

Archeological Survey Report of FM 536 Improvements Project near Floresville, Wilson County, Texas

by
Karla J. Córdova

With contributions by
Jennifer Thompson and Pollyanna Held



Archaeological Report, No. 363
Center for Archaeological Research
The University of Texas at San Antonio
©2006

Archeological Survey Report of FM 536 Improvements Project near Floresville, Wilson County, Texas

by
Karla J. Córdova

With contributions by
Jennifer Thompson and Pollyanna Held

Steve A. Tomka
Principal Investigator

Texas Historical Commission Permit No. 3914

CSJ 1009-01-033



Archaeological Report, No. 363
©2006

Prepared for:
Civil Engineering Consultants, Inc.
San Antonio, Texas

Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio

A list of publications offered by the Center for Archaeological Research is available. Call (210) 458-4378; write to the Center for Archaeological Research, The University of Texas at San Antonio, 6900 N. Loop 1604 W., San Antonio, Texas 78249-0658; e-mail to car@utsa.edu; or visit CAR's web site at <http://car.utsa.edu>.

Abstract

The Center for Archaeological Research (CAR) of the University of Texas at San Antonio was contracted by Civil Engineering Consultants, Inc. (CEC) of San Antonio to conduct an archeological survey of the proposed improvements within the right-of-way (ROW) of FM 536 near Floresville, Wilson County, Texas. The archeological work was necessary to address the requirements of Section 106 of the National Historic Preservation Antiquities Code of 1966, as amended. The archeological services were performed on behalf of CEC and the Texas Department of Transportation (TxDOT) to identify any archeological properties that may be eligible for listing on the National Register of Historic Places and that may warrant designation as a State Archeological Landmark. All work was conducted under the terms and conditions of the Programmatic Agreement among the Federal Highway Administration (FHWA), TxDOT, the Texas Historical Commission (THC) and the Advisory Council on Historic Preservation, and the Memorandum of Agreement between TxDOT and THC.

The entire project area for ROW improvements is located on USGS 7.5' topographic quadrangles Dewees, TX, Floresville, TX, and Sasparamco SE, TX. The proposed improvements consist of widening the roadway within the existing ROW and extending drainage structures along FM 536 from Loop 181 in Floresville, west to its intersection with FM 2579. There should be no impacts outside the existing ROW because no new easements will be acquired. Since we anticipated that the existing ROW has already been heavily impacted from previous construction of FM 536, no reconnaissance survey was performed and the surface and subsurface investigations were limited to the three areas west of Floresville where FM 536 crosses the San Antonio River, Mariana Creek, and an unnamed tributary of Mariana Creek, respectively. The subsurface investigations consisting of backhoe trenching and mechanical auger testing were conducted between October 10 and 14, 2005. A site visit to inspect the project area occurred on October 5, 2005. Ten backhoe trenches and 23 mechanical auger bores were excavated at the three water crossings along FM 536 on each side of the road and on each bank of the drainages. No new archeological sites were documented during the survey, and no cultural material was recovered during the investigations.

Table of Contents

Abstract	i
List of Figures	iii
List of Tables	iii
Acknowledgements	iv
Chapter 1: Introduction	1
Project Area Description	1
Project Goals and Activities	2
Project Results	5
Report Organization	5
Chapter 2: Project Background and Previous Investigations	6
Environmental Setting	6
The South Texas Region	6
Soils	6
Climate and Rainfall	7
Vegetation and Fauna	8
Paleoenvironment	8
Cultural Background	8
Paleoindian (ca. 11,200 to 8000 BP)	8
Archaic (ca. 8000 to 1200 BP)	9
Late Prehistoric (ca. 1200 to 400 BP)	9
Previous Investigations	9
Chapter 3: Methodology	11
Project Overview	11
Pedestrian Survey	13
Auger Testing	13
Backhoe Trenching	14
Chapter 4: Results and Recommendations	15
Results	15
Auger Testing	15
Backhoe Trenching	16
Discussion of Results	16
Summary	16
Recommendations	18
References Cited	19
Appendix A: Backhoe Trench Profiles	21

List of Figures

Figure 1-1. General project area location.	1
Figure 1-2. Project area showing high probability areas.	2
Figure 1-3. Photo overlooking Area 1.	3
Figure 1-4. Photo overlooking Area 2.	3
Figure 1-5. Photo overlooking Area 3.	4
Figure 2-1. Rural section along FM 536.	6
Figure 2-2. Boundaries of the South Texas geographic/cultural regions.	7
Figure 3-1a. Map showing location of auger tests and backhoe trenches in Area 1.	11
Figure 3-1b. Map showing location of auger tests and backhoe trenches in Area 2.	12
Figure 3-1c. Map showing location of auger tests and backhoe trenches in Area 3.	12
Figure 3-2. Backhoe trenching along FM 536.	13
Figure 4-1. Area 2 right-of-way showing evidence of disturbances.	16
Figure 4-2. Project area photo showing disturbances caused by utilities and road construction.	17
Figure A-1. Backhoe Trench 1, North Wall profile.	22
Figure A-2. Backhoe Trench 2, North Wall profile.	23
Figure A-3. Backhoe Trench 3, South Wall profile.	24
Figure A-4. Backhoe Trench 5, East Wall profile.	25
Figure A-5. Backhoe Trench 6, East Wall profile.	26
Figure A-6. Backhoe Trench 7, South Wall profile.	27
Figure A-7. Backhoe Trench 9, South Wall profile.	28

List of Tables

Table 4-1. Summary of Auger Test Results	15
Table 4-2. Summary of Backhoe Trench Results	17

Acknowledgments

The successful completion of this project was possible because of the contributions of a number of people. My deepest gratitude goes to all of them because their efforts allowed me to carry this project to completion. Special thanks to Jennifer Thompson for putting together the scope of work for the project and to Pollyanna Held of Raba-Kistner Consultants, Inc. for the background literature search and records review. David G. Hanson of CEC assisted with contractual information and Al McGraw of TxDOT collaborated on the development of the scope of work. Thanks to Rick Rogue, Ronnie Connor, and Alex Gonzalez of Alamo Backhoe Service, Inc. for a job well done. Finally, many thanks to the field crew whose assistance is greatly appreciated. These include: Jon Dowling and Daniel Teague. Dr. Steve Tomka served as Principal Investigator and Karla J. Córdova served as Project Archaeologist. Bruce Moses and Rick Young prepared the figures for this report. Raymond Mauldin and Claudia Branton served as technical editors. Also, thanks to Dr. Steve Tomka, CAR Director, and Dr. Raymond Mauldin, CAR Assistant Director for their assistance and guidance throughout all stages of this project.

Chapter 1: Introduction

From September 10, to 14, 2005, the Center for Archaeological Research of the University of Texas at San Antonio conducted a Phase I archeological survey including surface and subsurface investigations within three high probability areas along FM 536 from Loop 181 in Floresville to the intersection with FM 2579 (Figure 1-1). The archeological work was performed to address the requirements of Section 106 of the National Historic Preservation Antiquities Code of 1966, as amended. The archeological services were performed on behalf of CEC (the Client) and TxDOT to identify any archeological properties that may be eligible for listing on the National Register of Historic Places (NRHP) and that may warrant designation as a State Archeological Landmark. All work was conducted under the terms and conditions of the Programmatic Agreement among FHWA, TxDOT, THC, and the Advisory Council on Historic

Preservation, as well as the Memorandum of Agreement between TxDOT and THC. The survey was conducted under Texas Antiquities Committee Permit No. 3914 issued to Dr. Steve Tomka, Principal Investigator. Karla J. Córdova served as Project Archaeologist.

Project Area Description

The Area of Potential Effect (APE) of the roadway improvements includes an urban section between Station 0+21.04 and 11+07.89 and a rural section between Stations 11+07.89 and 345+71.69. The area is approximately 10.46 km (6.5 mi) of FM 536 between Loop 181 and FM 2579 (Figure 1-1). The width of the existing ROW varies from 15.24 m (50 ft) in the urban area to 68.58 m (225 ft) along the

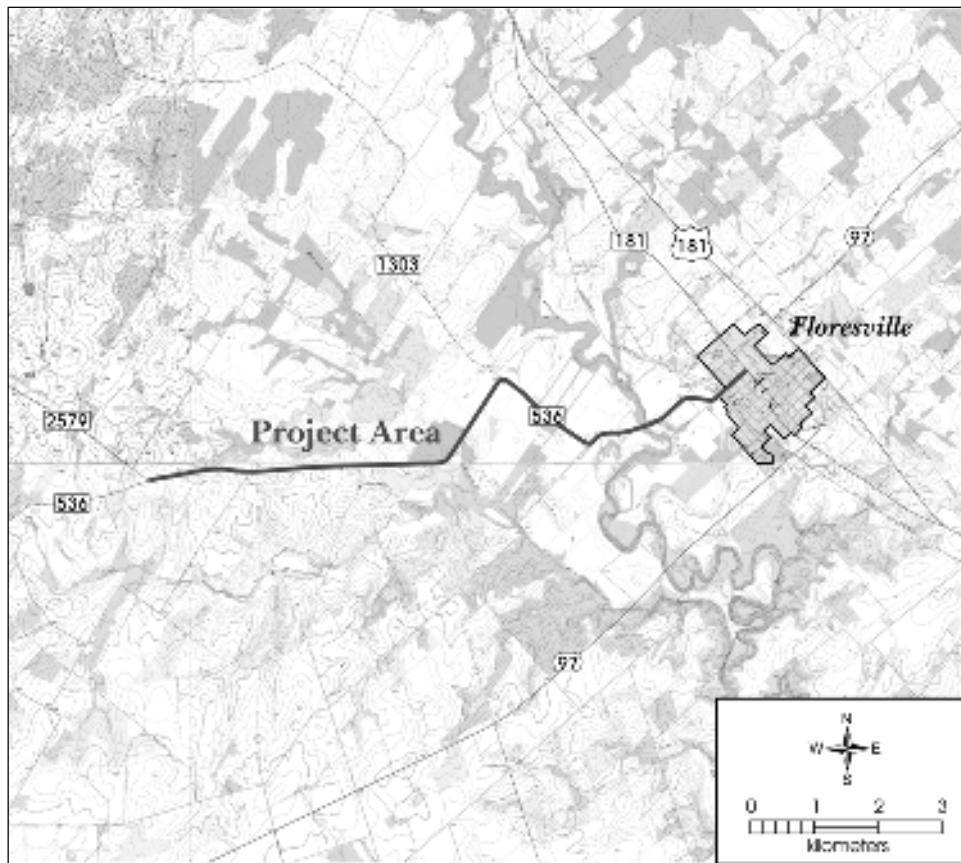


Figure 1-1. General project area location.

rural section of the ROW. The bulk of the road improvements will occur along the rural section and will result in the widening of the typical 6.71-m (22-ft) base crown to between 9.14 and 14.33 m (30-47 ft) along the ROW. Again, the APE consists of portions of the existing ROW affected by the undertaking, and no new ROW or temporary easements or detours are being acquired as part of the project.

