Archaeological Investigations for the Paso Real Subdivision Flood Mitigation Project, Cameron County, Texas

by

José Zapata

  

NON-REDACTED

Texas Antiquities Permit No. 8103

Principal Investigator
Paul Shawn Marceaux

Prepared for:
Cameron County
Public Works and Engineering
1100 E. Monroe Street
Brownsville, Texas 78520

Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249
Technical Report, No. 76

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Abstract:

On November 2 and 3, 2017, The University of Texas at San Antonio (UTSA) Center for Archaeological Research (CAR) completed archaeological testing in advance of a flood mitigation project in Cameron County, Texas. Archaeological testing was in response to a request from Cameron County, which is proposing to install a drainage system to alleviate flooding in the Paso Real Subdivision. The County is applying for Federal Emergency Management Agency (FEMA) funding. As part of the project review, the Texas State Historic Preservation Officer (SHPO) requested archaeological investigations prior to the commencement of the project. The work was completed within the purview of the Antiquities Code of Texas and was conducted under Texas Antiquities Permit No. 8103. The Project Archaeologist was José Zapata, and Dr. Paul Shawn Marceaux served as Principal Investigator.

The scope of work (SOW) for the project required a pedestrian survey of a 5.5-m (18-ft.) wide by 289.5-m (950-ft.) long area of potential effect (APE) and the excavation of three exploratory backhoe trenches. The results of the survey and testing were negative. The CAR recommends the project will result in No Historic Properties Affected and that the project proceed as planned. The Texas Historical Commission (THC) concurred with these recommendations on February 27, 2018. All field notes, maps, and photos have been prepared for permanent curation at the CAR in accordance with THC guidelines.

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Acknowledgements:

Several individuals assisted and/or supported this project. We are grateful to the following Cameron County staff: Sofia Benavides, Precinct 1 Commissioner, and her secretary Pati Matamoros; Graciela Salinas, Planning Coordinator; Paolina Vega, County Engineer; Ruben Gonzalez, Superintendent of Public Works; Hector Cantu, Foreman; and Felipe Mendez, Backhoe Operator. The CAR field crew consisted of Jason Perez and José Zapata, who served as Project Archaeologist. Dr. Jessica Nowlin provided mapping and imaging support. Thanks are also due to Dr. Kelly Harris who edited this report and to Dr. Paul Shawn Marceaux who served as Principal Investigator and oversaw the writing and production of the final report.

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Chapter 1: Introduction and Project Overview

The Project Area is located in the Paso Real Subdivision, Cameron County, Texas (Figure 1-1). The Paso Real Subdivision was platted and developed as a residential neighborhood in the early 1980s. The subdivision is located east of and just outside the Brownsville city limits. It is 1 km (0.6 mile) north of the Brownville South Padre Island International Airport and 4 km (2.5 miles) southwest of the Brownville Ship Channel. The Area of Potential Effect (APE) is a narrow, linear tract that will be impacted by a proposed flood mitigation project within the subdivision.

