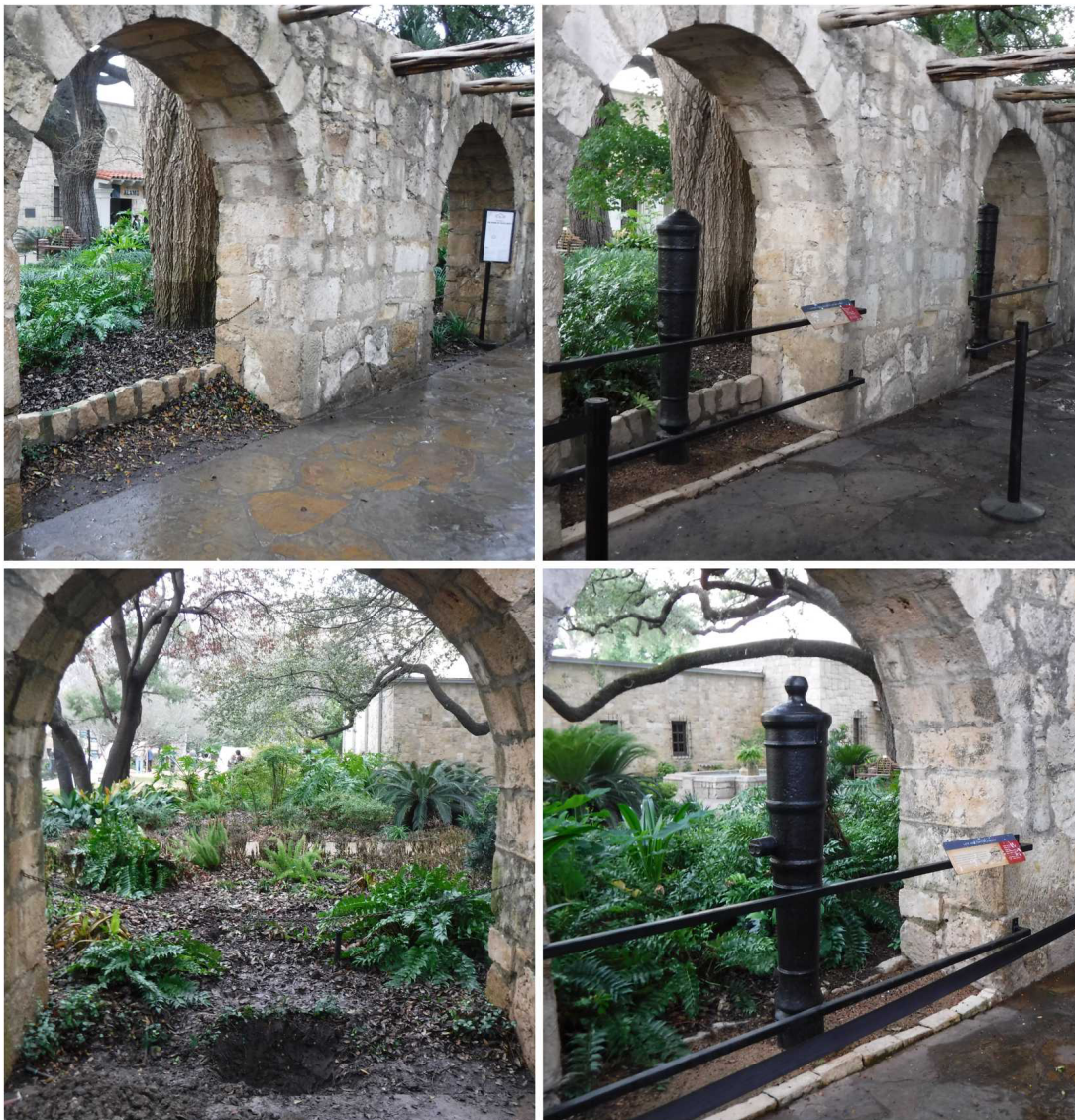


Archaeological Monitoring Associated with the Installation of Conserved Cannon in the Alamo Complex, San Antonio, Bexar County, Texas



by
José E. Zapata

Texas Antiquities Permit No. 8335

**Principal Investigator
Paul Shawn Marceaux**

Prepared for:
**Texas General Land Office
1700 North Congress Avenue
Austin, Texas 78701**