The areas to be examined consisted of three high probability localities within the boundaries of the APE discussed above; all other areas will have been impacted by previous construction within the existing ROW. Areas in proximity to existing drainages where the deposition of alluvium could have buried cultural deposits were designated as high probability. In such contexts, the size of the drainage and water discharge during rain and flood events would determine how much sediment could be laid down and how deep previously exposed surfaces would be buried. High probability areas represent approximately 710 m along the ROW, all these are within the rural section of the ROW. The areas where subsurface inspection occurred (Areas 1, 2 and 3) are highlighted in Figure 1-2.

Area 1 crosses the San Antonio River approximately 1310 m west of the beginning of the project area in Floresville. The area spans the river from an upland terrace on the east side of the San Antonio River to an upland terrace on the west side, and is approximately 292 m long (Figure 1-3).

Area 2 crosses Mariana Creek approximately 3680 m from the San Antonio River. This area spanning Mariana Creek is approximately 210 m long (Figure 1-4). It also lies in the rural portion of the ROW.

Area 3 crosses an unnamed tributary of Mariana Creek 1165 m from the Mariana Creek crossing (Figure 1-5). This area spans the drainage and the terraces on each side for 210 m.

Project Goals and Activities

Under the contract with CEC, CAR performed a survey of the high probability areas within the APE along FM 536 between September 10 and 14, 2005. The pedestrian survey had one principal goal: to identify and document all

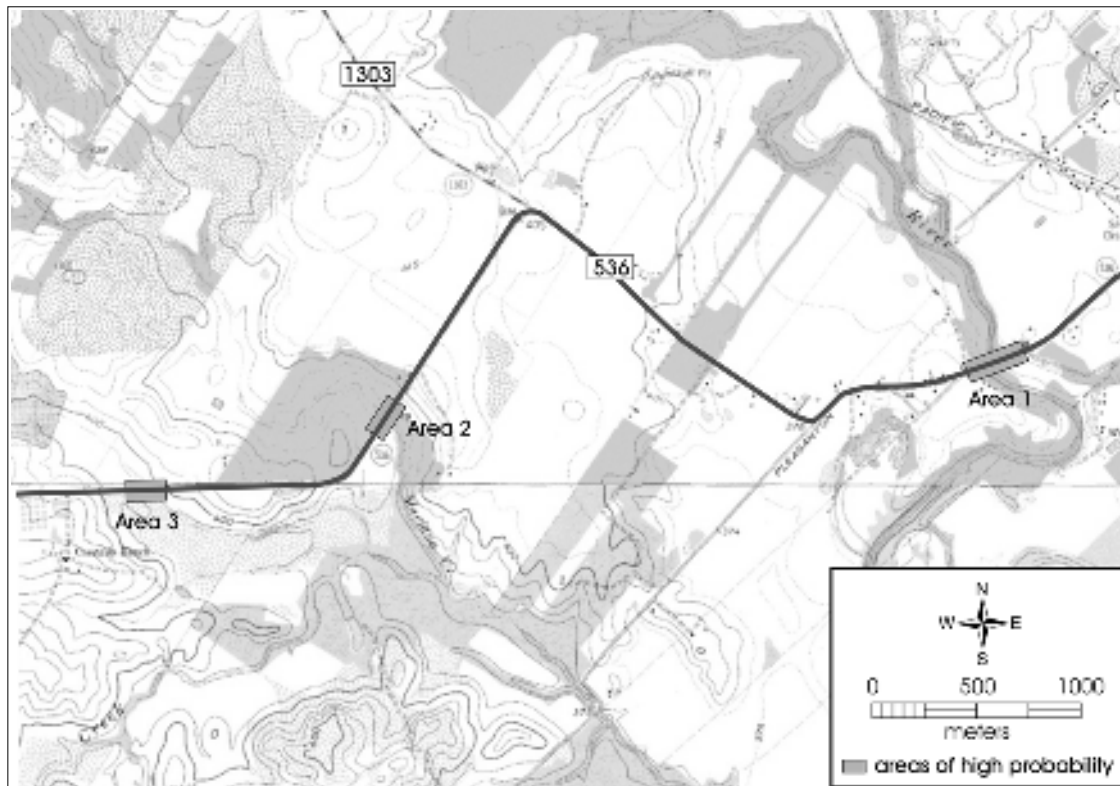


Figure 1-2. Project area showing high probability areas.



Figure 1-3. Photo overlooking Area 1.



Figure 1-4. Photo overlooking Area 2.



Figure 1-5. Photo overlooking Area 3.

prehistoric and/or historic archeological sites that may be impacted by the proposed improvements within the three areas of the APE described above. In addition to the survey, all relevant records were consulted including USGS 7.5' quadrangle maps, the Texas Archeological Sites Atlas (Texas Historical Commission [THC] 2005), and CAR's research archives to identify previously documented archeological sites. No archeological sites are located within the ROW of the project area. Specifically, the tasks to be completed by CAR as part of this project included:

- 1) preparation of the Scope of Work and Texas Antiquities Permit Application;
- 2) field survey accompanied by auger testing and backhoe trenching;
- 3) analysis of the recovered artifacts and preparation for curation;
- 4) actual curation of the artifacts and associated project documentation;
- 5) preparation of the draft survey report;

- 6) printing of the final report to satisfy Texas Historical Commission (THC) requirements; and
- 7) coordination between the Client, TxDOT, and THC during the project.

Following the examination for previously recorded sites within the project area, we conducted a pedestrian survey involving visual surface inspection and mechanical auger testing in combination with backhoe trenching in selected, high probability areas to examine the subsurface soils. Both surface inspection and subsurface investigations in the form of auger testing were conducted while the crew walked along a single transect on each side of the ROW within these high probability areas. Because no new easements will be acquired for this project, auger testing was focused on the high probability areas near stream crossings and auger bores were not evenly spaced along the entire ROW. No backhoe trenches or mechanical auger tests were excavated within the high probability areas that showed evidence of disturbances such as construction of utility lines. The backhoe trenches were excavated on the banks of the three drainages and the auger borings along the terraces above each bank. Backhoe trenching involved the excavation,

examination, and profiling of selected trench walls before backfilling while auger testing consisted of screening soils and recording of observations for each auger bore. The dirt excavated from the auger tests was screened using a ¼-inch mesh screen.

Project Results

A total of 10 backhoe trenches and 23 auger tests were excavated within the project area. No archeological sites were documented during the survey and no cultural material was observed in any of the auger tests or backhoe trenches excavated. Finally, we recommend archeological clearance for the proposed construction along FM 536.

Report Organization

The remaining sections of the report present the methods and results of the investigations. Chapter 2 presents environmental and archeological background information on the project area. Included are a short discussion of the environmental setting and a review of the cultural history of the region. Chapter 3 summarizes the methods used during the Phase I survey investigations carried out by CAR. The fourth and final chapter summarizes the limited results and presents recommendations.

Chapter 2: Project Background and Previous Investigations

This chapter provides background to the FM 536 survey project area. Included is an overview of the regional environment, a review of the cultural background in the area, and a review of previous archeological research.

Environmental Setting

The Project is located in Floresville, Wilson County, Texas approximately 30 miles southeast of the city of San Antonio, in the Blackland Prairie physiographic area and in the South Texas region. The segment of FM 536 that is the subject of these archeological investigations is located between Loop 181 and FM 2579 on the west side of the town of Floresville. Presently, the majority of the project area constitutes rural sections along FM 536 (Figure 2-1). The undeveloped portions of the project area are constituted by pasture land and some areas under cultivation.

The South Texas Region

The geographic region known as South Texas encompasses about 80,000 km², and is bounded on the west by the Lower Pecos region, on the north by the Edwards Plateau, on the east by the Lower Gulf of the Mexico coast, and on the south by the Rio Grande River (Norwine 1995:138). Figure 2-2 illustrates the boundaries of the South Texas Geographic/Cultural Region. In general, South Texas is characterized by gently rolling to flat topography dissected by intermittent streams (Vierra 1998). Elevations in the project area range from about 375-450 ft. AMSL. The San Antonio River is the major drainage within the project area along with Mariana creek and a tributary of Mariana Creek.

Soils

Soils within the project area primarily consist of the Wilco-Floresville-Miguel association of deep, nearly level to



Figure 2-1. Rural section along FM 536.

