

Archaeological Monitoring of the CPS Gas Main Service Installation on East Locust Street, San Antonio, Bexar County, Texas



by
José E. Zapata

NON-REDACTED

Texas Antiquities Permit No. 8929

Principal Investigator
Cynthia M. Munoz

Prepared for:
Adams Environmental, Inc.
12521 Nacogdoches Road #102
San Antonio, Texas 78217



Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249
Technical Report, No. 86

©April 2020

Archaeological Monitoring of the CPS Gas Main Service Installation on East Locust Street, San Antonio, Bexar County, Texas

by
José E. Zapata

NON-REDACTED

Texas Antiquities Permit No. 8929

Principal Investigator
Cynthia M. Munoz

Original Principal Investigator
Paul Shawn Marceaux



Prepared for:
Adams Environmental, Inc.
12521 Nacogdoches Road #102
San Antonio, Texas 78217

Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249
Technical Report, No. 86

© April 2020

Abstract:

The University of Texas at San Antonio (UTSA) Center for Archaeological Research (CAR), in response to a request from Adams Environmental, Inc. (AEI), conducted archaeological monitoring for the installation of CPS Energy (CPS) main gas line service in San Antonio, Bexar County, Texas. The archaeological work consisted of monitoring CPS-related excavation activities associated with the installation of 398 m (1,305 linear ft.) of gas line on East Locust Street. The Area of Potential Effect (APE) for this undertaking is defined as a 229 m (750 ft.) strip located along East Locust Street, between North St. Mary's and East Elmira streets, on City of San Antonio (COSA) property. As a public municipal and state property, projects that might affect archaeological or historical sites are subject to regulatory review. At the municipal level, the property falls under COSA's Unified Development Code (Article 6 35-630 to 35-634). The project also required review by the Texas Historical Commission (THC) under the Antiquities Code of Texas and proceeded under Permit No. 8929. Dr. Paul Shawn Marceaux initially served as the Principal Investigator, and after his departure from CAR, Cynthia Munoz served as the Principal Investigator for the project. José Zapata served as the Project Archaeologist.

Monitoring activities were completed between October 8, 2019, and November 5, 2019. The results of the utility trenching were negative. A small amount of non-feature related *Rabdotus* (snail) shells and a single, unassociated burned rock were collected in the field, though no cultural features or other cultural material were encountered. In addition, a search of the THC Archeological Sites Atlas identified no previously recorded archaeological sites within 500 m (0.3 mile) of the APE.

All project related documentation, including photographs, field forms, and a copy of this report, are permanently curated at the CAR facility in accession file 2242. Pursuant with Chapter 26.27(g)(2) of the Antiquities Code of Texas, CAR requested that the *Rabdotus* shells and single burned rock be discarded. The discard was approved by CPS, the THC, and the COSA Office of Historic Preservation (OHP). CAR recommends no additional archaeological work within the APE, as this area holds no research value. If additional construction reveals archaeological deposits, work should cease, and the City Archaeologist of the COSA-OHP the THC should be notified. The THC concurs with CAR's recommendations.

This page intentionally left blank.

Table of Contents:

Abstract.....	i
List of Figures	v
Acknowledgements	vii
Chapter 1: Introduction.....	1
Chapter 2: Project Background	3
Environmental Setting.....	3
Development in the APE.....	5
Previously Recorded Archaeological Sites.....	7
Chapter 3: Field and Laboratory Activities.....	9
Monitoring of Backhoe Trenching.....	9
Recording Policy.....	9
Curation Preparation and Final Curation.....	9
Chapter 4: Results of the Fieldwork.....	11
Chapter 5: Summary and Recommendations.....	14
References Cited	17

This page intentionally left blank.

List of Figures:

Figure 1-1. Map of the APE along East Locust Street.....	2
Figure 2-1. Soil map of the APE.....	4
Figure 2-2. Series of maps showing the 700 and 800 blocks of East Locust Street (Sanborn 1931, 1951, 1971). Sanborn key: yellow = wood; pink = brick; blue = concrete; gray = metal.....	6
Figure 2-3. Satellite image of the APE (in red) on a Google Earth aerial image (December 9, 2018)	7
Figure 2-4. Previously recorded sites within 500 m (0.3 mile) of APE (THC 2019).....	8
Figure 4-1. Excavated soil at west and east ends of the APE; transition at right of center.....	11
Figure 4-2. Trenching along west and east ends of the APE. Numerous utilities cross the trench and are highlighted by dashed lines (white).....	12
Figure 4-3. Along the 800 block of East Locust Street; inset shows <i>Rabdotus</i> shells recovered approximately 61 m (200 ft.) west of East Elmira Street. As with Figure 4-2, utility lines are highlighted by dashed lines (white)	13

This page intentionally left blank.