Prepared by:
**Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249
Technical Report, No. 77**

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Abstract:

Between February and June 2018, in response to a request from the Alamo Trust, Inc., staff of the Center for Archaeological Research (CAR) at The University of Texas at San Antonio (UTSA) performed archaeological monitoring of six hand-excavated holes prior to the construction of a series of concrete supports for the installation and display of six historic period cannon at Mission *San Antonio de Valero*, The Alamo (41BX6), in San Antonio, Bexar County, Texas. The Area of Potential Effect (APE) was limited to the east side of the 1934 Alamo Arcade. The installation of the conserved cannon took place beneath the midpoint of six arches along the east side of the arcade. Six holes were hand-excavated by Alamo staff, while CAR staff monitored the progress and screened the soils.

The Project Archaeologist was José Zapata, and Sarah Wigley assisted with the fieldwork and artifact analysis. Paul Shawn Marceaux, CAR Director, served as the Principal Investigator. This project fell under the Antiquities Code of Texas and required review by the Texas Historical Commission (THC) and the Texas General Land Office (GLO). Archaeological monitoring was conducted under Texas Antiquities Permit No. 8335. The cannon installations were completed with a minimal amount of disturbance and no adverse impacts to resources within the APE. All field notes, photos, and artifacts have been prepared for permanent curation at the CAR, in accordance with THC guidelines.

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Table of Contents:

Abstract	i
List of Figures	v
List of Tables	vii
Acknowledgements.....	ix
Chapter 1: Introduction	1
Chapter 2: Project Area Background	3
Previous Research	3
The Alamo Arcade	4
Chapter 3: Field and Laboratory Methods	11
Field Methods	11
Laboratory Methods	11
Chapter 4: Results of Monitoring.....	13
Monitoring of C1 and C2 Holes (February 15, 2018)	14
Monitoring of C3 and C4 Holes (March 22, 2018)	14
Monitoring of C5 and C6 Holes (June 7, 2018)	15
Summary.....	16
Artifacts	17
Chapter 5: Summary and Recommendations.....	19
References Cited	21

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List of Figures:

Figure 1-1. Location of the project area on the San Antonio East 7.5-minute series USGS quadrangle map and satellite imagery.....	1
Figure 1-2: Location of the project with cannon installations	2
Figure 2-1. Previous archaeology in relation to the cannon installations south of the church.....	3
Figure 2-2. 1921 Alamo Church Property and Adjoining Buildings (cropped), from the City of San Antonio, Municipal Archives (by G. A. Fisher); Alamo Arcade footprint added (yellow highlight)....	5
Figure 2-3. Close up of the 1922 Sanborn Fire Insurance Map (Vol. 2, Sheet 117); Alamo Arcade footprint added (yellow highlight).....	5
Figure 2-4. A 1931 Aerial of Alamo Plaza and surroundings (close-up); note the fuel pump at center (UTSA-Institute of Texan Cultures [ITC] San Antonio Light Collection, L-1547-D); Alamo Arcade footprint added (yellow highlight)	6
Figure 2-5. Demolition of commercial buildings (ca.1934) south of the Alamo Church, full view above (highlighted inset below); bottom - close up of area showing the gas pump (UTSA-ITC, San Antonio Light Collection, L-0210-A)	7
Figure 2-6. Photograph of arcade construction in September 1934. Original San Antonio Light caption: “Weathered limestone, salvaged from buildings previously located on the site, is used for the arcade” (courtesy of UTSA-ITC, San Antonio Light Collection L-0342-D)	8
Figure 2-7. Photograph of arcade construction in September 1934. Original San Antonio Light caption: “Construction of the Alamo Arcade, with arches evocative of the conventos at Mission San Jose and Concepcion” (courtesy of UTSA-ITC, San Antonio Light Collection L-0342-E)	8
Figure 2-8. Photograph of completed arcade in 1934. Original San Antonio Light caption: “Plants, contributed by Texas residents, are planted in front of the arcade and in the Alamo garden” (courtesy of UTSA-ITC, San Antonio Light Collection L-1547-H)	9
Figure 4-1. Project area showing a view of Alamo Arcade. Exterior (top) with first two (C1 and C2) cannon installed and locations for cannon C3 through C6. Interior (bottom) with holes for C3 and C4 completed and locations of C5 and C6 (view south)	13
Figure 4-2. C1(left) and C2 (right) holes excavated to 24 in. (61 cm) below the surface	14
Figure 4-3. C3 (left) and C4 (right) holes excavated to 18 in. (45.7 cm) below the surface and 18 in. (45.7 cm) in diameter. Note mottled sediments.....	15
Figure 4-4. C5 and C6 locations prepared for cannon installation (facing south)	16
Figure 4-5. C1 before (left) and after (right) with interpretive signage installed (view east)	17