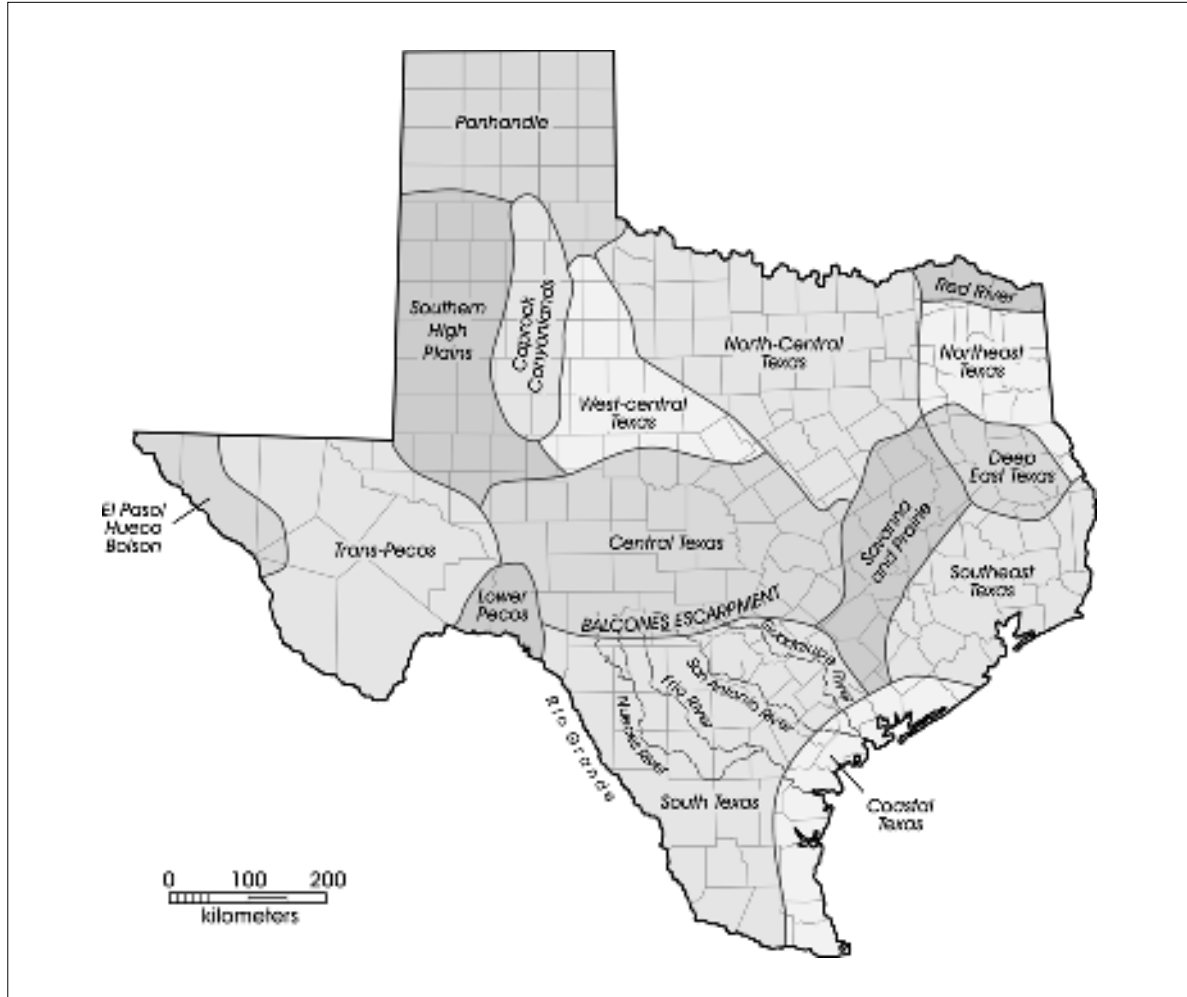


Figure 2-2. Boundaries of the South Texas geographic/cultural regions.

sloping, well drained, slowly permeable and very slowly permeable sandy and loamy soils that have clayey lower layers on uplands (Taylor 1977). Soils belonging to the Venus-Aransas-Loire Association of deep, nearly level to gently sloping, well drained to poorly drained, moderately permeable to very slowly permeable loamy and clayey soils that have loamy and clayey lower layers on terraces and bottom lands are also present. Specific soils in the area include: Loire and Frio Soils, frequently flooded; Colibro sandy clay loam, 3-5 percent slopes; Venus clay loam, 0-1 percent slopes; Runge fine sandy loam, 3-5 percent slopes; Gowen and Zavala soils, frequently flooded; Leming loamy fine sand, 0-3 percent slopes; Zavala fine sandy

loam, frequently flooded; Floresville fine sandy loam, 2-5 percent slopes, eroded; Floresville sandy loam, 1-3 percent slopes; and Wilco loamy fine sand, 3-8 percent slopes.

Climate and Rainfall

According to the Wilson County Soil Survey (Taylor 1977: 94-95), the climate of Wilson County is subtropical with mild, dry winters and hot, humid summers. The following description of the climate is extracted from this source: The region has also been characterized as having an average daytime temperature ranging from 90°F in the summer and

changing to pleasantly mild temperatures during the day and crisp and cool during the night for fall and winter. The average annual precipitation is 28.96 in. with peak rainfall during late spring and fall. The average frost free season is 280 days.

Vegetation and Fauna

The South Texas Plain region is a rolling and well-dissected plain representing the southern extension of the true prairie running thru the center of North America (Nickels et al. 1997). More specifically the project area lies within the Tamaulipan Biotic Province region of South Texas (Blair 1950). According to Labadie (1988:7) the modern-day floral communities including acacia, oak, ash, juniper, and spiny hackberry have been present in the area since the Holocene. More recently, and due to environmental exploitations occurring since the arrival of the first Europeans, the vegetation has changed to include mesquite and thorny brush, more similar to that of the South Texas Brush Country (Black 1989; Hester 1980:34-37). These changes in vegetation have been more evident in the past 300 years.

The fauna around the project area include various kinds of wildlife including white-tail deer which is very numerous in the area (Taylor 1977). Birds include bobwhite quail and morning dove. Other species native to the county include fox, raccoon, skunk, coyote, opossum, and many species of snakes (Taylor 1977).

Paleoenvironment

Preservation conditions in South Texas are poor because of high soil pH and low organic content (Vierra 1998). As a result, the information available to reconstruct the paleoenvironmental conditions is limited. Various datasets have been used to describe the prehistoric environment of South Texas, but more precise dating is needed to clarify the timing of specific climatic events. Generally, the data for Central Texas is used to describe the paleoenvironment of South Texas as the pattern appears to be applicable. Vierra (1998) outlined a general paleoenvironment for South Texas. The environment from ca. 12,000 to 800 BP was characterized by mesic conditions associated with the end of the Pleistocene and the beginning of the Holocene (Vierra 1998). Xeric conditions appear about 8000-4500 BP with a period characterized by increased moisture around 6000 BP.

The Altithermal (5000 BP) is characterized by an extreme dry and warm low. Mesic conditions seemed to have returned in the region about 4500 BP. These conditions seemed to have lasted until the present (Vierra 1998).

Cultural Background

On a regional scale, Hester (1995; see also Black 1989) concludes that the chronology of South Texas remains poorly known. Similar to other archeological regions of the state, Wilson County possesses a chronological framework with defined temporal periods consisting of Paleoindian, Early, Middle, and Late Archaic, Late Prehistoric, and Historic.

For the purposes of this report, the South Texas cultural region boundaries are the Balcones Escarpment to the north, the Rio Grande River to the west and the Guadalupe and San Antonio Rivers to the northeast. The southern boundary is at the mouth of the Rio Grande River (see Figure 2-2). The temporal periods for the South Texas region are briefly described below.

Paleoindian (ca. 11,200 to 8000 BP)

The Paleoindian period is associated with a changing Late Pleistocene environment. The subsistence and settlement patterns at the time revolved around hunting of “big game” or Pleistocene megafauna such as bison and mammoth (McDonald 1981). Fluted lanceolate points are common of the early part of the period. These early points include Clovis and Folsom points. Early Paleoindian sites in Texas are primarily located north and west of central Texas in the Llano Estacado and adjacent areas. Possible candidates for Early Paleoindian fauna associations from Central and South Texas are clouded by controversy or have not been completely published limiting the observations that can be made for the region.

Later Paleoindian sites are more common in South and Central Texas. These sites include microfauna or small game instead of the megafauna characteristic of the earlier part of the period. They are also characterized by a more diverse group of unfluted lanceolate points including Plainview, Golondrina, Angostura, and Scottsbluff points. Other lithic artifacts recovered from this time period are bifacial Clear Fork tools and finely flaked end scrapers (Black 1989).

Archaic (ca. 8000 to 1200 BP)

The Archaic period in South and Central Texas is characterized by regional manifestations. In general, the Archaic period consists of the long-lived hunting and gathering adaptations to a post-Pleistocene environment. Stemmed and notched dart points are the most common during the period, however the Archaic chronological sequence of South Texas is poorly defined (Hester 1980). Expanding, stemmed arrow points appear at the end of the period. Given the lack of an accepted chronology for South Texas, its Central Texas counterpart will be used.

Black (1989) defines the Early Archaic as dating from 8000 to 4500 BP. The early part of the period is described as composed of highly mobile groups with poorly defined territories and non-specialized extraction processes. Projectile points diagnostic of this period include corner-notched dart point types like Martindale, Uvalde, Baker, and Bandy, as well as basal-notched point types such as Bell and Andice (Hester 1995).

The Middle Archaic dates from roughly 4500 to 2400 BP (Black 1989). It reflects an increased population and the development of regional cultural patterns, social systems, and territorial boundaries. Projectile point types characteristic of this cultural period include Pedernales, Langtry, Kinney, and Bulverde (Black 1989). During the Late Archaic (2400 to 1200 BP) the previous patterns are intensified and ceramics begin to appear in some areas of the state. The presence of large cemeteries reflects the establishment of ceremonialism and the development of a more complex social system. The exploitation of natural resources became more divergent toward the end of the Late Archaic (Black and McGraw 1985).

Late Prehistoric (ca. 1200 to 400 BP)

The Late Prehistoric in South Texas includes the cultural manifestations in south-central Texas after the introduction of the bow and arrow and before the acculturation and displacement that resulted from the colonization process (Black and McGraw 1985). This period has also been correlated to its Central Texas counterpart. Based on that, Edwards and Scallorn points represent the first diagnostic artifacts of the period. A distinctive artifact of this period is the arrow shaft-straightener. Late Prehistoric sites are common in South Texas suggesting higher population densities (Black 1989).

Following the Late Prehistoric, there is a transitional period between the prehistoric period and the historic period for which there are not a lot of written records available. This period is called the protohistoric or the historic Indian period. In South Texas, it covers the sixteenth and seventeenth centuries, before the economy of the groups inhabiting the area is impacted by the Spanish explorers and the mission system that will later arise. This period has not been well studied, and it is therefore difficult to make generalizations to describe it. In addition, it is believed that the protohistoric is a continuation of the previous period as the sporadic European entries had no lasting effect on the economies and cultures of the groups inhabiting South Texas. Furthermore, Goliad wares or mission Indian ceramics have been used as an example to describe the colonial period as a continuation of the bone-tempered ceramics of the previous periods (Hall et al. 1982:452).

