been a long and difficult process, the Red Bridge restoration will be complete in the fall of 2010. Interpretive signs will have been installed by Blackwell Job Corps Center enrollees, and a parking area developed next to the Red Bridge to accommodate visitors, including those with disabilities. Thanks to persistent local support, creative partners and ARRA funding, the scenic and historic Red Bridge will continue to capture the imagination of visitors for years to come.

To visit the Red Bridge take US Highway 8 to the community of Armstrong Creek. In Armstrong Creek, from its intersection with Highway 8, travel one mile south on Old 101 Road. A parking area next to the bridge accommodates six cars, and visitors will be able to enjoy a remarkable historic bridge along with the scenic beauty of Armstrong Creek.

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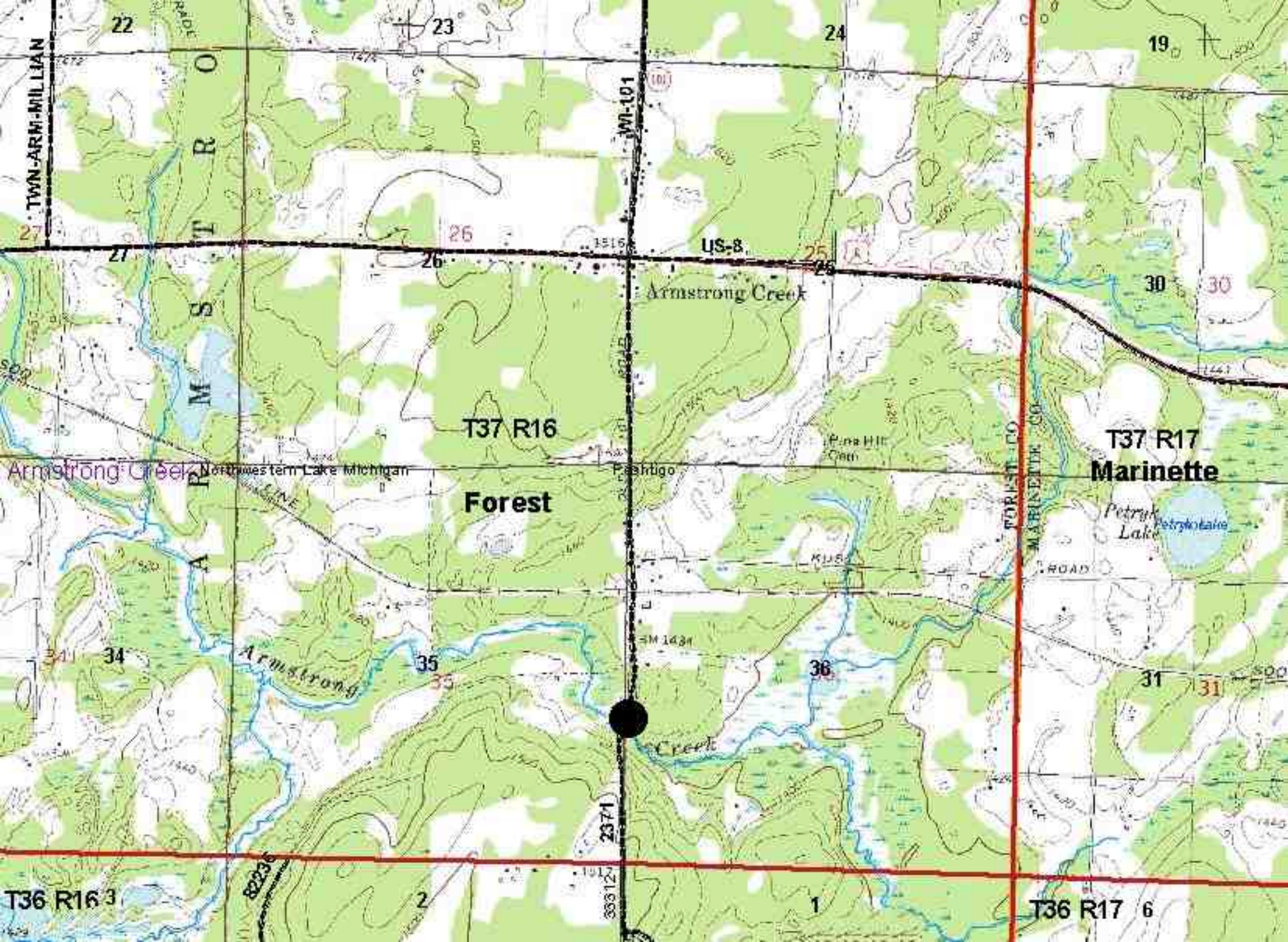
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Road Restored

