

**United States Department of the Interior
Heritage Conservation and Recreation Service**

**National Register of Historic Places
Inventory—Nomination Form**

For HCRS use only

received OCT 23 1981

date entered NOV 30 1981

Continuation sheet	Item number	Page
DESCRIPTION	7	2

The northernmost structure is Airtight Bridge built in 1914 using the Pratt through-truss design. South of Airtight are two more through-trusses — the Quarry Bridge (1883) and the Harrison Street crossing (1898). The southernmost bridge is the Blakeman crossing, built in 1907 in the concrete, arched style.

Following is a brief description of each bridge. See the accompanying bridge inventory forms for detailed information.

INDIVIDUAL BRIDGES

Stone Quarry Bridge

The Stone Quarry Bridge is so-named because of its proximity to the Charleston Stone Company quarry. This bridge is the oldest in Coles County, built in 1883 by the King Iron Bridge Company of Cleveland, Ohio. Quarry Bridge is a double intersection Pratt pinned through-truss built of steel and iron with a timber deck. The main truss measures 180 feet, with a 16 foot western approach and a 14 foot 10 inch eastern approach. The bridge roadway is 16 feet wide, while the minimum clearance of the span is 17 feet 2 inches. The span has 12 panels.

Quarry Bridge is located on the old Paris to Pana trail, which provided a means of traveling between the City of Charleston and the Village of Ashmore. Costing Coles County \$4000 at the time, Quarry Bridge has withstood the years, although it is showing its age. The bridge has rusted considerably and was rated fair during a recent Illinois Department of Transportation inspection.

Significance Quarry Bridge was important to local transportation in Coles County as a connector between the eastern third of the county and the county seat at Charleston. The bridge is further significant as the oldest Coles County bridge across the river and in the entire county (1883).

Of engineering significance is the bridge's double intersection Pratt design, a design pattern developed by Squire Whipple in 1846. This truss was developed by Whipple as a response to a need for longer spans. The unique characteristic of the truss is the use of long diagonals which extend across two panels rather than one. The truss is also known as the Whipple, Whipple-Murphy, and Linville truss.

The double intersection Pratt truss was widely used in the United States between 1865 and 1885. By 1890, however, the Whipple truss was rarely used. As longer bridges were needed, the double intersection Pratt truss became an expensive design alternative because of the use of the long diagonal bars. Other less expensive variations of the Pratt were used instead.

The only double intersection Pratt truss in Coles County, Quarry Bridge was built at the end of the period during which this style was popular.

BRIDGE INVENTORY FORM

NOV 30 1981

OCT 23 1981

Bridge Name Stone Quarry Bridge Number 3111*Location NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 5 Township 12 North Range 10 EastVerbal Location Located on township road 1000 N at the intersection of Charleston, Morgan, and Ashmore townshipsTown Charleston Vicinity of X NE of CharlestonCounty Coles

Owner	<u>Charleston Township Board</u>	<u>Morgan Township Board</u>	<u>Ashmore Township Board</u>
	<u>% Supervisor Tom Morgan</u>	<u>% Supervisor Bruce Swango</u>	<u>% Supervisor Wm. Strader</u>
	<u>418 Sixth Street</u>	<u>R.R. #1</u>	
	<u>Charleston, IL 61920</u>	<u>Oakland, IL 61943</u>	<u>Ashmore, IL 61912</u>

Acreage less than 1 acre

UTM Coordinates

Number of Spans 1

Oakland, IL Quad

Construction Date 1883

1:62500

Zone 16

Engineer Unknown

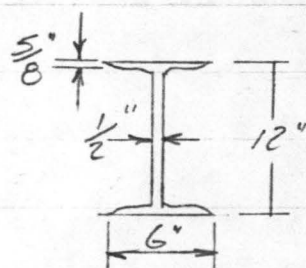
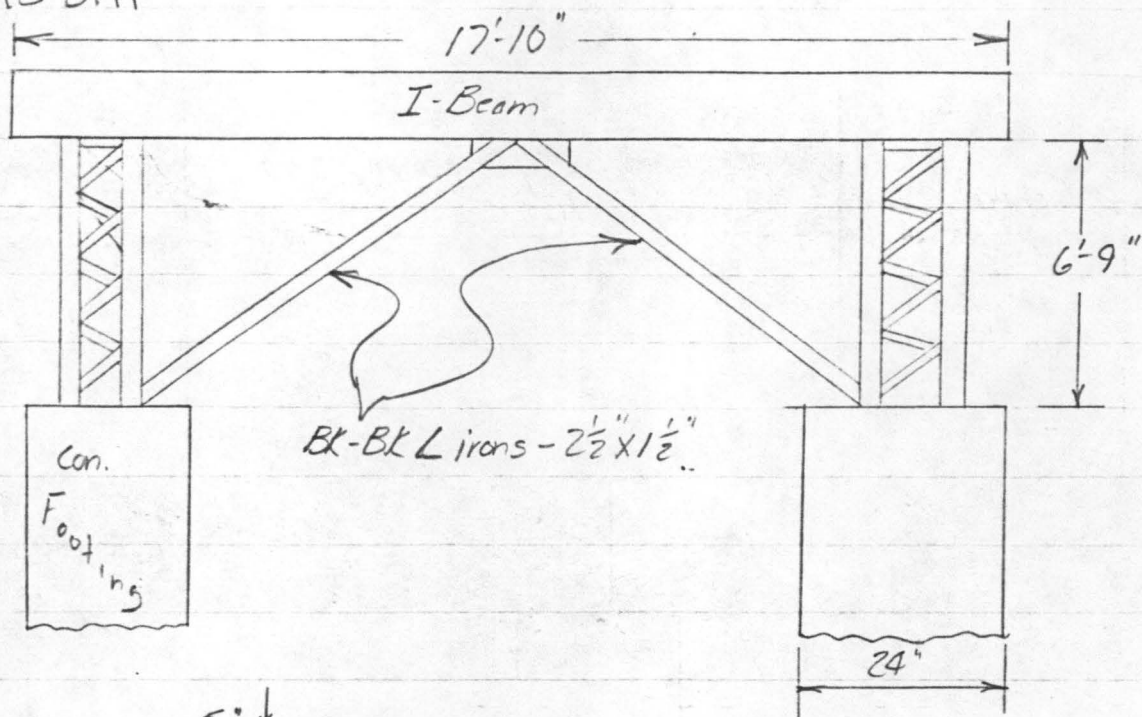
E 404 065

