HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Gillis Bridge
MHTD: 321001.2

SHEL13

DATE(S) OF CONSTRUCTION
1908

LOCATION
County Road 321 over Black Creek; S1/2, T57N, R10W
4.5 miles southeast of Shelbyville; Shelby County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 48)

CONDITION
good

OWNER
Shelby County

span number:	1	superstructure:	steel, 5-panel, pin-connected Pratt truss-leg bedstead
span length:	80.0'	substructure:	steel truss legs with timber backwalls
total length:	81.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	11.8'	other features:	upper chord and end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars, or 2 angles with batten plates; vertical: 4 angles with lacing; diagonal: 2 square eyebars; counter: square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 channels

The Gillis Bridge carries a secondary county road over the Black River some four miles southeast of Shelbyville, in southeastern Shelby County. A pin-connected Pratt truss-leg bedstead, the structure is supported by its original bedstead legs. Its 80-foot span rates among the state's longest on a bedstead design. Efforts to bridge the crossing began in late 1907. At a meeting of the Shelby County Court, held on December 3, 1907, county highway engineer W.W. Mitchel reported on the necessity of two bridges. One of these was a short-span, steel stringer, while the other was this 80-foot bedstead, known as the Gillis Bridge. Plans to build the Gillis Bridge were put on hold until the following spring. On June 2, 1908, the Michelmann Steel Construction Company of Quincy, Illinois, submitted a low bid of $615.00 for the structure's erection. The county court initially tabled the offer, but at a later meeting decided to accept it. On January 4, 1909, Shelby County issued a $615.00 warrant to Michelmann for completion of the Gillis Bridge. Having served to carry local traffic in a rural location, the structure has suffered virtually no loss of physical integrity over the years.

In a bedstead truss, a single "leg" functioned as both end post and support at each corner of the structure. This combined super- and substructure reduced erection costs somewhat, but bedsteads were prey to flood and collision damage and suffered from inherent structural weaknesses relating to compression stress in the lower chords. Despite these weaknesses, numerous truss leg bedsteads were erected throughout Missouri in the later 1890s and early 1900s. Hundreds remain in place today - in fact, Missouri has probably more bedsteads than any other state. The Gillis Bridge is distinguished as a well-preserved, long span example of this statewide bridge construction trend. In fact, its 80-foot length is unexcelled by any other bedstead in the state.