Old 101 Road was developed in 1860 as part of a 96 mile wagon road that connected the city of Shawano to the Wisconsin-Michigan state line. As supplies for lumber camps and mines were carried north, valuable forest products and minerals were carried south. With the advent of the automobile, the road was slowly improved to provide safe travel for increased traffic and larger vehicles.

Problems

There was a variety of problems associated with Old 101 Road which led to safety hazards in the vicinity of Armstrong Creek. While the Red Bridge required restoration due to age and neglect, Old 101 Road also needed restoration and realignment to make it a safe travel way.

The road's poor alignment to the stream and its gravel surface caused both a traffic safety hazard as well as stream sedimentation problems. Gravel and other sediments were eroding into Armstrong Creek degrading aquatic habitat. Further, the old culverts used to direct stream flow were set too high and impeded fish passage.

William Knaack Jr.

Solutions

Innovative solutions were required to ensure safe travel along Old 101 Road, as well as to address the problem of aquatic organism passage. Specifically, the road was realigned to eliminate a dangerous curve. The road bed was raised to further improve travel safety. Finally, the newly constructed road was paved with asphalt to enhance safety and stop erosion.

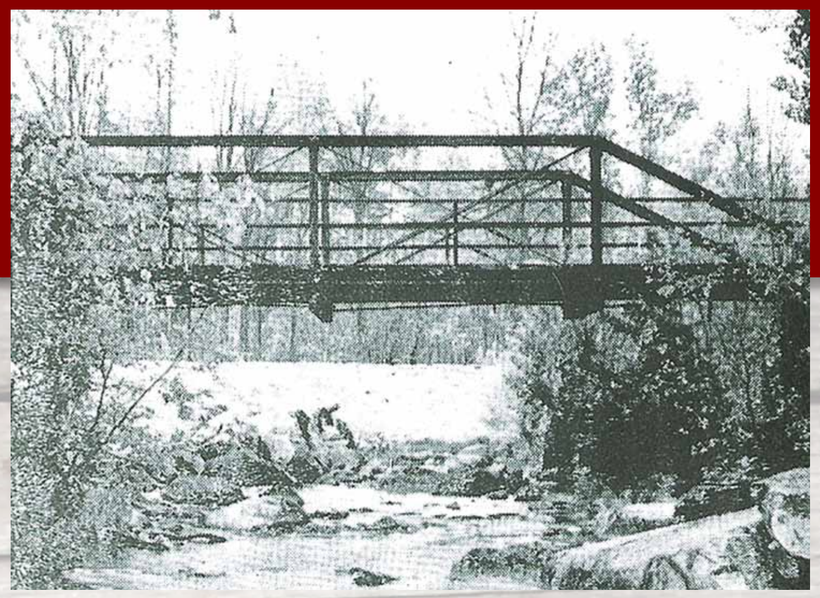
William Knaack Jr.

A new bridge over Armstrong Creek was constructed to meet today's safety standards. Upstream from the new bridge, Armstrong Creek was restored to its original stream channel.

Finished Product

The restoration of Old 101 Road has provided a safer travel way for the citizens of Armstrong Creek and visitors. Restoration has renewed the stream's aquatic health and habitat.

Written and designed by UW-Stevens Point students in cooperation with the USDA Forest Service and the Town of Armstrong Creek.



Bridge Restoration

Though it no longer carries traffic over Armstrong Creek, the historic Red Bridge symbolizes an important period in Wisconsin's history. The restoration of the bridge ensures that it continues to remain a highly visible and vital connection to Wisconsin's past.