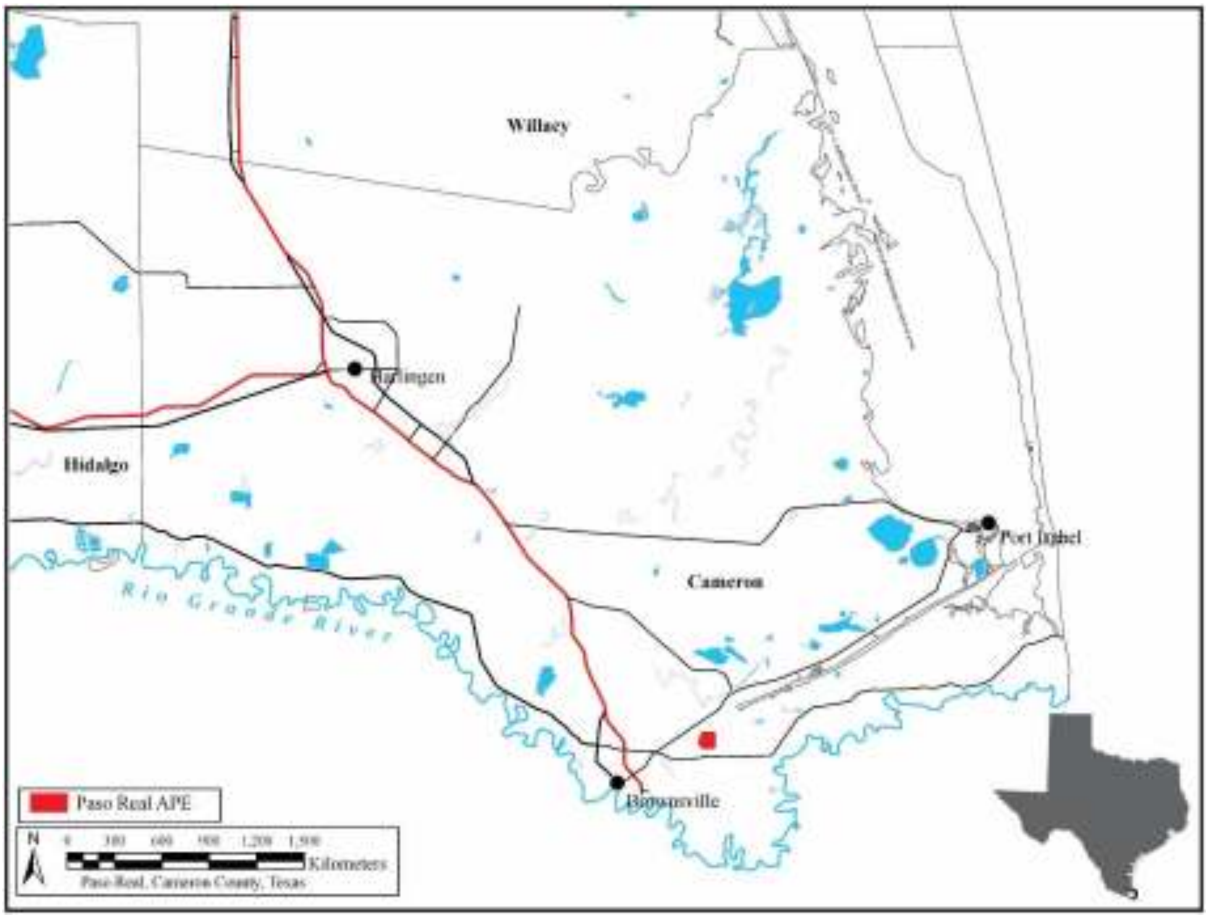

Figure 1-1. Location of Project Area in Cameron County.

The APE is 5.5-m (18-ft.) wide by 289.5-m (950-ft.) long and extends north-south along the west end of Lot 10, Block 110, in El Jardin Resubdivision section of the Project Area (Figure 1-2; Cameron Appraisal District [CAD]). This APE defines the limits of the proposed trenching and installation of a 121.9-cm (48-in.) drainage pipe. Although not included in this archaeological project, the *resaca* (oxbow lake) located north of the APE will be dredged to remove an accumulation of infill (trash, brush, and construction spoils). Once cleaned, the *resaca* will serve to naturally collect runoff, which will then be drained south by the 121.9-cm (48-in.) pipe into an existing drainage channel located at the far south end of the APE.