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List of Tables:

Table 4-1. Recovered Material.....	17
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Acknowledgements:

Several individuals assisted and/or supported this project. We are grateful to Pamela Rosser, Alamo Conservator, and Patrick Caffey, Facilities Manager, and the rest of the Alamo facilities staff for allowing us the opportunity to work together. Thanks are also due to Casey Hanson of the THC, Archeology Division. Tom Shelton and Carlos Cortez of the UTSA Institute of Texan Cultures provided invaluable support by assisting CAR staff with securing historic photographs. José Zapata and Sarah Wigley conducted the fieldwork and completed the artifact analysis. Dr. Jessica Nowlin provided GPS, GIS, and mapping support, and Dr. Kelly Harris edited the report. Dr. Paul Shawn Marceaux served as the Principal Investigator and oversaw the writing and production of this final report.

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Chapter 1: Introduction

The University of Texas at San Antonio (UTSA) Center for Archaeological Research (CAR), in response to a request from the Alamo Trust, Inc., conducted archaeological monitoring of six hand-excavated holes for the installation of six conserved cannon in the Alamo Complex in San Antonio, Bexar County, Texas. The Area of Potential Effect (APE) was located on the grounds of Mission *San Antonio de Valero*, the Alamo (41BX6; Figure 1-1).

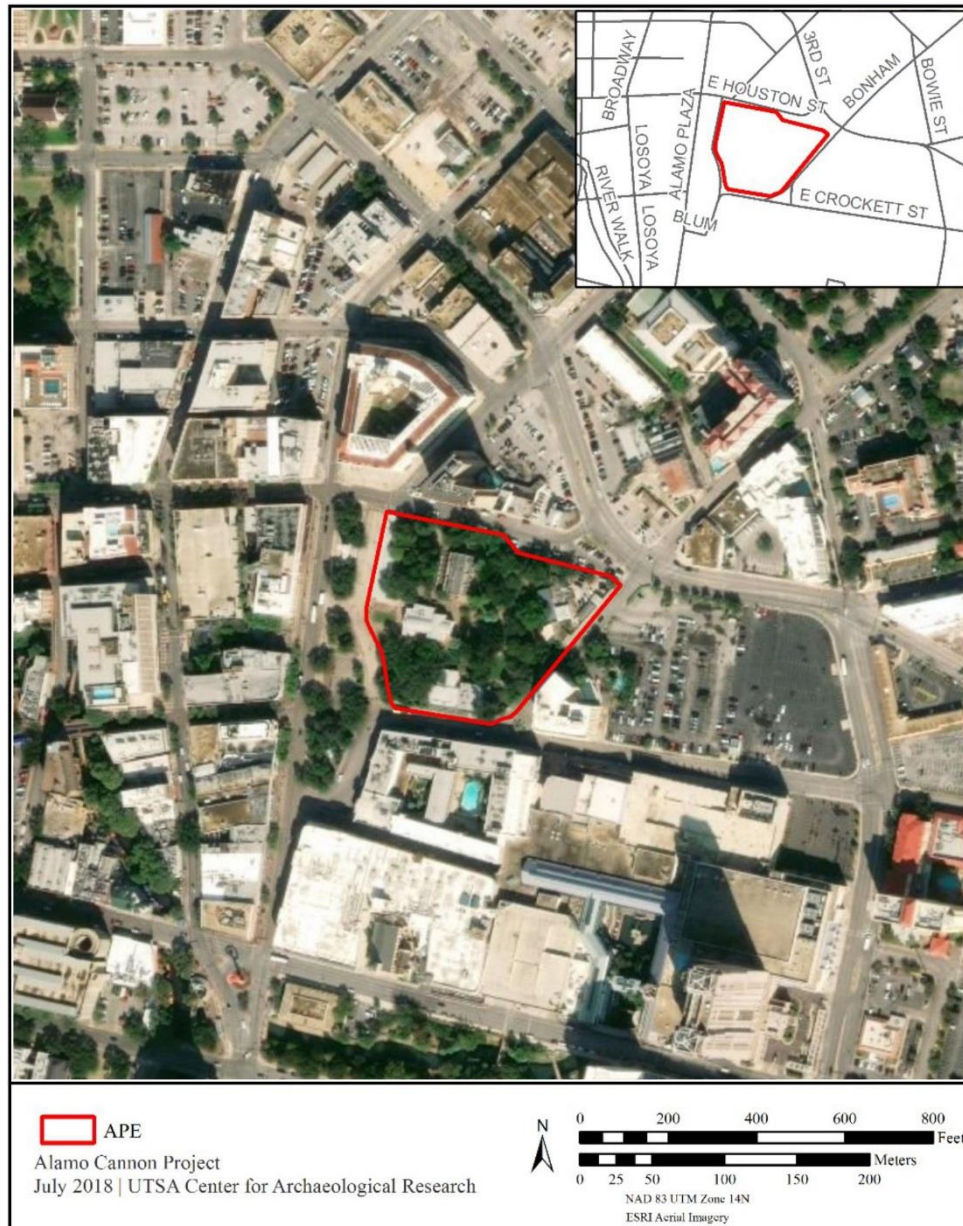


Figure 1-1. Location of the project area on the San Antonio East 7.5-minute series USGS quadrangle map and satellite imagery.

Mission *San Antonio de Valero*, the Alamo (41BX6), is listed on the National Register of Historic Places (NRHP) and is a State Antiquities Landmark (SAL). The site was recently designated a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site (COSA World Heritage 2018). Therefore, any improvements to the facilities that result in ground disturbance require archaeological testing and/or monitoring. This project required review by the THC under the Antiquities Code of Texas and Texas Antiquities Permit No. 8335.

The installation of the six cannon occurred along the east side of the Alamo Arcade, directly south of the church commonly referred to as the Alamo (Figure 1-2). Although the archaeological monitoring was completed in three days, the overall length of the project spanned five months because the cannon were being installed as they were received back from conservation. The Project Archaeologist was José Zapata, and Sarah Wigley assisted with the fieldwork and artifact analysis. Paul Shawn Marceaux, CAR Director, served as the Principal Investigator.

