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United States Department of the Interior
National Park Service

Resub of Cover

NATIONAL REGISTER OF HISTORIC PLACES MULTIPLE PROPERTY DOCUMENTATION FORM

This form is used for documenting multiple property groups relating to one or several historic contexts. See instructions in How to Complete the Multiple Property Documentation Form (National Register ~~Bulletin 16B~~). Complete each item by entering the requested information. For additional space, use continuation sheets (Form 10-900-a). Use a typewriter, word processor, or computer to complete all items.

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_x_ New Submission ____ Amended Submission

A. Name of Multiple Property Listing

Historic Stone Arch Culverts in Turner County South Dakota, 1934-1942

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Historic Bridges in South Dakota, 1893-1942
Federal Relief Construction in South Dakota, 1929-1941

C. Form Prepared by

name/title Lynda B. Schwan, South Dakota State Historic Preservation Office

street & number 900 Governors Drive telephone 605-773-6056

city or town Pierre state South Dakota zip code 57501

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. (___ See continuation sheet for additional comments.)

Jay D. Vogt 04-30-2001
Signature and title of certifying official Date

SD SHPO
State or Federal agency and bureau

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Lynn McClelland 6/8/01
Signature of the Keeper Date

The Statement of Historic Contexts section of this Multiple Property Documentation Form provides a historic overview on the impact of federal relief programs in Turner County, South Dakota for stone arch culvert construction. It provides a context for understanding and evaluating the physical resources that were constructed as a result of the Federal Emergency Relief Act and Work Progress Administration. These programs were developed under Roosevelt's New Deal Administration and are described on the following pages.

Turner County History

Turner County is located in the southeast corner of South Dakota. The landscape is characterized by primarily flat terrain with undulating streams. The total land area is 391,680 acres, which includes approximately 460 acres of water. With its relatively flat topography and water supply, the conditions in Turner County are ideal for farming practices. Roughly 83 percent of the acreage in the county is cropland and 11 percent supports native grasses. Farming practices are diversified; livestock and grain crops are the main sources of income.[1]

Turner County's first three claims were made in Swan Lake in 1869. Other townships started to see settlement in the early 1870's. By the summer of 1871, the first gristmill was in place and operating in Centerville and by January of 1871, Turner County was officially recognized by the Territorial Legislature.

By the early 1880's, the Chicago and Milwaukee Railroad had come to Turner County and transformed the county's development by changing the agriculture and the local economy. Railroad development in Turner County, as well as the entire State, played an integral role in bringing commerce into the area. With the railroad came other businesses such as hotels, doctors, drugstores, banks, grain elevators and hardware establishments. Communities along the railroad- Centerville, Davis, Parker and Marion- became the central business districts. Unfortunately, no major industries ever developed in this region, so the remaining areas of Turner County were truly agrarian.

The Great Depression

During the late 1920s, investments, both in the stock market and real estate, hit a high point. People were investing madly in anything that looked lucrative, and soon much of the available United State's capital was tied up in the market. By September of 1929, the market began to stall out. On Tuesday, October 29, 1929, the stock market lost $15 billion. Although most Americans were not investing in the market, nearly every American felt the effects of the crash, much like later events such as the death of John Kennedy and the bombing of Pearl Harbor. While the stock market crash signaled the beginning of the Great Depression, it was not the cause. Overproduction, a widening

[1] United States Department of Agriculture, *Soil Survey of Turner County South Dakota* (1982), 1.

gap between wages and productivity and a slump in consumerism all contributed to the economic crisis.

According to T. H. Watkins, "Unemployment has grown from about 1.5 million to at least 3.2 million in the five months since the stock market crash."[2] By early 1932, unemployment was approaching 12 million. Banks and businesses were closing by the hundreds, if not thousands, during this dramatic time for the United States economic system. South Dakota had been feeling the effects of the Depression long before the rest of the United States. Real estate values had decreased 58 percent between 1920 and 1930. The average value of farmland had fallen from $71.39 an acre in 1921 to $35.24 in 1930 and dropped to a low of $18.65 per acre by 1935. Farm foreclosures, which had reached an all-time high in 1924, were on the increase by 1932. During the period from 1921 to 1932, a total of 34,419 farm foreclosures were instituted. This involved over 7 million acres of South Dakota farmland.[3]

Another downfall to the economy of South Dakota, along with the nationwide failures, was the plague of natural disasters. The Great Plains became known as the Dust Bowl for its droughts, dust storms, grasshopper plagues and severe winters. These phenomena caused economic ruin for many South Dakota farmers. The economic crisis became overwhelming for the State of South Dakota. Any assistance to those unemployed or suffering the effects of the Depression in the State would have to come from the federal government because the state government was unable to help.

