

**AN ARCHAEOLOGICAL SURVEY FOR THE  
SOUTHWEST TEXAS TELEPHONE COMPANY  
FARM-TO-MARKET ROAD 470  
FIBER OPTIC PROJECT  
IN BANDERA COUNTY TEXAS**

***Antiquities Permit 5392***



***By  
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***Brazos Valley Research Associates  
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BVRA Project 09-27

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## **ABSTRACT**

An archaeological survey of approximately six miles of new fiber optic line in southwest Bandera County, Texas was performed on September 9 and 10, 2009 by Brazos Valley Research Associates (BVRA) under Antiquities Permit 5392. The archival research indicated that there are no known previously recorded archaeological sites within the Area of Potential Effect (APE). Archaeologists from SWCA Environmental Consultants of Austin had surveyed a small portion of the western end of the project area in 2005 with negative results. The current field survey consisted of a 100% Pedestrian Survey that inspected the exposed surface that had been disturbed by highway improvements and trench profiles that were still open during the installation of a portion of the fiber optic line. No evidence of an archaeological site was found, and no artifacts were collected and curated. It is recommended that the client be allowed to continue with the installation of the fiber optic line. The project area is 0.73 acre in size. Copies of the final report are on file at the Texas Historical Commission (THC), the Texas Archeological Research Laboratory (TARL), the Southwest Texas Telephone Company, TRC Engineering, and BVRA.

## **ACKNOWLEDGMENTS**

The authors are appreciative of the assistance provided by others during this project. Gary Gilmer is the Owner and President of the Southwest Texas Telephone Company in Rocksprings, Texas, and he was our contact with that agency. The engineering firm responsible for this project is TRC Engineering of Kerrville, Texas. Maps and other information were provided by Donna Bogart at TRC Engineering. We are grateful to Steve Carpenter at SWCA Environmental Consultants of Austin who took time from his busy schedule to discuss work by his firm in the area. The site records at TARL were checked by Jean Hughes for previously recorded sites in the project area. Lili G. Lyddon of LL Technical Services drafted some of the figures that appear in this report. She also edited the report.

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## INTRODUCTION

The Southwest Texas Telephone Company of Rocksprings, Texas plans to install new fiber optic line in rural Bandera County (Figure 1). The project area is within the right-of-way of Farm-to-Market Road 470. The length of the proposed fiber optic line is approximately six miles. The line is 1.25 inches in diameter, and it will be placed in a ditch 10 to 12 inches wide and 36 inches deep. Boring will be used at all creek crossings, and the fiber optic line will be encased. No cemeteries are within 100 feet of the APE. Funding for this project will be provided by the Southwest Texas Telephone Company from their General Fund. Because of the presence of significant archaeological sites in the area, the THC required a formal survey by a professional archaeologist. The reviewer for this project is William A. Martin, Staff Archaeologist at the THC. In order to comply with these requirements, the Southwest Texas Telephone Company retained BVRA of Bryan, Texas to conduct this investigation. The project area is depicted on two USGS 7.5' topographic quadrangles. They are Seco Pass (2999-423) and Vanderpool (2999-314) (Figure 2).