N 4374 095

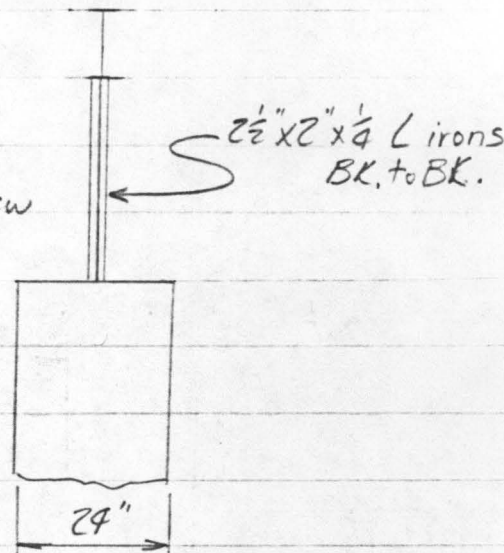
Manufacturer King Iron Bridge Company, Cleveland, OhioMaterials steel, iron, concrete, timber Type double intersection Pratt through-trussTruss: Through X Pony Deck Truss Dimensions: See attached dimensionsComments 180' truss with a 16' western approach and a 14' 10" eastern approach; 12 panels at 15' each = 180' truss; pinned and riveted; verticals measure 28' 2"Significance Only double intersection Pratt truss in Coles County; oldest truss left in Coles County; represents improvement of simple Pratt truss; this style was popular circa 1865-1885.

Bridge 015-3111

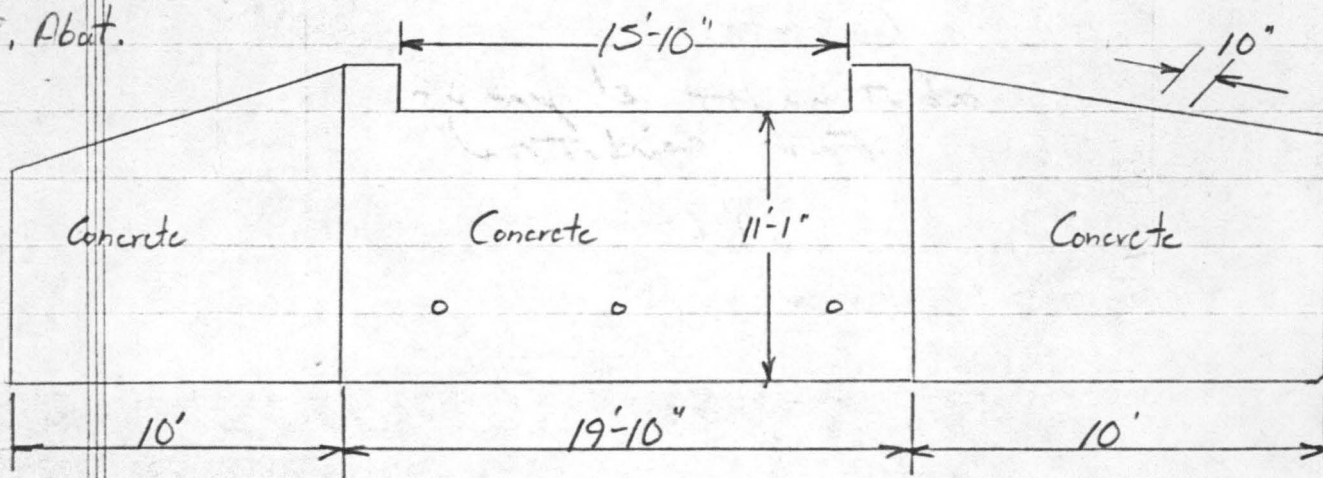
Proc 4



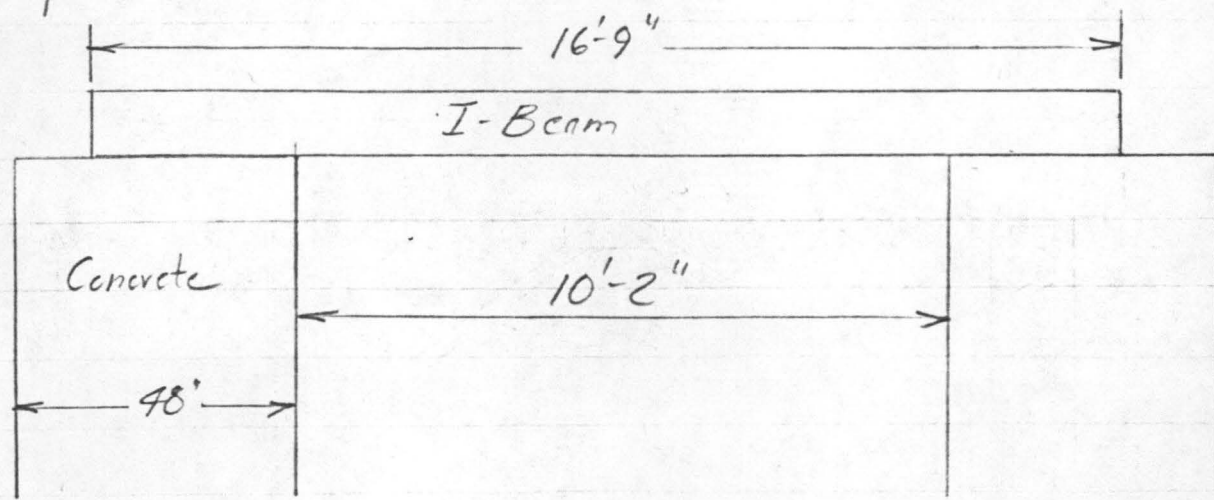
Side View



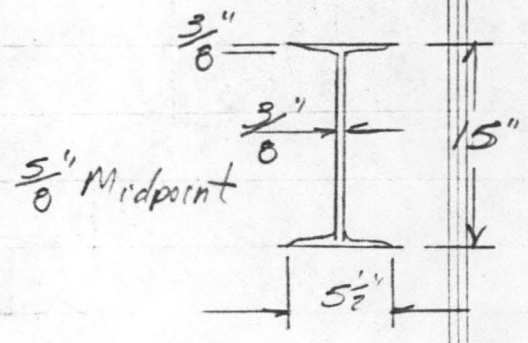
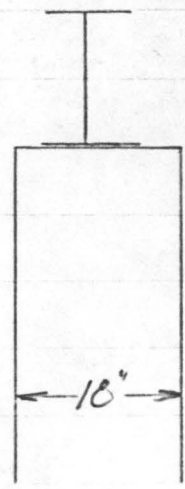
E, Abat.