Help for residents of South Dakota, specifically Turner County, came under Franklin Roosevelt. He took office in 1933 when the economy was at a stand still and the programs initiated under Hoover were unable to assist people. In Roosevelt's first 100 days, Congress passed a number of legislative acts that provided relief. Of the first acts to assist those in Turner County, the Federal Emergency Relief Act (FERA) played a key role. Additional congressional acts were passed including the Works Progress Administration (WPA), which was the other act that impacted Turner County.

Turner County in the Great Depression

South Dakota's agrarian communities suffered the hardest during the Great Depression. While society needed the goods produced by the farmers, drought conditions severely affected their ability to produce crops. As a result of the drought, many farmers were without jobs. Other workers within Turner County also lost their jobs, much like the rest of the nation. Economically, the county suffered greatly just like the rest of the United States. Unfortunately, information outside of the county record books do not exist for this time frame.

Outside of sanitary projects and construction of stone culverts in the county, numerous other projects were completed during this time frame: in Centerville, a new school auditorium was constructed;

[2] T.H. Watkins, *The Great Depression: America in the 1930s* (Boston: Little Brown, 1993), 51.
[3] Herbert Schnell, *History of South Dakota* (Lincoln: University of Nebraska Press, 1975), 283.

Marion saw school improvements and a school addition; Monroe constructed a new school; Parker, the county seat, had three separate waterworks projects and a school addition. The benefits of the New Deal Programs in Turner County were tremendous. Since many people were out of work, these programs gave them needed income and a feeling of self-worth. They also benefited the communities by constructing many needed facilities.

The Federal Emergency Relief Administration

President Roosevelt signed the bill establishing the FERA in May of 1933. The program, which was seen as a temporary measure, was funded for two years and spent $500 million directly on the States. FERA's remaining money was in the form of a matching grant-one dollar of federal money for every three dollars of local money allotted for relief. [4] Eligibility for work relief was based on need. The local relief departments, to establish need and determine the family's means to meet that need, investigated each family on a monthly basis.

A majority of FERA's projects were construction, such as repairing roads and public buildings. FERA also distributed goods to families in need including food, clothing and shoes. Additional projects were developed to meet the needs of specific segments of the population and to address situations that warranted special attention including transient camps. These principles governed how projects were chosen:

1) All work undertaken should be useful-not just for a day or a year but useful in the sense that it affords permanent improvement in living conditions or that it creates future wealth for the Nation.

2) Compensation on emergency public projects should be in the form of security payments, which should be larger than the amount now received as relief dole but at the same time not so large as to encourage the rejection of opportunities for private employment.

3) Projects should be undertaken on which a large percentage of direct labor can be used.

4) Preference should be given to those projects which will be self-liquidating in the sense that there is a reasonable expectation that the government will get its money back at some future time.

5) The projects undertaken should be selected and planned so as to compete as little as possible with private enterprise.

6) The planning of projects would seek to assure work during the coming fiscal year to the individuals now on relief, or until such time as private employment is available. In order to make adjustment to increasing private employment, work should be planned with a view to tapering it off in proportion to the speed with which the emergency workers are offered positions with private employers.

[4] Watkins, 124.

7) Effort should be made to locate projects where they will serve the greatest unemployment needs as shown by present relief rolls.[5]

All States set a maximum for benefits paid to the individual worker in any year; this same limit applied whether the worker is totally or partially unemployed. Many States limited total benefits to a certain proportion of earnings (generally one-third) of the workers in a previous four-quarter period. Despite these minimums, wages earned were sometimes so low that they had to be supplemented by direct relief.