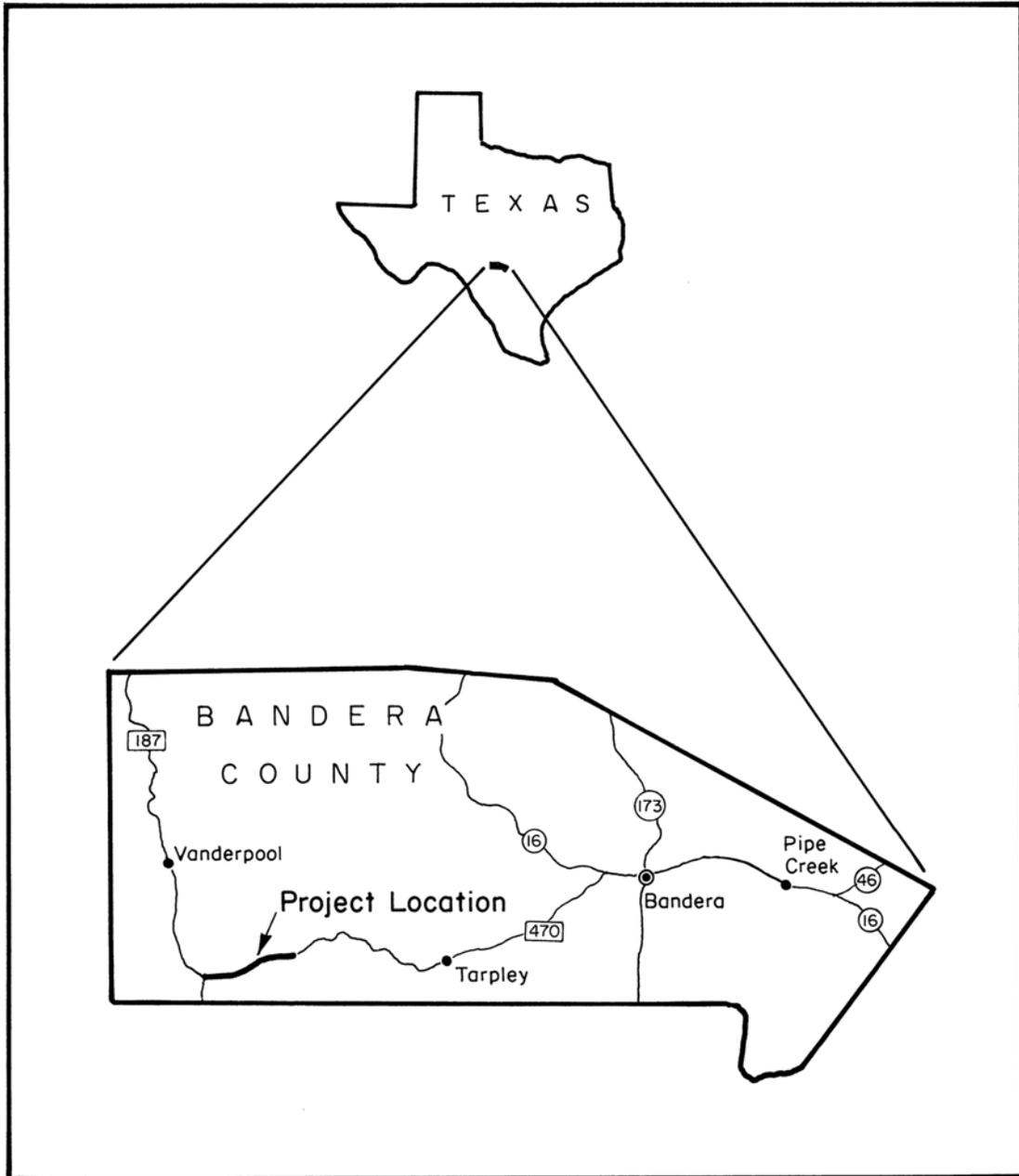
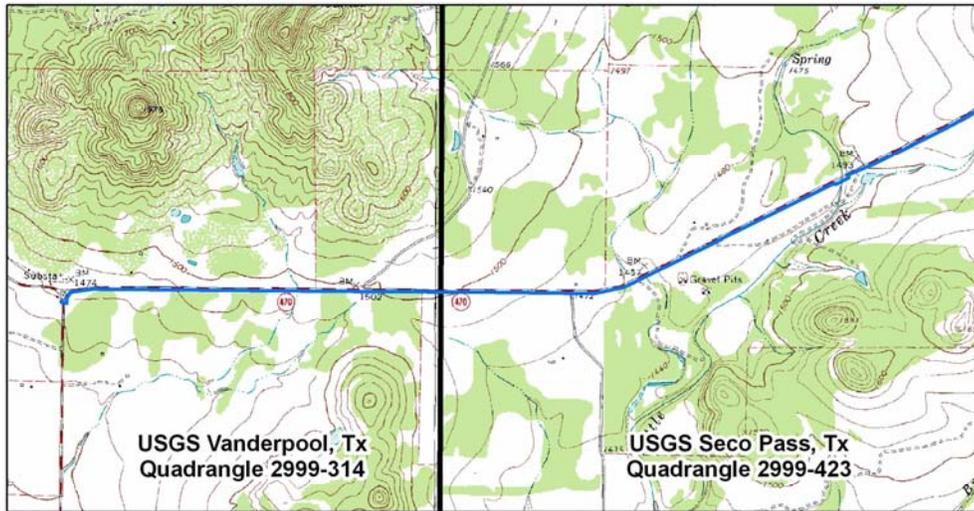


