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United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name New Hope Bridge
other names/site number Bartholomew County Bridge #133 N/A

2. Location

street & number CR 400 North over Flat Rock River N/A not for publication
city or town Columbus N/A vicinity
state Indiana code IN county Bartholomew code 005 zip code 47203

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

[Signature] 7-26-99
Signature of certifying official/Title Date
Indiana Department of Natural Resources
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:
 entered in the National Register.
 See continuation sheet.
 determined eligible for the National Register
 See continuation sheet.
 determined not eligible for the National Register
 removed from the National Register
 other, (explain:) _____

[Signature] 9/9/99
Signature of the Keeper Date of Action
Edson H. Beall

New Hope Bridge

Bartholomew IN

Name of Property

County and State

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	Total

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

TRANSPORTATION: Road-Related (vehicular)

Current Functions

(Enter categories from instructions)

NOT IN USE

7. Description

Architectural Classification

(Enter categories from instructions)

OTHER: Pratt Through Truss

Materials

(Enter categories from instructions)

foundation CONCRETE

walls

roof

other METAL: Iron

CONCRETE

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

Areas of Significance

(Enter categories from instructions)

ENGINEERING
TRANSPORTATION

Period of Significance

1913

Significant Dates

1913

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

9. Major Bibliographic References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

New Hope Bridge
Name of Property

Bartholomew IN
County and State

10. Geographical Data

Acreege of Property less than 1

UTM References

(Place additional UTM references on a continuation sheet.)

1

1	6	5	9	3	0	2	0	4	3	4	5	9	2	0
Zone	Easting				Northing									

3

Zone	Easting				Northing									

2

Zone	Easting				Northing									

4

Zone	Easting				Northing									

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Laura Thayer, James Cooper, Monica Fry, Marc Holma
organization Historic Landmarks Foundation of Indiana date 11/10/98
street & number 340 West Michigan Street telephone (317) 639-4534
city or town Indianapolis state IN zip code 46202-3204

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white** photographs of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name Bartholomew County Commissioners
street & number 440 Third Street telephone (812)379-1515
city or town Columbus state IN zip code 47201

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

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New Hope Bridge
Bartholomew County, Indiana

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Narrative Description

The New Hope Bridge is located along Bartholomew County Route 400N, approximately one mile north of the county seat, Columbus. It crosses the Flatrock River, which divides German Township to the west, from Flatrock Township on the river's eastern bank. The bridge's location, roughly one-mile northwest of Columbus, reinforces the span's importance to the development of that city. Constructed circa 1913, the New Hope Bridge remains an important transportation link for the residents of Bartholomew County.

Most likely fabricated by the Caldwell and Drake Iron Works of Columbus (Indiana), the New Hope Bridge was erected circa 1913. It is a two-span, wholly riveted Pratt-through truss structure resting on concrete abutments and a concrete pier. The pier has a small raised "1913" on it providing evidence of the construction date. Local contractor Joseph T. Meridith built the abutments and pier. The bridge's identical spans measure 128-ft each and contain eight 16-ft panels apiece.

Placed 23-ft apart, horizontal and parallel top and lower chords connected by inclined end posts mark the perimeter of the trusses. The top chords and end posts are constructed of pairs of channels with cover plated riveted above and lacing the batten bars below. Two pairs of angles riveted together with battens constitute the bottom chord members. These angles differ in size from 3.5 in. for the outer and second panels, to 6 in. for the third and fourth panels. The amount of tension expected along the span accounts for the different sizes of the angle.

As with the angles of the lower chord, the truss webbing is adjusted for the nature and amount of anticipated stress. The outer or hip vertical of each span consists of a pair of 2.5 in. angles riveted together with battens. These angles act as hangers for the floor beams. The bridge's next two inner vertical posts are each constructed of two pairs of 3 in. laced angles, while the most central vertical was made from pairs of 2.5 in. angles.

Pratt diagonals are designed for tension with greater stress expected toward the span's ends. On the New Hope Bridge two pairs of angles, measuring 3.5, 2.5 and 2 inches (outer to inner) and connected with battens, supply the diagonal members. The four most central panels of each span have pairs of angles serving as counter-braces. Riveted to all the members at the lower panel points, gussets add stability to the truss section.

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New Hope Bridge
Bartholomew County, Indiana

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Bracing between the trusses also helps to stabilize the structure. The upper struts consist of two pairs of laced angles, supplemented with knee-braces consisting of a pair of angles. To protect against sway-induced stress, rods run diagonally from one truss to the other within the boundaries of parallel panels as upper lateral bracing.