Acknowledgements:

Several individuals assisted and/or supported this project. We are grateful to Matthew Elverson, City Archeologist for the City of San Antonio, Office of Historic Preservation, Dr. Emily Dylla, THC Regional Archeologist for South Texas, Sable Kitchen and Adams Environmental, and Heath Bentley of CPS Energy. The Dimension Energy Services team lead was Rene Rodriguez. José Zapata, who also served as Project Archaeologist, conducted archaeological monitoring for this project. Dr. Jessica Nowlin and Peggy Wall provided mapping and imaging support. Thanks are also due to Dr. Kelly Harris for editing this report and Dr. Paul Shawn Marceaux who initially served as the Principal Investigator, and Cynthia Munoz who assumed the role after his departure from CAR.

This page intentionally left blank.

Chapter 1: Introduction

The University of Texas at San Antonio (UTSA) Center for Archaeological Research (CAR), in response to a request from Adams Environmental, Inc. (AEI), conducted archaeological monitoring for the installation of CPS Energy (CPS) main gas line service in San Antonio, Bexar County, Texas. The archaeological work consisted of monitoring CPS-related excavation activities associated with the installation of approximately 398 m (1,305 linear ft.) of gas line on East Locust Street. The Area of Potential Effect (APE) is defined as a 229 m (750 ft.) strip beginning at 739 East Locust Street and continuing to the northwest corner of East Locust and East Elmira streets (Figure 1-1). The APE is on City of San Antonio (COSA) property and CPS is a public entity. As the project might affect archaeological and historical sites, the undertaking is subject to regulatory review. At the municipal level, regulatory review falls under COSA's Unified Development Code (Article 6 35-630 to 35-634). The project also required review by the Texas Historical Commission (THC) under the Antiquities Code of Texas and proceeded under Permit No. 8929. Dr. Paul Shawn Marceaux initially served as the Principal Investigator. Upon his departure from CAR, the permit was transferred to Cynthia Munoz. José Zapata conducted the site monitoring and served as the Project Archaeologist.

The APE is defined as that portion of the gas line that occurs within mapped Tinn and Frio soils (Natural Resources Conservation Service [NRCS] 2019). Utility trench excavations were 0.45 m (1.5 ft.) wide by 1.5 m (5.0 ft.) deep along this 229 m (750 ft.) section. Monitoring activities were completed between October 8, 2019, and November 5, 2019. A small amount of *Rabdotus* (snail) shells and a single, unassociated burned rock were collected in the field. Pursuant to Chapter 26.27(g)(2) of the Antiquities Code of Texas, CAR requested that the *Rabdotus* shells and single burned rock be discarded as the *Rabdotus* shells are unlikely to be cultural and the single piece of burned rock has no clear research value. The discard was approved by CPS, the THC, and the COSA Office of Historic Preservation (OHP). All other project materials, including photographs and field forms, are permanently curated at the CAR facility in accession file 2242.

Other than the single burned rock, no cultural materials were encountered. No features were observed, and no new sites were created. As such, this report follows, in broad outline, the reporting format suggested by the Short Report Content Guidelines of the Council of Texas Archeologists (CTA 2020). There are five chapters in the document. Following this introduction, Chapter 2 provides a brief background for the project, while Chapter 3 reviews the field and laboratory activities. Chapter 4 provides the project results, and Chapter 5 presents CAR's recommendations.