Pier 1

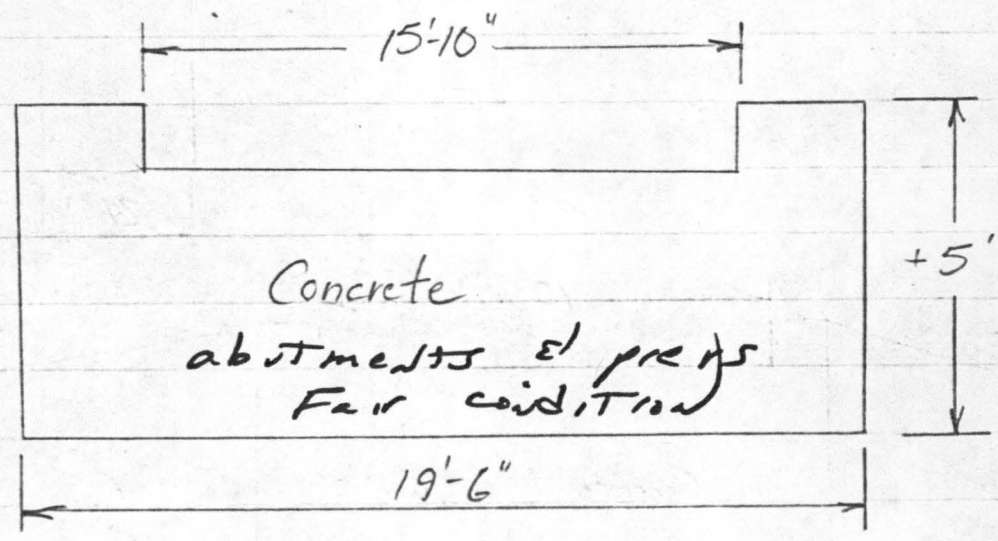


Side View



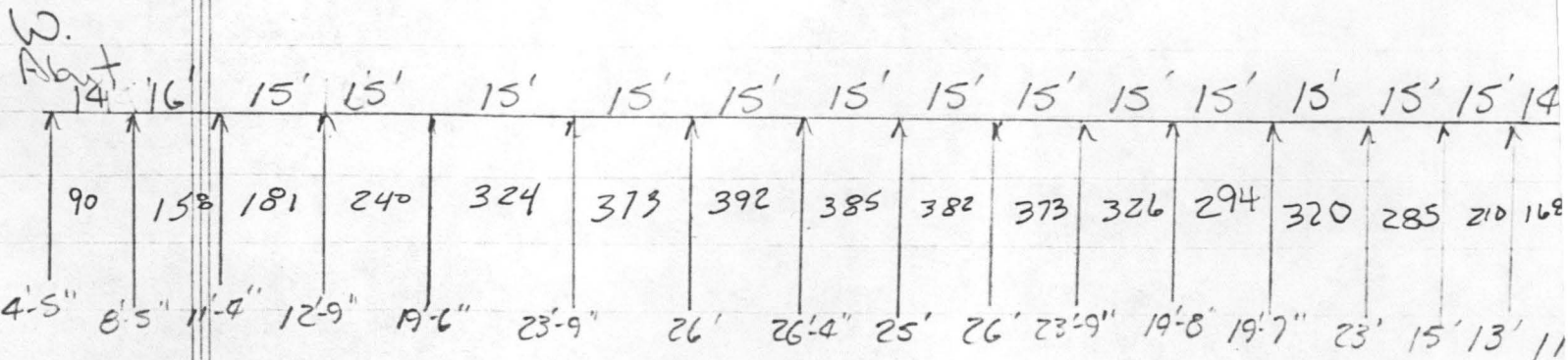
W. Abut.

20" Thick



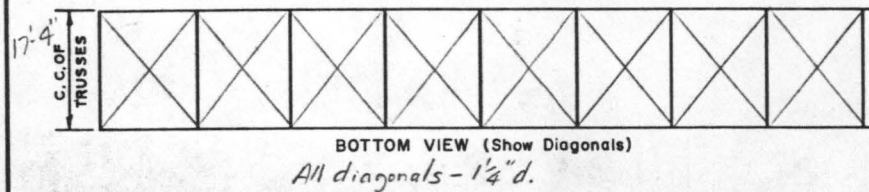
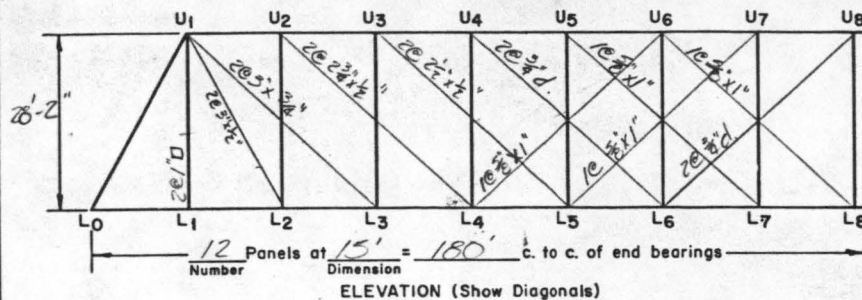
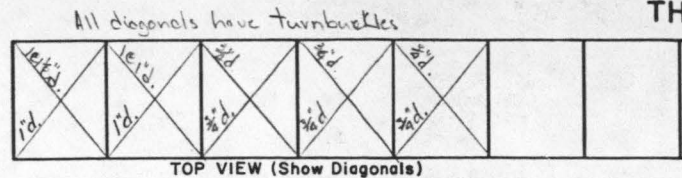
Bridge 015-3111

Channel Opening:

