

Volume 2016 Article 119

2016

Cultural Resources Survey Of Woman Hollering Creek Bridge, Bexar County, Texas

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CULTURAL RESOURCES SURVEY OF WOMAN HOLLERING CREEK BRIDGE, BEXAR COUNTY, TEXAS

Submitted to

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Prepared for

TEXAS DEPARTMENT OF TRANSPORTATION

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Texas Antiquities Permit 4496

SWCA Project Number 12661-224-AUS SWCA Cultural Resources Report No. 2007-195

March 7, 2016

ABSTRACT

Cultural resource investigations were conducted by SWCA Environmental Consultants (SWCA) for TCB INC. on behalf of a private developer and in coordination with the Texas Department of Transportation (TxDOT) for a culvert replacement project located in eastern Bexar County, Texas. This project area consists of the bridge culvert situated on Farm-to-Market (FM) 1518 at Woman Hollering Creek near Schertz, Texas. The private developer proposes to replace the existing bridge culvert with a concrete slab bridge that would encompass a distance of 200 feet (60 m) along each approach. The Texas Historical Commission (THC) issued Texas Antiquities Permit 4496 to SWCA to conduct the cultural resource investigations, which were designed to identify and evaluate any archaeological sites eligible for listing on the National Register of Historic Places (NRHP) or that might warrant designation as a State Archeological Landmark (SAL).

The background literature and records review determined that the project area has not been surveyed for archaeological resources nor are there any cultural resources documented within or adjacent to the project area. One survey was conducted about 1.1 miles north of the project crossing, which did not encounter any sites within a mile of the project (Atlas abstract). One site (41BX1667) is recorded about 0.9 miles southwest of the crossing that is an unknown prehistoric campsite containing scattered burned rock and lithic debitage. The NRHP eligibility status for this site has not been clearly determined. Regardless, this site will not be affected by the proposed project.

During the SWCA survey, four shovel tests were used to investigate the Area of Potential Effects (APE). These investigations of the bridge crossing primarily encountered extremely disturbed right-of-way (ROW). The project area has been impacted from road construction and continued maintenance while the surrounding areas have been disturbed by residential development and agricultural activities. No cultural materials were identified during the pedestrian survey or in the shovel test excavations.

In accordance with 36 CRF 800.4, SWCA has made a reasonable and good faith effort to identify archeological historic properties within the APE. The proposed replacement of the bridge in eastern Bexar County will impact previously disturbed areas with no significant cultural properties. Thus, the proposed project will not affect any cultural resources. As no properties were identified that meet the criteria for listing in the NRHP according to 36 CFR 60.4 or for designation as an SAL according to 13 TAC 26.12, SWCA recommends no further investigations for this project area.

No artifacts were collected. Therefore, nothing was curated.

Management Summary

PROJECT TITLE: Cultural Resources Survey of Woman Hollering Creek Bridge, Bexar County, Texas.

SWCA Project Number: 12261-224.

PROJECT DESCRIPTION: The project included a background literature and records review for previously conducted surveys and recorded sites and an intensive pedestrian survey augmented with shovel testing of relatively intact areas for the proposed replacement of one rural Bexar County bridge.

Location: The project area is located at the Farm-to-Market (FM) 1518 at Woman Hollering Creek crossing that is roughly 1.6 miles north of the intersection of FM 1518 and IH-10 in eastern Bexar County. This project area appears on the Marion 7.5-minute topographic quadrangle map.

Number of Acres Surveyed: Roughly 0.75 acres.

PRINCIPAL INVESTIGATOR: Kevin A. Miller

Texas Antiquities Permit: 4496.

Dates of Work: April 30, 2007.

PURPOSE OF WORK: Since the proposed undertaking involves state land controlled by the San Antonio District of the TxDOT, investigations were conducted in compliance with the Texas Antiquities Code; the National Historic Preservation Act (NHPA); and the First Amended Programmatic Agreement among the FHWA, TxDOT, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the implementation of transportation undertakings.

Number of Sites: None.