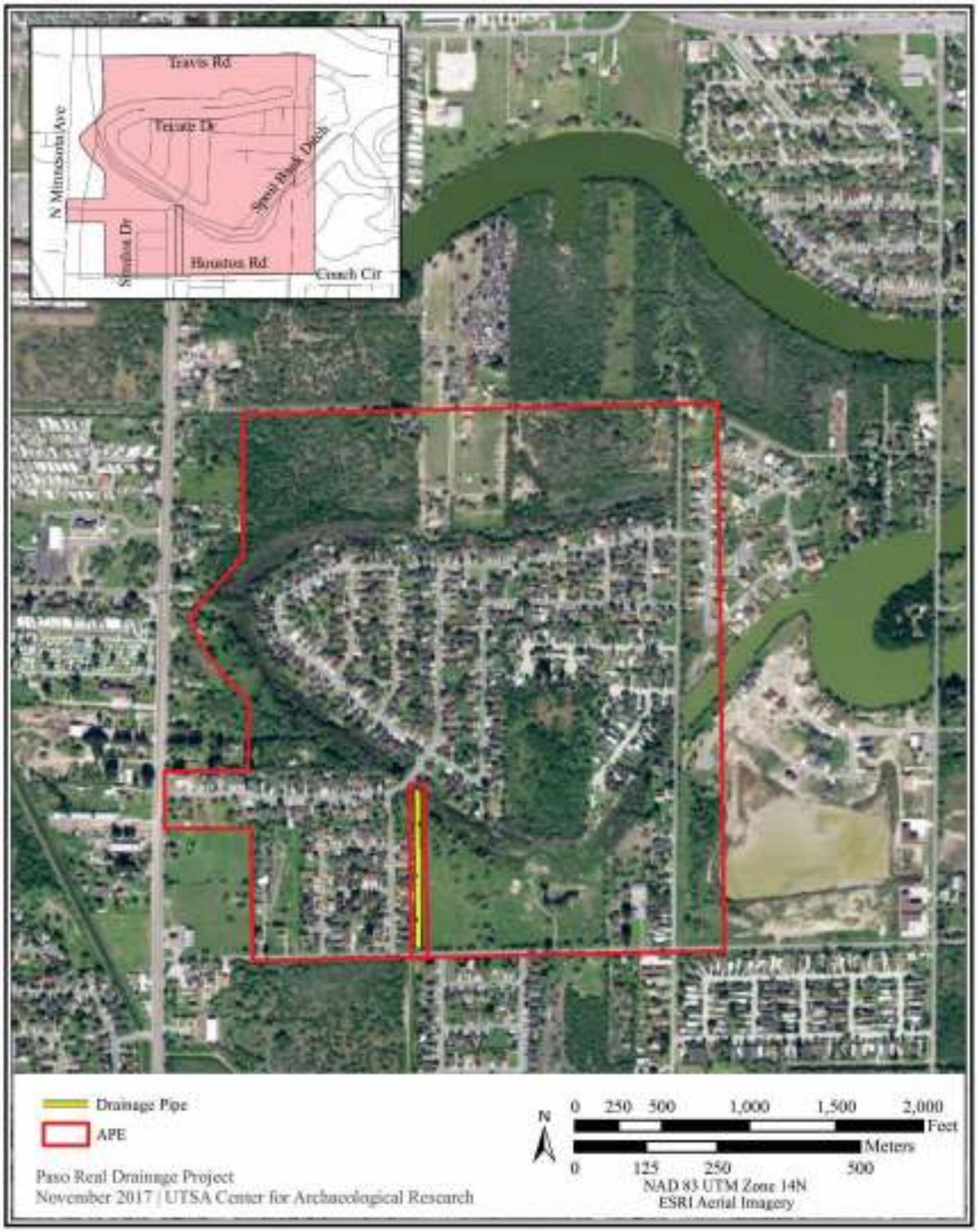

Figure 1-2. Aerial view of the Project Area.

The first phase of the scope of work (SOW) required a pedestrian survey of the APE, and the second phase called for the excavation of three backhoe trenches. A reconnaissance of the project area was completed on July 18, 2017. At the time of the reconnaissance, the grass within the APE was 60- to 100-cm (2- to 3.5-ft.) high. There was zero surface visibility due to the density of the grass making it impossible to survey the APE (Figure 1-3).

Figure 1-3. Project Area with CAR staff member in the tall grass, view north (July 2017).

The CAR staff returned to complete the work in early November 2017. Although the grass was mowed prior to the CAR staff's return, the ground-level growth was still too dense to allow good surface visibility. This second phase of the project included exploratory backhoe trenching to attempt to locate buried archaeological deposits. Backhoe trench (BHT) 1 was located 50 m (164 ft.) north of Houston Street. Backhoe trench 2 was 124 m (406.8 ft.) north of Houston Street, and BHT 3 was 220 m (721.8 ft.) north of Houston Street. The work was completed in two days with negative results in all three backhoe trenches. No cultural material or features were observed.

This report is organized into five chapters. The following chapter presents a background of the Project Area, which includes a synopsis of the natural and cultural settings, as well as a review of previous archaeology. The field and laboratory methods are provided in Chapter 3, and the results of the investigation are presented in Chapter 4. The report concludes with a summary and recommendations in Chapter 5.

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Chapter 2: Site Background

Located in the Lower Rio Grande Valley, Cameron County is the southern-most county in the state. It was created out of Nueces County in February 1848 and organized in August 1848 (Kennedy and Kennedy 1987:73). It is bounded by Willacy County to the north, Hidalgo County to the west, the Gulf of Mexico to the east, and the Mexican state of Tamaulipas to the south. The county covers an area of 3001.8 km^2 (1,159 $mi.^2$), and the elevation ranges from sea level to 20.42 m (67 ft.) above sea level (Texas State Historical Association [TSHA] 2017). As of July 2016, the estimated population for Cameron County was 422,135 (U.S. Census 2017). The major industries are agriculture, tourism, and shipping (TSHA 2017).

A summary of the area's natural setting, consisting of information on vegetation, climate, soil, and cultural setting, is presented below. Given the lack of prehistoric material in this study area, the focus of the cultural setting is on the historic period.

Vegetation

The Project Area is located within the South Texas Brush Country, which lies roughly south of San Antonio and Del Río and west of Corpus Christi. Cameron County is located in the Rio Grande Valley that is found in the southern portion of the region. The Rio Grande Valley woodlands were once more extensive, but now, the primary vegetation consists of thorny brush such as mesquite, acacia, and prickly pear mixed with areas of grassland (Texas Parks and Wildlife Departmetn [TPWD] 2017). Over the course of the last two centuries, the population of this region has increasingly altered the native environment (Longoria 1997:107-109). On an annual basis, South Texas ranchers convert an estimated 6880 hectares (17,000 acres) of brushland to pastures (Tull and Miller 1991:16). According to the Native Plant Project (2017), approximately 98 percent of the native environment within the four-county Rio Grande Valley area (Cameron, Hidalgo, Starr, and Willacy) has been altered to allow for urban, agricultural, and industrial growth. In spite of these changes, the brush country continues as "a haven for many rare species of plants and animals" (TPWD 2017).

Climate

The Brownsville area enjoys a subtropical climate, with temperatures ranging from an average minimum of 51.6°F in January and an average high of 93.6°F in July (TSHA 2017). Below is a collection of monthly climate records for a ten-year period, beginning in December 2007 and continuing through November 2017 (U.S. Climate Data 2017). Figure 2-1 shows the average high and low temperatures recorded for each month between December 2007 and November 2017 (U.S. Climate Data 2017). As might be expected, the lowest average temperatures were recorded in January (35.5ºF), and the highest were in August (99.3ºF).