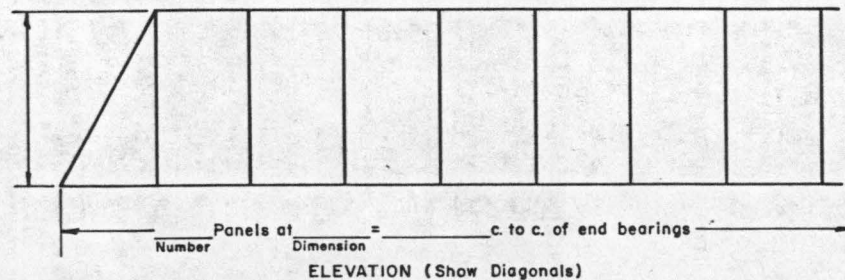


3832 Sq ft

$\frac{3}{4}$ " d. vert. diag. aloft @ U₂, U₃, U₄, U₅, etc. (Sway Bracing)
Sway Struts @ U₂, U₃, U₄, U₅, etc.



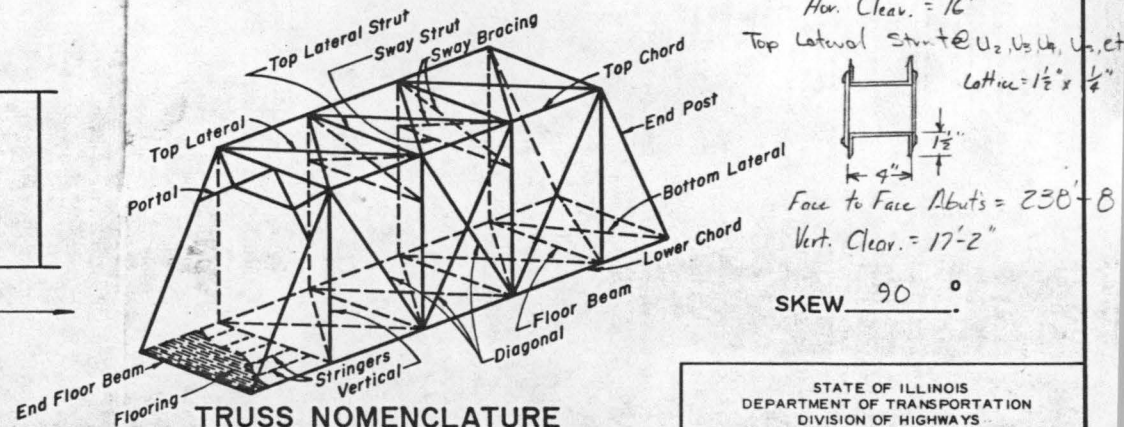
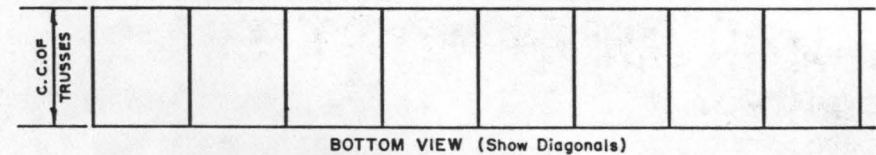
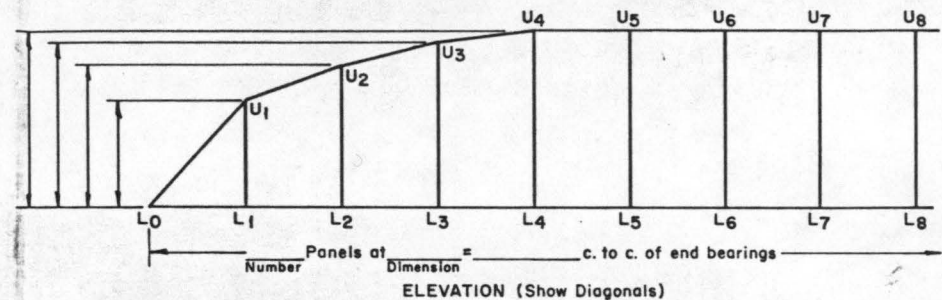
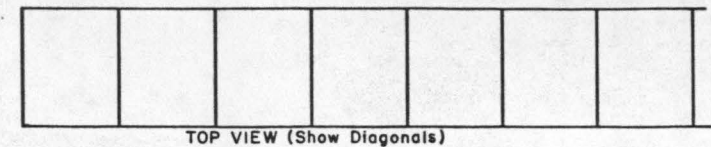
PONY TRUSS