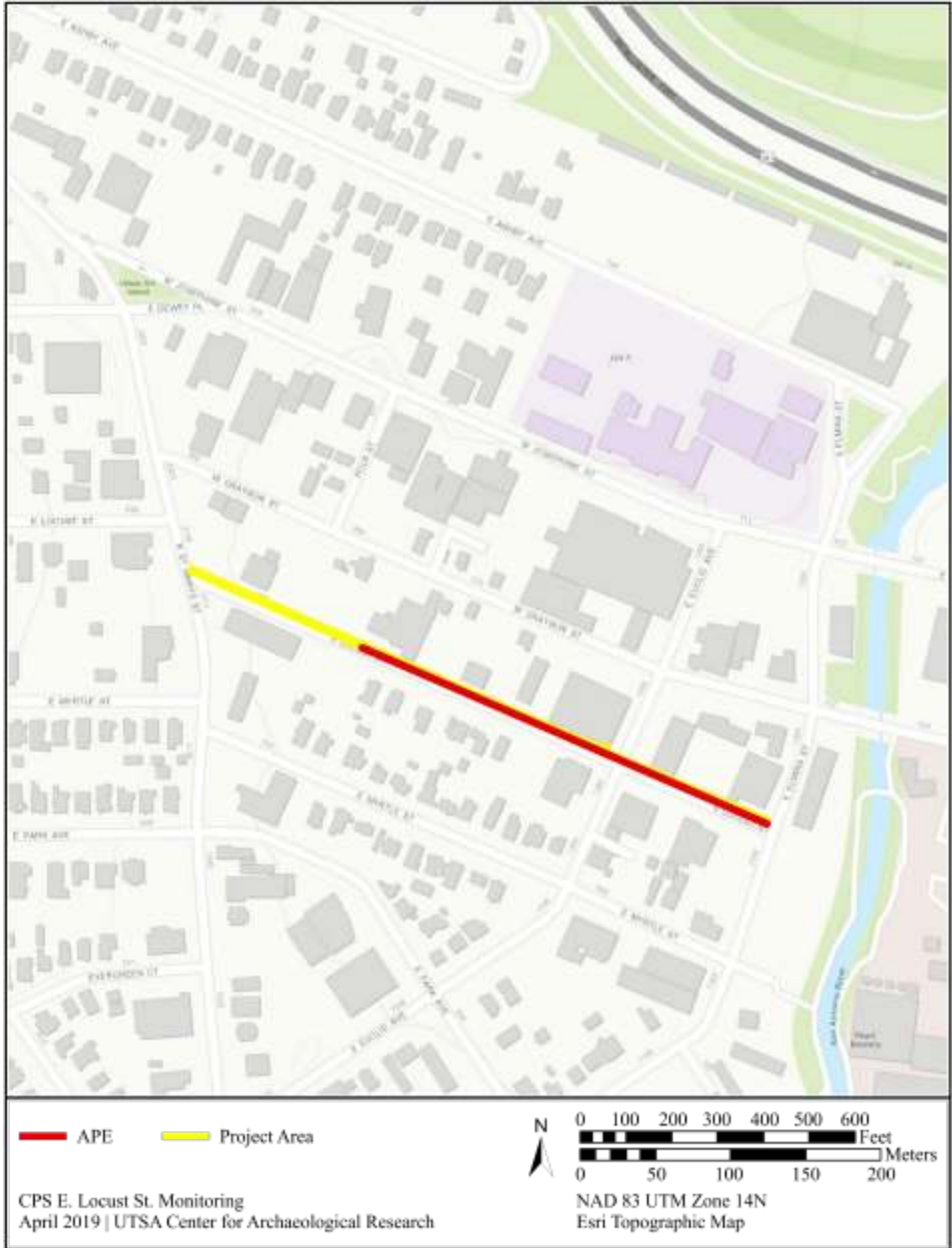


Figure 1-1. Map of the APE along East Locust Street.

Chapter 2: Project Background

This chapter provides a general background for the project. It includes a short introduction to the regional environment, a review of the developments in and around the APE, and a summary of previous archaeological sites in the area. No temporal placement was possible for the single piece of burned rock recovered, and no new sites were recorded. Consequently, a review of cultural history for the region is not provided. Several summaries are available. For the regional prehistoric sequence, which runs from sometime before 13,000 years before present until around 350 years ago, studies by Bousman and colleagues (2004), Carpenter (2017), Carpenter and Hartnett (2011), Collins (2004), and Kenmotsu and Boyd (2012) are useful. For the historic periods, between AD 1528 and the middle twentieth century, Caine and colleagues (2017), Campbell (2003), Chipman and Joseph (2010), Cox (1997), de la Teja (1995), Krieger (2002), McKenzie and colleagues (2016), Miller (2018), and Wade (2003) provide background.

Environmental Setting

San Antonio's climate is described as moderate, subtropical, and humid with cool winters and hot summers (Taylor et al. 1991). Based on 1961 to 1990 data, the area's monthly average temperature is 68.7°F (20.4°C) (U.S. Climate Data [USCD] 2019). The coolest months are December and January, and the warmest are July and August. The climate data, as presented, can often be deceiving due to the area's extreme weather conditions and year-to-year variability (McKenzie et al. 2016:5-7). For example, data from 2018 shows that the average low temperature for January was 37.9°F (3.3°C), and the average high was 95.0°F (35.0°C) for July (USCD 2019). However, a low of 21.2°F (-6.0°C) was recorded on January 3, 2018, and a high of 105.1°F (40.6°C) was recorded on July 23, 2018 (USCD 2019).

San Antonio's average annual precipitation is 83.6 cm (32.9 in.), with a peak occurring between May and June and a smaller peak occurring in September and October. The driest period occurs between December and March, with each month averaging less than 5 cm (2.0 in.) of precipitation (USCD 2019).

Located northeast of San Antonio's downtown, the APE lies within the River Improvement Overlay, District 2 (RIO-2; COSA 2019). This area is currently a mix of single-family and multi-family residences, and commercial properties. The Pearl District, a popular mixed-use space featuring dining and green spaces, is located east of the APE. The APE is located in the heart of San Antonio, and the native flora and fauna have long been displaced. The San Antonio River is roughly 300 m (984 ft.) to the east of the APE. The elevation of the APE is approximately 204 m (670 ft.) above mean sea level (Topographic Maps 2020). As shown on Figure 2-2, the majority of the APE lies on Tinn and Frio alluvium soils (Tf), which have 0 to 1 percent slopes, and are frequently flooded (NRCS 2019).