Previous Investigations

By Pollyanna Held

The results of background literature search and records review at the Texas Archeological Research Laboratory (TARL) and the Texas Historical Commission revealed no previous investigations performed within or in the vicinity of the project area. However, one archeological site (41WN64) has been recorded in the vicinity of the project area. Site 41WN64 is described below based on the information from TARL's files.

Site 41WN64 (the Lopez House) covers about one square mile and is intersected by FM 536. This historic site consists of the remains of an 1870s homestead including house ruins, a cistern, cemetery, and a brick kiln mound located approximately 300 mi. north of the FM 536 project area in Old Goliad Road. These ruins consist of an 1860s sandstone foundation, a well and cellar, and several nineteenth century artifact scatters. Reports provided by an informant reported that the house had four or more bedrooms and was built by an Italian stoneworker who later sold it to the Lopez family. The house burned around 1917-1918, the well has been potted, and most of house structures have been demolished except for the sandstone foundations. The cemetery where Mr. Lopez was buried contains a variety of headstones (wood, marble, concrete, and metal) that date from the 1870s to present. At present, this site has not been tested to determine its eligibility to the NRHP.

In addition, a Texas Historical Commission Historic Marker for the community of Lodi, is found in the vicinity of the northern terminus of the project ROW. The beginnings of Lodi date back to the 1830s when Don Francisco Flores de Abrego established his *hacienda* in this general area (Hazlewood 2006). The concentration of buildings became the nucleus of the later community of Lodi that became the county seat in 1867. The community flourished until the late 1890s only to decline with the increased importance of cotton farming and the decline of ranching.

Finally, the La Bahía or Lower Road and perhaps even the Laredo Road that connected San Antonio with Goliad also ran in the vicinity of Floresville. However, the exact location of either of these is not known and few if any archeological indicators may remain of their routs.

Chapter 3: Methodology

This chapter provides an overview of the methods used during the FM 536 project. Included is an overview of the project and a brief description of the methods used.

Project Overview

From September 10, to 14, 2005, the Center for Archaeological Research of the University of Texas at San Antonio conducted an archeological survey including surface and subsurface investigations at three high probability areas along FM 536 from Loop 181 in Floresville to the intersection of FM 2579 (see Figures 1-3a-c). Although the Historical Marker for the old community of Lodi was in the vicinity of the northern

terminus of the project, and the La Bahía Road and Laredo Road also passed in the vicinity of Floresville, we proposed no pedestrian survey within the city limits itself because the proposed road improvement project will be confined to existing previously disturbed ROW and work will consist of the addition of two feet to each existing lane. A surface inspection of the northern terminus of the project ROW by Steve Tomka, Principal Investigator, prior to the production of the project Scope of Work and Texas Antiquities Committee Permit Application showed the area to be highly developed and exhibiting no signs of colonial period occupation or settlement. Therefore, we decided to focus survey efforts on three stream crossings that appeared to have a high probability of retaining buried cultural remains.

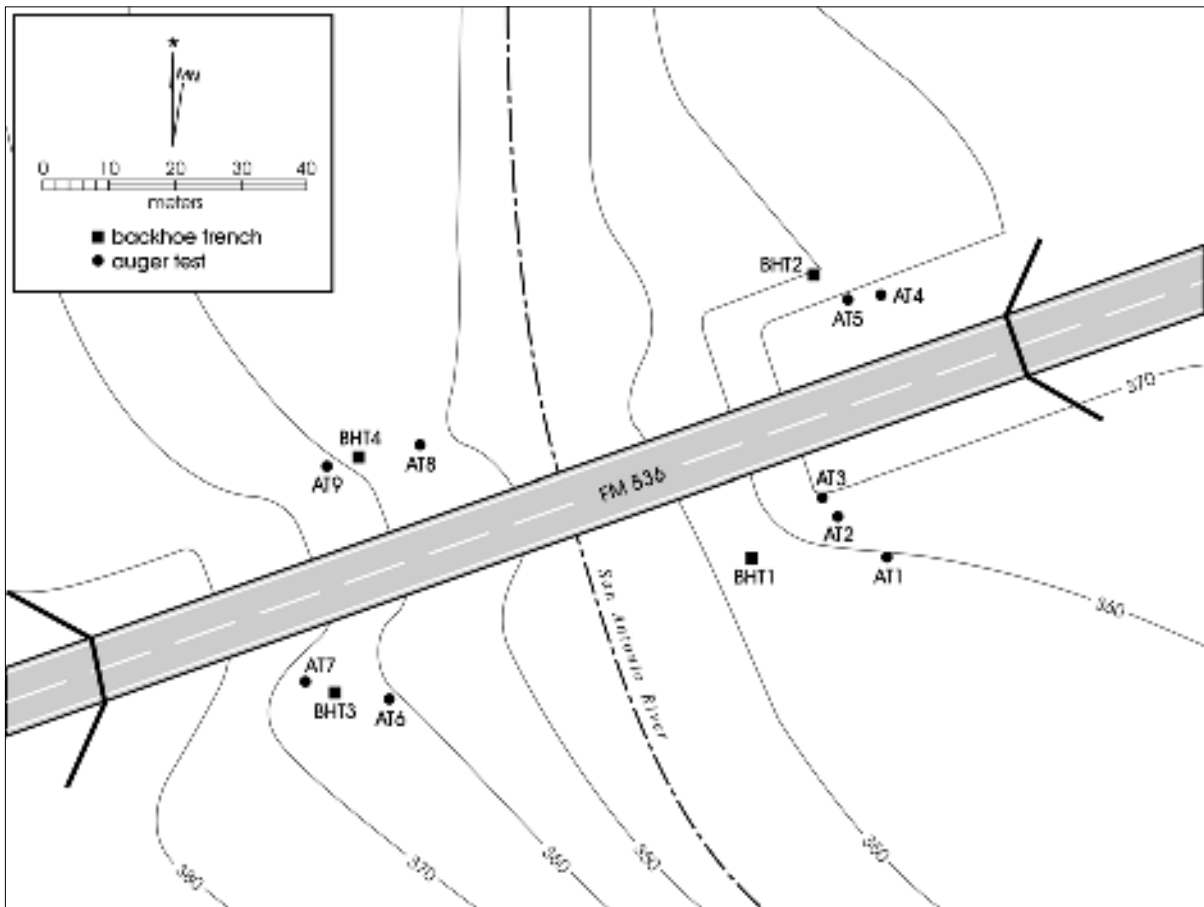


Figure 3-1a. Map showing location of auger tests and backhoe trenches in Area 1.

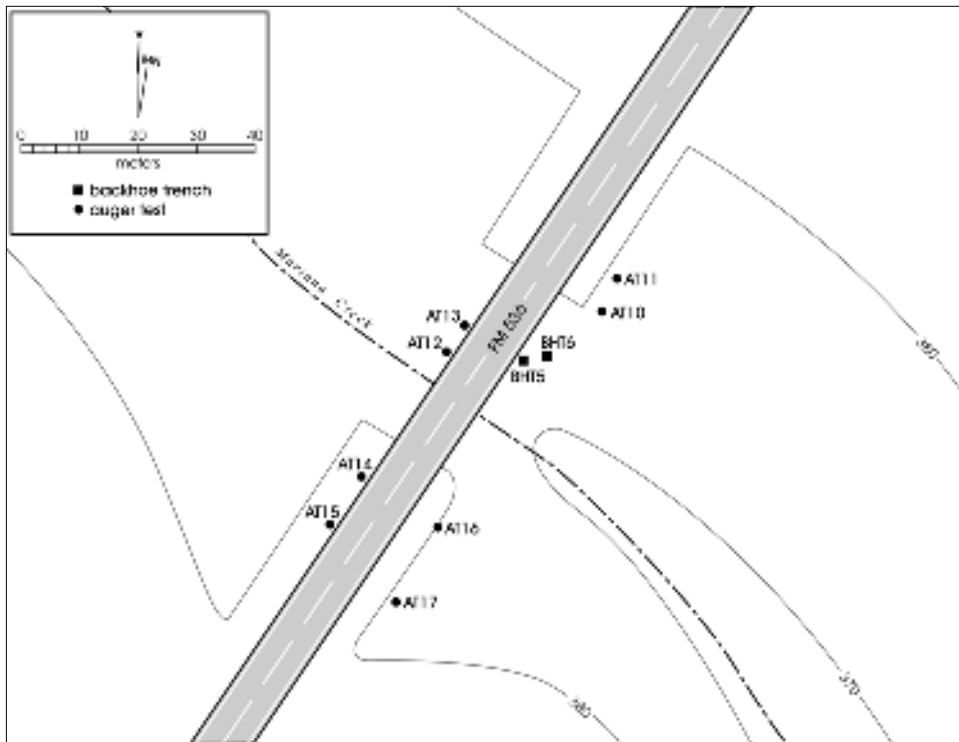


Figure 3-1b. Map showing location of auger tests and backhoe trenches in Area 2.