Figure 1. General Location Map



East Portion



West Portion

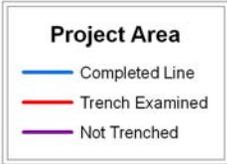
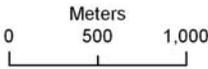


Figure 2. Project Area on Topographic Quadrangles

## ENVIRONMENTAL SETTING

Bandera County is located within the Edwards Plateau of Central Texas. To the west is the Stockton Plateau, and the two plateaus are bounded on the south and east by the Balcones Escarpment. To the north is the Llano Estacado, and to the west are the mountains of the Big Bend. The uplands of the Edwards Plateau are relatively level, and they contain karstic features such as playas and sinkholes that fill with water during the rainy season. The area is also characterized by deep canyons, valleys, and divides that contain steep bluffs and overhangs or rock shelters. Terraces and floodplains are present along the major streams. Limestone outcrops dominate the surface geology, and the local soils have developed from the weathering of limestone and marls. According to Fisher (1983), the project area is located within the Glen Rose formation and undivided Quaternary deposits. The Glen Rose formation consists of alternating beds of limestone, dolomite, and marl. The Quaternary deposits consist of slope wash, alluvium, and colluvium made up of silt to cobble-sized derivatives of Cretaceous limestone, dolomite, and chert. In this area, most of the soils are shallow to very shallow and stony on moderate to steep slopes. Deeper soils are found in floodplain settings along major streams and the tops of plateaus (Anonymous 1958). The project area is located in a region defined as dry humid mesothermal (Blair 1950:113). Pollen data from a number of localities in Southwest Texas indicate that a gradual increase in aridity prevailed in this region from post-glacial times to the present (Bryant 1969:124). There are no major streams within the project area. Drainages present include ephemeral streams and headwaters of ephemeral streams.

## ARCHAEOLOGICAL BACKGROUND

Bandera County is located in the Central Texas Cultural-Geographical Region of Texas as defined by Biesaat et al. (1985) in a planning document published by the THC. The counties in this region correspond roughly with the Edwards Plateau region (Figure 3). This region has been delineated for management purposes, and it may not coincide exactly with regions defined by other researchers. There were 3507-recorded sites in the region in 1985, and Bandera County was eighteenth in the region that consists of thirty-four counties. Of the thirty-three recorded sites in Bandera County in 1985, fourteen are described as General Archaic, and four are described as Late Prehistoric. There is no information for the remaining fifteen sites. Disturbance to sites in the county is listed by Biesaat et al. (1985:110) as erosion (n=11), construction (n=4), dispersed (n=11), and vandalized (n=5). Ten sites are described as destroyed, and one site is described as pristine. Investigation at sites in the county in 1985 consisted of excavated (n=3), tested by hand (n=9), and surface collected (n=24). According to the Texas Archeological Sites Atlas, there were 214 recorded prehistoric and historic sites in the county at the time of this survey. There are five sites currently listed in the in the National Register of Historic Places, and they are all within the city limits of Bandera. There are nine sites that have been designated as a State Archeological Landmark, and not one of these sites are within the boundaries of the current project area. Types of prehistoric sites in the county include camps (temporary and permanent) located on terraces near streams and buried in the floodplains of major streams, lithic scatters, middens in rock shelters and sinkholes, burned rock mounds, and burned rock middens. Historic sites in the rural areas of the county are not always tied to water and include the remains of farming and ranching activities in the form of standing structures (i.e. houses and outbuildings), features associated with farming and ranching such as wells, cisterns, watering troughs, cattle dip tanks, and cemeteries.