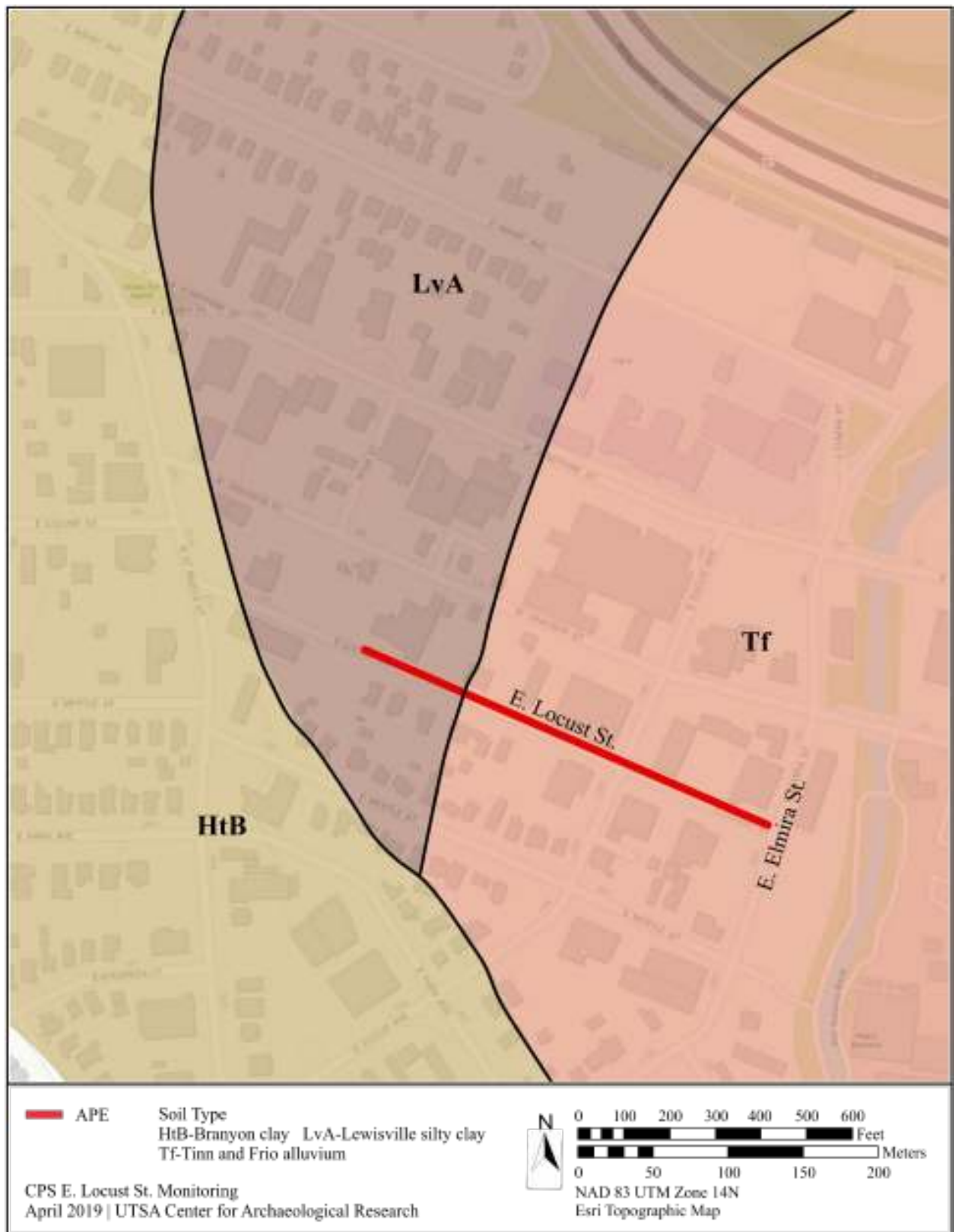


Figure 2-1. Soil map of the APE.

Development in the APE

From its beginnings as a villa founded near San Pedro Creek over 300 years ago by a small group of Spaniards, San Antonio has grown into a sprawling urban complex covering roughly 465 sq. miles (Miller 2018:133) with a population of over 1.5 million people (World Atlas 2019). Much of this growth occurred during the last century, with population dramatically accelerating in the 1940s from 253,854 individuals in 1940 to 408,442 individuals 10 years later. By 1970, population was in excess of 654,000 people (Biggest U.S. Cities 2020). The growth of San Antonio is clearly shown by the development within the project area. A review of Sanborn Fire Insurance maps suggests that development along the 700 and 800 blocks of East Locust Street began sometime after 1930. The top view in Figure 2-2 shows five wood-framed dwellings on the 1931 map (Sanborn 1931). Within 20 years, the Sanborn map (Sanborn 1951) shows that an additional nine dwellings and eight commercial buildings had been constructed along these two blocks (Figure 2-2, middle image). The last Sanborn map available for this area dates to 1971 and shows two additional commercial buildings east of North St. Mary's Street (Figure 2-2, bottom image). To date, only four residential structures are extant, all are along the 700 block, and all are on the south side of the street. Four commercial interests are active with one of these being the sales office of the SoJo Commons condominiums, which were under construction at the time of CAR's monitoring (Figure 2-3).