CURATION: No artifacts were observed. Thus, nothing was curated.

COMMENTS: The pedestrian survey utilized shovel testing in the relatively undisturbed locations of the project areas. No cultural materials were observed on the surface or in the subsurface investigations of the project area. Therefore, SWCA recommends no further archaeological investigations.

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Introduction

On behalf of TCB INC. for a private developer and in coordination for Texas Department of Transportation (TxDOT), SWCA Environmental Consultants (SWCA) conducted a background literature and records review and an intensive linear cultural resources survey of a proposed bridge replacement in Bexar County, Texas (Figure 1). The project entails the replacement and rehabilitation of a rural bridge on a county road in eastern Bexar County, Texas. Because the construction would involve state land controlled by the San Antonio District of TxDOT, investigations were conducted in compliance with the Texas Antiquities Code; the National Historic Preservation Act (NHPA); the First Amended Programmatic Agreement among the Federal Highway Administration (FHWA), TxDOT, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the implementation of transportation undertakings, and the Memorandum of Understanding between TxDOT and the Texas Historical Commission (THC). The THC issued Antiquities Permit 4496 to SWCA to conduct the cultural resource investigations with Kevin A. Miller serving as the Principal Investigator.

The purpose of the work was to locate all prehistoric and historic archaeological sites in the Area of Potential Effects (APE), establish vertical and horizontal site boundaries as appropriate with regard to the APE, and evaluate the significance and eligibility of any sites recorded in the APE for eligibility for listing in the National Register of Historic Places (NRHP) and designation as a State Archeological Landmark (SAL). All work was done in accordance with the standards and guidelines of the Antiquities Code of Texas and the National Historic Preservation Act. SWCA archaeologists John Lowe and Ken Lawrence conducted the fieldwork on April 30, 2007.

DEFINITION OF STUDY AREA

The project entails the replacement of a culvert and installation of a bridge along a rural road in eastern Bexar County. The project area is located at Farm-to-Market (FM) 1518 at Woman Hollering Creek about 3.5 miles (5.6 km) south of Schertz, Texas and roughly 1.6 miles (2.5 km) north of the intersection of FM 1518 and Interstate Highway (IH) 10 (Figure 1). Of note, the drainage at the crossing of the proposed bridge replacement is listed as Womans Hollow Creek on the Marion USGS 7.5-minute topographic quadrangle (Figure 2).

In contrast, the drainage is marked as Woman Hollering Creek on the signage at the project area and in the Bexar County Soil Survey (Taylor et al. 1991). For the purposes of this project, the drainage is referred to as Woman Hollering Creek.

The proposed project would replace the existing 32foot wide culvert with a concrete slab bridge that is 44 feet wide. The construction would raise the bridge six feet vertically and the approaches would be widened to 44 feet (two-12 foot lanes with two 10 foot shoulders) and would taper back to existing grade. The vertical depth of impacts has not been specified in detail. However, construction within typical roadway approaches will not impact deposits to depths greater than four feet. Work for the bridge crossing may entail cutting the banks at the crossing to a depth of at least ten feet for a distance of at least 25 feet from the existing edge of the banks. The length of the proposed project would encompass a distance of 200 feet (60 m) along each approach. With the exception of an area at the crossing, all work will be conducted on public (TxDOT) lands within the existing 80-foot wide right-of-way (ROW). At the crossing, an additional 50-foot upstream and downstream of the drainage from the edge of the ROW will be needed for a temporary bypass (i.e., detour). These areas are private property that SWCA visually inspected from the ROW to evaluate and address the potential for adjacent buried and/or significant archeological deposits.

The FM 1518 bridge replacement project area is situated on Woman Hollering Creek, a small upland drainage that drains into Martinez Creek, then into Cibolo Creek, and eventually into the San Antonio River. The geology of the crossing is mapped as upper Cretaceous age marl, clay, sandstone, and siltstone of the Navarro Group and Marlbrook marl undivided (Barnes 1983). The soils of the crossing are mapped as frequently flooded Trinity and Frio soils, Houston Black clay, terrace (0–1 percent slopes), and Patrick soils (3–5 percent slopes).