Eighteen-inch deep rolled-I floor beams carry the deck. Floor beams in turn support eight longitudinal I-beam stringers that undergird the timber deck. The top lateral bracing is mirrored in the substructure's bottom bracing. Round-rod sway braces run diagonally from one truss to the other within the boundaries of the parallel panels below. Each of the rod's threaded ends extend through an opening in the floor beam where plates and nuts allow the rod to be tightened. A latticed guardrail is fastened to the inside of each truss and extends the length of both spans, terminating on the interior side of each inclined end post. While a single angle makes up the portal strut, a pair of angles brace the strut and add a decorative touch. The bridge allows a clearance of 16-ft.

The New Hope Bridge does not have an identification plaque, nor does it carry brackets that would have once supported one. The New Hope Bridge is no longer in service, but plans are currently underway to restore the bridge for future use.

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New Hope Bridge
Bartholomew County, Indiana

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Narrative Statement of Significance

The New Hope Bridge is eligible for inclusion in the National Register of Historic Places under Criterion C for engineering and under Criterion A for transportation. The bridge is important regionally as an early example of an all-riveted structure designed by the Caldwell and Drake Iron Works. Caldwell and Drake Iron Works was a Columbus (Indiana) firm with a national reputation for fabricating metal structures.

New Hope Bridge derives its name from the nearby sanctuary located along "the State Road" (the predecessor to U.S. 31). James M. Perry founded the New Hope Church shortly after the Civil War to serve the spiritual needs of the inhabitants of southeast German and southwest Flatrock townships. Perry was a prosperous farmer who owned over 6,000 acres of land, mostly in Bartholomew County. Prior to 1908, county maps do not show an east-west road at the present location of County Road 400N. Farmers residing in lower German Township had to travel many extra miles in order to ford the Flatrock River to reach Columbus. Adequate bridges over the Flatrock River were sufficiently rare to leave local citizens at the seasonal mercy of the flood-prone stream.

By the early twentieth century, rising population and commercial requirements aroused local interest in more reliable transportation. In May 1911 Benjamin I. Perry, son of James M. Perry, organized a petition to the county commissioners for an improved gravel road extending from the State Road just south of the New Hope Church eastward to the Columbus and Flatrock Pike. The entreaty also included the "bridging of Flatrock River."¹ The county commissioners acted quickly and appointed the county surveyor, Henry C. Deist, as "civil engineer" and Frank Edwards and Charles Massie as viewers to inspect the proposed roadway and to estimate its cost. The engineer and viewers recommended the fulfillment of the petitioner's request and the commissioners ordered the road to be advertised for construction bids.

The county records are silent concerning the New Hope Bridge specifically. The commissioners received two bids for construction of the Ben I. Perry road on 4 September 1911. Joseph T. Meredith's \$20,725 bid was deemed "the lowest and the best"

¹ James L. Cooper. "County Commissioners Among Engineers and Industrialists, Bartholomew County's Pugh Ford (#73) and New Hope (#133) Bridges." October 1993, p. 8.

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New Hope Bridge
Bartholomew County, Indiana

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and he was awarded the contract.² Meredith was a successful Petersville farmer and part-time road contractor who was known to county commissioners for work he has previously done on the Trotter and W. T. Rominger roads. Ben I. Perry, the wealthy and politically-connected petitioner, was appointed as "superintendent of construction." Perry's assignment was more than deferential to a local notable. He had two years undergraduate technical training at Bradley Polytechnic Institute in Peoria, Illinois.

Although Perry's petition called for the construction of a bridge across the Flatrock River, the advertisement for bids contains no references to bridging. Meredith's contract does not speak of constructing the "road, bridges and culverts according the plans and specifications on file in the auditor's office."³ Additionally, in his report on the completion of Perry Road in 1914, H. C. Deist mentions "the Flatrock Bridge" in passing. Contemporary newspaper accounts are equally mute about the New Hope Bridge.⁴

Despite the lack of direct evidence connection the New Hope Bridge in conjunction with construction of the Perry Road, circumstantial evidence buttresses the case. A 1908 map of Bartholomew County shows no span existing on the eventual site of the New Hope Bridge. Nine years later, an updated county map records the road improvements and shows the Flatrock River bridged at this location. This places the bridge in the same time frame as the road's construction. The raised "1913" in the concrete of the New Hope Bridge's pier corroborates the dating. Perry's 1911 petition for road improvements called for "bridging the Flatrock River," and Meredith's contract included some "bridges," and prices bid for the two-and-a-half mile road work were extraordinarily high if they did not involve some substantial bridge construction.⁵ Though this evidence is largely circumstantial, the conclusion that the New Hope Bridge was erected as a part of the Perry Road improvement between 1911 and 1914 is nonetheless compelling.