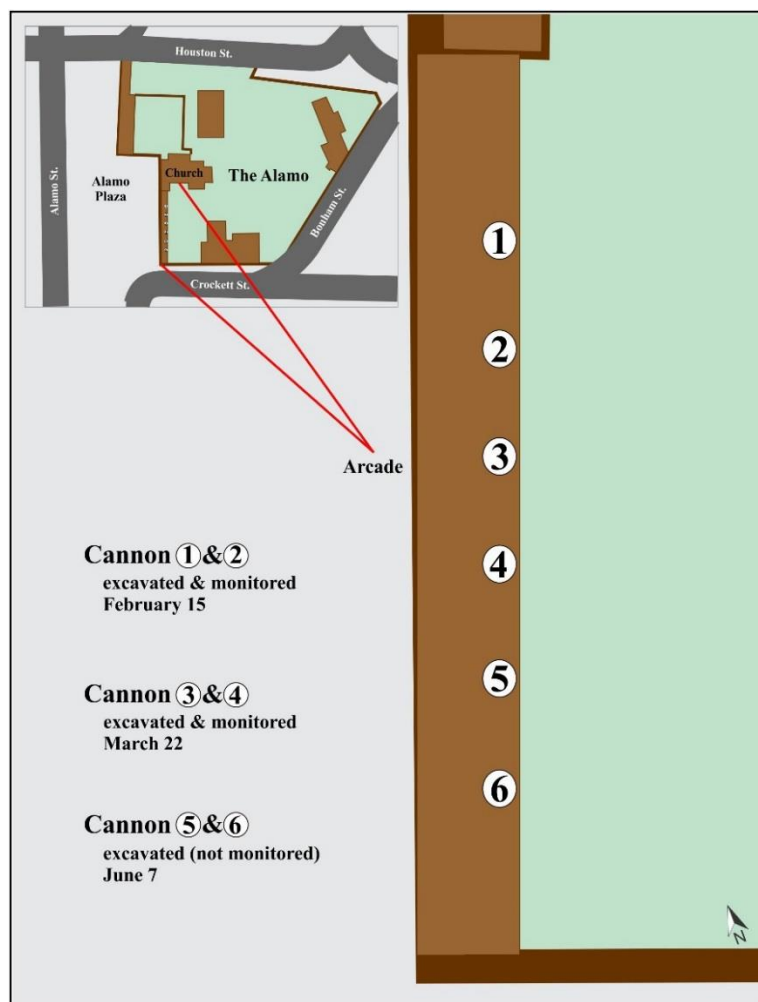


Figure 1-2: Location of the project with cannon installations.

Chapter 2: Project Area Background

The history Mission *San Antonio de Valero*, the Alamo (41BX6), is well documented and can be reviewed in two of the more recent Alamo studies (see Anderson et al. 2018; Zapata and McKenzie 2017). The focus of this chapter will be on previous research and development of the Alamo Arcade.

Previous Research

Mission *San Antonio de Valero* (41BX6) has been the subject of several archaeological studies recently summarized in Anderson et al. (2018:50-67). Figure 2-1 shows the locations of some of the previous archaeological projects (Eaton 1980; Meissner 1996; Sorrow 1972) nearest to the current APE.

