

Covered Bridges

The covered bridge was composed of a roadway supported on each side by a wooden truss and a roof. The frame consisted of two high walls that spanned a stream with cross timbers at the top for the ceiling and at the bottom for the floor and foundation. These frames were of heavy timbers called chords. They were connected with "trusses" repeated groups of 2 or 3 long timbers laid diagonally like a narrow "x", to form a rigid framework to support all or part of the structure. They were pinned together at the center with "trunnels" (tree nails) which were made of hard wood and driven into auger holes with a mallet. Boards on the outside walls and a roof were added to protect the trusswork. Often, openings were left on one side to admit light.



There are approximately 60 covered bridges left in New Hampshire. They all display similar features but no two are exactly alike. The earliest bridges were built by farmers using the King and Queen post designs. They found the King post unsuitable for major spans but many Queen post bridges were built, although few are left today. In the 1800's engineers began designing the bridges. Ithiel Town developed the lattice truss, two layers of plank set diagonally opposite about 2 feet between chords. Theodore Burr's truss was combined with laminated arches for added strength. Peter Paddleford's truss was a variation of the Burr. William Howe's truss had wrought iron rods extending from chord to chord with thread and nuts at each end while the first design developed using mathematical calculations was by Stephen Long.

BATH BRIDGE: This bridge can be found west of US Route 302 at Bath Village. It was built in 1832 and spans the Ammonoosuc River. It is a 4-span Burr design 400 feet long, 24 feet wide with a 4 foot walkway. It is supported by 3 stone piers plus one at each end. In later years, arches were added to extend over railroad tracks. At one time it was posted that horses were prohibited from trotting across for fear that the jarring pace might make it fall apart.

BATH-SWIFTWATER: Located north of NH 112 at Swift-water, this bridge spans the Wild Ammonoosuc River. It was constructed in 1849, is 174 feet long and 20 feet wide. It has a Paddleford truss with arches added in later years.

HAVERHILL-BATH: Look for this bridge on NH 135, 1/4 mile north of US 302 at Woodsville. Built in 1827, it is the oldest 'authenticated' bridge in New Hampshire. It spans the Ammonoosuc River where the Ammonoosuc flows into the Connecticut River. It is a 2-span Town lattice design held together with wooden pegs. It is 278 feet long and 27 feet wide including the sidewalk on one side. In the old days salmon fishermen would congregate here. Their catch would later be salted down and shipped all over the country.

LANCASTER-MECHANIC STREET: Last of the junction of US Routes 2 and 3 on Mechanic Street in Lancaster Village sits this bridge that was built in 1862 over the Israel River. It is a Howe truss design 108 feet long and 20 feet wide. It was once called the Israel River Bridge after pioneer Israel Glines for whom the river was named. When first built, signs were posed against crossing faster than a walk under penalty of fine.

LANCASTER-LUNENBURG, VT: Originally known as Mt. Orne Bridge, this is located west of NH 135, 5 miles west of Lancaster Village. It was constructed in 1911, replacing the original bridge that was washed away by a flood in 1905, and spans the Connecticut River. It is a 2-span Howe truss design between South Lancaster, New Hampshire and Lunenburg, Vermont.

NORTHUMBERLAND-GROVETON: This bridge is east of US 3 in Groveton. The original bridge was built in 1852 to span the Upper Ammonoosuc River. It has a Burr truss with an arch added in later years. It is 136 feet long and 20 1/2 feet wide. A new road was built around it in 1939 to preserve it for the future. It was rebuilt in 1964-65 and is used for foot traffic only.

STARK: This bridge is located northwest of NH 110 at Stark Village and spans the upper Ammonoosuc River. It is unknown when the original bridge was constructed but it was rebuilt in 1949. In 1954 steel stringers were added and arches were removed. It is a 2-span Paddleford design 151 feet long, 29 feet wide including 2 walkways. At one time it had a center pier. During a flood, the bridge floated away. It caught and held on the underbrush nearby. The towns people retrieved it and attached it to the foundation but did away with the center piece and replaced it with great laminated arches running almost end to end.

COLUMBIA: Find this bridge west of NH 153 in Columbia Village. Constructed in 1912, it is the most northerly covered bridge across the Connecticut River between New Hampshire and Vermont. Its length is 148 feet and width 15 feet. It is a Howe truss design displaying an unusual feature - the upstream side is open, lattice hallway down while the downstream side is fully covered.