RATING SHEET - TRUSS

THROUGH TRUSS

BRIDGE NO. 015-3117
SPAN 3 OF 3 YEAR BUILT 1983

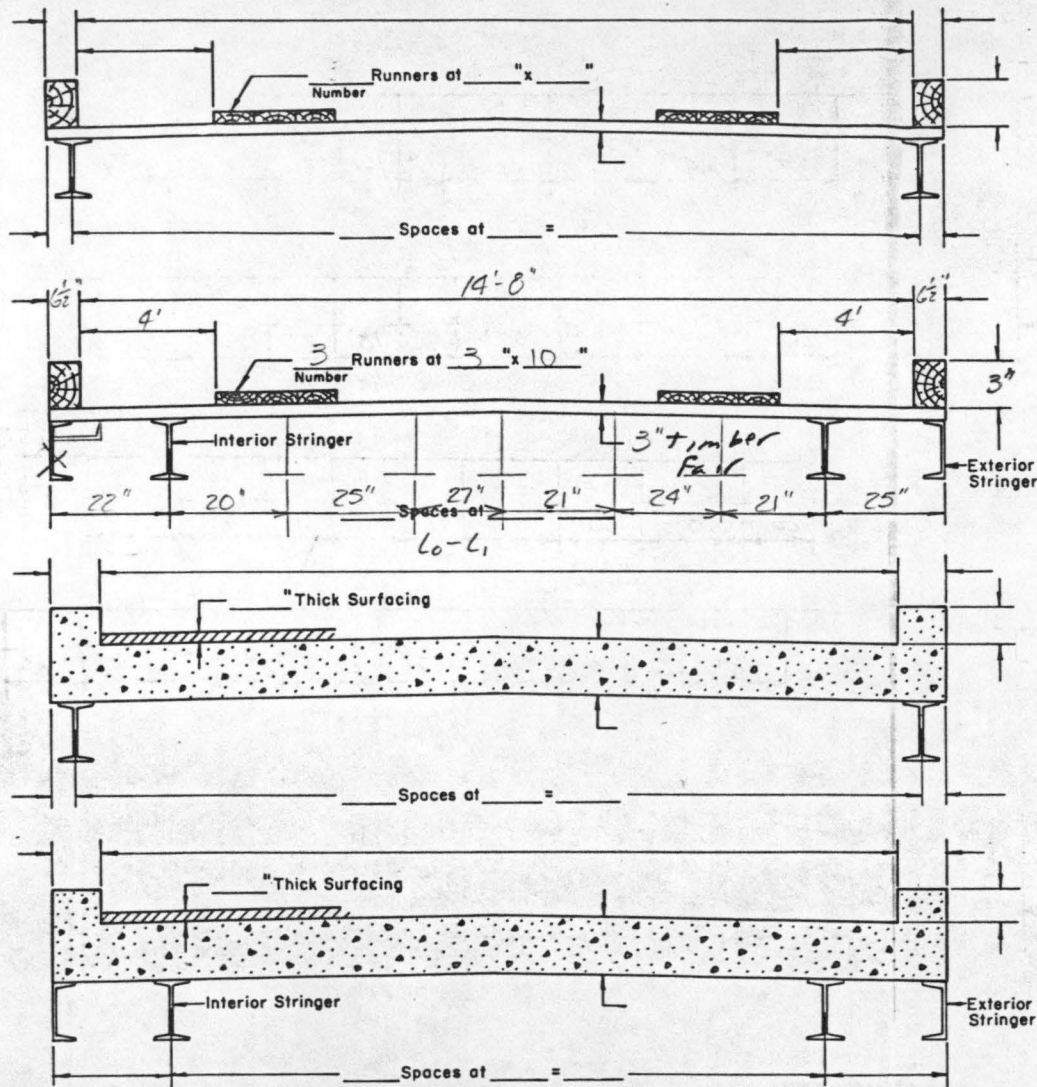


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

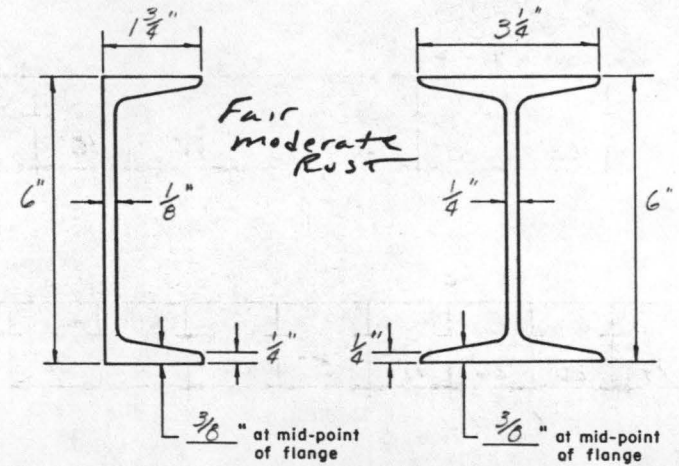
RATING SHEET - TRUSS - Floor

BRIDGE NO. 015-3111

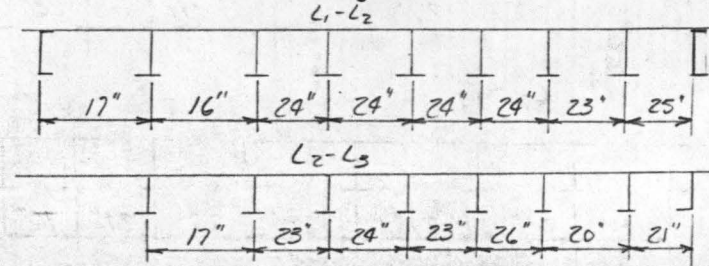
SPAN 3 OF 5 YEAR BUILT 1883



CROSS SECTION of ROADWAY



Stringers



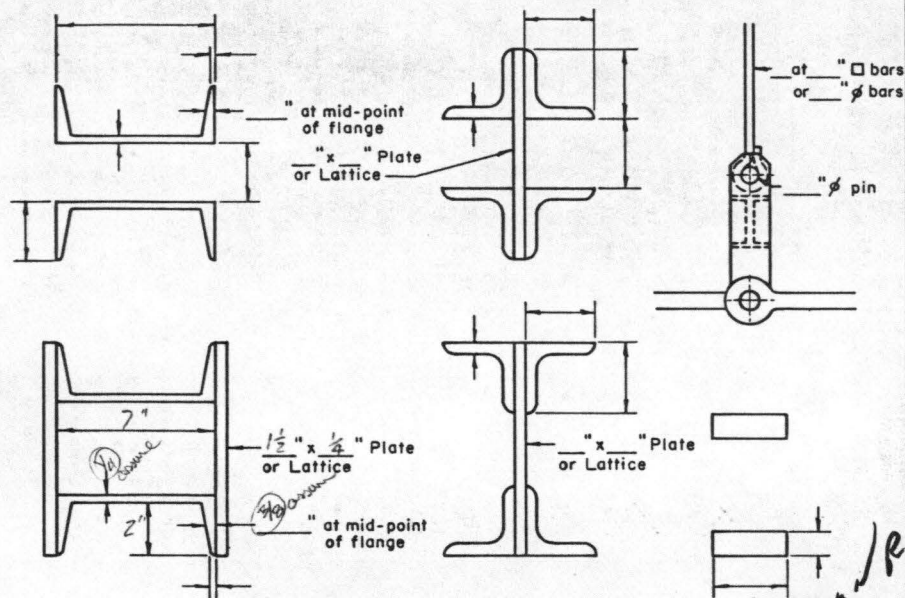
Diagrams for other panels on back of page.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