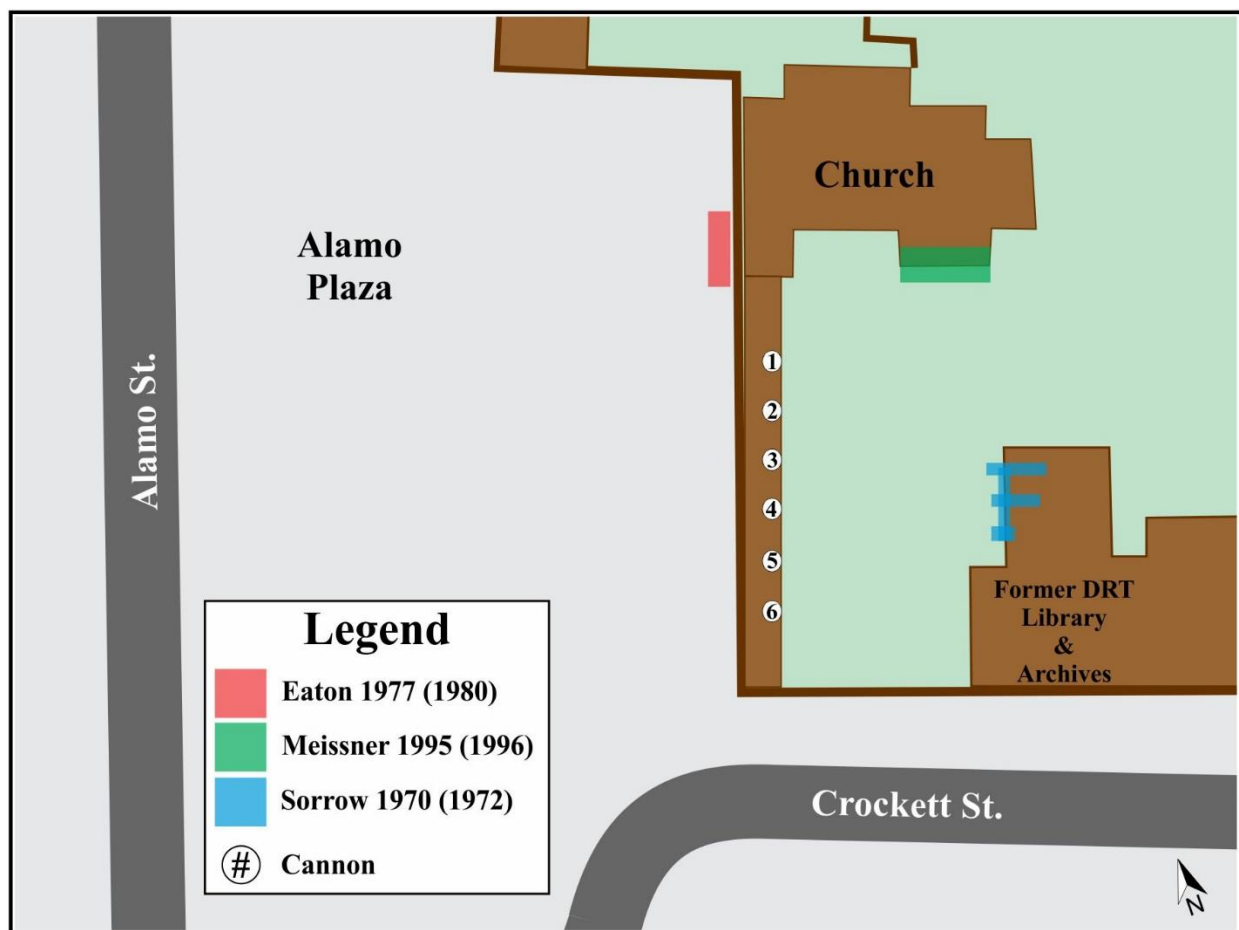


Figure 2-1. Previous archaeology in relation to the cannon installations south of the church.

The area directly south of the church and along the footprint of the Alamo Arcade has not been studied through archaeological investigation. However, three nearby areas were the subject of previous archaeological investigations. As shown in Figure 2-1, one investigation took place in an area adjacent to

the former Daughters of the Republic of Texas (DRT) library and archives (Sorrow 1972). A second nearby investigation was located along the west elevation (southwest corner) of the church (Eaton 1980), and a third study was conducted along the south elevation of the transept (Meissner 1996).

In 1970, Sorrow tested an area outside the northwest corner of the former DRT Library prior to the construction of a new library wing. The most significant find was a 9.75-m (32-ft.) section of the *Acequia Madre de Alamo* (41BX8). Remnants of the acequia's east wall were exposed and photo documented; however, there was no evidence of the west wall. Among the recovered artifacts were bone, ceramic sherds, and fragments of ferrous metal, but none were analyzed (Sorrow 1972:18-19).

In March 1977, CAR conducted test excavations in front of the Alamo Chapel, where flagstone paving was being replaced. CAR archaeologists found the stratigraphy in front of the church to be practically undisturbed, with succeeding layers of datable artifacts. These excavations located an 1836 palisade emplacement and associated battle-related artifacts (Eaton 1980:47).