The question remains, however, as to who designed and fabricated the bridge. It is likely that Meredith built the concrete abutments and pier for the spans. He had experience constructing culverts and small concrete bridges, but the technical knowledge necessary to raise an iron bridge like that at New Hope was beyond a road contractor's capabilities. Meredith also did not have a metalworking shop where large truss members could be cut, shaped and riveted together. The source for the bridge's engineering and fabrication must

² Ibid., p. 9.

³ Ibid., p.10.

⁴ Ibid.

⁵ Ibid., p. 11.

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New Hope Bridge
Bartholomew County, Indiana

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have been local, though, otherwise responsible commissioners would likely have taken additional and documented action.

One must again rely on circumstantial evidence to supply the needed clues. In this case, however, the evidence is quite strong. First, the difficulties associated with transporting a wholly riveted structure of such size and over a long distance strongly suggests a local fabrication. Second, only one local company had the experience and facilities necessary for fabricating large metal trusses—the Caldwell and Drake Iron Works of Columbus.

By 1910, the Caldwell and Drake Iron Works of Columbus was well established as manufacturers of large steel trusses. The company gained national recognition by building a considerable number of trussed-buildings. In 1901, George Caldwell and Lester Drake won the largest bid of its kind yet seen in the country for the construction of the West Baden Springs Hotel with a dome greater in diameter than the Capitol Building in Washington, D. C. With contracts worth more than \$1.6 million, Caldwell and Drake built over twenty buildings for the 1904 Louisiana Purchase Exhibition in St. Louis. Caldwell and Drake's other achievements included several state capitols, dozens of university and government buildings and at least thirteen domed courthouses in Indiana and five other states.

Caldwell and Drake's impressive resume indicates that 128-foot steel trusses would be well within their capabilities. Indeed, Caldwell and Drake employed a team of engineers with ample experience, knowledge and machinery to design, manufacture and assemble bridge trusses. Furthermore, they bid unsuccessfully for the construction of the Clifty Bridge on the Hartsville Pike in 1914. The company that did receive the contract, Craig Construction Company of Greensburg, subcontracted with the Iron Works to "furnish and erect the 200-foot steel superstructure." Roger Lortz, who constructed the Galbraith Bridge in 1916, did so according to the "Caldwell and Drake plan."⁶ As the only local firm with the experience necessary for, and shop capable of, producing the necessary steel bridge trusses, the Caldwell and Drake Iron Works most likely fabricated the members for the New Hope Bridge.

The New Hope Bridge is an increasingly rare example of a dwindling heritage resource. Dr. James L. Cooper, identified twenty-seven existing iron bridges in Bartholomew

⁶ Ibid., p. 15.

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County in his 1987 book Iron Monuments to Distant Posterity: Indiana's Metal bridges, 1870-1930. Six years later, Dr. Cooper noted that number had already shrunk by almost two-thirds to twelve.

Dr. Cooper, in his paper "County Commissioners Among Engineers and Industrialists, Bartholomew County's Pugh Ford (#73) and New Hope (#133) Bridges" (October 1993), identifies the New Hope Bridge as, "the best example extant of the design and fabrication of the Caldwell and Drake Iron Works." He goes further and describes the two spans as "culturally significant artifacts worthy of being recorded in the National Register of Historic Places."

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New Hope Bridge
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Bibliography

Bartholomew County Interim Report. Indianapolis, Indiana: Historic Landmarks
Foundation of Indiana, 1980.

Cooper, James L. "County Commissioners Among Engineers and Industrialists,
Bartholomew County's Pugh Ford (#73) and New Hope (#133) Bridges."
October 1993.

Cooper, James L. Iron Monuments to Distant Prosperity: Indiana's Metal Bridges, 1870-
1930. Indianapolis, Indiana: Technical Publishing Services, 1987.

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New Hope Bridge
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Verbal Boundary Description

The New Hope Bridge over the Flatrock River, located on the border of German and Flatrock townships, Bartholomew County, Indiana, NW ¼ of NW ¼ of NW ¼ of NE ¼ of Section 1 T9N R5E. The boundary includes the bridge itself, its historic abutments and an area 15 feet in length and as wide as the portals in front of the edge of the bridge structure which contains the approaches on either side.

Boundary Justification

The boundary includes the steel truss structure and its historic abutments.