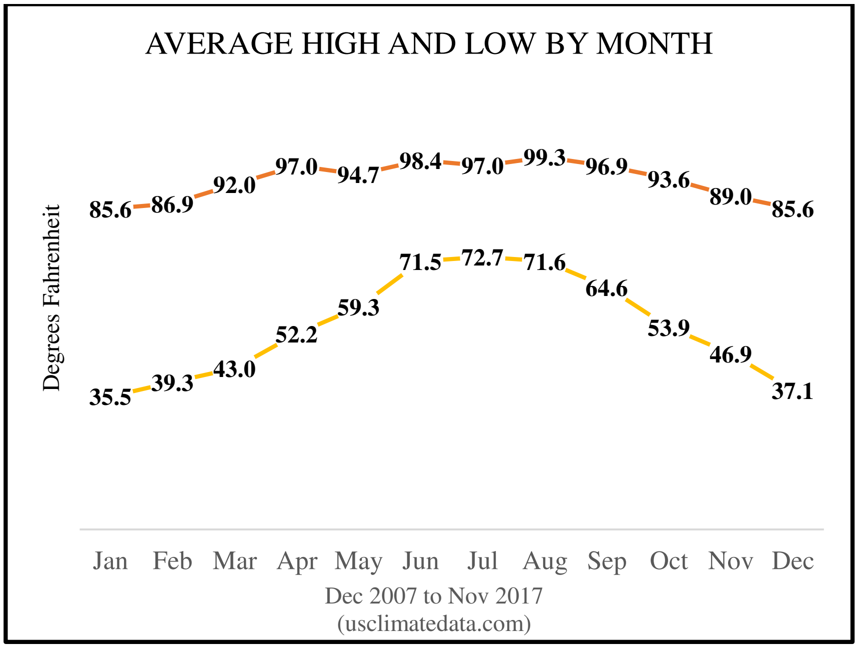

Figure 2-1. Average high and low temperatures by month, December 2007 to November 2017 (U.S. Climate Data 2017).

According to the U.S. Climate Data from between 2008 to 2017 (Table 2-1), the average annual rainfall in Brownsville was 72.91 cm (28.71 in.). When compared to this average, the annual precipitation average for the past 10 years has been highly variable from one year to the next. For example, the rainfall totals for 2010 (107.16 cm; 42.19 in.) and 2011 (41.63 cm; 16.39 in.) are quite significant. Generally, precipitation occurred throughout the year, with at least 2.54 cm (1 in.) recorded each month (Table 2-2). The data indicated that September was the wettest month.

Table 2-1. Average Precipitation for Brownsville, Texas (U.S. Climate Data 2017)

Year	**Average**
2008	96.55 cm (38.01 in.)
2009	53.39 cm (21.02 in.)
2010	107.16 cm (42.19 in.)
2011	41.63 cm (16.39 in.)
2012	57.48 cm (22.63 in.)
2013	65.56 cm (25.81 in.)
2014	77.9 cm (30.67 in.)
2015	122.3 cm (48.15 in.)
2016	47.83 cm (18.83 in.)
2017	59.33 cm (23.36 in.)
Average	**72.91 cm (28.71 in.)**

Table 2-2. Average Precipitation Totals by Month for 2008-2017 (U.S. Climate Data 2017)

Month	2008-2017
January	3.20 cm (1.26 in.)
February	2.82 cm (1.11 in.)
March	3.28 cm (1.29 in.)
April	3.58 cm (1.41 in.)
May	6.78 cm (2.67 in.)
June	6.96 cm (2.74 in.)
July	7.75 cm (3.05 in.)
August	4.20 cm (1.65 in.)
September	17.83 cm (7.02 in.)
October	8.10 cm (3.19 in.)
November	4.65 cm (1.83 in.)
December	3.78 cm (1.49 in.)
Total	**72.90 cm (28.70 in.)**

Soils

The soil association of the study area is the Laredo-Olmito association, which is described as "nearly level to gently sloping, well-drained and moderately well-drained silty clay loams and silty clays" (National Resources Conservation Service [NRCS] 2017). The soil survey further describes the Laredo-Olmito soil association as being "irregularly shaped and generally follows the meandering pattern of the old *resacas* (river channels)" (NRCS 2017). According to the U.S. Department of Agriculture [USDA] soil survey of the Cameron County, "Laredo soils occupy the higher, well-drained areas adjacent to the resacas," and the "Olmito soils occupy level or slightly concave areas away from, but parallel to the resacas" (USDA 1977:3).

