NPS Form 10-900
(Oct. 1990)

No. 10024-0018

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 or 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 Amelia Park Bridge

other names/site number Bridge 112 115-0000-0805

2. Location

street & number ½ mile west of U.S. 77 on county road 260th. Approx 1 mile NE of Antelope ☐ not for publication

city or town Antelope ☒ vicinity

state Kansas code KS county Marion code 115 zip code 66858

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 36 CFR 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.)

Richard D. Pankratz 5/20/03
Signature of certifying official/Title Date

Kansas State Historical Society
State of 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 commenting official/Title Date

State or Federal agency or bureau

4. National Park Service Certification

I hereby certify that the property is:

	Signature of the Keeper	Date of Action
☐ entered I 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)		

Amelia Park Bridge
Name of property

Marion County, KS
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(s)
- ☐ district
- ☐ site
- ☒ structure
- ☐ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		sites
1		structures
		objects
1		total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)
Masonry Arch Bridges of Kansas

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) Bridge

Current Functions
(Enter categories from instructions)

Transportation: Road Related (Vehicular) Bridge

7. Description

Architectural Classification
(Enter categories from instructions)

Other: Concrete Bridge

Materials
(Enter categories from instructions)

foundation
walls

roof

other 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.
- [x] **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.

Area of Significance
(Enter categories from instructions)

Engineering

Period of Significance

1914

Significant Dates

1914

Significant Person
(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Topeka Bridge and Iron Company

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets)

9. Major Bibliographical 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:

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

Name of repository: Kansas State Historical Society

Amelia Park Bridge
Name of Property

Marion County, Kansas
County and State

10. Geographical Data

Acreage of Property Less than one acre.

UTM Reverences
(Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing
1	14	677500	4257100
2			
3			
4			

☐ 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 Charles J. Lawrence

Organization _____ date October 16, 2002

Street & number 2226 N. Stoneybrook telephone 316-634-1325

City or town Wichita state Kansas zip code 67226

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) including 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 Marion County Commission

street & number 3rd & Water

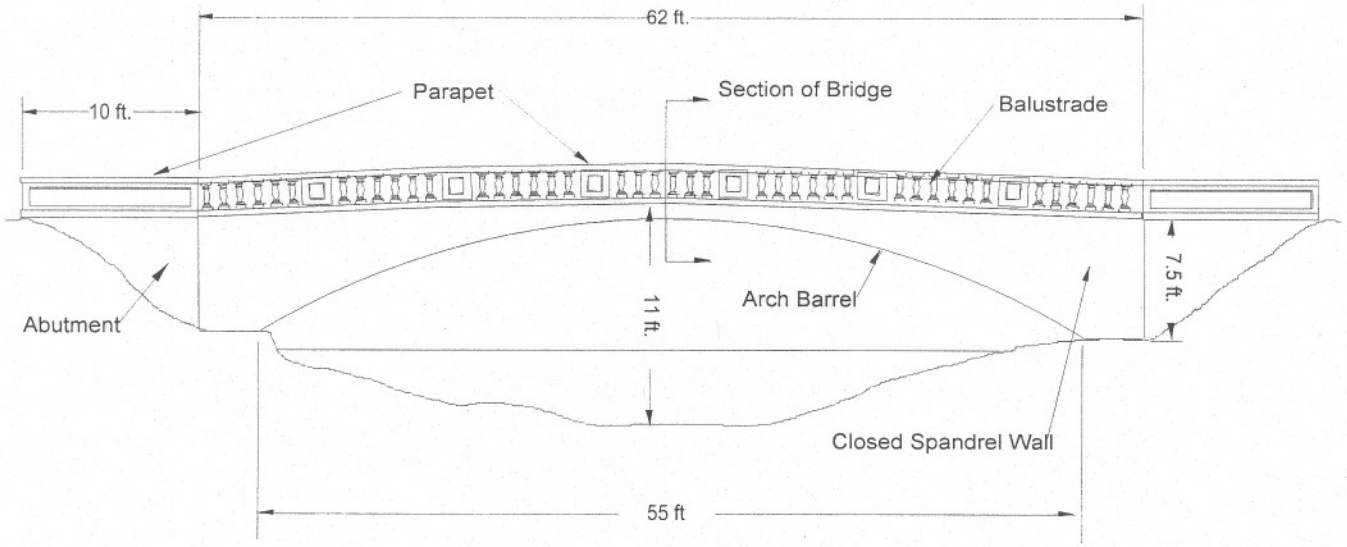
city or town Marion state Kansas zip code 66861

