

2003 EXCELLENCE IN HOT-DIP GALVANIZING BRIDGE & HIGHWAY



GOSHEN BRIDGE

Galvan Industries, Inc.

Location: Goshen, Virginia

Fabricator:
Structural Steel Products Co.

Engineers:
FHWA - Virginia Division,
Virginia DOT

Listed in the Virginia Landmarks Register and the National Register of Historic Places — at a length of 260½ feet — Goshen Bridge is the only metal truss bridge of its size in the Staunton District and was completed in June 1891. After over a century of service, however, the bridge was sorely in need of complete rehabilitation or replacement.

Restoring the single-lane structure made sense for a number of reasons, including the desire to preserve architectural elements of the past such as its structural design, steel members, and erection methods. Additionally, the economic benefit reaped by rehabilitating such a bridge near its end-of-life by hot-dip galvanizing the structural steel was attractive to the state of Virginia.

Over 300 tons of fabricated and rolled steel were disassembled and then blast-cleaned to remove more than 100 years of rust. These steel pieces were then carefully put through the galvanizing process, first immersed in cleaning solutions and then a molten zinc bath. The entire sequence took just a matter of days and the freshly-galvanized steel was ready for re-assembly at its original site.

This majestic bridge is now protected from corrosion for a lifetime, serving the public as the grand bridge it is, first envisioned by its designers over a century ago.