The three soil types within the linear-shaped APE are Lomalta clay, Laredo silty clay loam, and Olmito silty clay loam (Figure 2-2). At the extreme north end of the APE, nearest the *resaca*, are Lomalta clay (LM) soils. These soils occur in level areas, although "a few occur as long narrow drainage ways" (USDA 1977:19). Laredo silty clay loam (LAA) makes up the majority of the soil along the APE. These soils are found on "old flood plains and deltas and generally occur next to resacas" (USDA 1977:16). The LAA are used for crops, pasture, and the cultivation of citrus trees (USDA 1977:16). As seen Figure 2-3, the Paso Real area was farmland in 1962 and most likely continued to be used for farming until the housing development of the 1980s. The third soil type, Olmito silty clay loam (OM), is in the extreme south of the APE. This soil type is found in "slight depressions and within large areas of Laredo soils" (USDA 1977:24).

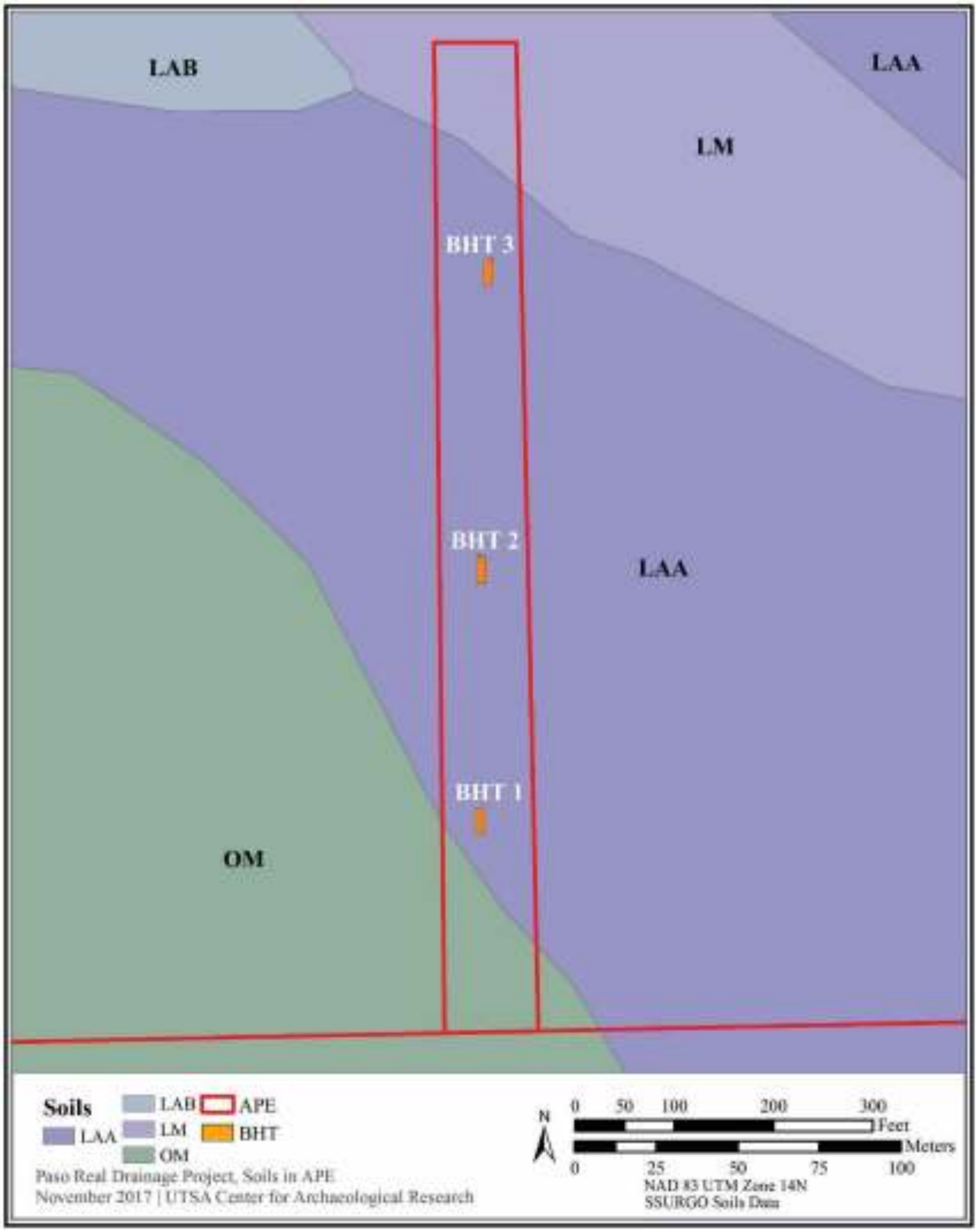

Figure 2-2. Soils within the APE.

Figure 2-3. 1962 aerial of Project Area; note entire area is farmland.

Cultural Setting

There were three major prehistoric occupations in the South Texas: Paleoindian, Archaic, and Late Prehistoric. In the Rio Grande delta, which generally includes present-day Starr, Hidalgo, and Cameron counties, no archaeological evidence from the Paleoindian Period has been found, and Late Prehistoric (1200 BP – AD 1519) sites make up the majority of the prehistoric archaeological sites that have been documented in the area (Department of Homeland Security [DHS] et al. 2004). The most dominant archaeological sites overall are those from the Historic Period.