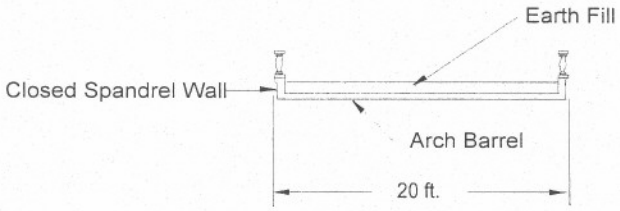
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places. Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain 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.

Description of Bridge

The Amelia Park Bridge is a closed spandrel reinforced concrete arch bridge. It is constructed of cast-in-place reinforced concrete, is earth filled with a gravel roadbed. The bridge is classified as two-lane, two-way, has a span of 55.1 feet, a road width of 17.4 feet, and a total width of 20 feet. The total deck area is 1,098 square feet. The original cost of the bridge in 1914 was $2,730.





Section of Bridge

Bridge Schematic

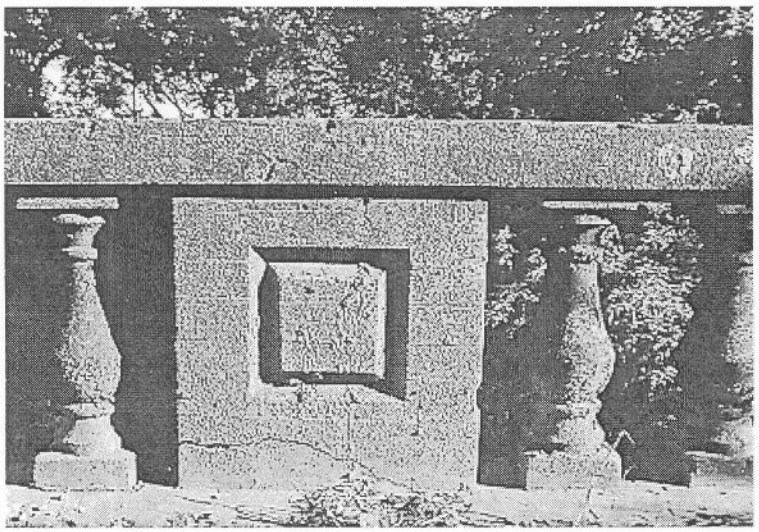
The Ameila Park Bridge is located at the northwest corner of Section 35, Township 18, Range 4 in Clear Creek Township and designated as Bridge 112 by the Marion County Engineering Department. It crosses Clear Creek on an east-west orientation on Local Road 260 and is approximately ½ mile north and ½ mile east of Antelope, Marion County, Kansas and ½ mile west of US 77. The bridge is adjacent to Amelia Park.

Amelia Park Bridge

Bridge Construction

The barrel of a concrete bridge is constructed by erecting forms, setting reinforcing steel in place, and then pouring wet concrete into the forms. When the concrete is set, the forms are removed leaving the structure. Reinforcing steel is placed so that it is completely encased in the concrete and protected against rust or corrosion. First the abutments are built. They serve to anchor the arch and transfer the vertical loads from the weight of the bridge and the road traffic as well as the thrust loads developed by the arch element, which tends to spread laterally under load. Second, the arch segment is poured. The arch is the primary structural element of

the bridge, with all other components serving to distribute loads such as the dead load from the bridge and roadway and the live loads from passing cars and trucks, into the arch. After the barrel and abutments are complete, subsequent forms are used to construct the spandrel walls and the parapet. The spandrel walls are used to hold the roadbed fill material. Reinforcing steel is used to compensate for the relatively poor tension strength of concrete. Concrete is made of a graded mixture of stone, gravel, and sand, and held together with a binder of Portland cement. The Amelia Park Bridge has a sufficiency rating of 47.5 and a load rating of 10 tons.