When the archeological bibliography for the Central Texas region was published in 1997 by the THC (Simons and Moore 1997), there were forty-nine references to fieldwork and research projects relating to Bandera County. The Texas Archeological Sites Atlas, shows fourteen area surveys and twenty linear surveys as having been conducted in Bandera County (Figure 4), and most of these were for the Texas Department of Transportation (TxDOT) and are along highways. These surveys date from 1975 to 2008. Only one of these is included within the boundaries of the current project area, and it is discussed below. As stated above, there have been several area and linear surveys by state agencies and private contract firms in addition to three field schools by The University of Texas at Austin in 1989, the Texas Archeological Society in 1990, and Trinity University in 1992.

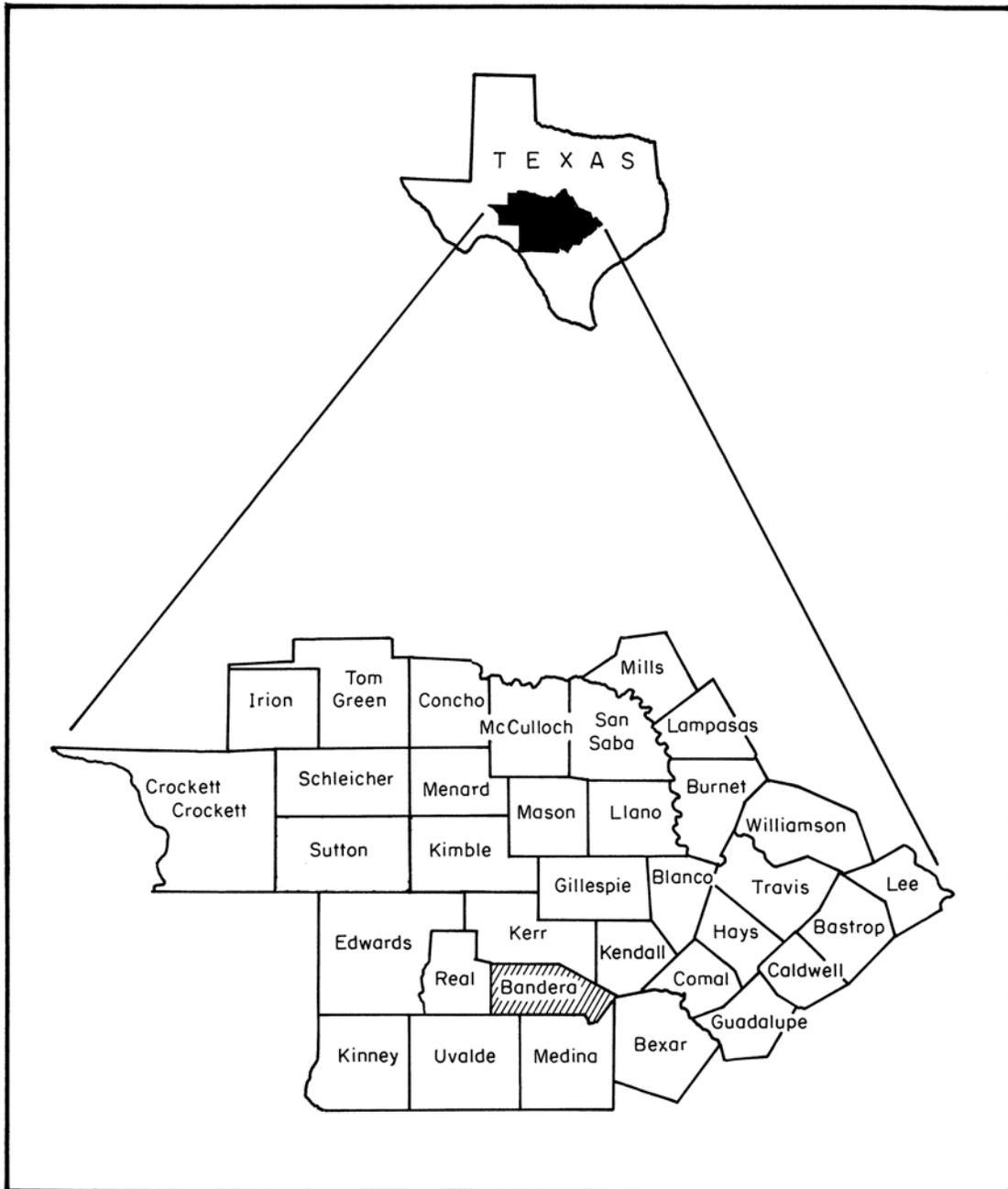


Figure 3. Central Region of Texas

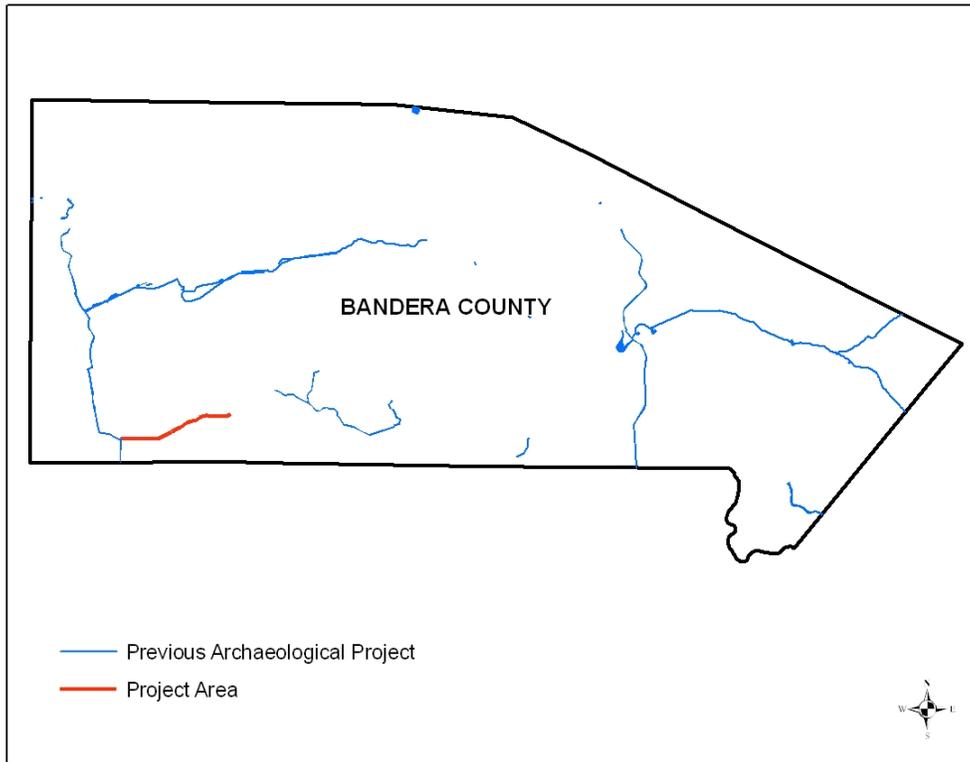


Figure 4. Previous Surveys in Bandera County

Sue Amini-Minor recorded twenty-five sites in the county, and this is the most by any individual. Archeological Steward C. K. Chandler recorded twenty-two sites (TARL site files). Together they recorded forty-seven sites, which is 22 percent of the known sites in Bandera County. Other individuals who recorded sites in the county are J. W. Beavin, M. L. Beadles, David Calame, Mary Frances Chadderdon, Roy Heidman, Thomas R. Hester, Al Leippe, Leland W. Patterson, Wayne Roberson, Bryant Saner, Jr., Herb Uecker, Jay Woodward, and Woody Woodward.