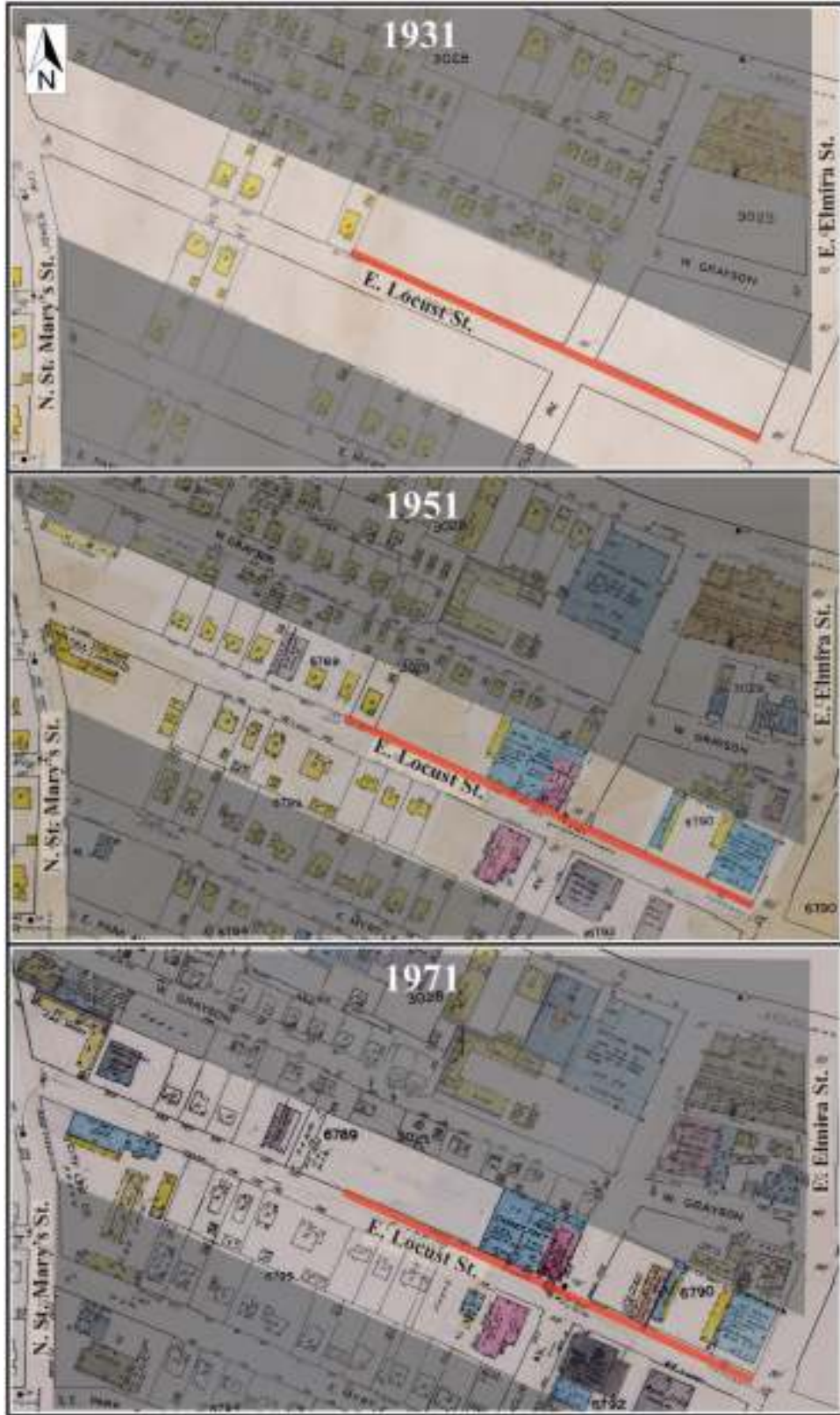


Figure 2-2. Series of maps showing the 700 and 800 blocks of East Locust Street (Sanborn 1931, 1951, 1971). Sanborn key: yellow = wood; pink = brick; blue = concrete; gray = metal.

