# 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 National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any 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 certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).

## 1. Name of Property

<table>
<thead>
<tr>
<th>Historic name</th>
<th>Antelope Creek Masonry Arch Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other names/site number</td>
<td>Mitchell County Bridge NL8; FHWA No. 000000000620320; KHRI: 123-0000-00218</td>
</tr>
<tr>
<td>Name of related Multiple Property Listing</td>
<td>New Deal Era Resources of Kansas; Masonry Arch Bridges of Kansas</td>
</tr>
</tbody>
</table>

## 2. Location

| Street & number 1000 Mile of Road 210 | not for publication |
| City or town                         | Tipton vicinity |
| State                                | Kansas |
| Code                                 | KS |
| County                               | Mitchell |
| Code                                 | 123 |
| Zip code                             | 67485 |

## 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 at the following level(s) of significance:

<table>
<thead>
<tr>
<th>national</th>
<th>statewide</th>
<th>local</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Applicable National Register Criteria:  x  A  B  C  D

SEE FILE

**Signature of certifying official/Title**  Patrick Zollner, Deputy SHPO  **Date**

**Kansas State Historical Society**

**State or Federal agency/bureau or Tribal Government**

In my opinion, the property meets does not meet the National Register criteria.

**Signature of commenting official**  **Date**

## 4. National Park Service Certification

I hereby certify that this property is:

- [ ] entered in the National Register
- [ ] determined eligible for the National Register
- [ ] determined not eligible for the National Register
- [ ] removed from the National Register
- [ ] other (explain:)

**Signature of the Keeper**  **Date of Action**
### Antelope Creek Masonry Arch Bridge

**Name of Property:** Antelope Creek Masonry Arch Bridge

**County and State:** Mitchell County, Kansas

#### 5. Classification

<table>
<thead>
<tr>
<th>Ownership of Property</th>
<th>Category of Property</th>
<th>Number of Resources within Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Check as many boxes as apply.)</td>
<td>(Check only one box.)</td>
<td>(Do not include previously listed resources in the count.)</td>
</tr>
<tr>
<td>x private</td>
<td>building(s)</td>
<td>contributing buildings</td>
</tr>
<tr>
<td>- public - Local</td>
<td>district</td>
<td>noncontributing sites</td>
</tr>
<tr>
<td>- public - State</td>
<td>site</td>
<td>1</td>
</tr>
<tr>
<td>- public - Federal</td>
<td>x structure</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total:** 1

**Number of contributing resources previously listed in the National Register:** 0

#### 6. Function or Use

<table>
<thead>
<tr>
<th>Historic Functions</th>
<th>Current Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Enter categories from instructions.)</td>
<td>(Enter categories from instructions.)</td>
</tr>
<tr>
<td>Transportation; road related (vehicular)</td>
<td>Transportation; road related (vehicular)</td>
</tr>
</tbody>
</table>

#### 7. Description

<table>
<thead>
<tr>
<th>Architectural Classification</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Enter categories from instructions.)</td>
<td>(Enter categories from instructions.)</td>
</tr>
<tr>
<td>Other: Work Projects Administration (WPA)</td>
<td>foundation: Stone (Limestone)</td>
</tr>
<tr>
<td>Stone Arch Culvert/Bridge</td>
<td>walls: Stone (Limestone)</td>
</tr>
<tr>
<td></td>
<td>roof:</td>
</tr>
<tr>
<td></td>
<td>other:</td>
</tr>
</tbody>
</table>
Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources, if applicable. Begin with a summary paragraph that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary

This double arch native limestone bridge spans Antelope Creek. It is located on a north-south rural secondary county road (Road 210) just north of O Road. (Figures 1 and 2) It was built in 1940 as a Work Projects Administration (WPA) project. The bridge is surrounded by pasture land used for grazing and crop fields. The bridge is virtually unaltered since its construction. Bridge repair and maintenance is the responsibility of Mitchell County.

Elaboration

This Antelope Creek Bridge is a two-span stone arch that spans Antelope Creek, each span being 16 feet in length. All stones are uniform in thickness, which is approximately 8”. They vary in color from tan to gold and most have noticeable striations. The stones feature two different finishes, rusticated and smooth. They are laid in an ashlar pattern. There is a course of smooth stones that corresponds to the level of the driving surface and spans the length of the bridge. The arch stones are smooth faced except for the keystones, which are rusticated. The stones are finished smooth on the underside of each barrel.