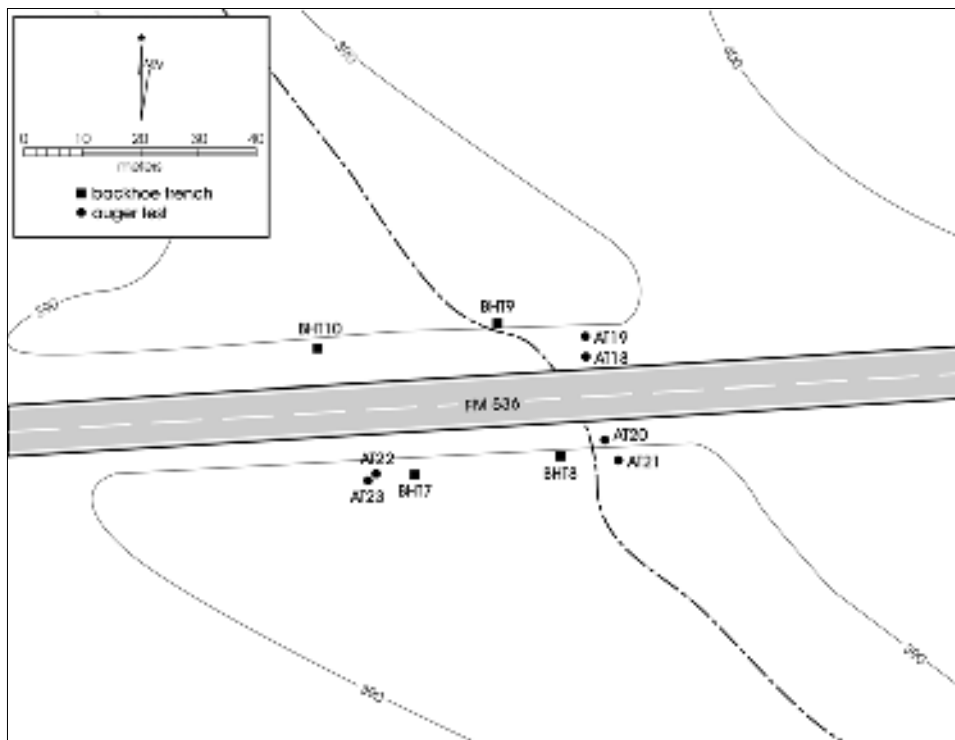


Figure 3-1c. Map showing location of auger tests and backhoe trenches in Area 3.

Pedestrian Survey

The pedestrian survey involved visual surface inspection and mechanical auger testing in combination with backhoe trenching in the selected, high-probability areas to examine the subsurface soils (see Figure 1-3). Both surface inspection and subsurface investigations in the form of auger testing and backhoe trenches were conducted while the crew walked along one transect on each side of the ROW within these high probability areas. The subsurface investigations were only conducted at the high probability areas near the stream crossings and were not performed along the entire ROW because no new easements will be acquired for this project (Figures 3-1a-c). The backhoe trenching was only performed on the banks of the three drainages and the auger borings along the terraces above each bank (Figures 3-1a-c). Backhoe trenching involved the excavation, examination, and illustration of the profiles before backfilling while auger testing involved screening soils and recording observations for each auger bore. Archival-quality digital photographs were taken to document the present state of the project area.

Auger Testing

During the survey auger tests were excavated in high probability areas near drainages in accordance with the Texas Historical Commission archeological survey standards at an average of 16 auger tests for every linear mile or one auger test every 100 m. The auger tests were spaced such that consistent coverage was achieved within the survey area. The total length of ROW that falls within the high probability areas is 710 m (.44 mi). This totals eight auger tests for the entire project. Instead, we proposed to excavate eight per crossing, two on each side of the road and each side of the drainage unless disturbances in the area did not justify the placement of an auger test in a specific location. All auger test locations were recorded using a GPS unit. Auger test locations were also sketched onto aerial photographs as a backup to GPS provenience information. Any additional observations considered pertinent were included as comments on the standard auger test excavation form.



Figure 3-2. Backhoe trenching at FM 536.

Auger tests were excavated in three 40-cm levels to 1.20 m (4.0 ft) below ground surface and measure 23 cm (9 in) in diameter. Deposits from these tests were screened through ¼-in. mesh. An auger test form was completed for every excavated auger bore. Data collected from each auger test included the final excavation depth, a tally of all materials recovered from each 40-cm level, and a brief soil description (texture, consistence, sediment color and inclusions).

Backhoe Trenching

Two backhoe trenches were to be placed on each bank of the three drainages within the ROW (Figure 3-2). However, disturbances in some areas did not justify the excavation of a backhoe trench at specific locations (Figures 3-1a-c). Each backhoe trench reached a depth of 1.75 m below surface and extended 5.0 m in length. No soils were screened from these trenches but notes on the stratigraphy were taken on standardized forms. A representative segment of one wall of each backhoe trench was profiled unless it reflected a great degree of homogeneity, in which case only those trenches reflecting different depositional processes were documented. The locations of all backhoe trenches were plotted with GPS units and on the topographic quadrangle and/or aerial photographs. Digital color photographs were taken of all backhoe trench profiles.

Chapter 4: Results and Recommendations

This chapter provides a summary of the results of the FM 536 project. Included is a summary and discussion of the results of the investigations. These are followed by a section presenting recommendations.

Results

Only the areas within the existing ROW identified previously as high probability areas due to their proximity to water crossings were subject to archeological investigations. The investigations did not identify any new sites and with the exception of modern material remains, no historic or prehistoric artifacts were noted within the ROW.

Auger Testing

A total of 23 auger tests were excavated within the three high probability areas (refer to Figures 3-1a-c) to a depth of 120 cm. Nine of these were excavated at Area 1 all of which showed evidence of modern disturbances (AT 1-9; Table 4-1). Eight auger tests were excavated at Area 2 (AT 10-17). Six (75 percent) presented evidence of modern disturbances. Finally, six auger tests were excavated at Area 3 (AT 18-23), four of which (67 percent) showed clear evidence of modern disturbances. No auger tests were excavated in the vicinity of BHT 10 located north of FM 536 on the western bank of the creek due to the major disturbances present in the area. No cultural materials were found on any of the excavated auger tests. Table 4-1 summarizes the results of the auger testing in more detail.

Table 4-1. Summary of Auger Test Results

Auger Test (AT) No.	Probability Area	Number of Levels	Maximum Depth (cmbs)	Disturbances/Comments
1	1	3	120	modern bottle glass and fill
2	1	3	120	asphalt, fill, and concrete
3	1	3	120	fill
4	1	3	120	asphalt, modern bottle glass, and concrete
5	1	3	120	modern bottle glass and cans, and concrete
6	1	3	120	modern glass
7	1	3	120	modern glass
8	1	3	120	asphalt, heavy machinery bolt
9	1	3	120	plastic, foam, and asphalt
10	2	3	120	asphalt, round nails (not rusted)
11	2	3	120	round nails (not rusted)
12	2	3	120	modern bottle glass, car's metal nut
13	2	3	120	modern bottle glass
14	2	3	120	fill
15	2	3	120	none recorded
16	2	3	120	none recorded
17	2	3	120	modern glass and beer can
18	3	3	120	none recorded
19	3	3	120	none recorded
20	3	3	120	asphalt
21	3	3	120	asphalt and modern bottle glass
22	3	3	120	none recorded
23	3	3	120	none recorded

Backhoe Trenching

A total of 10 backhoe trenches were also excavated within the three high probability areas (refer to Figures 3-1a-c) to a depth of 150-175 cm. Four backhoe trenches were located in Area 1, two in Area 2, and four in Area 3. Only two trenches were excavated in Area 2 due to the presence of utility lines within the narrow ROW as evidenced in the dirt berm used to cover the utility excavations (Figure 4-1). All the backhoe trenches excavated showed evidence of disturbed deposits. No cultural materials were found in any of the excavated backhoe trenches. Table 4-2 summarizes the results of the backhoe trenching in more detail. Appendix A (Figures A1-A7) shows the profiles for the excavated backhoe trenches. No profile was drawn for BHT 4 as the deposits resembled those of BHT 1. Also, the deposits observed at BHTs 8 and 10 were very similar to those present in BHT 9.

Discussion of Results

The FM 536 survey corridor has been heavily disturbed by road construction and utilities installation (Figure 4-2).

Even when some areas located outside of the existing ROW constitute cultivated or pasture land, they will not be affected by the proposed construction because no new ROW easement will be acquired. No cultural material was exposed by either the backhoe trenches or the auger tests.

Summary

From September 10 to 14, 2005, the Center for Archaeological Research of the University of Texas at San Antonio conducted Phase I archeological work on three high probability areas within the existing ROW of FM 536 in Floresville, Wilson County, Texas. The archeological work consisted of the surface inspection and subsurface investigations in the form of backhoe trenches and auger tests. The surface and subsurface investigations were limited to the existing ROW as no new easement will be required for the expansion of FM 536. Ten backhoe trenches and 23 auger tests were dug for the purposes of this project. No cultural materials were discovered during the investigations.



Figure 4-1. Area 2 right-of-way showing evidence of disturbances.

Table 4-2. Summary of Backhoe Trench Results

Backhoe Trench (BHT) No.	Probability Area	Maximum Depth (cmbs)	Disturbances/Comments
1	1	150	road fill, electrical fuse, plastic light fragments
2	1	175	modern bottle glass, animal burrow
3	1	170	mixed deposits, modern glass
4	1	150	asphalt, beer can
5	2	175	disturbed soil with modern glass and asphalt
6	2	170	mixed deposits, asphalt
7	3	156	animal burrow/hole
8	3	150	mixed deposits
9	3	160	mixed deposits
10	3	150	mixed deposits, concrete slabs, rebar, and scrap metal



Figure 4-2. Project area photo showing disturbances caused by utilities and road construction.

While historical information indicates that the old community of Lodi was established near the northern terminus of the project ROW, a surface inspection of the northern portion of the ROW prior to the inception of the production of the SOW and the Texas Antiquities Committee Permit Application showed no evidence of colonial occupation or settlement within the heavily developed existing ROW.

Recommendations

No prehistoric or historic cultural materials were encountered during the present investigation. The existing FM 536 ROW shows evidence of disturbances caused by road construction and maintenance and the installation of utilities. The proposed road improvement project will be confined to the existing previously disturbed ROW and work will consist of the addition of two feet to each traffic lane to create shoulders. Based on the results of the pedestrian survey, it is our conclusion that no historic properties will be affected by the proposed project and therefore archeological clearance should be given to the project and construction activities should be allowed to proceed as planned. In the unlikely event that buried cultural deposits are encountered during construction, activity will cease at that location and CAR will be immediately notified so the proposed cultural resources can be evaluated for their significance.

References Cited

Black, S. L.

- 1989 South Texas Plain. In *From the Gulf Coast to the Rio Grande: Human Adaptation in the Central, South, and Lower Pecos Texas*, by T. R. Hester, S. L. Black, D. G. Steele, B. W. Olive, A. A. Fox, K. J. Reinhard, and L. C. Bement, pp. 39–62. Research Series No. 33. Arkansas Archaeological Survey, Fayetteville.