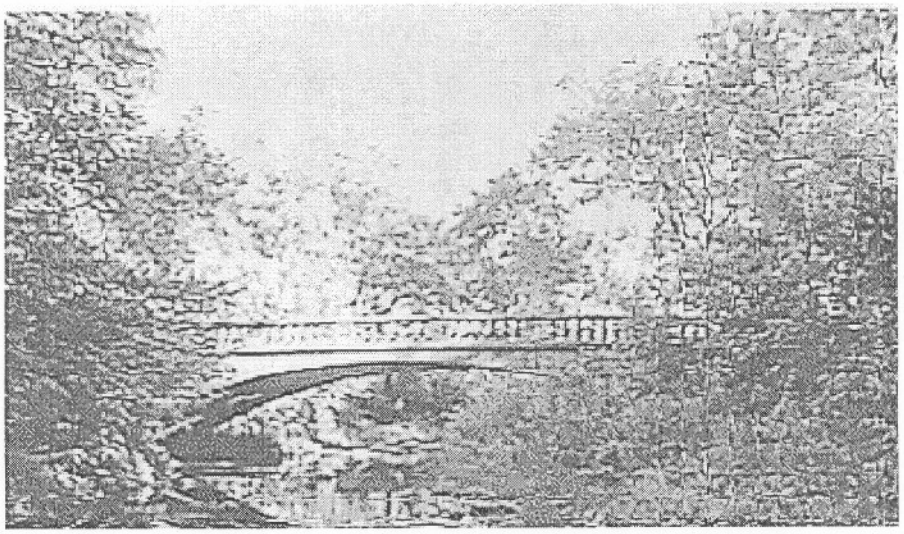


Parapet and Balustrade

Balustrade

The Amelia Park Bridge

The Amelia Park Bridge was built in 1914 near Antelope, Marion County, Kansas and spans Clear Creek. It was constructed by the Topeka Bridge and Iron Company that submitted the low bid of $2,730 to the county commission. At that time, the commission consisted of J.A. Unruh, Frank A. Loveless, O. Joliffe, and B.B. Reimer, Clerk.



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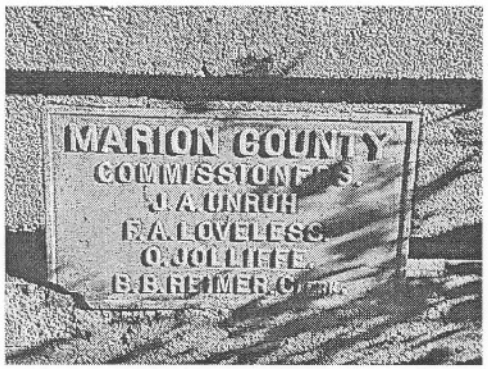
The bridge consists of a concrete arch barrel, abutments, closed spandrel sides, and a parapet that incorporates a cast concrete balustrade. A plaque on the parapet states that it was built by the Topeka Bridge and Iron Company, Topeka Kansas, 1914. Another plaque lists Marion County Commissioners: J.A. Unruh, F.A. Loveless, O. Jolliffe, and B.B. Reimer, Clerk.

It is an early example of reinforced concrete bridge construction. Although some form of concrete had been used for centuries as a building material, its relatively low tensile strength made the material unfeasible for many applications. However, in the late 19th century engineers began to reinforce concrete with steel, a combination that would make stone and steel truss bridge construction