The foundation is also of stone construction. Based on previous experience with the demolition of similar bridges, it is likely that the foundation extends 3 feet to 4 feet below the surface. The arches spring from these foundation footings. A 16” soil/gravel fill covers each arch to distribute the vehicle loads. The walls extend 3 courses above the driving surface, serving as bridge rails. As was typical of the era, the wings are at a 45° angle to the bridge and stair-step down from the top of rail. (Figure 3)

Integrity

The bridge is in good condition. There has been minor tuck pointing of the walls, though with incompatible mortar and pointing techniques. Water has at times stood under the bridge, which has caused minor deterioration of the stones. Stone arch bridges/culverts have far more load carrying capacity than even the modern traffic applies. A stone arch can collapse under heavy loads if the soil cover is inadequate or if the arch is too flat. The arc of this culvert is circular, a very strong configuration. With minor occasional tuck pointing, this bridge will last many years.
Antelope Creek Masonry Arch Bridge

Name of Property: Antelope Creek Masonry Arch Bridge
County and State: Mitchell County, Kansas

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 old or achieving significance within the past 50 years.

Areas of Significance

Engineering
Government
Social History

Period of Significance

1940

Significant Dates

1940

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Work Projects Administration

Period of Significance (justification)
The period of significance is 1940, the year the bridge was completed.

Criteria Considerations (justification)
N/A
Antelope Creek Masonry Arch Bridge

Narrative Statement of Significance

(Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

Summary

This double arch native limestone bridge is nominated to the National Register of Historic Places under Criterion A in the areas of social history and government for its construction under the supervision of the Work Projects Administration (WPA). It is nominated as part of the New Deal-era Resources of Kansas multiple property nomination as an example of the transportation property type.

The bridge is also nominated under Criterion C in the area of engineering for its significance as a native limestone double arch bridge. The limestone construction is typical of structures built in this area and is representative of the master stone builders and craftsmanship of construction workers trained by the WPA. It is nominated as part of the Masonry Arch Bridges of Kansas multiple property nomination as an example of the stone arch bridge property type.

The impetus for the nomination of the Antelope Creek Bridge was a Section 106 case that involved the demolition of another bridge of similar construction built in Mitchell County; the Leban Creek Bridge. The proposal to demolish the Leban Creek Bridge required a permit from the Army Corps of Engineers, a federal agency. The bridge was determined eligible for the National Register and the demolition was considered an adverse effect. Mitchell County agreed to nominate three other bridges to the National Register to mitigate the loss of the Lebanon Creek Bridge and any other stone arch bridges in Mitchell County that may be replaced in the future.

Elaboration

Mitchell County History

Mitchell County is situated in the north central part of Kansas. The Solomon River flows through the county from the northwest corner to the center of the east boundary. Its many creeks and tributaries make Mitchell County one of the best watered counties in the state. Mitchell County, which includes the towns of Beloit, Cawker City, Hunter, Glen Elder, Simpson (part), Scottsville and Tipton, was named for Captain William D. Mitchell, a Kansas Civil War soldier in the Second Kansas Cavalry who was promoted to officer rank in the Second Kentucky Cavalry and was killed in 1865. Joseph Decker; John Rees; Amos A. Bell; Timothy Hersey; George Campbell; Alexander Campbell; Charles H. Morrill; Edward Valentine; William C. Ingram; and Daniel Kepler organized the county on October 4, 1870. In August 1868 through 1870 conflicts with American Indians intimidated settlers, and as a result, settlers erected a stockade near Cawker City to aid in protection.

Asherville was the first permanent settlement in the county, but Beloit was named the county seat in 1870. The arrival of the first railroads in the Beloit area, beginning with the central branch of the Missouri Pacific in 1879, aided in bringing additional settlers to the area. In 1870 the population of the county was 485 and by 1875 it had grown to 4,885. Settlers chose homesteads that were close to one of the many streams in the county. The county’s leading industry has long been agriculture, including wheat, cattle, and corn production.