Then

In 1860, what is now Old 101 Road was originally developed as a wagon road that linked the city of Shawano with the Wisconsin-Michigan state line. As supplies for lumber camps and mines were carried north, valuable forest products and minerals were carried south.

Built in 1908 to replace an earlier wooden structure, the historic Red Bridge is a steel, Pratt pony truss design popular during that period. Over time, Old 101 Road was improved to accommodate cars and trucks. By the 1940's the bridge could no longer accommodate the increased traffic, requiring that a new bridge be constructed adjacent to the historic Red Bridge. Though it no longer served as a crossing for cars and trucks, the Red Bridge was not removed.

Today

Though popular in the late 1800's and early 1900's, Pratt pony truss bridges are rapidly disappearing from the landscape. In 2007, as part of the reconstruction of Old 101 Road, the USDA Forest Service assessed the historic value of the Red Bridge. With the support of the citizens of Armstrong Creek, the Red Bridge was determined to be historically significant, and efforts to move and restore the bridge were initiated.

In 2010, the restored Red Bridge was reset in its current location, slightly downstream from its original site. Restored to its early twentieth century appearance and in recognition of its historic significance, the Red Bridge has been placed on both the State and National Registers of Historic Places.

Removal

Restoration of the Red Bridge began in 2007. The first step in this process was to remove the entire superstructure with a crane for its delivery to the facility where each component could be stabilized and repainted in its original red color.

Transport to Repair Location

Friends of the Red Bridge

The bridge's age and fragile condition required great care both in its removal as well as its transport to the repair facility.

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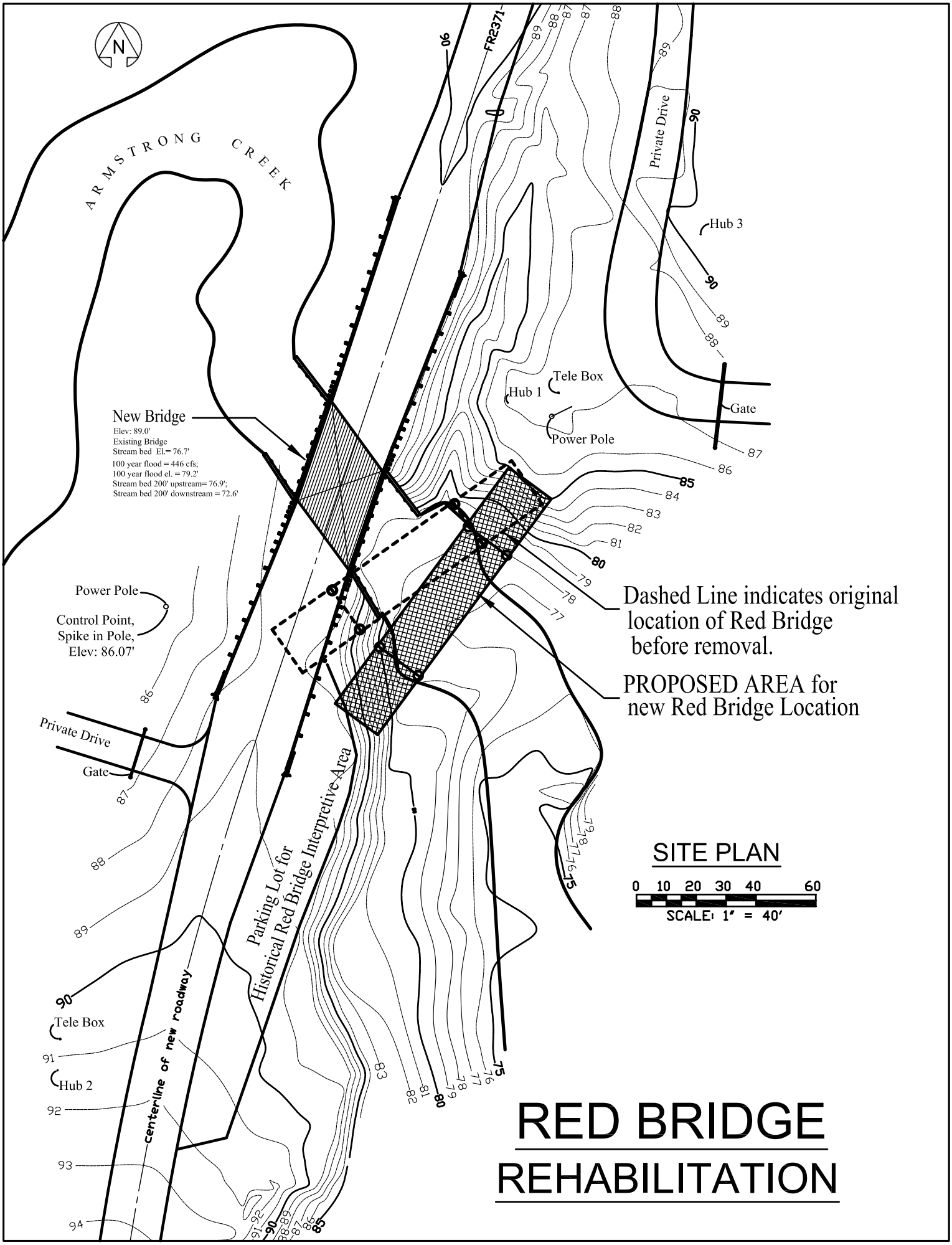
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ARMSTRONG CREEK
FR2371
Private Drive
Hub 3
Tele Box
Hub 1
Power Pole
Gate
New Bridge
Elev: 89.0'
Existing Bridge
Stream bed El.= 76.7'
100 year flood = 446 cfs;
100 year flood el. = 79.2'
Stream bed 200' upstream= 76.9';
Stream bed 200' downstream = 72.6'
Power Pole
Control Point,
Spike in Pole,
Elev: 86.07'
Dashed Line indicates original location of Red Bridge before removal.
PROPOSED AREA for new Red Bridge Location
Private Drive
Gate
Parking Lot for Historical Red Bridge Interpretive Area
centerline of new roadway
Tele Box
Hub 2
SITE PLAN
0 10 20 30 40 60
SCALE: 1" = 40'
RED BRIDGE
REHABILITATION