Paleoindian Period (11,200 – 8000 BP)

The Paleoindian Period in south Texas is marked by the isolated presence of fluted points of the Clovis and Folsom types (Hester 2004:133-134). The people who inhabited the region consisted of small hunting and gathering bands that ranged far and wide. These Native bands primarily hunted large game, such as the bison and mammoth. Archaeological sites from the Paleoindian Period have yet to be found along the Rio Grande delta (DHS 2004).

Archaic Period (8000 – 1200 BP)

The climate fluctuated considerably during the Archaic Period, and it was not until at least 3,000 years ago that the sea level receded to its present level. Climate change brought forth an increasing array of plant and animal resources, which in turn led to the production of a wider range of tools. The tool inventory included dart points, knives, ground stone, bone awls, and fishhooks (DHS 2004).

Late Prehistoric Period (1200 BP – AD 1519)

The Natives of the Rio Grande delta thrived during this period, with occupation sites found on both sides of the Rio Grande. Most of the prehistoric sites found in Cameron County date to this period and are associated with the Brownsville Complex (Hester 2004:147-149). This type of site features pierced conch shells, snail shell beads, conical-shaped pumice pipes, fishhooks, and Cameron projectile points. Burials are flexed, bundled, or cremated, and they include a large quantity of burial goods, such as bone and shell beads, perforated canine teeth, and altered human bone (DHS 2004).

Historic Period (after AD 1519)

At the time of contact, groups of hunter-gatherers populated the Rio Grande delta. Owing to an abundance of natural resources, the delta was prime for Native habitation, with small bands persisting as highly mobile hunter-gatherers. As a direct consequence of Spanish colonization, the Native population decreased considerably, mainly as a result of disease and displacement. Prior to colonization, the Native population in this area numbered close to 15,000, but it fell to about 5,000 within a decade. By 1772, the Native population had dwindled to about 2,000 and decreased to 1,000 by the end of the eighteenth century (Salinas 1990:138-139).

The first to explore and map the area was Álvarez Alonso de Piñeda. In 1519, Piñeda and his men sailed along the gulf coast from Florida to Pánuco, where they joined Hernan Cortéz. Between 1686 and 1688, three more expeditions were made into the delta, all in search of Fort St. Louis (Salinas 1990:22-26). The early Spanish explorers found this area to be an almost impenetrable forest of mesquite and ebony mingled with dense thorny thickets (Longoria 1997:34).

Colonization along the Rio Grande began in the mid-1700s. Nearest the mouth of the river, the Spanish colonial settlement of Matamoros was founded in 1774 as *San Juan de los Esteros Hermosos* (Rendon 1994:12). In 1781, over 115,099 hectares (284,415 acres) on the north side of the Rio Grande were allotted to José Salvador de la Garza (Texas General Land Office 1988:137). This was known as the Espiritu Santo

Grant, which accounted for over one-third of the land in present-day Cameron County (Pierce 1917:34-35). For the next 75 years and leading up to the Mexican War of 1846-1848, the Lower Rio Grande delta was dominated by the cattle industry.

In March 1846, in preparation for the war with Mexico, General Zachry Taylor's troops established a military outpost known as Fort Texas, which was later renamed Fort Brown. The creation of Brownsville and Cameron County in 1848 were as a direct result of the Mexican War of 1846-1848 (Kennedy and Kennedy 1987). Not only did the war lead to the establishment of Brownsville and Cameron County, but it also brought the region to the attention of Anglo-Americans.

In *Anglos and Mexicans in the Making of Texas*, Montejano (1987:15-18) proposed a clear connection between the Mexican War and the origins of an Anglo-American mercantile elite that materialized along the Lower Rio Grande region. Soon after the war, a multitude of Anglos converged into the region, and considering the land "spoils of war, " these opportunists proceeded to displace the locals, by means of force or through legal proceedings that were foreign to the locals (Alonzo 1998:194-195).

Logistically, the region was in an extremely advantageous position, as it provided the opportunity for extensive river trade. The Spanish and Mexican governments had often considered river trade a practical venture, but it was Henry Austin (cousin to Stephen F. Austin) who, in 1834, was the first to navigate a steamboat on the Rio Grande from Matamoros to Camargo (Montejano 1987:16). The trip's purpose was to forge a trade route and, eventually, link the Gulf of Mexico with Santa Fe. This maiden voyage was not well received and was halted by the area's politically and economically entrenched *arrieros* (muleteers) that hauled overland. The river's potential was not to be exploited until twelve years later.

It was the U.S. Army, as a consequence of their invasion of Mexico, that finally generated steamboat navigation and trade along the Rio Grande (Townsend 1989:15-18). In October 1846, U.S. Army General Patterson ordered an expedition up the Rio Grande towards Presidio (Sánchez, ed. 1994:46). After much effort, the expedition made it as far upstream as Laredo, and it was then decided that the head of navigation would have to be Roma, further downstream. Montejano (1987:20) adds that the notorious Richard King, Charles Stillman, and Mifflin Kenedy operated steamboats on the Rio Grande from between 1850 and 1874. These three were initially under the employ of the U.S. Army and, after the conflict with Mexico was over, developed it as a private venture, which proved very profitable during the Civil War years.