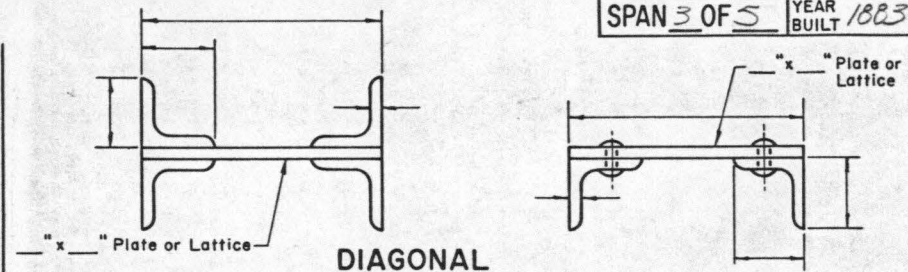
RATING SHEET - TRUSS - Verticals, Diagonals, and Chords

BRIDGE NO. 015-3111

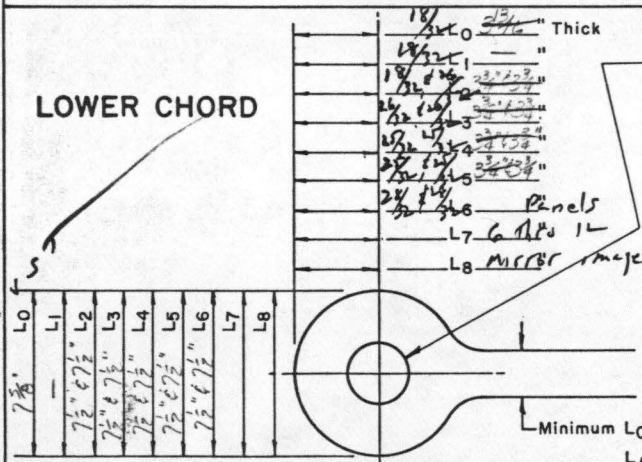
SPAN 3 OF 5 YEAR BUILT 1883



VERTICAL



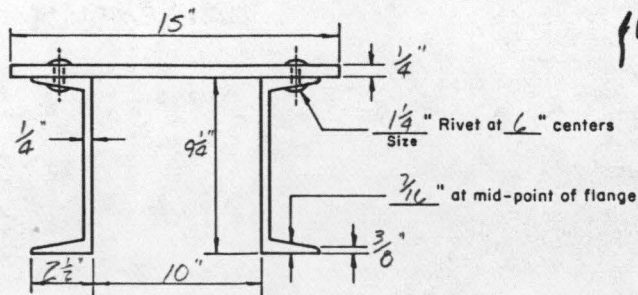
LOWER CHORD



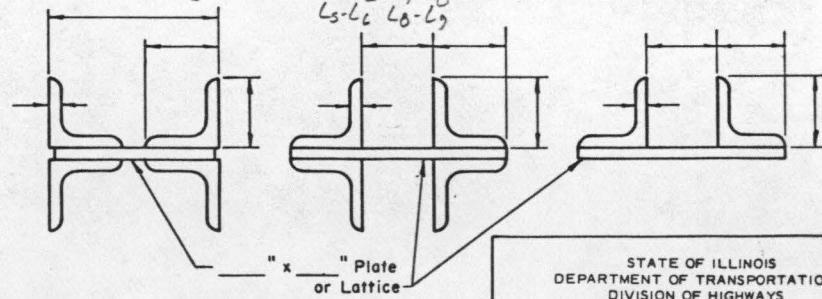
PIN SIZE CHART	
Location	Dia. in Inches
L0	2 1/4"
L1	—
L2	2 3/8"
L3	3"
L4	3"
L5	3"
L6	3"
L7	—
L8	—

Minimum L0 to L1	3"	L4 to L5	3"
L1 to L2	3"	L5 to L6	3"
L2 to L3	3"	L6 to L7	3"
L3 to L4	3"	L7 to L8	—

TOP CHORD and END POST



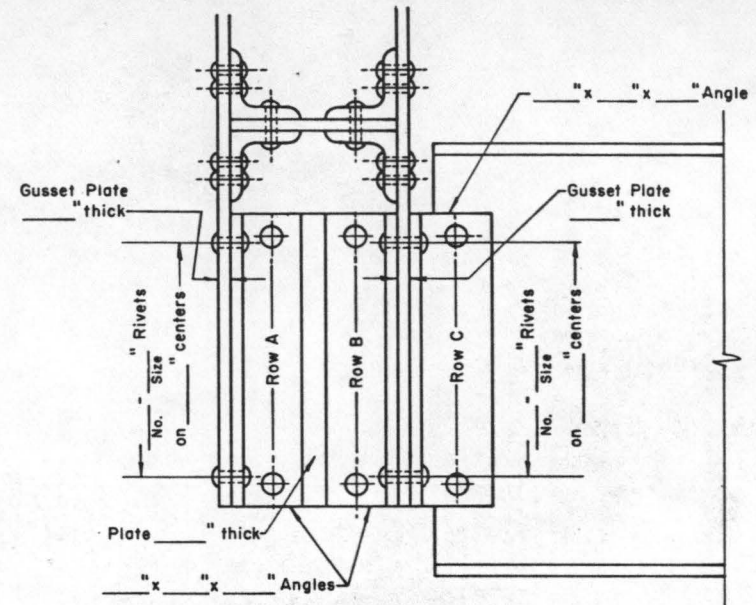
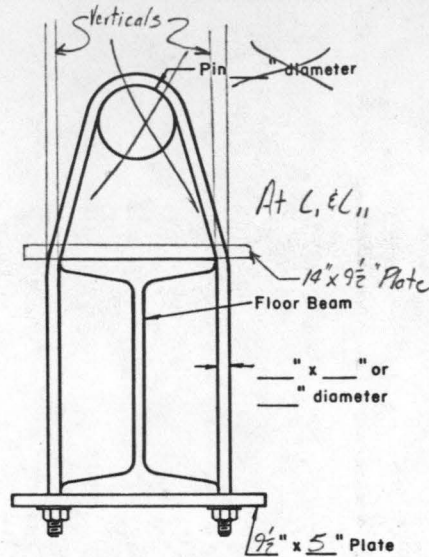
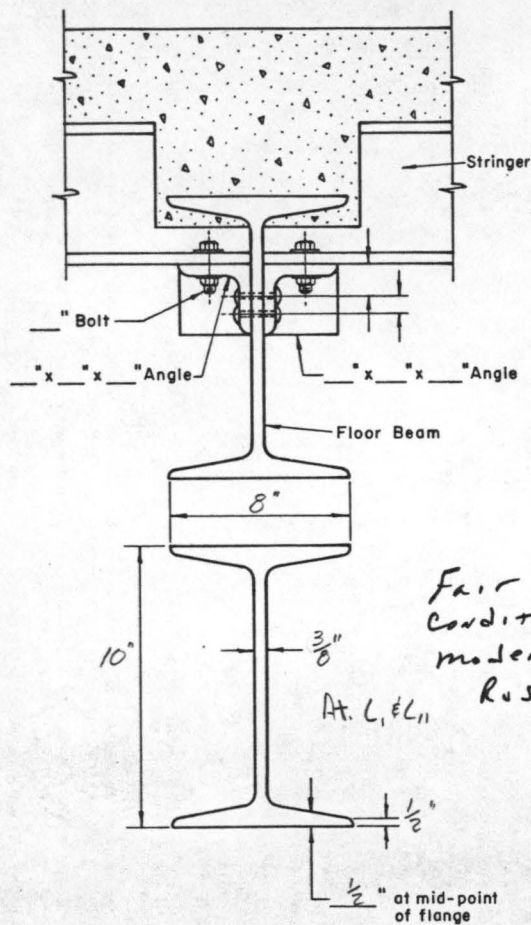
2 chords @ L0-L1 L9-L10
L1-L2 L10-L11
L2-L3 L11-L12
(Show if 1 or 2 bars)
4 chords @ L3-L4 L6-L7
L4-L5 L7-L8
L5-L6 L8-L9