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Bartholomew County, Indiana

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* Information is the same for all photographs

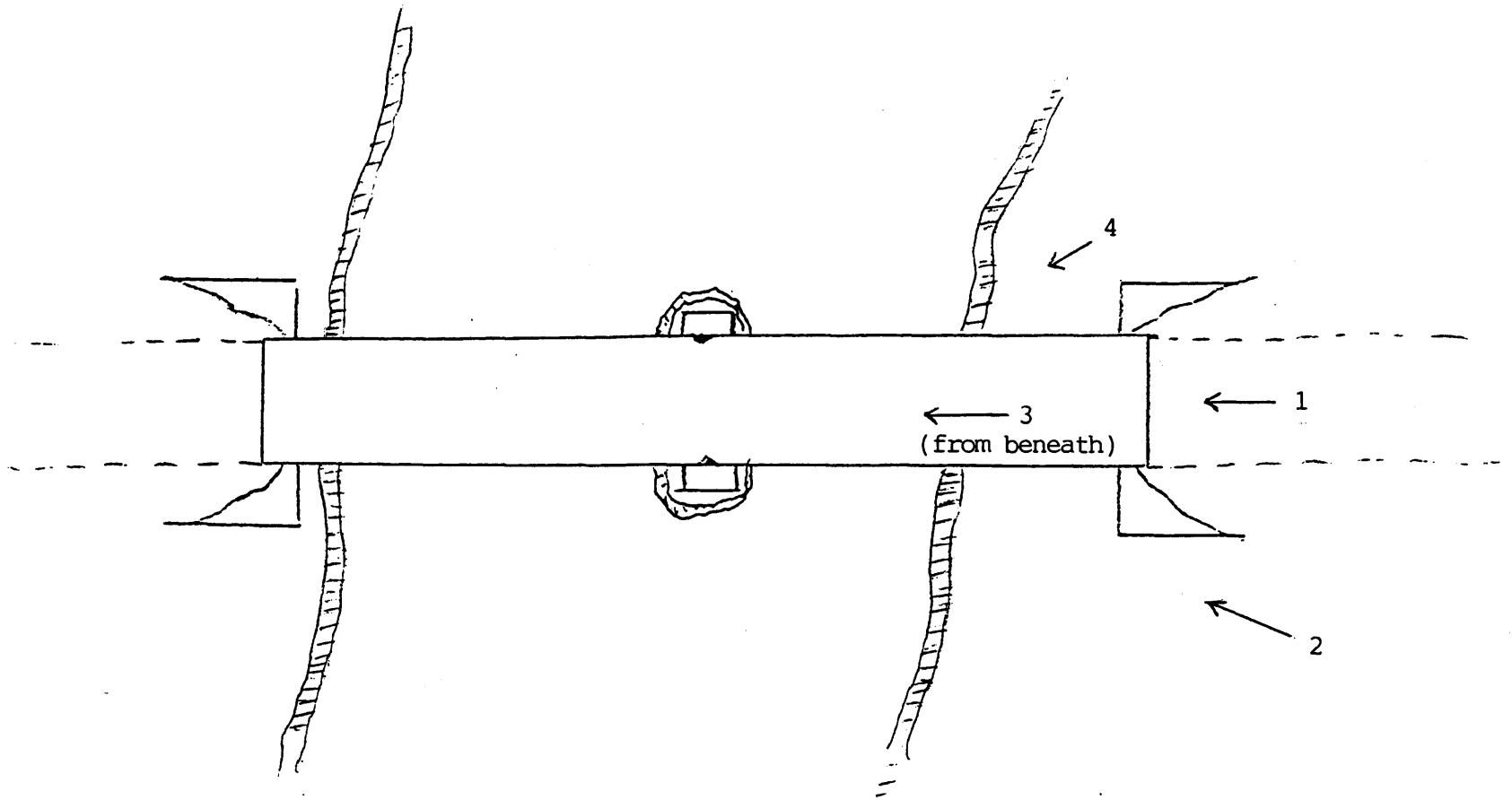
1. New Hope Bridge *
2. Bartholomew County, Indiana *
3. Marsh Davis *
4. April 20, 1994 *
5. Indiana Division of Historic Preservation and Archaeology *

6. Camera pointing west, across New Hope Bridge
7. #1 of 4

6. Camera pointing northwest, across Flatrock River, toward pier
7. #2 of 4

6. Camera pointing west, across Flatrock River, toward pier, from beneath bridge
7. #3 of 4

6. Camera pointing southwest, across Flatrock River, toward pier
7. #4 of 4



New Hope Bridge, Bartholomew County, Indiana