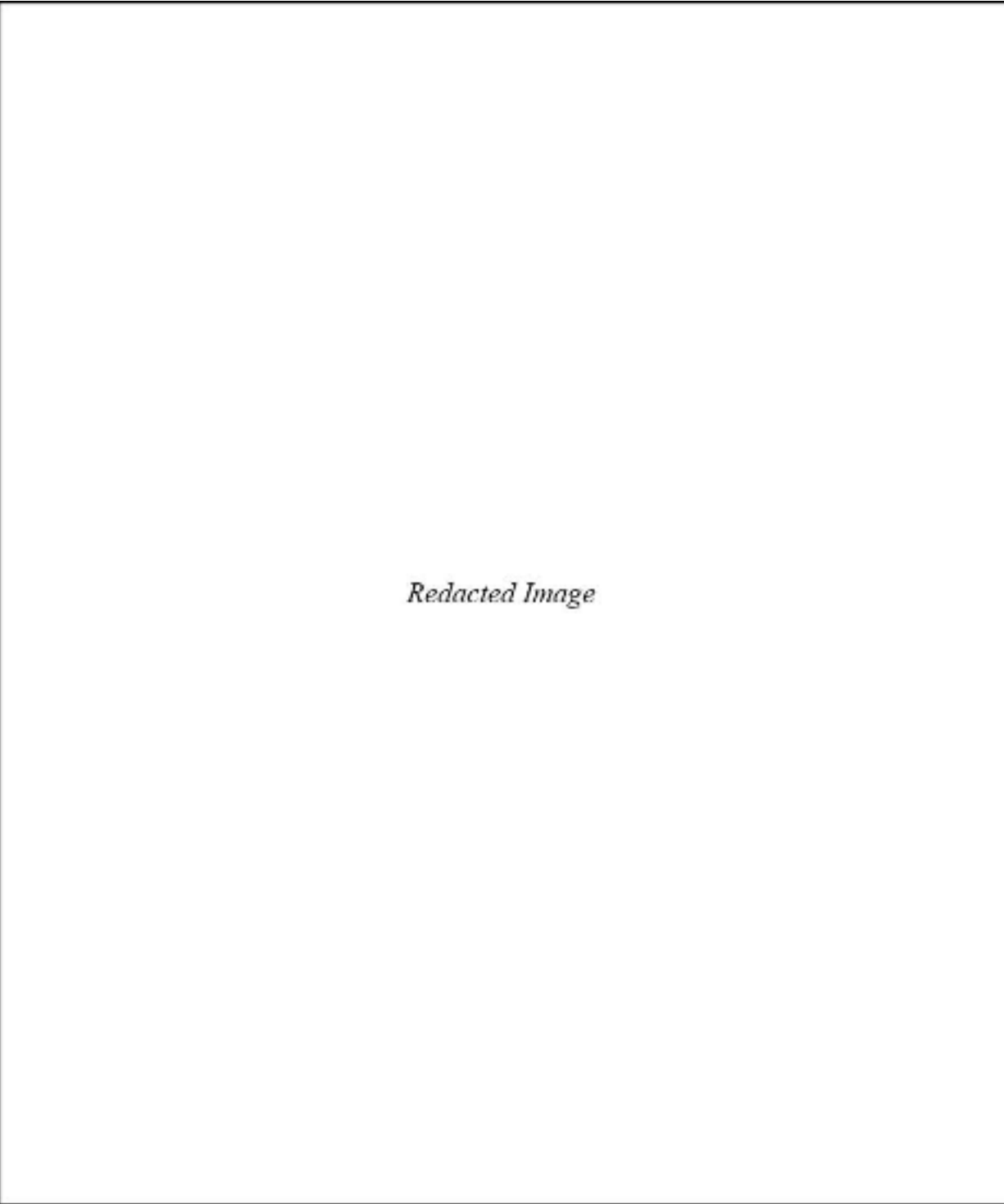


Figure 2-3. Satellite image of the APE (in red) on a Google Earth aerial image (December 9, 2018).

Previously Recorded Archaeological Sites

A search of the Texas Archeological Sites Atlas identified no previously recorded archaeological sites within 500 m (0.3 mile) of the APE. The nearest recorded site, 41BX13, is located 535 m (0.33 mile) to the northeast (Figure 2-4).

Site 41BX13 is a prehistoric site, first recorded in the 1960s and initially thought to extend along the full length of Brackenridge Park from south of Hildebrand Avenue to the golf course (THC 2019). Owing to additional archaeology completed in the 1970s, the site boundaries have been confined to a less expansive area, as shown in Figure 2-4 (Katz and Fox 1979:3; Ulrich 2012:28). The site is now limited to a 1.66 ha (4.1 acre) tract (THC 2019).



Redacted Image

Figure 2-4. Previously recorded sites within 500 m (0.3 mile) of APE (THC 2019).

Chapter 3: Field and Laboratory Activities

This section covers the archaeological services provided for the project. CAR's preliminary research included a desktop review of the APE utilizing a series of historic maps and present-day satellite imagery. CAR staff located Sanborn Fire Insurance Maps for this part of San Antonio, which cover the period between 1931 and 1971 (Sanborn 1931, 1951, 1971).