TRANSCRAFT EAGLE
99

Stream Restoration

The original development of Old 101Road rendered significant changes to Armstrong Creek, which compromised the natural flow of the stream and degraded the stream's ecosystem. Fortunately, stream restoration activities were undertaken when Old 101 Road was reconstructed. Armstrong Creek once again provides a healthy and free flowing environment for a variety of aquatic organisms.

Brook Trout *Salvelinus fontinalis*

Armstrong Creek is a Class Two trout stream that contains the only native trout in Wisconsin, brook trout.

Northern Redbelly Dace, *Phoxinus eos*

Lost and Found:

- Upstream passage for brook trout and other aquatic organisms
- Good water quality
- Improved stream habitat

Upstream Passage

Dale Higgins

The placement of multiple culverts, which were set too high, caused stream flow to be too fast for fish like brook trout, which require passage for upstream spawning. Placement of the new bridge provides for aquatic organism passage within a natural stream channel. Compare the photo on the left, which shows the old multiple culverts, with the way the stream looks today.

Water Quality

Sedimentation had significantly degraded Armstrong Creek. For many years heavy amounts of sediment eroded into the stream severely affecting water quality. The problems were addressed through realigning the road, reducing embankment slope, and installing cross drain culverts along the road to reduce erosion from the steep southern approach. Today, sedimentation no longer threatens the stream.

Stream Habitat

To create an easier more economical crossing, over 250 feet of the stream was channelized when Old 101 Road was first constructed.

This channelization, however, led to problems. Stream restoration included the removal of almost three feet of sediment from the historic stream bed, allowing water to be diverted back into the original channel. This restoration, with the creation of fish passage in the vicinity of the bridge, opened an additional ten miles of habitat for brook trout. The above photo shows the original channel before restoration.

This is a cooperative project by the USDA Forest Service, the Town of Armstrong Creek, and UW Stevens Point, CNR, Schmeeckle Reserve