The frequently flooded Trinity and Frio soils are described as clay loam to gravelly clay that occur along narrow, long, and irregularly shaped floodplains of small streams. The Houston Black clay is characterized as dark gray clay that occupy found along smooth terraces that parallel major streams. The Patrick soils are described as a gravelly clay loam to clay loam that occupies escarpments between the first and second

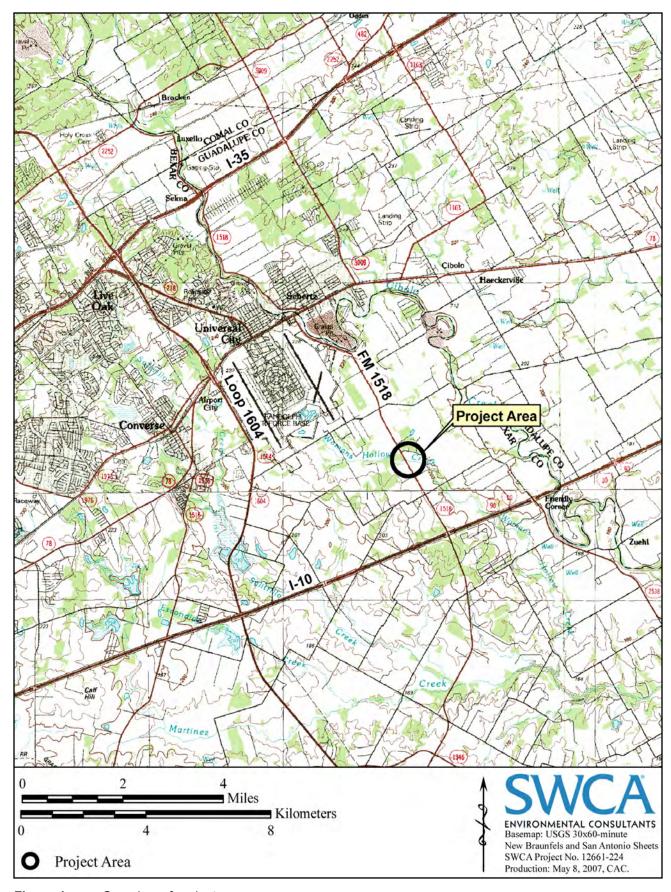


Figure 1. Overview of project area.

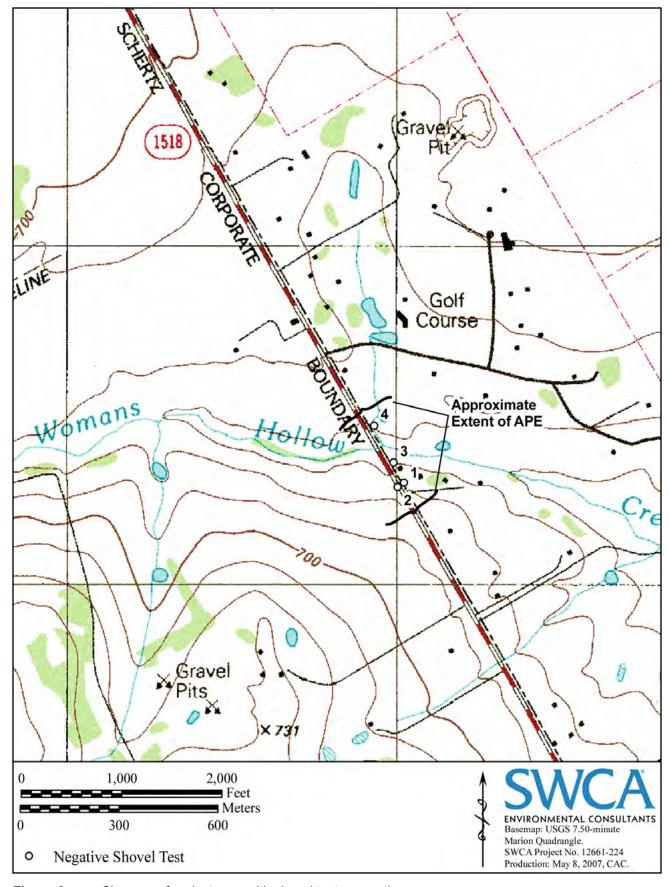


Figure 2. Close-up of project area with shovel test excavations.

terraces above the flood plains of streams (Taylor et al. 1991).