Archaeological surveys in the county include work at Lost Maples State Park (Kegley 1977) and the Hill Country State Natural Area (Turpin 1994) by archaeologists from the Texas Parks and Wildlife Department; work along Ranch-to-Market Road 187 (Lawrence et al. 2005) and for the Hill Country Telephone Cooperative (Chavez 2008a, 2008b) by SWCA Environmental Consultants; the Bandera Centerpoint project (Labadie 1987) by The University of Texas at San Antonio; Texas Forest Service Oak Wilt Project by the Texas Forest Service, Texas A&M University and The University of Texas at Austin (report not found); proposed development at Koyote Ranch by Cojeen Archeological Services (Cojeen and Burkhalter 2003); Love Creek Preserve by the Texas Historical Commission (report not found); work on Farm-to Market Road 475 (TxDOT 1983), a bridge replacement at Farm-to-Market Road 689 (TxDOT 1989) and the Ranch-to-Market Road 337 project (1977, 1992) by the Texas Department of Transportation; the Medina Lake Transmission Line project by the Lower Colorado River Authority (Malof 2007). The only survey in close proximity to the current project area is the 2005 investigation along Farm-to-Market Road 187 by SWCA Environmental Consultants in 2005 (Lawrence et al. 2005). This project paralleled the highway in a north-to-south direction from Utopia northward along the highway to just beyond the Lost Maples State Park entrance. Their project area intersects Farm-to-Market Road 470 at the western end of the current project area. Three previously unrecorded sites (41BN190 – 41BN192) and one isolated find were recorded, but not one of these sites is within or near the current project area. These sites are described as two surface lithic scatters and one buried site. They were not considered by the recorders as potentially eligible for listing in the National Register of Historic Places or for designation as a State Archeological Landmark.