2 Ibid.
Like much of rural Kansas, the Great Depression and the Dust Bowl impacted those living and farming in Mitchell County. The Works Progress Administration (later renamed Work Projects Administration), a federal New-Deal work program, was active in Mitchell County during this decade. The WPA was created by executive order on May 6, 1935 using 1.4 million dollars in funding from the Emergency Relief Appropriations Act. Initially, the agency was designed as a temporary measure and funding was renewed annually. The WPA focused on employing large numbers of people through locally sponsored projects as well as projects sponsored by state and federal agencies.  Through the WPA, Kansas realized many new roads, highways and bridges. According to a 1939 report, the WPA constructed or repaired 13,706 miles of roads, 567 bridges, 112 miles of sidewalks and paths and 175 miles of curbs, gutters and guardrails. In 1939, there were roughly 30,000 Kansans on WPA rolls.

Stone arch bridges and culverts were popular in Kansas for many reasons, a major one being the availability of local stone. Thus, large amounts of money expended for construction could be retained within the local area, allowing local builders to benefit from the work. An additional selling point for the stone bridges was their strength. There was ample evidence that they were far better able to withstand the periodic floods than were their metal counterparts.

Stone Arch Bridges in Kansas

Stone arch bridges of this type are typically constructed with limestone arch rings, which spring from and are disposed between abutments or piers. Limestone spandrel walls rest on these arch rings and are used to retain the earthen fill which loads the arch. This earth loading allows for even distribution of the live loads and helps strengthen the arch.

Antelope Creek Bridge

The stone used for construction of the bridge was mined locally from what is called the Post Rock Limestone Ledge of the Greenhorn Formation. Much of Mitchell County is underlain with the Greenhorn Limestone formation. One layer of this formation is an 8-inch thick layer of light tan colored stone with a more reddish streak midway in the layer, which came to be known as the Post Rock ledge. This layer

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6 Rosin, E-20.
7 Works Progress Administration, Central Office Reference Card Location Project File. (On microfilm at Kansas Historical Society archives, Topeka, KS.)
8 The following historic context regarding masonry bridges in Kansas is included in Larry Joachims’ “Masonry Arch Bridges of Kansas” National Register Multiple Property Documentation Form (Topeka, KS: Kansas Historical Society SHPO files, 1985), sections 7 and 8.
Antelope Creek Masonry Arch Bridge
Name of Property

Mitchell County, Kansas
County and State

outcropped in many places in Mitchell County and was somewhat easily quarried. The overburden dirt was removed with slips pulled by horses or mules. The stone was then quarried by drilling holes in a straight line at a given distance from the exposed edge and driving wooden or steel pegs (called feathers) into the holes. The feathers were gradually driven in sequence so as to not apply too much pressure to any one single hole. Eventually, the layer would crack along the line of holes. The same procedure would then be used to section the long section into smaller pieces. If a smooth surface was needed, the smaller pieces were placed on a buzz saw table and cut or planed. The stone was very soft when first exposed and cut fairly easy. Corners were sometimes tooled to create a bevel.

This bridge was constructed by laborers working under the WPA program. It was constructed in 1940, as documented by a date stone in the bridge rail. No primary source documentation other than the date stone could be located, although newspapers of the period indicate that the WPA was active in Mitchell County. In 1939 alone the County had to build or repair at least 27 bridges that were damaged or washed out by severe flooding and it is likely that WPA labor was used for that purpose.⁹

Summary

This bridge was one of several in Mitchell County constructed by WPA laborers. The appearance today of the bridge is nearly as it was following construction. Situated along a secondary road in rural Mitchell County, this bridge retains its integrity of location, design, setting, materials, workmanship, feeling, and association. It is eligible for listing in the National Register of Historic Places under Criteria A and C for its significance in the areas of social history, government, and engineering. It is representative of the types of properties listed as part of the “Masonry Arch Bridges of Kansas” and “New Deal-era Resources of Kansas” multiple property nominations.

⁹ “County Stays Within Budget During Year,” The Beloit Gazette, January 4, 1940, 1.
9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

The Beloit Gazette, 4 January 1940.


Mitchell County Commissioners Proceedings (Minutes) 1939-1942.