By the 1880s, cotton cultivation and cattle ranching gained importance in the Gulf Coast region and the Lower Rio Grande Valley, respectively. The number of rail lines steadily increased around this same time, which helped both industries considerably. King and Kenedy teamed up again in 1880 and together with

Uriah Lott of Corpus Christi financed a railroad line from Corpus to Laredo, which almost ended river trade (Montejano 1987:96-98). In November 1881, the Mexican National Railway made its first run between Laredo and Nuevo Laredo, and by June 1882, this line was extended to Monterrey. In January 1884, the Matamoros to Monterrey line ran through Reynosa, and by June, the line was extended to Camargo (Zorrilla 1994:37). The new railroad lines channeled the Mexican trade to Laredo and Nuevo Laredo and away from Matamoros and Brownsville. The riverboats made their last runs in 1903, which effectively cut off the Lower Rio Grande communities from the rest of the growing markets (Montejano 1987:98).

The farming frontier of the late 1800s and early 1900s was spurred by railroads, land development, and Anglo dominance of land and politics (Alonzo 1998:219-221). By the late 1800s, the idea of irrigating crops in order to improve the agriculture of the Rio Grande delta had started to take hold (Knight 2009:13). Cattle production was the most important industry during the eighteenth and nineteenth centuries, but it was steadily replaced by farming in the twentieth century. At present, there are over 2,000 miles of canals and underground pipelines in the Lower Rio Grande Valley (Knight 2009:4).

Previous Archaeology

Currently, there are 230 recorded archeological sites in Cameron County (THC 2017). Only three are within a 5-km (3.1-mi.) radius of the APE (Figure 2-4 and Table 2-3). None of the sites is within 4.5-km (2.8 mi.) of the APE. Based on the collection of artifacts, three of the sites date to the Late Prehistoric Period, and the fourth dates to the Historic Period. All three late-prehistoric sites are located east of the APE, and the historic site is to the southeast. The Resaca de la Palma National Historic Landmark (41CF3), an 1846 Mexican War battlefield, is located just outside the 5-km (3.1-mi.) radius to the west-northwest of the Project Area.

Redacted Image

Figure 2-4. Map of the Project Area showing sites within a 5-km (3.1-mi.) radius of the APE.

Table 2-3. Recorded Archaeological Sites within 5 km (3.1 mi.) of the Project Area

Site	Site Notes	Project	Recorded by	Date
41CF45	Half-acre occupation site in dark clay loam; collected shell, bone, and one potsherd; recommended testing	Cameron County Survey	E. R. Prewitt	April 28, 1970
41CF105	Occupation site, mostly undisturbed, in dark gray clayey soil; collected burned clay, shell, and one worked shell fragment; recommended testing	Brownsville Rail Relocation	H. Shafer	July 8, 1974
41CF106	Occupation site (30.18-x-61 m; 100-x-200 ft.), may be restricted to plow zone, in resaca levee; observed but did not collect burned clay and shell fragments; no recommendations	Brownsville Rail Relocation	H. Shafer	June 8, 1974
41CF188	Historic farmstead or residence; random surface collection of brick fragments, slate, doll parts, ceramic sherds, and bottle glass	Brownsville Airport	Hicks and Co.	September 9, 2004

Chapter 3: Field and Laboratory Methods

A records search indicated no cultural resources or historic properties were in close proximity to the Project Area (THC 2017). However, the area had never been surveyed for cultural resources, and the proposed underground pipe drainage system would be situated on a landform that is a prime location for the presence of archeological deposits.

Prior to initiating the fieldwork, CAR staff prepared maps for use in the field. CAR staff also completed a review of the archaeological literature and of the Texas Archeological Sites Atlas in order to identify and document archaeological resources within a 5-km radius. Only four recorded sites were noted, and all four were located between 4.5 and 5 km of the APE.

Field Methods

The fieldwork was divided into two phases. The first phase of the proposed fieldwork included a pedestrian survey of the 5.5-m (18-ft.) wide by 289.5-m (950-ft.) long APE. The second phase of work consisted of backhoe trenching, as a pro-active testing methodology. Three backhoe trenches were excavated in order to locate and document cultural deposits. The finished dimensions of the backhoe trenches were approximately 2.4-m (8-ft.) wide, 6-m (20-ft.) long, and at least 1.6-m (5.25-ft.) deep. The excavated soils and trench profiles were monitored for cultural deposits. CAR staff produced measured drawings of the stratigraphy and included description of soil types. The entire process was photo documented.

Laboratory Methods

These investigations did not produce any artifacts. All records obtained and/or generated during the project were prepared in accordance with federal regulations 36 CFR Part 79 and THC requirements for State Held-in-Trust collections. Field forms were printed on acid-free paper and were completed with pencil. Field notes, forms, photographs, and drawings were placed in labeled archival folders. Digital photographs were printed on acid-free paper, labeled with archival-quality pens, and placed in page protectors. All project-related materials are permanently stored at the CAR.