Methods

BACKGROUND REVIEW

SWCA conducted a thorough archaeological literature and records search of the project area. An SWCA archaeologist searched site files and maps at the Texas Archeological Research Laboratory and the THC's Texas Archeological Sites Atlas, an online database, for any previously recorded surveys and historic or prehistoric archaeological sites located in or near the project area. In addition to identifying previously recorded archaeological sites, the Atlas review included the following types of information: NRHP properties, SALs, Official Texas Historical Markers (OTHMs), Registered Texas Historic Land Marks (RTHLs), cemeteries, and local neighborhood surveys.

FIELD METHODS

The cultural resources survey included two SWCA archaeologists inspecting the project area through both pedestrian and subsurface investigations. The archaeologists examined the ground surface and erosional profiles for cultural resources, but the primary means of investigation included shovel testing. Intensive survey was limited to relatively undisturbed areas within the project area. Disturbed portions of the project were examined at a reconnaissance level only. Shovel tests were excavated according to THC standards, which are roughly 16 per linear mile of 100-foot wide ROW. Of note, the width of the project ROW (as marked by fence lines) for the FM 1518 project area is 80 feet while the total length of both projects is 400 feet. Thus, for a project of this size the THC recommends approximately 1–2 shovel tests.

All shovel tests were excavated until bedrock or a substratum believed to predate human occupation was encountered. Excavated soil was screened through ¼-inch mesh to retrieve any cultural materials that might be present. Each test performed through the course of the project was documented with standardized shovel test forms and recorded with a handheld GPS, which were subsequently plotted on a map of the project area. During the survey of the project area, the archaeological crew photographed the environment and disturbances. Also, all available exposures were examined for the presence of cultural materials.

To accommodate a temporary detour for local traffic, a low water crossing is proposed for vehicles to bypass the bridge during construction. The low water crossing is planned to be roughly 50 feet outside of the ROW on private property at either the upstream or downstream sides. Therefore, a visual inspection was conducted for an additional 50 feet beyond the ROW (as marked by fence lines) of both sides of the bridge for this crossing. No new TxDOT ROW is indicated for this project.

RESULTS

BACKGROUND REVIEW

The background review revealed that the project area has not been surveyed for archaeological resources nor are there any cultural resources documented within or adjacent to the project areas. However, one survey was conducted about 1.1 miles north of the project crossing. This survey was conducted along the Lower Seguin Road in 2003 by the Texas Water Development Board (TWDB). This project did not encounter any sites within a mile of the proposed bridge replacement project (Atlas abstract).

Furthermore, archaeological site (41BX1667) is about 0.9 miles southwest of the FM 1518 at Woman Hollering Creek project area. Site 41BX1667 was recorded in 2005 as an unknown prehistoric campsite situated upon a high spot overlooking a tributary drainage of Woman Hollering Creek. This site was recorded by the South Texas Archeological Association (STAA) who indicates the site contains scattered burned rock and lithic debitage. No formal recommendations for further work were made and its NRHP eligibility status has not been clearly determined (Atlas, 41BX1667 site form).

FIELD SURVEY

On April 30, 2007, two SWCA archaeologists conducted an intensive pedestrian survey of the proposed bridge replacement crossing in Bexar County. The pedestrian survey encountered a narrow ROW (i.e., 80 feet) that has been disturbed from various construction activities and various utilities.