Monitoring of Backhoe Trenching

The contractor used a mini-excavator with an 46 cm (18 in.) wide bucket for this project. CAR staff monitored the 0.45 m (1.5 ft.) wide by 1.5 m (5.0 ft.) deep excavations, as the contractor generally progressed from west to east.

Recording Policy

The Project Archaeologist maintained field notes and a log relating to the monitoring of backhoe trenches and work-in-progress photos. Activities and discoveries were documented and supported by digital data, including photographs.

Curation Preparation and Final Curation

In consultation with CPS, the THC, and COSA-OHP, CAR requested that certain artifact categories, in this case *Rabdotus* shells and a single burned rock, that appear to have no research value be discarded prior to curation. CPS, the THC, and COSA-OHP approved the request. All records generated during the project were prepared in accordance with THC requirements for State Held-in-Trust collections and 36 CFR Part 79. All field notes were placed in labeled archival folders. Digital photographs were printed on acid-free paper and placed in archival-quality page protectors. Following completion of the project, project-related materials, including the final report, were permanently stored at the CAR facility in accession file 2242.

This page intentionally left blank.

Chapter 4: Results of the Fieldwork

The APE along East Locust Street is defined as the portion of the gas line that occurs within the mapped Tinn and Frio soils (NRCS 2019). The section monitored by CAR staff began at 739 East Locust Street, midway between North St. Mary's Street and East Euclid Avenue, and extended east to the northwest corner of East Elmira Street. This segment was 229 m (750 ft.) long, and the utility trench was 0.45 m (1.5 ft.) wide and 1.5 m (5 ft.) deep.

The strata consisted of 25.4-30.5 cm (10-12 in.) of asphalt and base and, at the west end, dark cobbly clay to 1.3 m (4.5 ft.). At the east end, the stratum was a sandy clay loam to 1.3 m (4.5 ft.). The transition to Tinn and Frio soils was observed along the northwest corner of East Euclid Avenue (Figure 4-1). Although not shown, this transition occurs approximately 200 m (656 ft.) west of the San Antonio River. This was much closer to the river than anticipated based on the soil maps (see Figure 2-1).



Figure 4-1. Excavated soil at west and east ends of the APE; transition at right of center.

Numerous gas, water, and sewer lines were encountered along the entire length of the APE, at intervals of 3.0-4.5 m (10-15 ft.; Figure 4-2). These utilities were encountered between 0.6-0.9 m (2-3 ft.) below the street pavement. In most cases, these utility lines were still in use.



Figure 4-2. Trenching along west and east ends of the APE. Numerous utilities cross the trench and are highlighted by dashed lines (white).

Other than the single burned rock, CAR staff did not locate any prehistoric or historic cultural material. The burned rock and numerous *Rabdotus* shells were collected from the excavated soil in an area approximately 61 m (200 ft.) west of East Elmira Street (Figure 4-3). CAR staff closely examined the trench and noted additional *Rabdotus* shells within a 46 cm (18 in.) area on the trench floor. No features were noted in this area. It is unlikely that the *Rabdotus* shells are cultural.



Figure 4-3. Along the 800 block of East Locust Street; inset shows *Rabdotus* shells recovered approximately 61 m (200 ft.) west of East Elmira Street. As with Figure 4-2, utility lines are highlighted by the dashed lines (white).

This page intentionally left blank.

Chapter 5: Summary and Recommendations

CAR conducted archaeological monitoring for the installation of CPS Energy (CPS) main gas line service in San Antonio, Bexar County, Texas. The work consisted of monitoring excavation activities associated with the installation of 229 m (750 ft.) of gas line on East Locust Street. Monitoring activities were completed between October 8, 2019, and November 5, 2019.

The results of the monitoring were negative. Other than a single piece of burned rock, no prehistoric or historic cultural material or features were encountered. CAR recommends no additional archaeological work within the APE, as this area holds no research value. In the event that additional construction reveals archaeological deposits, work should cease, and the City Archaeologist of the COSA-OHP the THC should be notified. The THC concurs with CAR's recommendations.

This page intentionally left blank.

References Cited:

Biggest U.S. Cities

2020 San Antonio, Texas Population History, 1880-2018. Electronic document, <https://www.biggestuscities.com/city/san-antonio-texas>, accessed February, 2020.

Bousman, C.B., B.W. Baker, and A.C. Kerr

2004 Paleoindian Archeology in Texas. In *The Prehistory of Texas*, edited by T.K. Perttula, pp. 15-97. Texas A&M University, College Station.

Caine, I., R. Walter, and N. Foote

2017 San Antonio 360: The Rise and Decline of the Concentric City 1890-2010. *Sustainability* 9(4):649.

Campbell, R.

2003 *Gone to Texas: A History of the Lone Star State*. Oxford University Press, New York.

Carpenter, S.M.

2017 The Toyah Complex of South and Central Texas: Long-range Mobility and the Emergence of Dual Economies. *Plains Anthropologist* 62:133-156.