In 1933, the Civil Works Administration (CWA) was created and replaced the FERA. People enrolled in FERA program switched to the CWA. Work by the CWA was restricted to public property, had to be constructive and had to have a cost ratio of 70 to 30 percent for labor and materials. Local sponsors were required to provide supplies to maximize the amount of federal money that would be used for wages.

FERA in South Dakota

The South Dakota State Emergency Relief Administration received its first grant from FERA in June 1933 and its last allotment in November 1935. The total funds granted by FERA to the State amounted to $54,912,197.00. FERA funds in South Dakota were depleted by December 1935. Additional funding for state relief came from beer, liquor and sales tax revenues.[6]

Two types of FERA construction projects were funded in the South Dakota: highways and dams. Unfortunately, the total number of miles and locations of roads constructed cannot be located. Stone arch culverts were included in these projects. Turner County had ten arch culverts constructed in the years 1934-1935.

FERA played an additional role in Turner County. Evidence that two public buildings were constructed with FERA money, one of which is located in Centerville. The building was designed by the well-known South Dakota Architect, Harold Spitznagel. The building in Centerville housed the city hall, fire station and jail. The other public building constructed was a stone airport hanger in Spearfish, in Lawrence County, which has since been demolished.[7]

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[5] David Potter and William Goetzmann, *The New Deal and Employment* (New York: Holt, 1960), 48.
[6] Schnell, 288.
[7] Dennis, Michelle, *Federal Relief Construction in South Dakota, 1929-1941* (South Dakota State Historic Preservation Office: Pierre, 2000), 36.

Works Progress Administration

By Executive Order No. 7034, the Works Progress Administration (WPA) was created in May of 1935. The WPA duties included:

1) To establish and operate a division of progress investigation, and to coordinate the pertinent work of existing investigative agencies of the Government, so as to insure the honest execution of the work relief program.

2) To formulate, and with the approval of the President, to require uniform periodic reports of progress on all projects.

3) With the approval of the President, to prescribe rules and regulations:
   a) To assure that as many of the persons employed on all work projects as is feasible shall be persons receiving relief
   b) To govern the selection of such persons for such employment

4) To formulate and administer a system of uniform periodic reports of the employment on such projects of persons receiving relief

5) To investigate wages and working conditions and to make and submit to the President such findings as will aid the President in prescribing working conditions and rates of pay on projects.[8]

The WPA was a work-relief program, which consisted of projects initiated by county, city and town officials, as well as state and federal entities. Regional offices were established as a link between the states and the federal levels, and most states had district offices. WPA work requirements were the same as the FERA, except that WPA wages were established as a fixed monthly subsistence wage, meaning that workers were paid even if they did not work due to poor weather conditions or other factors beyond their control.

WPA wage and hours system had its problems and criticism. All workers were required to be registered with the United States Employment Service, and because of this registration requirement, the workers were required to accept private-sector employment when it became available, even if it meant taking a cut in pay.[9] Workers had to wait several months before being placed on a job. Unfortunately, the WPA's pay was often below what families needed to survive, and the families had to turn to other sources for help, such as federal assistance. Construction projects, which constituted the majority of work-relief projects, consumed over 75 percent of the WPA money spent. Construction projects included: Municipal Engineering Projects, Airport and Airway Projects, Public

[8] Potter, 51.
[9] Federal Works Agency, *Final Report on WPA Program, 1935-43* (Washington, DC: US GPO, 1947) 17.

Building Projects, Highway and Road Projects, Conservation Projects, Engineering Survey Project and Disaster Emergency Activities.

The WPA employed 8.5 million workers in 3,000 counties in the United States on a total of 1.4 million individual projects. Of the 8.5 million workers employed through the WPA, by the end of June 1940, only 12 to 18 percent were women.[10] WPA workers built "651,087 miles of highways, roads and streets; constructed, repaired or improved 124, 031 bridges; erected 125,110 public buildings; created 8,192 public parks and built or improved 853 airports."[11] All of this was accomplished with a basic monthly salary of $41.57, which was better than being jobless.