The project area is situated in a gently rolling upland topography and the Woman Hollering Creek drainage is a minor upland channel (Figure 3). The area surrounding the crossing consists of livestock pasturage along the west side of the roadway while residential development lines the east side of FM 1518. The vegetation in and around the project area is composed of



Figure 3. Rolling topography along south approach of project area; facing south.

short grasses with some scattered timber and shrubs while the drainage has a riparian corridor with various mixed hardwoods (e.g., mesquite, oaks, and elms). Surface visibility was good, typically 30–60 percent.

The existing structure is a bridge class culvert with five 4-foot diameter corrugated metal pipes (CMP) with a 32-foot wide deck consisting of two 12-foot lanes with two 4-foot shoulders and no railing (Figure 4). In this area, the FM 1518 roadway runs northwest to southeast and consists of two 12-foot wide lanes with no shoulders for a total pavement width of 24 feet. The Woman Hollering Creek drainage, at this

crossing, trends west to east and is roughly 30-feet wide and exhibits roughly 3-foot high cutbanks. At the time of evaluation, the drainage contained over two feet deep water and had a low-energy flow.

The project area has been significantly impacted by road construction, utilities, and fence lines. Specifically, both approaches along FM 1518 sits upon a fill section that is about 1–2 feet high and extends roughly 30 feet from the road centerline (Figure 5). The fill section for the north approach continues beyond the APE. However, the fill section of the south approach extends about 200 feet from the end of the bridge (EOB) where it tapers to grade as the roadway rises in elevation. Also, a concrete apron caps the fill section on the east side of FM 1518

on both approaches of the crossing. The concrete apron extends about 60 feet from EOB and 32 feet from the road centerline. On the southern approach, a gravel apron continues beyond the concrete apron to 100 feet EOB (Figure 6).

Another project area construction impact was observed paralleling the western side of FM 1518 (see Figure 5). This side of the roadway has been contoured to form a ditch for water drainage. The base of the small (5 feet wide by 2 feet deep) channel is about 30 feet from the road centerline and parallels the edge of the road fill section.

Furthermore, the project area has been disturbed by a buried SBC utility cable that parallels the eastern side of FM 1518 along both approaches about 35 feet from centerline (Figure 7). Similarly, an overhead

power line parallels both sides of FM 1518 along both approaches about 38 feet from centerline. Finally, various fence lines (e.g., wooden and barbed wire) align both sides of the road generally 40 feet from the road centerline that continue beyond the APE (Figure 7).

Despite the extensive disturbances and fill sections observed within the ROW, four shovel test excavations (STs 1–4) were attempted within the project area (Figure 2). On the southern approach to the crossing, two shovel tests (STs 1 and 3) were placed on the east side of FM 1518 while another test (ST 2) was placed on the west side. The remaining shovel test (ST 4) was



Figure 4. Overview of existing structure at Woman Hollering Creek; facing north.



Figure 5. Overview of FM 1518 fill section and ditch along roadway; facing north.

placed on the east side of the road within the northern approach. The first shovel test (ST 1) was placed on the upland rise overlooking the crossing and was excavated to a depth of 30 cm below surface (bs) before encountering impassible clay (Table 1). STs 2 and 3 were placed on the first terrace of the drainage, downslope from ST 1 (Figure 2). Both ST 2 and 3 encountered a disturbed very dark grayish brown (10YR3/2) clay loam containing road gravels and concrete fragments (Table 1). ST 3 encountered another stratum below the disturbed clay loam that consists of a very dark

brown (10YR2/2) clay, which is similar to that observed in ST 1 (Table 1). The remaining shovel test (ST 4), located north of the drainage, encountered a disturbed very dark grayish brown (10YR3/2) clay loam containing abundant road gravels abruptly overlying a yellow (10YR7/6) clay (Table 1).