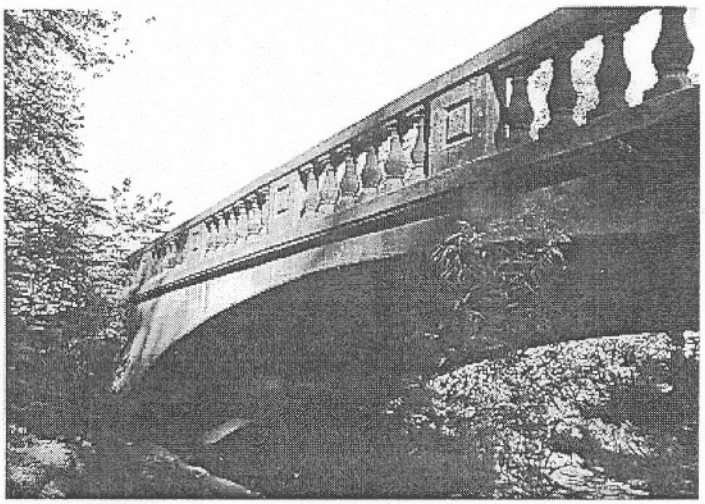


County Commissioners Plaque

Topeka Bridge and Iron Co. 1914

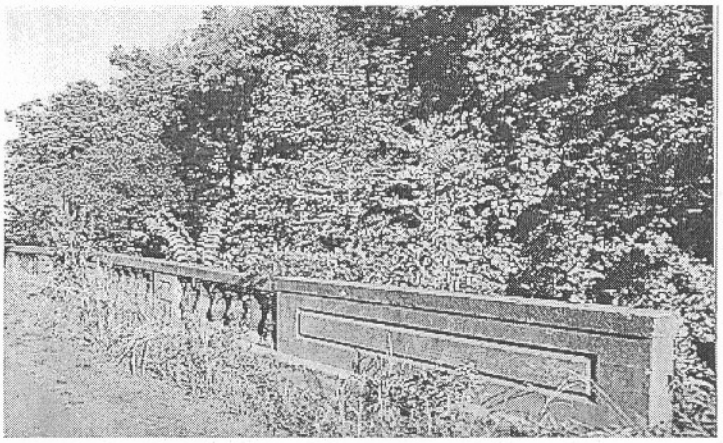
obsolete. Reinforced concrete bridges were easier to build and required less skilled labor than stone arch bridges. They were also easier to maintain and more durable than steel trusses. In addition, they required less off-site prefabrication allowing more of the construction and materials to be produced locally, favoring the local economy.

At first, concrete bridges duplicated the structural shape of the stone arch bridge. The Amelia Park Bridge is nearly a copy of many stone arch bridges that were still being built in 1914. Both types consisted of an arch anchored to the riverbank by an abutment and a compacted soil and gravel roadbed supported by closed spandrel walls topped by a parapet. Concrete, however, offered a significant advantage over a stone arch because it could be molded into nearly any shape. The spandrel walls and arch barrel appear to be natural, smooth, and flawless, without joint or mortar lines or fasteners to break the form of the structure. The arch narrows to only about two feet in depth at the center of the span. An element of artistry can also be incorporated into the design, as made evident by the detailed parapet and balustrade that resembles hand carved stone. The Amelia Park Bridge both typifies the development of small rural bridges contracted by the county and exemplifies a type of construction would make obsolete all previous bridge designs



View Looking Up at the South Side of the Bridge.

except structural steel. Bridge development in the United States went through several important phases. By the late 1700's, the U.S. began to develop bridges to improve transportation among the states, to "bind together the newly formed United States of America."[1] The first bridges were built to carry roads across rivers and streams. When canal development began in the early 19th Century, viaducts were used to carry the canal over depressions and streams, and bridges carried roads across the canals. The development of railroads brought about the requirement for stronger, straighter, and longer bridges. Finally, by the early 20th Century, the automobile provided a new requirement for bridges carrying local roads and highways. The Amelia Park Bridge is an example of the early 20th century road and bridge construction boom in rural Kansas counties and part of the good roads movement. Prior to 1900, road improvement was promoted by bicyclists that grew in number as mass production of bicycle parts and high quality gears and tires greatly increased their numbers. However, many farmers resisted the ingress of city cyclists into the countryside.



Parapet and Balustrade, shown from the road bed.