Black, S. L., and A. J. McGraw

- 1985 *The Panther Springs Creek Site: Cultural Change and Continuity within the Upper Salado Creek Watershed, South-Central Texas*. Archaeological Survey Report, No. 100. Center for Archaeological Research, The University of Texas at San Antonio.

Blair, W. F.

- 1950 The Biotic Provinces of Texas. *The Texas Journal of Science* 2 (1):93-117.

Hall, G. D., S. L. Black, and C. Graves

- 1982 *Archaeological Investigations at Choke Canyon Reservoir, South Texas: The Phase I Findings*. Choke Canyon Series 5. Center for Archaeological Research, The University of Texas at San Antonio.

Hazlewood, C.

- 2006 Lodi, Texas. In *The Handbook of Texas Online*, <http://www.tsha.utexas.edu/handbook/online/articles/LL/hvl68.html>, accessed February 2, 2006.

Hester, T. R.

- 1980 *Digging into South Texas Prehistory*. Corona Publishing Company, San Antonio, Texas.
1995 The Prehistory of South Texas. *Bulletin of the Texas Archaeological Society* 66:427-459.

Labadie, J. H.

- 1988 *Archaeological Excavations at the Shrew Site 41WN73 Wilson County, Southern Texas*. Contract Reports in Archaeology, Report No. 2. Texas State Department of Highways and Public Transportation, Austin.

McDonald, J. N.

- 1981 *North American Bison: Their Classification and Evolution*. University of California Press, Berkeley.

Nickels, D. L., D. W. Pease, and C. B. Bousman

- 1997 *Archaeological Survey of Lackland Air Force Base, Bexar County, Texas*. Archaeological Survey Report, No. 248. Center for Archaeological Research, The University of Texas at San Antonio.

Norwine, J.

- 1995 The Regional Climate of South Texas: Patterns and Trends. In *The Changing Climate of Texas: Predictability and Implications for the Future*, edited by J. Norwine, J. Giardino, G. North, and J. Valdes, pp. 138-155. Texas A&M University, College Station.

Perttula, T. K.

- 2004 An Introduction to Texas Prehistoric Archeology. In *The Prehistory of Texas*. Texas A&M University Press, College Station.

Taylor, F. B.

- 1977 *Soil Survey of Wilson County, Texas*. United States Department of Agriculture, Soil Conservation Service. The Soil Conservation Service, Washington, D.C.

Texas Historical Commission (THC)

- 2005 Texas Archeological Sites Atlas. Electronic database, <http://nueces.thc.state.tx.us/>, accessed November, 2005.

Vierra, B. J.

- 1998 *41MV120: A Stratified Late Archaic Site in Maverick County, Texas*. Archaeological Survey Report, No. 251. Center for Archaeological Research, The University of Texas at San Antonio.

Appendix A
Backhoe Trench Profiles

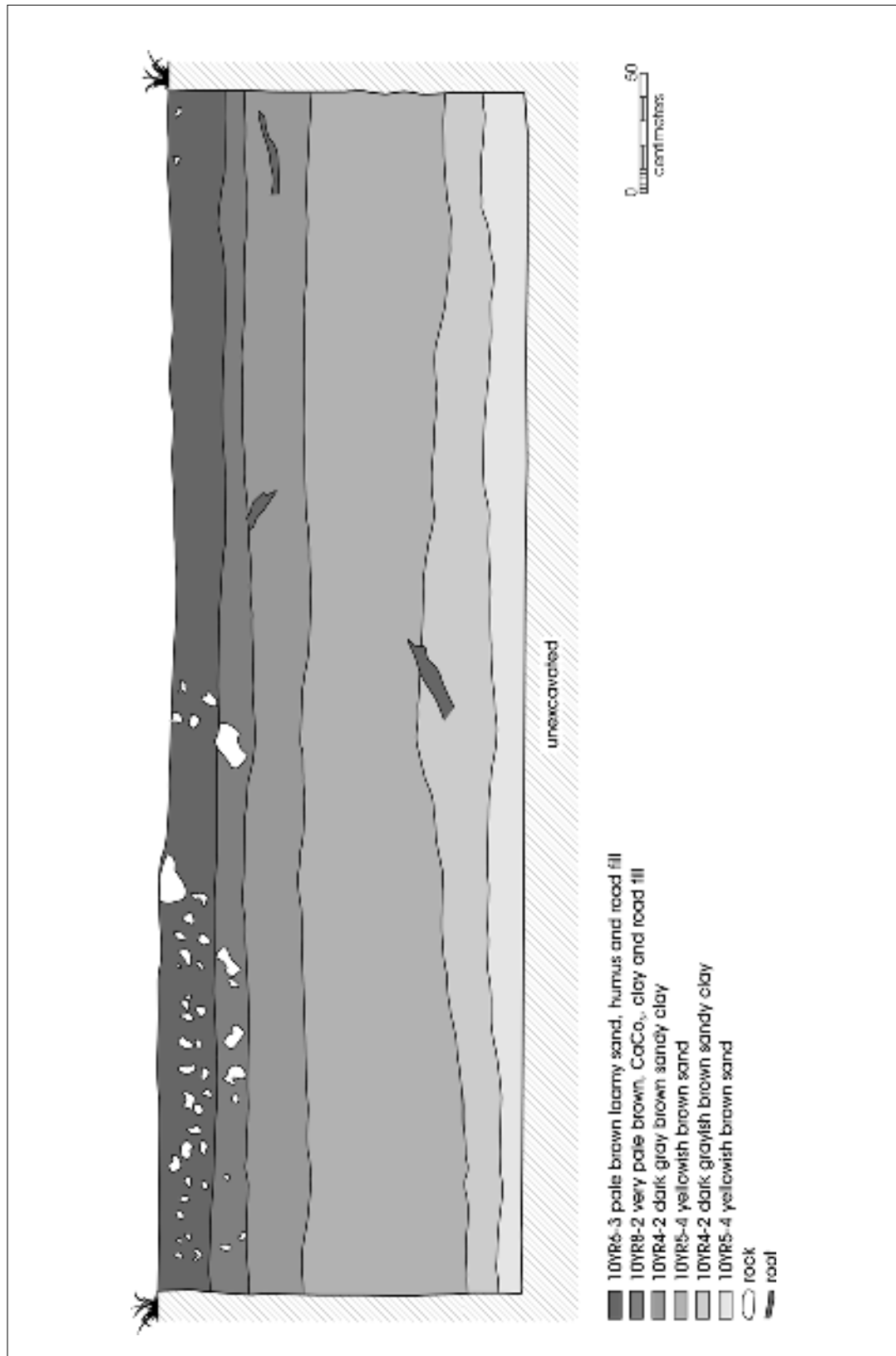


Figure A-1. Backhoe Trench 1, North Wall profile.

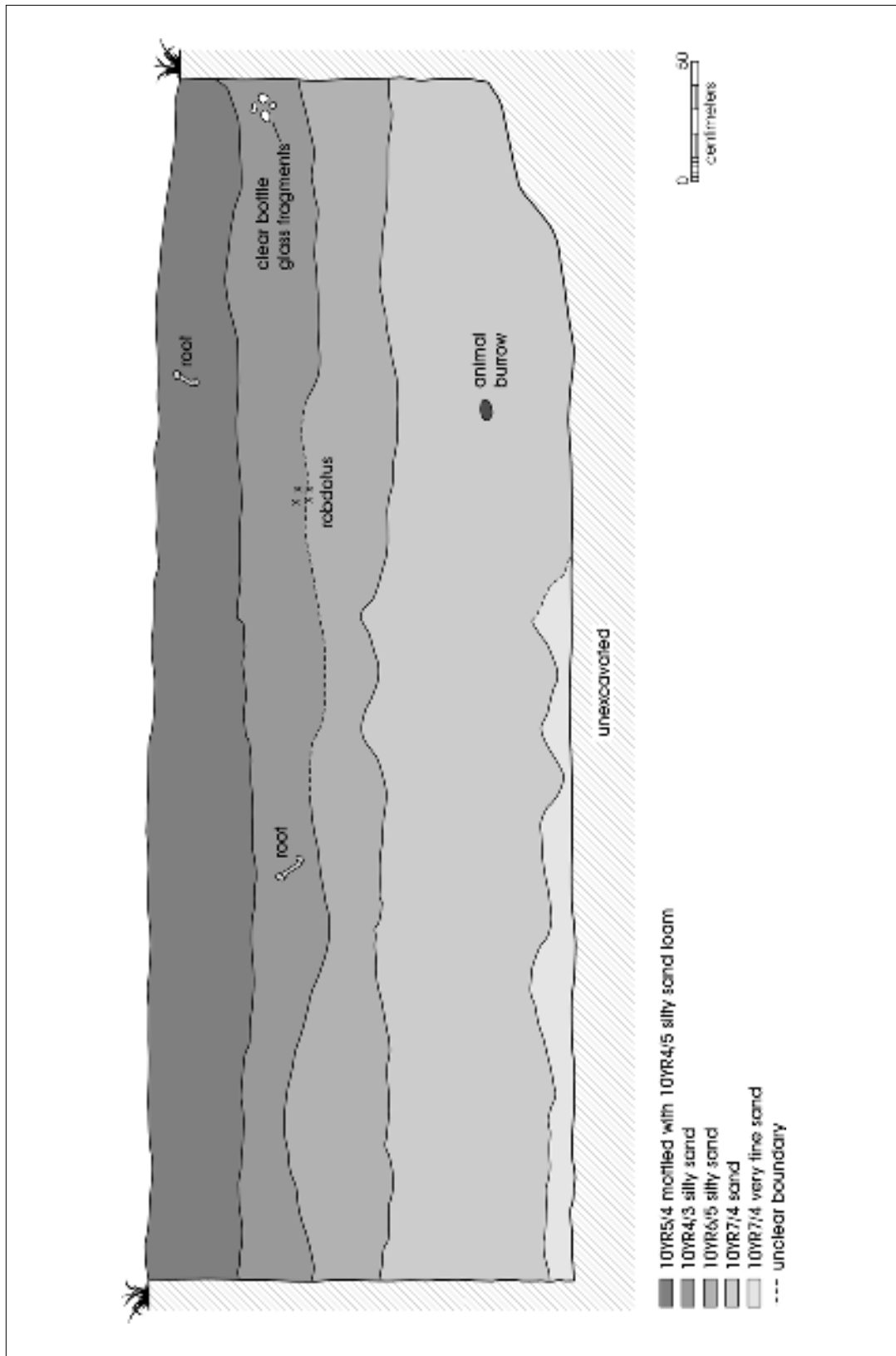


Figure A-2. Backhoe Trench 2, North Wall profile.