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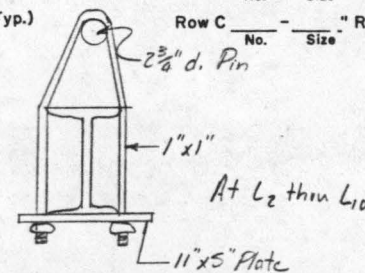
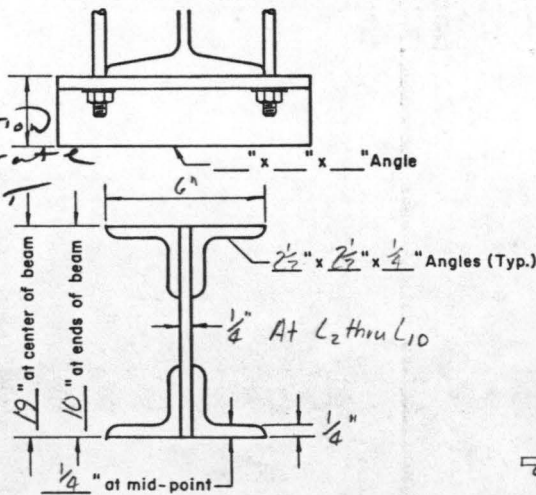
RATING SHEET-TRUSS-Floor Beams

BRIDGE NO. 015-3111
SPAN 3 OF 5 YEAR BUILT 1863



Fair condition moderate rust

At L1 & L11



Row A - " Rivets (Bolts) on " centers
No. Size
Row B - " Rivets (Bolts) on " centers
No. Size
Row C - " Rivets (Bolts) on " centers
No. Size

FLOOR BEAMS

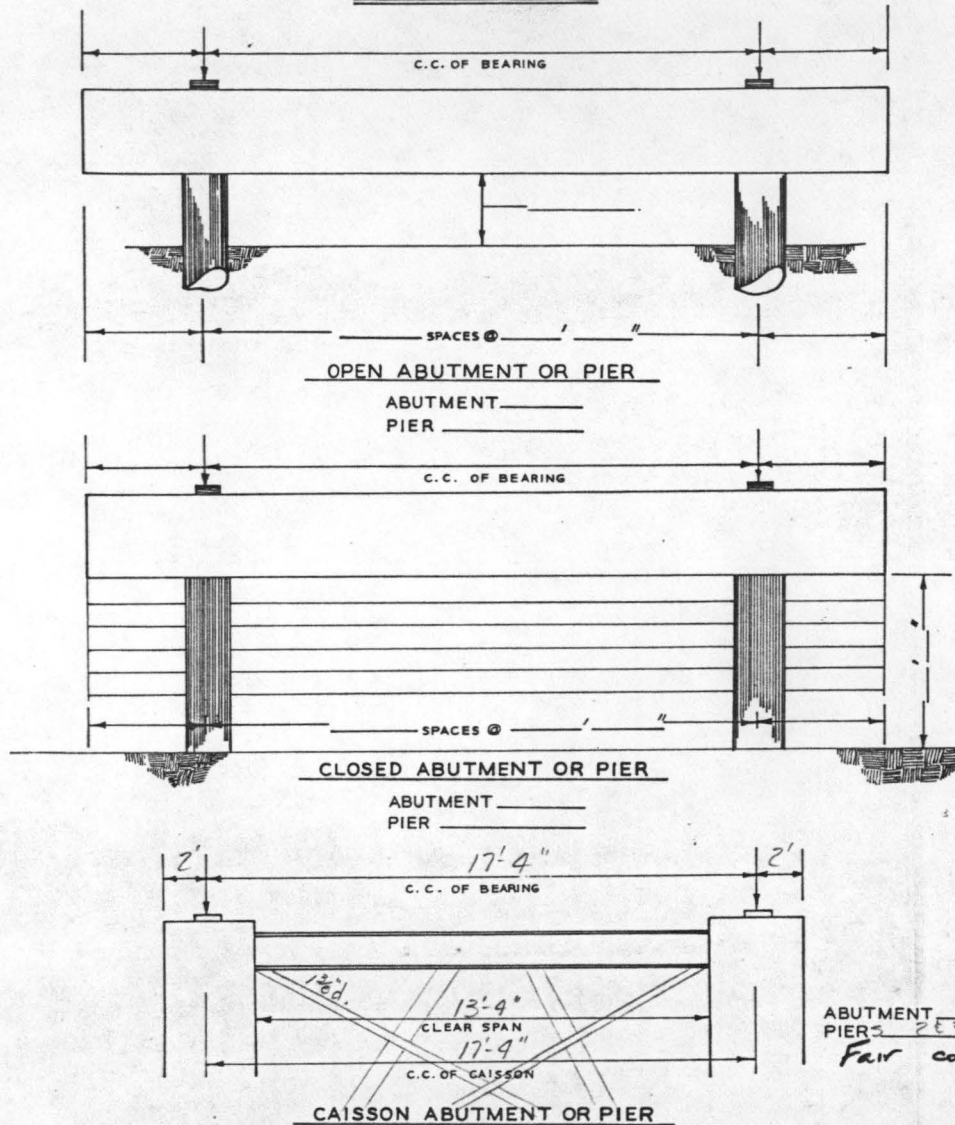
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