> By 1888 LAW (League of American Wheelmen) had launched a national campaign for better roads, a campaign that is widely considered the genesis of the modern roads movement. It was not, however, a movement that fit into the agrarian agenda. According to Philip Mason, farmers raised their voices "in bitter opposition" for numerous reasons: fear of increased taxes, threats to their control over highway administration, and the potential meddling of city folks with their notions of expertise. Many saw LAW as a challenge to rural autonomy.[2]

The farmer's resistance to good roads did not last, however. Rural Free Delivery, begun in 1896, was a great benefit to the farmer and it required the maintenance of good roads. Soon after, the automobile became a tool that would change the way farmers connected with the town. "In the twenty-year period of 1900-1920 automobiles and trucks almost completely supplanted horse-drawn vehicles on the

[1] Jackson, Donald C., *Great American Bridges and Dams*, (New York: John Wiley and Sons, 1988), 15.
[2] Sutter, Paul, *Paved with Good Intentions: Good Roads, the Automobile, and the Rhetoric of Rural Improvement in the Kansas Farmer, 1890-1914*, Kansas History, Volume 18, Number 4, Winter 1995-1996, 286.

roads of Kansas. "[3] By 1914 Kansas had an estimated 50,000 automobiles, and 30,000 belonged to farmers. By 1920 Kansas ranked third in farm auto ownership. "Kansas was one of eleven states, all of them west of the Mississippi, that counted 10.7 or more automobiles for every hundred residents."[4] It was in this time period that many bridges were built in rural Kansas, because autos could not cross streams and gullies in the same manner as a horse and buggy.

> An association to promote improved roads was organized at Topeka in 1900 and some roads acquired oiled surfaces a few years later. In January 1907, a hard surfaced road sixteen feet wide was built north of Chanute, and seven years later a concrete highway was built in Allen County, supposedly the first in Kansas. There were "Good Road Days," held in various parts of the state and local residents volunteered their services to improve the roadbeds and surfaces. One day near Beloit in 1914, five hundred citizens used two hundred teams of horses to grade and gravel nearly a mile of roadway.[5]

Reviewing meeting minutes from this era reveals that soliciting for bids, reviewing plans, and selecting contractors was one of the main orders of business for county commissions, as commissions throughout the state of Kansas contracted numerous bridges. They varied in type of construction and included concrete girder and arch bridges, and steel truss bridges. The county typically solicited bids from companies and selected the lowest bidder, sometimes on individual bridges, and other times as a package of several bridges.

Historically, the bridge is also significant because of its connection with Amelia Park, from which its name is derived. The park was developed in a grove of trees on the land of G.H. Wight in 1921 and named for his second wife, Amelia Utting in the early 1900s. Wight was a large cattle rancher that moved to the area in 1884 and the builder of Island Field Ranch, a National Registered Place located ½ mile south of Amelia Park and Bridge.

[3] Isley, Bliss, and W. Marvin Richards, *The Kansas Story*, (Oklahoma City: Oklahoma, Harrow Publishing, 1961), 312.
[4] Sutter, 295.
[5] Richmond Robert W., *Kansas: A Land of Contrasts*, (Wheeling, Illinois: Harlan Davidson Inc., 1999), 208.

The park was an important community meeting place, hosting picnics, swimming, boating, baseball games, church meetings and dinners, and summer holiday celebrations. At one time, the park contained a bathhouse, ball diamond, playground equipment, and boats. A bandstand remains on the grounds. The park lost importance as the population of Antelope waned. The land is currently under private ownership.

Bibliography

Jackson, Donald C. Great American Bridges and Dams. New York: John Wiley and Sons: 1988.

Sutter, Paul. "Paved With Good Intentions: Good Roads, the Automobile, and the Rhetoric of Rural Improvement in the Kansas Farmer, 1890-1914." Kansas History 18 no. 4 (1995-1996).

Isley, Bliss and W. Marvin Richards. The Kansas Story. Oklahoma: Harrow Publishing: 1961.

Richmond, Robert W. Kansas: A Land of Contrasts. Wheeling, Illinios: Harlan Davidson, Inc.: 1999.

Van Meter, Sondra. Marion County Kansas, Past and Present. Hillsboro, KS: M.B. Publishing House: 1972.