WPA in South Dakota

The WPA had a far-reaching impact in the State of South Dakota. The State was divided into five district administrative offices located in Aberdeen, Pierre, Rapid City, Sioux Falls and Watertown. At the peak of employment, in September of 1936, South Dakota had 49,469 workers affiliated with the WPA. The total amount of WPA funds provided for South Dakota programs was $61,224,127.00. Sponsors contributed an additional $19,602,494.00.[12]

The majority of South Dakota's WPA projects were completed under the Division of Engineering and Construction. The total amount spent on construction projects was $62,737,058 of which 43 percent was spent on highways, roads and streets. Out of that 43 percent, 1,303 bridges and viaducts were built or improved; and 11,193 culverts were installed or upgraded. A total of 18,780 miles of highways, roads, and streets were constructed or improved throughout the state. Some stone bridges were constructed in fine designs. A 111-foot long, five-span arch bridge, constructed of gray and pink quartzite, crosses the Big Sioux River in Watertown. The bridge, designed by the State Highway Commission in 1935 and constructed by the WPA, serves as an ornamental landscape feature in a city park. A four-span stone arch bridge was constructed by the WPA in Garretson's Split Rock Park, and a two-span stone arch bridge was constructed by the CCC over French Creek in the Black Hills. The most outstanding collection of stone structures is found in Turner County, according to two bridge surveys completed in 1990 and 1999.

Most of the bridges and culverts constructed on South Dakota's highways during this period were of reinforced concrete, a material that required more labor than would have steel bridges. Bridges on county highways and city/town roads were constructed of stone, another labor-intensive method of construction.

Many of the construction projects produced under the WPA are still extant. Because the effect of the WPA was so pervasive in South Dakota, there are certain to be many structures in the State that have not been identified.

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[10] Federal Work Agency, 44.
[11] Watkins, 249.
[12] *Final Report on the WPA Program, 1935-43* (Westport, CT: Greenwood Press, 1976), 110-112.

Stone Arch Culverts in Tuner County, South Dakota

Perhaps the most outstanding collection of stone arch culverts constructed by FERA and the WPA can be found in Turner County, South Dakota. These structures were constructed entirely of stone masonry. Turner County maintains records for 169 stone arch culverts that were constructed under the New Deal. Of the 169 that Turner County maintains records on, 158 remain in usable condition.

Turner County's situation during the Depression was severe. As Turner is a very rural county that had many farms, there were many farmers suffering from a decrease in the value of their land and crops. The Superintendent of Highways for Turner County, George Pasco, developed a plan to assist those suffering from financial constraints.

In terms of bridge and culvert design in South Dakota during this time frame, definitions need to be established. A bridge is a structure that crosses a major obstacle, such as a large watercourse or ravines. A culvert is a structure that crosses lesser obstacles, such as smaller watercourses or spillways. A culvert also fills part of the obstacle that it is transversing.

Because many wooden bridges in Turner County needed to be replaced or repaired, a plan was devised to build stone arch culverts. Starting in the 1880's, wooden bridges were constructed to cross numerous streams and creeks in Turner County. These bridges began to suffer from time and neglect and needed to be either repaired or replaced. County officials decided that replacing them was the best course of action. The county was full of stone masons, farmers who built things on their farms out of stone, such as fences, and barns, which made the plan a success. Unfortunately, farmers today have chosen to dismantle the stone arch culverts as opposed to restoring them.

The stone mason foreman was Lars Mogensen, a native of Denmark. Mogensen came to the United States and South Dakota in 1902 and was a naturalized citizen. According to 1925 census information, at the age of 48, he was retired on a farm in Viborg. By the 1935 census, he was out of retirement and working as a mason. His skills in stone masonry, which he learned in Denmark, can be seen throughout Turner County, but no records exist to show if he worked outside of the area.

Work on the stone culverts started in July of 1934, and by September of 1936, 65 culverts had been completed. Each culvert crew consisted of ten to fifteen men with one general foreman. Part of the crew worked on the bridge itself, while the remaining men worked on hauling rock, sand and cement. All of the rocks were found locally by farmers plowing their fields. The concrete mixture was made of local sand/dirt and cement mixed by hand.