Excavation and testing projects include work at the Rainey site (41BN33) by Jerry Henderson (2001) at the Texas Department of Transportation and the Mingo site (41BN101) by Brett A. Houk and John C. Lohse (1991), members of the Texas Archeological Society.

In 1989 and 1990, The Texas Archeological Society held its annual field school near Utopia in Bandera County. Information documenting this field school is found in *Texas Archeology* (33(4):17, 34(2):4, and 34(2):5-6) and the *Southern Texas Archaeological Association Newsletter* 15(3):1.

Additional information regarding the prehistory of Bandera County can be found in the statistical overview by Biesart et al. (1985), the bibliography for the Central Region of Texas (Simons and Moore 1997), a planning document prepared by the THC entitled *Archeology in the Central and Southern Planning Region, Texas: A Planning Document* (Mercado-Allinger, et al. 1996), and a thesis by Paul Maslyk (1992) entitled "Prehistoric Settlement in the Sabinal River Valley, Uvalde and Bandera Counties, Texas."

## METHODS

### Records Check

Prior to entering the field, the Texas Archeological Site Atlas and the files at TARL were checked for previously recorded sites and past surveys in the project area and vicinity. Several documents were reviewed during the planning stages of this project. These are a planning document by the THC (Biesart et al. 1985), an *Archeological Bibliography for the Central Region of Texas* published by the THC (Simons and Moore 1997), and all volumes of the *Abstracts in Texas Contract Archeology* published by the THC. The interested reader is referred to these sources for additional information regarding the prehistory of the area. The survey was documented through the utilization of Microsoft Word and Excel documents. Location data was collected and documented with a Garmin GPS-aided computer topographic program, National Geographic Topo and ESRI ArcMap. A Kodak digital camera was used to document the project, and all photographs were enhanced using Adobe Photoshop software. The field survey was conducted on September 9 through September 11, 2009.

### Field Survey

The field methods employed for this survey were developed to fit the conditions of the project area at the time of the survey and were influenced by past surveys in the area and information regarding the types of previously recorded sites in the general area. The only previously recorded sites near the project area are in the low floodplain areas of Seco Creek to the east of the current project area. These sites are restricted to the surface with a maximum depth below the ground surface of one foot. The only previous professional survey touches the western end of the project area and runs in a north-south direction along the right-of-way of Ranch-to-Market Road 187 (Lawrence et al. 2005). Only three sites were found during this survey that included 175 acres of right-of way. Of these, two were restricted to the surface, and the third was found to exist in a buried soil in the Sabinal River floodplain. No such geomorphic features exist in the current project area. The western end of the project area was included in the survey along Ranch-to-Market Road 187 survey. However, the soils in this area are very shallow with areas of limestone bedrock at or near the surface. The majority of the project area had shallow rocky clay soil with bedrock exposed in many areas. The deepest soils encountered were clay silts deposited by slope wash deposition, not alluvium from stream high-energy events.

The project area was investigated through a 100% Pedestrian Survey. Surface visibility was excellent due to the lack of vegetation. At the time of this survey, the client was in the process of installing the fiber optic line, and the presence of exposed trenches afforded excellent profiles that exposed the subsurface the depth of the APE. In addition, much of the right-of-way had been disturbed by past and present work along the highway by the Texas Department of Transportation.

The surface survey was accomplished by walking each segment twice. The Project Archaeologist parked his vehicle and examined the right-of-way. On the return trip to the vehicle, he looked across the fence from the edge of the right-of-way to see if he could observe any indications of a site on the surface such as flakes or burned rock that might extend into the right-of-way of the project area.