Marion County Record. (July 7, 1921: October 27, 1921: August 3, 1922: September 9, 1971)

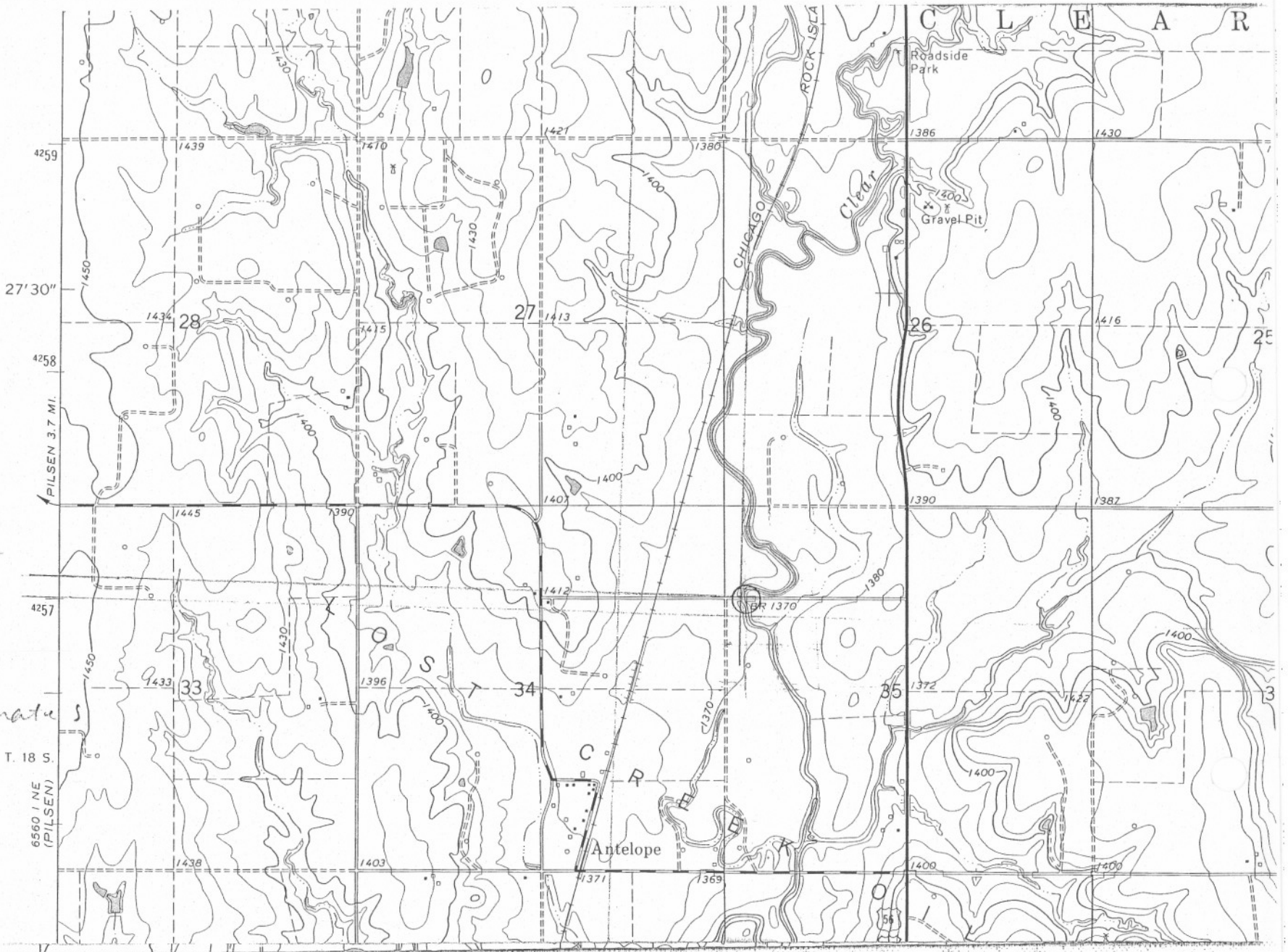
Marion County Commission Records, County Clerk Office.

Verbal Boundary Description

The nominated property stands on the E2, W2, NW4, S. 35, T. 18S., R. 4E in Clear Creek Township, Marion County, KS. The bridge spans Clear Creek on County Road 260 ½ mile north and ½ mile east of Antelope and ½ mile west of U. S. 77. The bridge is adjacent to Amelia Park.

Boundary Justification

The nominated structure contains all property historically associated with the bridge.



American Park
Bridge
Lincolnville
Quad Map
UTM Coordinate
14 677500
4257100