While it is true that most of the laborers on the culverts were men, work records of the Turner County Commissioners listed women as laborers as well. In September of 1937, four women were listed as laborers receiving a maximum pay of $24.40 for a month's work. Many of the laborers, both

men and women, were receiving direct poor relief as well as work relief. Only 3 percent of women nationwide were employed on construction projects.[13] According to the Turner County Commissioners' records, in November of 1937, there were over 120 laborers working on culverts--the most laborers in any month during the Depression. Many names were consistently listed on the employment roster: James Joyce, William Crane, Fred Brennan and H. E. Johnson. There were no indications if these men were laborers or foreman.

Pasco's design stated that "...footings are put in at least four feet deep, ranging in width from thirty inches to six feet, depending on the size of the bridge. Side walls are built from two to five feet thick at base, tapering to two feet at the bottom of the arch, and ranging in height to as much as seven feet. The arches are built to a thickness from one foot to eighteen inches. Head walls and wings are in proportion to size of bridge for thickness and length. The forms for the arches have the following heights: 6 ft, 26 in; 8ft, 36 in; 10 ft, 48in. Head walls are raised only one foot above arch. After the fill is made over the bridge, there is no obstruction to interfere in snow removal."[14]

According to Pasco, many projects were tried countywide such as building dams, cutting hills and gravelling roads, but Pasco found that the stone arch culverts were the most popular. This type of construction cost the county one-fourth of what concrete and steel structure culverts cost. The average culvert took no more than three to four weeks to construct, which allowed the workers to move to different locations.

These stone arch culverts developed by the Superintendent of Highways for Turner County are significant to Turner County because of their design merit and their association with the WPA. The Superintendent utilized the need to replace or repair old wooden structures with stone culverts to keep those suffering from the effects of the Depression working. Only two other stone bridges constructed during the New Deal are found in South Dakota outside Turner County based on the Bridge Surveys completed in 1990 and 1999.

[13] Federal Works Agency, 44.
[14] George Pasco, "Rock Bridge Construction by Relief Labor," *Public Works*, volume 67 (September 1936), 49.

ASSOCIATED PROPERTY TYPES

Property types associated with stone arch culverts in Turner County, South Dakota include one, two and three arch spanned culverts. All of these properties share a common associative attribute as they were created under the auspices of the various federal relief programs that funded or carried out construction and engineering in the state between June 1934 and 1942.

Culvert construction in South Dakota during the Great Depression was quite extensive. The WPA alone built or improved 1,303 culverts and installed or upgraded another 11,193 culverts. The majority of the state highway culverts constructed during this period were made of reinforced concrete, a material that required more labor than steel culverts. Culverts on county highways and in cities and towns were sometimes constructed of stone, another labor-intensive method of construction. Stone used for culverts was usually quarried at nearby locations.

The most exceptional group of stone arch culverts is found in Turner County. The county took advantage of subsidized labor to reconstruct old wooden culverts and turned to stone as a building resource. This labor-intensive form of construction resulted in 169 stone arch culverts being built in the county, during the Great Depression. Of the original 169 culverts, 158 remain today.

The masonry arch structures are of very modest proportions, generally displaying a single arch measuring less than 15 feet in span. Semicircular and segmental forms dominate the culvert type. Typical features of the Turner County stone arch culverts include: rubble masonry with mortar joints of at least one inch; one or two semicircular arches with spans between 6 and 15 feet; and an overall structure width of about 18 to 20 feet. These culverts rely on their symmetry and proportions for their aesthetic statement that they make; ornamentation, when present, is a simple date and initials carved into the mortar.

Significance

All eligible resources associated with this context will be significant under Criterion A. They are important for their direct association with an unprecedented federal initiative to stimulate the nation's depressed economy through an aggressive series of public works and relief programs that significantly affected the social history of the nation at that time and for decades to come. The resource associated with this context may also be considered for the direct economic impact of the projects. The results of these programs in Turner County were far-reaching, affecting most families during this period. Also under Criterion A, these culverts should be considered significant for their role in transportation systems. Transportation System projects provided expansion and improvements in city and town streets and roads. These projects provided a major source of work relief in South Dakota and were developed in response to the growing use of the automobile.