Carpenter, S.M., and C. Hartnett

2011 Archaic Macroeconomic Spheres: A Case Study from Fort Hood, Central Texas. *Bulletin of the Texas Archaeological Society* 82:223-249.

Chipman, D.E., and H.D. Joseph

2010 *Spanish Texas, 1519-1821*. Rev. ed. University of Texas Press, Austin.

City of San Antonio (COSA)

2019 Zoning Codes and Ordinances. Electronic document, <https://www.sanantonio.gov/historic/historicsites/Zoning>, accessed April 17, 2019.

Collins, M.B.

2004 Archeology in Central Texas. In *The Prehistory of Texas*, edited by T.K. Perttula, pp. 101-126. Texas A&M University Press. College Station.

Council of Texas Archeologists (CTA)

2020 Guidelines for Cultural Resource Management Reports. Electronic document, <https://counciloftexasarcheologists.org/resources/Documents/Guidelines%20for%20CRM%20Reports.pdf>, accessed January 2020.

Cox, I.W.

1997 The Growth of San Antonio. In *Archaeology at the Alamo: Investigations of a San Antonio Neighborhood in Transition. Volume 1, Historical, Architectural, and Oral History Research*, edited by A.A. Fox, M. Renner, and R.J. Hard, pp. 8-44. Archaeological Report, No. 236. Center for Archaeological Research, The University of Texas at San Antonio.

de la Teja, J.F.

1995 *San Antonio de Bexar: A Community on New Spain's Northern Frontier*. University of New Mexico Press, Albuquerque.

Katz, S.R., and A.A. Fox

1979 *Archaeological and Historical Assessment of Brackenridge Park, City of San Antonio, Texas*. Archaeological Report, No. 33. Center for Archaeological Research, The University of Texas at San Antonio.

Kenmotsu, N.A., and D.K. Boyd

2012 *The Toyah Phase of Central Texas: Late Prehistoric Economic and Social Processes*. Texas A&M University Press, College Station.

Krieger, A.D.

2002 *We Came Naked and Barefoot: The Journey of Cabeza de Vaca Across North America*. Edited by M.H. Krieger. University of Texas Press, Austin.

McKenzie, C.M., L. Martinez, and R. Mauldin

2016 *Archaeological Monitoring and Test Excavations at the 1722 Presidio San Antonio de Bexar (Plaza de Armas Buildings), San Antonio, Bexar County, Texas*. Archaeological Report, No. 445. Center for Archaeological Research, The University of Texas at San Antonio.

Miller, C.

2018 *San Antonio: A Tricentennial History*. Texas State Historical Association, Austin.

Natural Resources Conservation Service (NRCS)

2019 Soil Survey. United States Department of Agriculture. Electronic document, <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/>, accessed April 16, 2019.

Sanborn Map Company (Sanborn)

1931 San Antonio. Vol.2, Sheet 222. Sanborn Fire Insurance Map. UTSA, Special Collections, Digital Sanborn Fire Insurance Maps. Electronic document, <https://lib.utsa.edu/>, accessed February 3, 2020.

1951 San Antonio. Vol. 2, Sheet 222. Sanborn Fire Insurance Map. UTSA, Special Collections, Digital Sanborn Fire Insurance Maps. Electronic document, <https://lib.utsa.edu/>, accessed February 3, 2020.

1971 San Antonio. Vol. 2, Sheet 222. Sanborn Fire Insurance Map. UTSA, Special Collections, Digital Sanborn Fire Insurance Maps. Electronic document, <https://lib.utsa.edu/>, accessed February 3, 2020.

Taylor, F.B., R.B. Hailey, and D.L. Richmond

1991 *Soil Survey of Bexar County, Texas*. Soil Conservation Service, United States Department of Agriculture, Washington, D.C.

Texas Historical Commission (THC)

2019 Texas Archeological Sites Atlas. Electronic document, <https://atlas.thc.state.tx.us/>, accessed April 22, 2019.

Topographic Maps

2020 Topographic-Maps, San Antonio, Texas. Electronic document, <https://en-us.topographic-map.com/maps/ncl/San-Antonio/>, accessed February 4, 2020.

Ulrich, K.M.

2012 *Pedestrian Survey of the Planned Brackenridge Pavilion Project, San Antonio, Bexar County, Texas*. Technical Report, No. 34. Center for Archaeological Research, The University of Texas at San Antonio.

United States Climate Data (USCD)

2019 San Antonio, Texas. Electronic document, <https://www.usclimatedata.com/climate/san-antonio/texas/united-states/ustx1200>, accessed November 20, 2019.

Wade, M.

2003 *The Native Americans of the Texas Edward's Plateau, 1582-1799*. 1st ed. Texas Archaeology and Ethnohistory Series. University of Texas Press, Austin.

World Atlas

2019 The Largest Cities in the US. Electronic document, <https://www.worldatlas.com/articles/largest-cities-in-the-united-states.html>, accessed August 2019.