Mitchell County Highway Department Files.


Works Progress Administration, Central Office Reference Card Location Project File. (On microfilm at Kansas Historical Society archives, Topeka, KS.)

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 #
- recorded by Historic American Landscape Survey #

Historic Resources Survey Number (if assigned): ____________________________

Primary location of additional data:
- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: Kansas Historical Society

10. Geographical Data

Acreage of Property  Less than 1 acre

Provide latitude/longitude coordinates OR UTM coordinates.

Latitude/Longitude Coordinates
Datum if other than WGS84: ________________
(enter coordinates to 6 decimal places)

1  39.367029  -98.283808  3  Latitude:  Longitude:
   Latitude:  Longitude:

2  Latitude:  Longitude:  4  Latitude:  Longitude:

Verbal Boundary Description (describe the boundaries of the property)
Antelope Creek Masonry Arch Bridge is located 0.25 miles north of O Road on 210 Road and is along the section line between Sections 11 and 12 in Township 8S, Range 9W. The boundary is the extent of the bridge structure and its abutments.

Boundary Justification (explain why the boundaries were selected)
The nominated area includes the bridge, the abutments, and the land on which it sits. These are the features historically associated with the Antelope Creek Masonry Arch Bridge.
## 11. Form Prepared By

<table>
<thead>
<tr>
<th>name/title</th>
<th>John Cashatt for Mitchell County</th>
</tr>
</thead>
<tbody>
<tr>
<td>organization</td>
<td>Schwab-Eaton</td>
</tr>
<tr>
<td>date</td>
<td>1-28-2014</td>
</tr>
<tr>
<td>street &amp; number</td>
<td>101 S. Mill PO Box 280</td>
</tr>
<tr>
<td>telephone</td>
<td>785-738-2725</td>
</tr>
<tr>
<td>city or town</td>
<td>Beloit</td>
</tr>
<tr>
<td>state</td>
<td>KS</td>
</tr>
<tr>
<td>zip code</td>
<td>67420</td>
</tr>
<tr>
<td>e-mail</td>
<td><a href="mailto:jcashatt@schwab-eaton.com">jcashatt@schwab-eaton.com</a></td>
</tr>
</tbody>
</table>

## Property Owner:

<table>
<thead>
<tr>
<th>name</th>
<th>Mitchell County, Kansas</th>
</tr>
</thead>
<tbody>
<tr>
<td>street &amp; number</td>
<td>111 S. Hersey</td>
</tr>
<tr>
<td>city or town</td>
<td>Beloit</td>
</tr>
<tr>
<td>state</td>
<td>KS</td>
</tr>
<tr>
<td>zip code</td>
<td>67420</td>
</tr>
</tbody>
</table>

**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.460 et seq.).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 100 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 Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

## Additional Documentation

Submit the following items with the completed form:

### Photographs

Submit clear and descriptive photographs. The size of each digital image must be 1600x1200 pixels (minimum), at 300 ppi (pixels per inch) or larger.

### Photograph Log

<table>
<thead>
<tr>
<th>Name of Property:</th>
<th>Antelope Creek Masonry Arch Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td>City or Vicinity:</td>
<td>Tipton</td>
</tr>
<tr>
<td>County:</td>
<td>Mitchell</td>
</tr>
<tr>
<td>State:</td>
<td>KS</td>
</tr>
<tr>
<td>Photographer:</td>
<td>John Cashatt</td>
</tr>
<tr>
<td>Date Photographed:</td>
<td>3-3-2014</td>
</tr>
</tbody>
</table>

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 7: Roadway looking north
2 of 7: West side looking northeast
3 of 7: Northwest wing looking north
4 of 7: West keystone on south arch
5 of 7: South face of pier showing foundation
6 of 7: Date stone in west rail, 1940
7 of 7: Southwest wing and rail
Antelope Creek Masonry Arch Bridge
Name of Property

Mitchell County, Kansas
County and State

Figures
Include GIS maps, figures, scanned images below.

Figure 1: Contextual Map: Antelope Creek Bridge (Google Maps)
Figure 2: Close-in: Antelope Creek Bridge location (Google Earth)
Figure 3: Standard Bridge Plan from the WPA period. Courtesy of Mitchell County.