A visual inspection of private lands up to 50 feet outside of the existing ROW at the crossing was also conducted. The proposed temporary detour will either bypass the bridge on the upstream or downstream side. Although the upstream side of the crossing is more likely, both the downstream and upstream sides were evaluated (Figures 8 and 9). The crossing lies within a narrow upland floodplain with a minimally entrenched channel. Although both sides

exhibit some disturbance, the upstream portion appears to be the most intact. The upstream side contains roughly 2-foot high cutbanks that gradually slope up and away from the drainage (Figure 8). The upstream portion appears to have been partially disturbed by livestock grazing and fence line construction. The downstream side of the crossing has about 3-foot high cutbanks with a profile that exhibits very rocky soil (Figure 9). Also, the downstream side overlaps a residential yard located east of FM 1518 and south of Woman Hollering Creek. Due to the depositional setting and observed disturbances, neither side of the crossing appears to have a real potential to contain sites.

SUMMARY AND RECOMMENDATIONS

On behalf of TCB INC. for a private developer and in coordination with TxDOT, SWCA conducted a background literature and records review and an intensive linear cultural resources survey of a proposed bridge replacement in Bexar County, Texas. The project entails the replacement and rehabilitation of a bridge by a private developer on FM 1518, controlled by TxDOT in eastern Bexar County, Texas. Due to the project involving state land controlled by the San Antonio District of TxDOT, the investigations were conducted in



Figure 6. Overview of concrete and gravel apron along east side of roadway; facing north.



Figure 7. Note orange buried utility paint markings along fence line; facing south.

compliance of the Texas Antiquities Code under Texas Antiquities Permit 4496 and were designed to identify and evaluate any archaeological sites that may warrant designation as a SAL or for listing in the NRHP.

The background records and literature research revealed no previously conducted surveys or recorded sites within or immediately adjacent to the project area. The survey of the FM 1518 at Woman Hollering Creek project area encountered an extensively disturbed, narrow ROW crossing an upland drainage. Evidence of significant disturbance was observed at the crossing

primarily associated with the construction of FM 1518 and various utilities.

SWCA's intensive survey did not encounter any cultural materials on the surface or subsurface of the project area. Therefore, no cultural resources will be affected by the proposed project. The THC survey standards called for a minimum of one shovel test at this crossing. A total of four shovel tests was excavated within some of the undisturbed portions of the ROW, revealing disturbed gravelly clay loams overlying clay. No cultural materials were observed within the subsurface investigations of the project area. Additionally, a visual inspection was conducted for the portions extending beyond 50 feet beyond the ROW along both sides of the drainage in the project area. No cultural materials were observed and the area is in a nar-

row, active floodplain with a very low potential for archaeological sites.

In accordance with 36 CRF 800.4, SWCA has made a reasonable and good faith effort to identify archeological historic properties within the APE. As no properties were identified that meet the criteria for listing in the NRHP according to 36 CFR 60.4 or for designation as a State Archeological Landmark according to 13 TAC 26.12, SWCA recommends no further work.

Table 1. Shovel Test Data

ST	Depth (cmbs)	Soil Color (Munsell)	Sediment Texture	Location	Artifacts Recovered	Comments
1	0-30	10YR2/2	Clay Loam, Clay	SE Quadrant	None	On rise above main terrace. Some gravels. Thick clay starting at 20cmbs.
2	0-5	10YR3/2	Clay Loam	SW Quadrant	None	Crushed bedrock, clays at surface. Disturbed, likely graded.
3	0-10	10YR3/2	Gravelly Clay Loam	SE Quadrant	None	Road gravels, large concrete chunk at 10cm. Possibly remnant roadbed.
	10-30	10YR2/2	Clay		None	Very thick clay, rotting roots, sparse gravels.
,	0-30	10YR3/2	Gravelly Clay Loam	NE Quadrant, 2m E of utility marker	None	Heavy road gravels, likely disturbed.
4	30+	10YR7/6	Clay		None	Abrupt change, possibly fill above utility or graded, old basal clay.



Figure 8. Overview of cutbank on upstream side of crossing; facing southwest.

In the event that previously undiscovered archaeological remains are discovered during construction, work in the area of discovery shall cease and emergency discovery procedures will be implemented under the terms and conditions of the First Amended Programmatic Agreement among the FHWA, TxDOT, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation and the Memorandum of Understanding between TxDOT and the THC.



Figure 9. Overview of cutbank on downstream side of crossing; facing southeast.

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