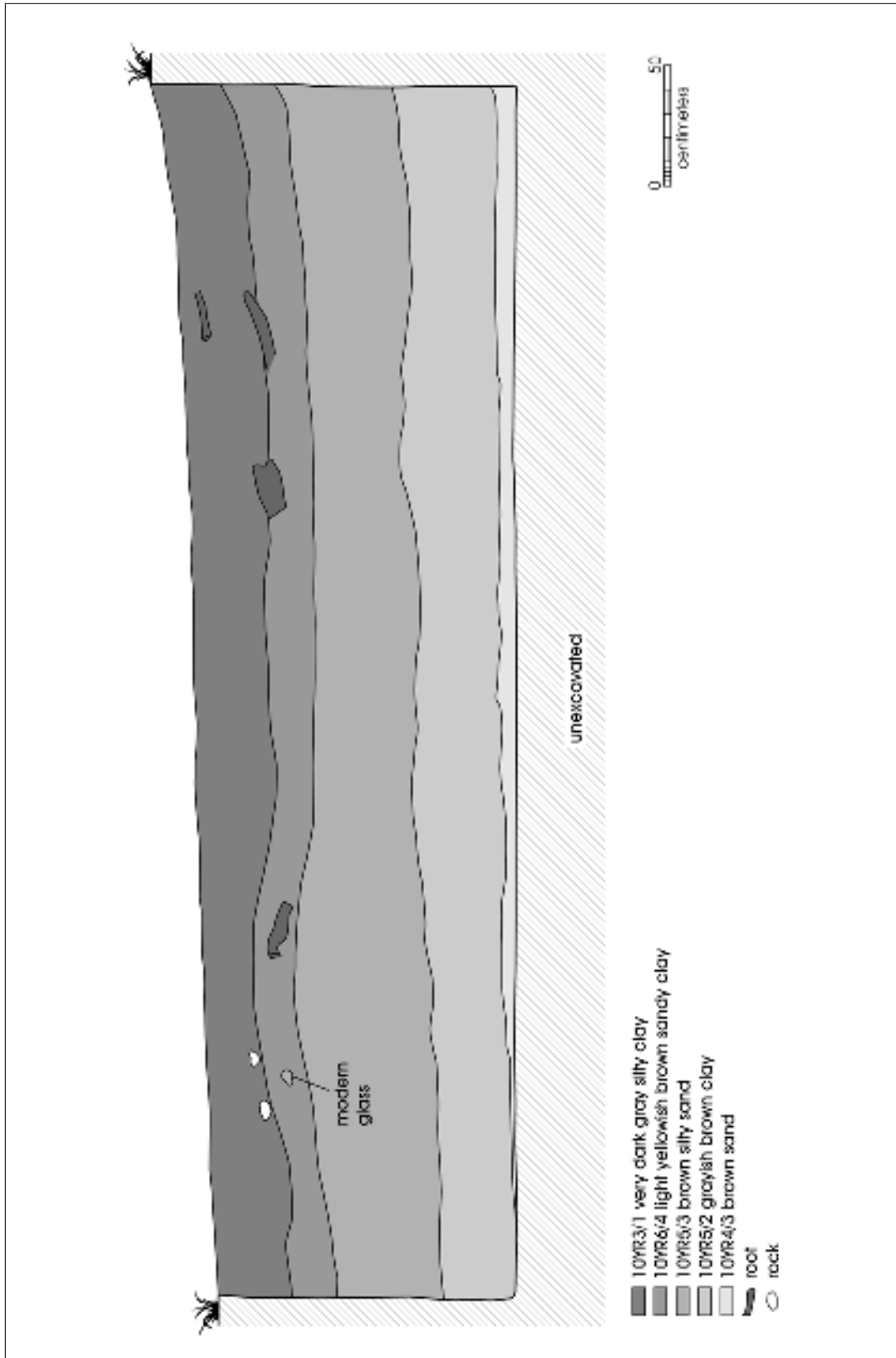


Figure A-3. Backhoe Trench 3, South Wall profile.

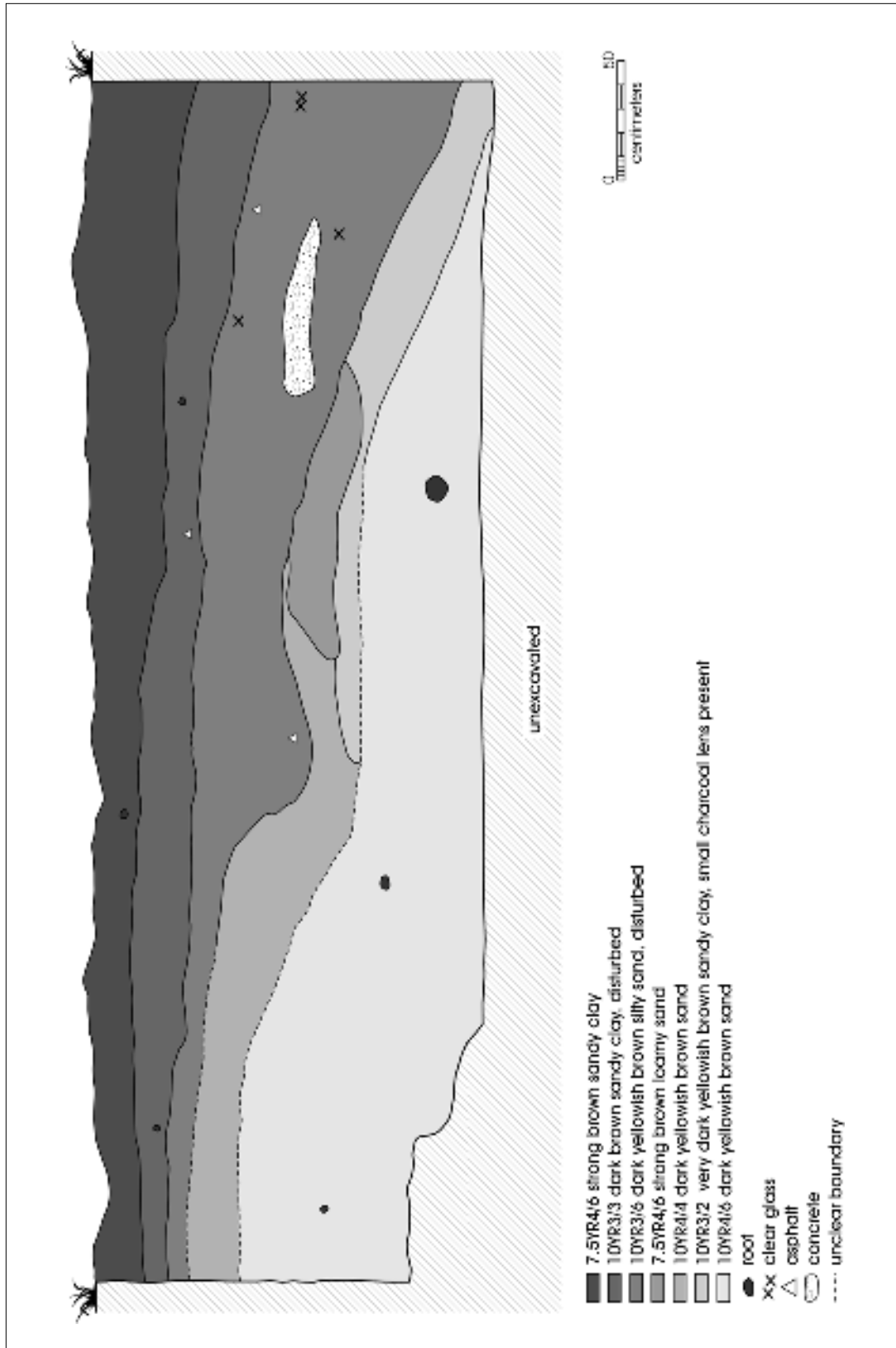


Figure A-4. Backhoe Trench 5, East Wall profile.