Resources associated with this context clearly embody a distinctive characteristic of federal relief construction and should also be considered eligible under Criterion C. Distinctive characteristics include the use of hand labor and fine craftsmanship, the use of local building materials and construction methods, and the use of standardized plans for this property type. These culverts are also eligible under Criterion C because they are the work of master stone mason Lars Mogensen, a native of Denmark.

Registration Requirements

The countywide survey of stone arch culverts in Turner County identified structures to be eligible for the National Register of Historic Places under Criteria A and C.

The following criteria should be applied in order to place stone arch culverts on the National Register of Historic Places:

1. The culvert must be financed or constructed by the Federal Government under the auspices of one of the federal relief programs that carried out construction and engineering in Turner County. Funds should have been utilized for materials, labor and/or supervision.

2. Construction should have been substantially completed by the end of 1942.

3. Character defining features should be intact. Culverts should possess integrity of location, design, materials, workmanship, and association and should be without substantial alterations. Original materials and prominent features should remain intact, and any alterations should be modest in scale without impacting or obscuring major elements or design features.

   Because street pavement (dirt/gravel) is an inherently fragile component that is routinely covered over and replaced, original pavement is not a requirement although it would be considered a desirable feature.

   A. Location: Because the relationship between a culvert and its historic association is usually destroyed if the resource is moved, the culvert should remain in its original location. Masonry arch culverts are highly site specific, they are engineered as a permanent improvement for a single location.

   B. Design: A culvert should retain a combination of elements that convey its original design. These elements may include the form, plan, structural systems, technology, materials and style. Any alterations made to the structure must be minimal, as the structures are simplistic on their own. The culvert loses its integrity when alterations produce a noticeable change in the original design of the arch or obscure the arch from public view.

C. Setting: The physical environment in which the culvert exists should reflect its historic features, including topography, vegetation, and the relationship between the culvert and its surroundings.

D. Materials: The culvert must retain the stone and mortar dating from the period of its historic significance. Retention of the original materials is essential for resources constructed under federal relief programs that emphasized use of local building materials. If a culvert has been rehabilitated, historic materials and significant features must be preserved.

E. Workmanship: Because labor intensive work relief and construction was paramount in the federal relief programs, resources should retain the physical evidence of workmanship. This workmanship should illustrate aesthetic principles and technological practices associated with federal relief programs, as well as individual, local and regional applications of both. A bridge should retain evidence of federal relief workers' labor and skill, as well as its original design and materials.

F. Feeling: A culvert should retain sufficient original physical features that, when taken together, convey the culvert's historic character. This will generally include the combination of original design, materials, workmanship and setting. Because feeling depends on individual perceptions, its retention alone is never sufficient to support eligibility for the National Register.

G. Association: To retain association, the direct link between the culvert and its association with an important historic event, must be sufficiently intact to convey that relationship to an observer. Association, like feeling, requires the presence of original physical features that convey the culvert's historic character. Because association depends on individual perceptions, its retention alone is never sufficient to support eligibility for the National Register.

GEOGRAPHICAL DATA

Turner County in South Dakota

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H. Summary of Identification and Evaluation Methods (Discuss the methods used in developing the multiple property listing on one or more continuation sheets..)

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See Continuation Sheets

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I. Major Bibliographical References (List major written works and primary location of additional documentation: State Historic Preservation Office, other State agency, Federal agency, local government, university, or other, specifying repository.)