Piles of back dirt were present in areas where boring had been conducted, and these piles were examined (Figure 5), and rip rap or concrete slabs had been added by the Texas Department of Transportation in areas of high erosion such as the low intermittent stream crossings and the slopes above them (Figure 6). Exposed backhoe trenches were present in areas where phone connection boxes were to be installed, and the profiles of these trenches were examined. The section of the project area where the cable had been installed and backfilled offered an excellent view of the subsurface fill (Figure 7). The method of trench backfilling utilized a machine that rolled the fill from both sides of the trench back into the trench. This action mixed the fill making the portion left on the surface a composite of the various strata. This area was examined for displaced artifacts or burned rock. The area of open trenches presented a profile of the trench walls and scattered trench back dirt (Figure 8), and these were also examined. The remainder of the area had not been trenched, but some road and creek crossings had been bored. These areas, as well as the rest of the project area, were also visibly inspected.



Figure 5. Bore Hole Back Dirt (facing east)



Figure 6. Rip Rap (facing east)



Figure 7. Backfilled Trench (facing east)



Figure 8. Open Trench (facing east)

## RESULTS AND CONCLUSIONS

### Records Check

The records check revealed that there are no known prehistoric or historic sites within the project area, and no cemeteries are located within 100 feet of the APE. Only one survey has been conducted near the project area. This was a study along Ranch-to-Market Road 187 by SWCA Environmental Consultants in 2005 (Lawrence et al. 2005). This survey is discussed in the *Archaeological Background* section above.

### Field Survey

The project area is approximately six miles long and is completely within the right-of-way of Farm-to-Market Road 470. Highway construction activities had completely altered the original ground surface within the right-of way. Hills and rises had been cut through, low areas had been filled, and all areas had been graded and ditched. Recent highway activities included grading and the addition of either rock rip rap or concrete slabs in areas of high erosion such as the low intermittent stream crossings and the slopes above them.

The field investigations found that much of the proposed project had been completed, and construction was continuing in the remainder of the area. The western 6740 meters of the project area in the right-of way on the south side of the road had been trenched, the cable had been laid, and the trench backfilled. The small, intermittent stream crossings and the intermittent headwaters of Little Creek had been crossed by boring. Installation of the fiber optic line was in progress from the east side of the small intermittent section of Bravo Creek eastward to a location where Farm-to-Market Road 470 had been crossed by boring. The length of this segment was 1090 meters. An open trench with the fiber optic cable in place was present throughout this area. The soil map indicated that this area has some of the deepest soils in an area containing mainly shallow soils. Observations of the open trench and the completed line revealed that the trench had been placed within the footprint of an earlier cable construction disturbance. Portions of a previously installed cable were observed lying next to the new cable in the open trench, and some twisted sections of old cable was observed on the backfilled surface. The cable route then crossed to the right-of-way on the north side of the highway and continued eastward for 2285 meters to a point above the west bank of Seco Creek where it had been bored under Farm-to-Market Road 470 to connect to an existing telephone building on the south right-of-way. This section had not been trenched, but areas such as rocky hilltops and an intermittent stream crossing Farm-to-Market 470 in two areas had been bored.

This survey found no evidence of an archaeological site on the surface, exposed in the trench profiles, or across the fence on private property. It is concluded that the potential for deeply buried sites within the right-of-way along Farm-to-Market Road 470 is low. This conclusion is based on the surface survey, an examination of the profiles exposed by the trenches associated with the on-going installation of the fiber optic line, the fact that the previously recorded sites in the vicinity of the project area are restricted to the surface, and the presence of shallow soils in the right-of-way.

## **RECOMMENDATIONS**

No archaeological sites were found within the current project area. Therefore, it is recommended that the client be allowed to install the remainder of the fiber optic line as planned. Should construction plans change that will add new line in an area not previously surveyed by a professional archaeologist, the THC must be notified in case additional survey is warranted. Also, if prehistoric or historic cultural materials are unearthed in areas during construction, all work in the area of the find must stop until the THC can evaluate the situation. This study was performed in accordance with the Minimum Survey Standards as defined by the Archaeology Division of the THC.

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