RATING SHEET - SUBSTRUCTURE

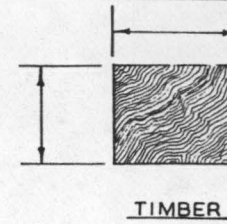
BRIDGE NO. 015-2111

YEAR BUILT 1885

ELEVATIONS

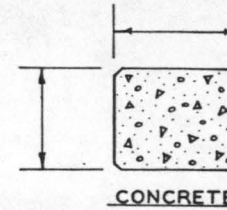


CAPS



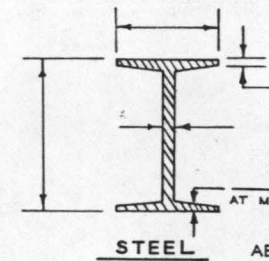
ABUTMENT _____
PIER _____

TIMBER



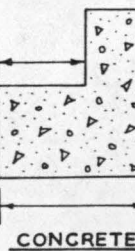
ABUTMENT _____
PIER _____

CONCRETE



ABUTMENT _____
PIER _____

ABUTMENT _____
PIER _____



ABUTMENT _____
PIER _____

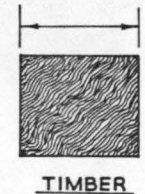
CONCRETE

PILES



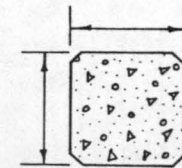
ABUTMENT _____
PIER _____

TIMBER



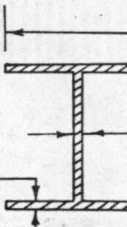
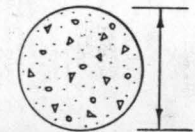
ABUTMENT _____
PIER _____

TIMBER



CONCRETE

ABUTMENT _____
PIER _____



ABUTMENT _____
PIER _____

STEEL H

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FORM BLR 1047

Multiple Resource Area
Thematic Group

dnr-11

Name Coles County Highway Bridges Over The Embarras River Thematic Resources
State Illinois

Nomination	Type of Review	Decision
1. Airtight Bridge	Entered in the - National Register	<i>Delores Byers 11/30/81</i> <i>Accept - M. McCallister</i>
2. Blakeman Bridge	Substantive Review Entered in the - National Register	<i>Accept, Beth Groves 11/30/81</i>
3. Harrison Street Bridge	Entered in the - National Register	<i>Delores Byers 11/30/81</i>
4. Stone Quarry Bridge	Entered in the - National Register	<i>Delores Byers 11/30/81</i>
5.	-	
6.	-	
7.	-	
8.	-	
9.	-	
10.	-	
11.	-	
12.	-	
13.	-	
14.	-	
15.	-	
16.	-	
17.	-	
18.	-	
19.	-	
20.	-	
21.	-	
22.	-	
23.	-	
24.	-	

DUE 11/19/81 - 12/7/81

Name Stone Quarry Bridge (Collier County Highway Bridge Over the Embarras River Thematic Resource) dnr-3
State, County IL Collier County Fed Nom or Request-Agency _____
Working Number 10.23.81.367 Federal Register Date 2.7.83

☒ Nomination
☐ Determination of Eligibility
☐ On Nomination Form

☐ Bldg(s)
☐ Site
☐ Object
☒ Structure
☐ District

Within:
☐ Multiple Resource Area
☒ Thematic Group

Maps _____
Photos 5

Nomination prepared by: State Staff
☐ State Staff
☐ Local
☒ Other

Action: Entered in the National Register
☒ ACCEPT 11/30/81
☐ RETURN _____
☐ REJECT _____

Check if Appropriate:
☐ State Request for Review
☐ Keeper's Decision to Review
☐ 2nd Return

I. Evaluation of Resource (cont. on back if necessary)

II. Evaluation of Nomination

	Good			Comments
	Adequate	Poor		
1. Descriptive Statement Short Format <input type="checkbox"/> Yes <input type="checkbox"/> No				
2. Significance Statement Short Format <input type="checkbox"/> Yes <input type="checkbox"/> No				
3. Concepts/Integrity				
4. Concepts/Criteria				
5. Concepts/Boundaries				
6. Contextual Evaluation				

General Comments (cont. on back if necessary):

Reviewer/Date _____

See Attached _____

National Park Service

U.S. Department of the Interior



Quarry Bridge

February 1981

Blair D. Tarr

History Department--Eastern Illinois
University

#1 of 5

NOV 30 1981

OCT 23 1981

*Colas county Highway Bridge over the
Embarras River schematic drawing*



Quarry Bridge

February 1981

Blair D. Tarr

History Department--Eastern Illinois
University

#2 of 5

NOV 30 1981

OCT 23 1981

*Calhoun County Highway Bridges over the
Embarras River & Kentucky Reservoir*



Quarry Bridge

February 1981

Blair D. Tarr

History Department--Eastern Illinois
University

#3 of 5

NOV 30 1981

OCT 23 1981

*Calis County Highway Bridges over the
Embarras River & Embarras Reservoir*



Quarry Bridge

February 1981

Blair D. Tarr

History Department--Eastern Illinois
University

#4 of 5

NOV 30 1981

OCT 23 1981

*Calder County Highway Bridges over the
Embarass River schematic drawings*



Quarry Bridge

February 1981

Blair D. Tarr

History Department--Eastern Illinois
University

#5 of 5

NOV 30 1981

OCT 23 1981

*Adams County Highway Bridge over the
Embarras River schematic Resources*

Please refer to the map in the
Coles County Highway Bridges
Over the Embarras River TR
Cover Sheet for this property

Multiple Property Cover Sheet Reference Number: 64000174