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Chapter 4: Results

Three backhoe trenches were excavated along the length the APE, which was 5.5-m (18-ft.) wide and 289.5-m (950-ft.) long. The backhoe trenches were approximately 2.4-m (8-ft.) wide, 6-m (20-ft.) long, and 1.6-m (5.25-ft.) deep, and they were positioned in 75-m (246-ft.) intervals (Figure 4-1). The work was completed in two days with negative results in all three backhoe trenches. No cultural material or features were discerned.

Figure 4-1. Plan of Project Area showing the location of the backhoe trenches.

Backhoe Trench 1

Backhoe trench 1 (BHT 1) was located 50 m (164 ft.) north of Houston Street. The trench was 6-m (20-ft.) in length and excavated to a depth of 1.6 m (5.25 ft.; Figure 4-2). The trench profile exhibited four distinct soils, and the top layer consisted of an 80-cm (31.5-in.) thick, dark gray, blocky clay. This top layer was followed by a 30-cm (11.8-in.) thick, pale brown, blocky silty clay, followed by another 30-cm (11.8-in.) thick layer of very pale brown silty clay with threads of calcium carbonate. The fourth and final layer was a 20-cm (7.9-in.) thick, very pale brown, soft, and very silty clay. No cultural material or features were observed in BHT 1 (Figure 4-3).

Figure 4-2. BHT 1, excavation in-progress.

Figure 4-3. BHT 1, west wall profile.

Backhoe Trench 2

Backhoe trench 2 was located 124 m (406.82 ft.) north of Houston Street. The trench was 6-m (20-ft.) in length and excavated to a depth of 1.60 m (5.25 ft.; Figure 4-4). The trench profile exhibited five distinct soils, and the top layer was a 40-cm (15.75-in.) thick, very dark gray, loose silty clay. This top layer was followed by a 30-cm (11.8-in.) thick, pale brown to very dark grayish brown, loose silty with threads of calcium carbonate, followed by a 60-cm (23.6-in.) thick, very pale brown, soft silty clay with threads of calcium carbonate. The fourth layer was a 25-cm (9.8-in.) thick, pale brown, blocky silty clay with continuing threads of calcium carbonate. The last 5 cm (1.9 in.) exposed were a mottled, brown to pale brown, compact silty clay, with inclusions of calcium carbonate. No cultural material or features were observed in BHT 2 (Figure 4-5).

Figure 4-4. BHT 2, excavation in-progress.

Figure 4-5. BHT 2, west wall profile.

Backhoe Trench 3

Backhoe trench 3 was located 220 m (721.8 ft.) north of Houston Street and within 30 m (98.4 ft.) of the *resaca* (Figures 4-6 and 4-7). The trench was 6-m (20-ft.) in length and was excavated to a depth of 1.8 m (5.9 ft.). The profile exhibited six distinct soils, and the top layer was a 40-cm (15.75-in.) thick, dark gray, blocky silty clay. This top layer was followed by a 25-cm (9.8-in.) thick, dark grayish brown, compact, blocky silty clay, followed by a 35-cm (13.8-in.) thick, yellow with pockets of sandy nodules, soft compact silty clay with calcium carbonate inclusions. A circular concrete pad was exposed at 60 cm (24 in.) below the surface. This isolated find appeared to be an outrigger pad, 10-cm (4-in.) thick and 1 m (40 in.) in diameter. The concrete pad may have served as a footing for a drilling rig. The sediments above and below the concrete pad were culturally sterile (Figure 4-8). The fourth layer was 60-cm (23.6-in.) thick, yellow silty clay with calcium carbonate inclusions. The fifth layer was a 10-cm (3.9-in.) thick mix of pale brown, yellow nodules of sand and light gray, soft, silty nodules. The last layer was 20-cm (7.9-in.) thick, pale brown to yellow with light gray nodules of eroded sandstone in a soft silty clay. No cultural material or features were observed in BHT 3 (Figure 4-9).

Figure 4-6. North end of proposed drainage alignment at the resaca.

Figure 4-7. BHT 3, prior to excavation. Location outlined in orange.

Figure 4-8. Isolated find, possible outrigger pad, in BHT 3 (facing east).

Figure 4-9. BHT 3, west wall profile.

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Chapter 5: Summary and Recommendations

Archaeological testing of a linear APE that will be impacted by the proposed Paso Real drainage project was completed in November 2017. The CAR completed this archeological investigation on behalf of Cameron County, which is planning to install a drainage system to alleviate flooding in the Paso Real Subdivision. The project scope of work called for a pedestrian survey and backhoe trenching. In July 2017, owing to dense ground cover, a pedestrian survey of the area of potential effect (APE) noted zero surface visibility. CAR staff returned in November 2017 to monitor the excavation of three backhoe trenches along the length of the APE, and the results of that monitoring were negative. The CAR recommends the project will result in No Historic Properties Affected and that the project proceed as planned. The Texas Historical Commission concurred with these recommendations on February 27, 2018.

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