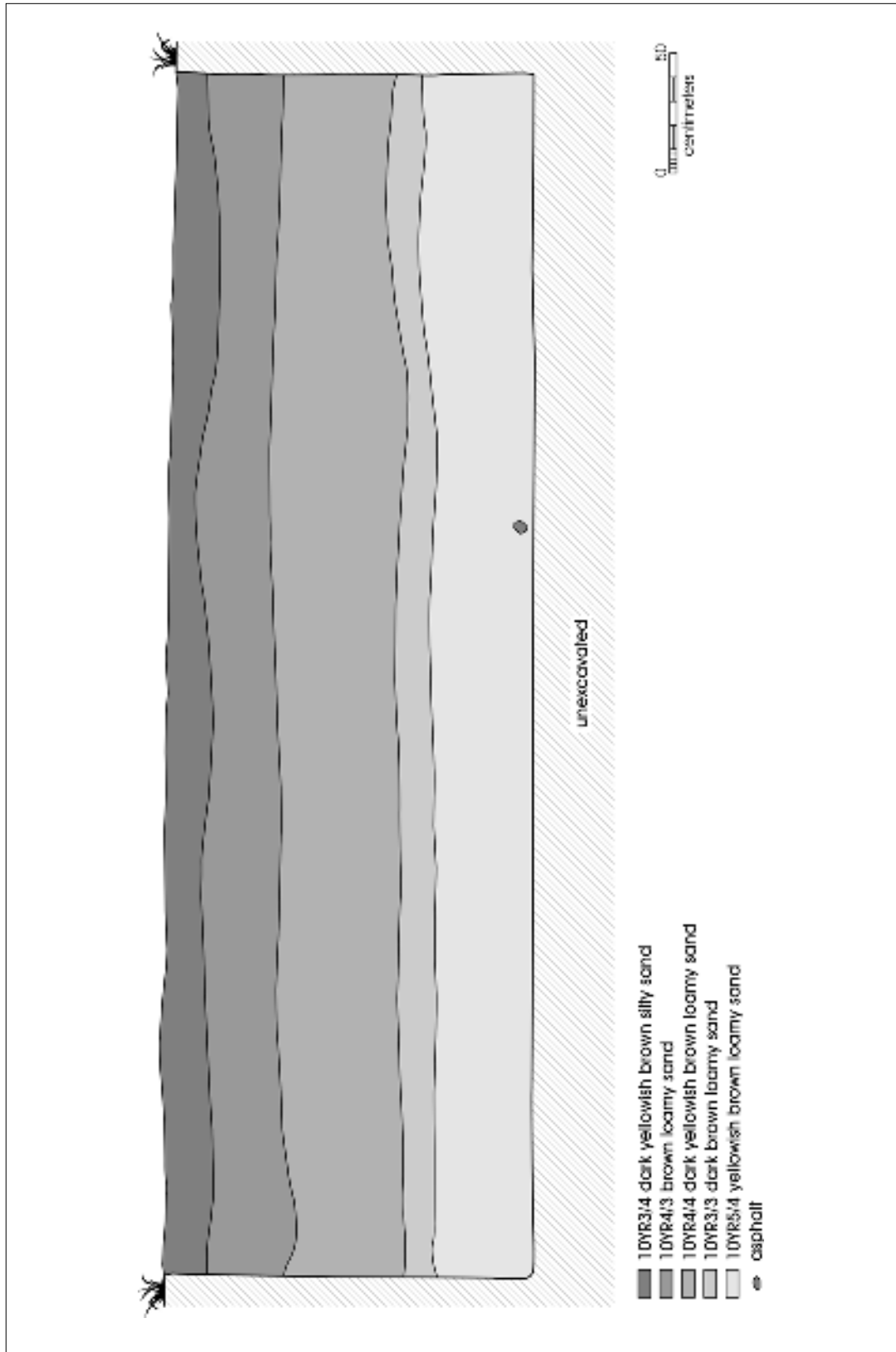


Figure A-5. Backhoe Trench 6, East Wall profile.

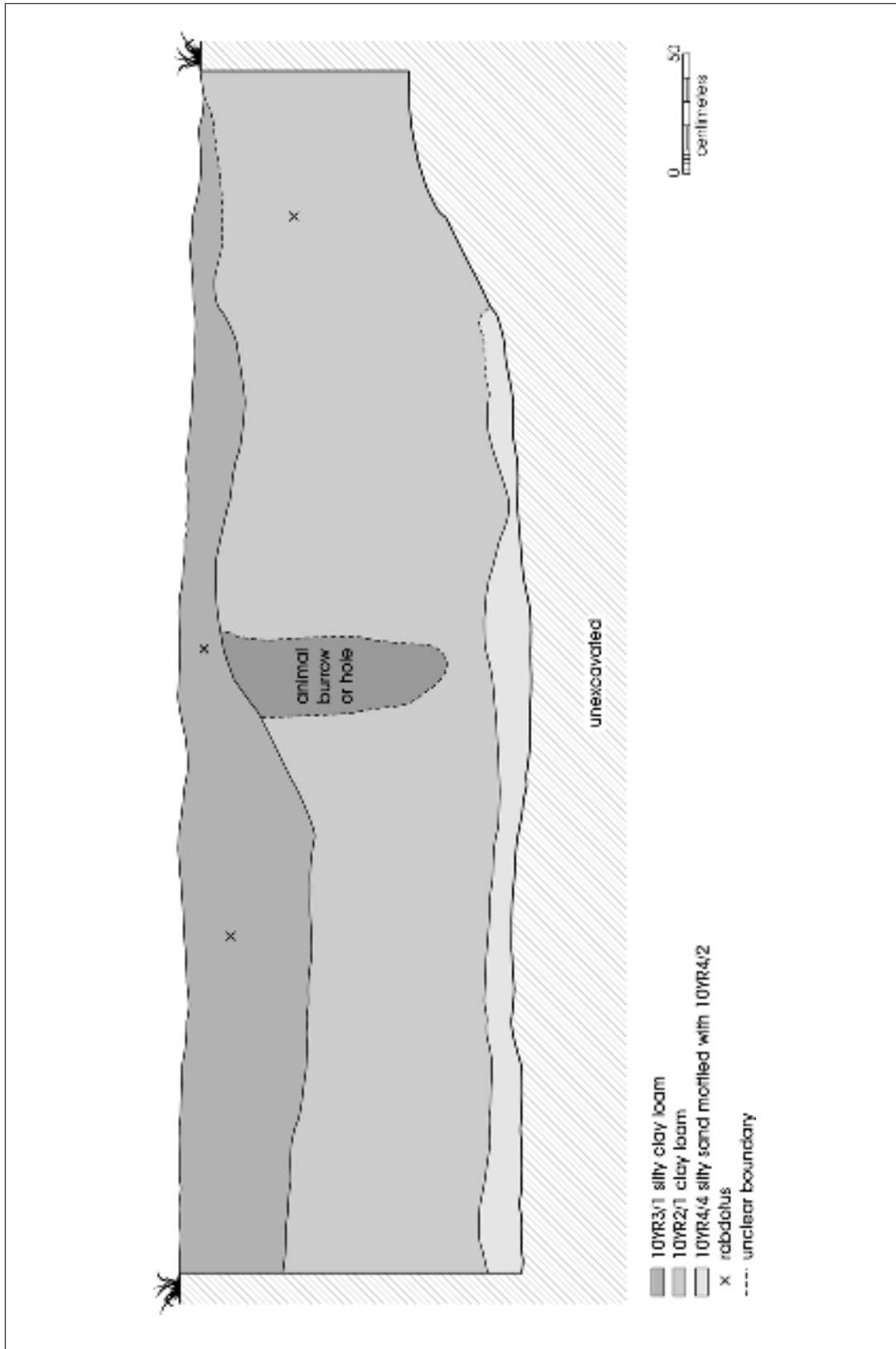


Figure A-6. Backhoe Trench 7, South Wall profile.

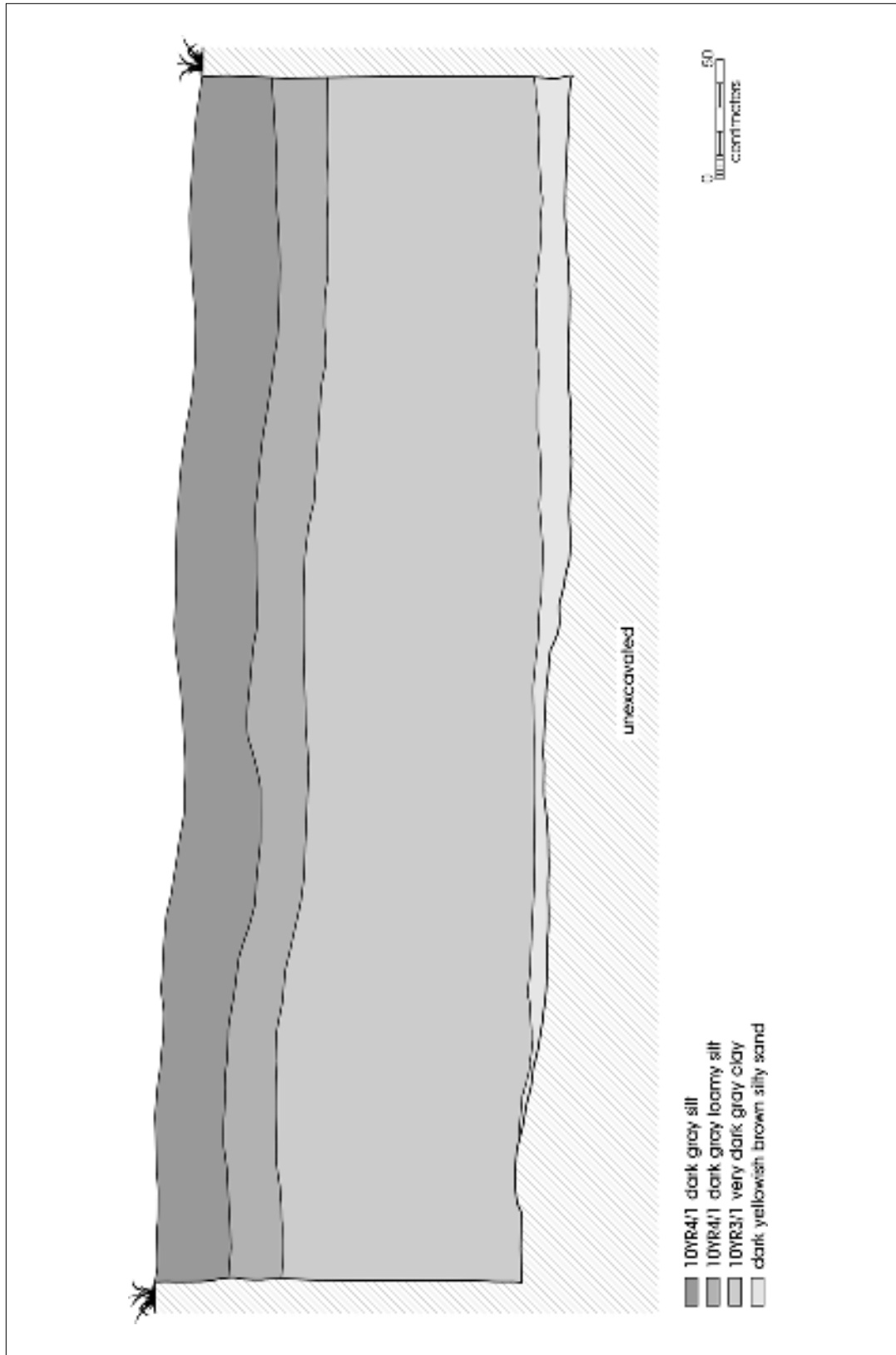


Figure A-7. Backhoe Trench 9, South Wall profile.