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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.
_x_ 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:

_x_ State Historic Preservation Office
___ Other State agency
___ Federal agency
___ Local government
___ University
___ Other
Name of repository: _____

SUMMARY OF IDENTIFICATION AND EVALUATION METHODS

The Multiple Property Documentation Form entitled Historic Stone Arch Culverts in Turner County South Dakota 1934-1942 was developed to analyze the context of federally assisted Great Depression Era construction within the boundaries of Turner County specifically surveying stone arch culverts. The survey was conducted by Lynda B. Schwan, Historic Preservation Specialist and Holly Barnett, Intern, of the South Dakota State Historic Preservation Office. The inventory identified more than 130 stone arch culverts. Every passable road, public and private, leading to a known or suspected culvert was driven during the inventory. Every culvert was marked on USGS topographical maps as well as an existing county map depicting just the roads and culverts. All accessible culverts were recorded, giving emphasis to those marked with a date or the initials of the relief workers. Those not recorded were due to alterations that substantially compromised their integrity or they were inaccessible. For each recorded property locations were noted on both USGS maps and county maps, photographs were taken, computerized inventory forms were completed, research was conducted, and narrative and historical descriptions were written. Research included access to county bridge condition survey forms from the past 50 years. Lynda B. Schwan completed this work in 1999-2000.

The culverts are grouped under two historic contexts that conform with two themes that best define the county and its properties: (1) Historic Bridges in South Dakota and (2) Federal Relief Construction in South Dakota. This Multiple Property Documentation relates to these two themes because the term: bridge, encompasses all structures that cross an obstacle and the stone arch culverts were a project administered under multiple Federal Relief programs in South Dakota. The culverts are organized by township and date of construction.

The survey identified all of the remaining stone arch culverts in the county spanning the years from 1934 to 1942. Integrity requirements were based on the condition of all existing structures. The architectural features of the culverts were considered when developing the outlines of potential registration requirements. The total number of previous listed stone arch culvert include seven National Register and two State Register that were associated with the South Dakota Bridge MPL. The few nominated properties associated with this multiple property nomination are the first phase of nominations. They were chosen because they are exceptional examples of important culverts in the county. The nominated properties were limited to a small selection of inventoried properties because of monetary and time constraints.

The following are the results of the survey, arranged by Township.

TOWNSHIP	NAME	DOE	SPANS	DATE
Brothersfield				
	S-18	NR Eligible	2	
	E-19	NR Eligible	1	

TOWNSHIP	NAME	DOE	SPANS	DATE
	S-32	NR Eligible	1	1939
Centerville				
	S-4	NR Eligible	2	
	S-1	NR Eligible	1	1941
	E-14	Not Eligible	1	1941
	S-18	NR Eligible	2	1938
Centerville				
	S-5	Not Eligible	1	1940
	S-5	NR Eligible	1	1940
	S-8	NR Eligible	2	
	S-8	Not Eligible	2	
	E-14	NR Eligible	1	1939
	E-26	NR Eligible	2	
Childstown				
	S-15	NR Eligible	1	1937
	S-16	NR Eligible	2	
	S-20	NR Eligible	2	
	S-15	NR Eligible	1	1940
	S-23	NR Eligible	2	1940
	E-34	Not Eligible	1	1934
	E-6	NR Eligible	1	
Dalton				
	E-11	NR Eligible	1	1939
	E-15	Not Eligible	1	
	S-24	NR Eligible	2	
Daneville				
	E-13	Not Eligible	2	1938
	S-20	Not Eligible	2	
	E-18	NR Eligible	2	1942
	S-18	Not Eligible	2	
	E-20	Not Eligible	2	1939
	E-25	Not Eligible	1	1942
	E-32	Not Eligible	1	
	E-4	NR Eligible	1	1936
	E-5	NR Eligible	1	1940

TOWNSHIP	NAME	DOE	SPANS	DATE
Dolton				
	E-17	NR Eligible	2	
	E-22	Not Eligible	1	
	E-23	NR Eligible	2	
	E-26	Not Eligible	2	1936
	E-34	NR Eligible	2	
	E-9	NR Eligible	2	
Germantown				
	S-16	NR Eligible	2	1939
	S-18	NR Eligible	2	1937
	E-19	Not Eligible	2	1935
	S-22	Not Eligible	1	1934
	E-29	NR Eligible	2	1936
	S-29	NR Eligible	2	1937
	E-32	NR Eligible	1	
	S-35	NR Eligible	1	1937
		NR Eligible	1	1936
	S-12	NR Eligible	1	
	S-6	NR Eligible	2	1939
	E-7	NR Eligible	1	1935
Home				
	E-33	NR Eligible	2	1938
	S-36	Not Eligible	1	
Hurley				
	S-17	NR Eligible	1	1938
	S-20	Not Eligible	2	1935
	E-32	NR Eligible	1	
Marion				
	E-26	NR Listed	2	1936
	S-27	Not Eligible	2	
	E-33	NR Eligible	2	1941
	S-33	Not Eligible	2	
	E-5	NR Eligible	2	
	S-5	Not Eligible	1	
	63-016-150	NR Listed	2	1935
	63-060-135	SR Listed	2	

TOWNSHIP	NAME	DOE	SPANS	DATE
Middleton				
	S-13	NR Eligible	1	1937
	S-14	NR Eligible	1	
	S-15	Not Eligible	1	1937
	E-18	NR Eligible	1	
	E-23	NR Eligible	1	
	S-24	Not Eligible	1	1936
Monroe				
	E-32	NR Eligible	1	
	S-30	NR Eligible	1	
	E-10	NR Eligible	1	
	S-12	Not Eligible	2	
	S-27	NR Eligible	2	
	S-29	Not Eligible	1	1940
	S-34	Not Eligible	1	
	E-34	NR Eligible	1	
Norway				
	S-14	NR Eligible	1	
	E-16	NR Eligible	2	1940
	E-18	NR Eligible	1	
	S-18	Not Eligible	1	
		Not Eligible	1	
		NR Eligible	1	1936
	S-8	NR Eligible	1	1935
	S-9	Not Eligible	2	1936
Parker				
	S-35	NR Eligible	2	
	S-1	NR Eligible	2	1939
		NR Eligible	2	
	63-132-040	NR Listed	2	1939
	63-137-090	NR Listed	2	1940
	63-160-033	SR Listed	2	1934
	63-186-020	NR Listed	2	1935
Rosefield				
	E-19	Not Eligible	1	

TOWNSHIP	NAME	DOE	SPANS	DATE
Salem				
	E-1	NR Eligible	1	
	E-11	NR Eligible	1	1938
	S-12	NR Eligible	1	1939
	S-13	NR Eligible	1	1938
	S-16	NR Eligible	1	1939
	S-17	NR Eligible	1	1940
	E-20	NR Eligible	1	1940
	S-25	Not Eligible	1	1939
	E-29	NR Eligible	1	1937
	S-28	NR Eligible	1	1940
	E-30	Not Eligible	1	1937
	E-30	NR Eligible	1	1937
		Not Eligible	1	
	S-29	NR Eligible	1	1940
	E-3	NR Eligible	1	1935
	W-30	NR Eligible	1	1934
	W-30	NR Eligible	1	1936
Spring Valley				
	E-14	SR Eligible	2	
	S-15	NR Eligible	1	1938
	E-16	Not Eligible	2	1938
	E-26	NR Eligible	1	
	S-25	NR Eligible	1	
	E-26	NR Eligible	1	
	S-30	NR Eligible	2	1941
	S-31	Not Eligible	1	
		NR Eligible	2	
	E-26	Not Eligible	1	
	E-35	NR Eligible	1	
Swan Lake				
	S-17	Not Eligible	1	
	E-28	Not Eligible	2	1936
	E-28	Not Eligible	2	1936
	E-32	NR Eligible	1	1942

TOWNSHIP	NAME	DOE	SPANS	DATE
	E-32	NR Eligible	1	
Turner				
	S-13	NR Eligible	1	
	S-30	NR Eligible	1	1939
	S-30	NR Eligible	1	1940
	S-10	NR Eligible	2	1940
	E-12	NR Eligible	1	1936
	S-13	NR Eligible	1	
	E-15	Not Eligible	1	
	SE-18	NR Eligible	1	1942
	E-19	NR Eligible	2	
	S2/3	NR Eligible	1	
	S-20	NR Eligible	2	1942
	E-26	NR Eligible	1	
	S-27	NR Eligible	1	1940
	E-34	Not Eligible	1	
	S-4	Not Eligible	2	
	E-8	NR Eligible	1	
	E-8	NR Eligible	1	
Viborg				
	E-26	NR Listed	1	1935
	E-31	NR Listed	3	1938

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