In early 1995, Meissner tested the interior and exterior of the south transept wall. The results of the testing noted that the stratigraphy at the interior of the south transept was fairly intact, while the exterior deposits were heavily disturbed (Meissner 1996:102).

The Alamo Arcade

Plans for the acquisition of the properties south of the church and the subsequent development of the Alamo Compound began in 1925 (Fisher 1996:104). The DRT and the San Antonio Conservation Society (SACS) co-sponsored this initiative, but owing to design disputes and delays in the acquisition of the affected properties, the work moved along hesitantly for the next 10 years (Fisher 1996:103-106). The southernmost sections of the current Alamo compound were privately and publicly owned, and the sections included an automotive shop and service station at 310-314 S. Alamo Street. The service station property, which is the present location of the Alamo Arcade and former DRT Library, was secured around 1933 (Fisher 1996:105). A search of the Bexar County Deed Records (BCDR) failed to locate a deed that would confirm the date. However, CAR staff did locate a 1937 deed for the City's Fire Station No. 2 property (present-day Alamo Hall), when it was conveyed to the State of Texas by the COSA (BCDR 1601:609-610).

During the aforementioned period of developments, the Alamo Arcade and Gardens were among the first additions. The Alamo Arcade was built in 1934 under the direction of H. E. Kincaid, who was the principal designer (Shelton 2018). Figures 2-2 and 2-3 illustrate the relationship of the 1934 Alamo Arcade to the earlier built environment.

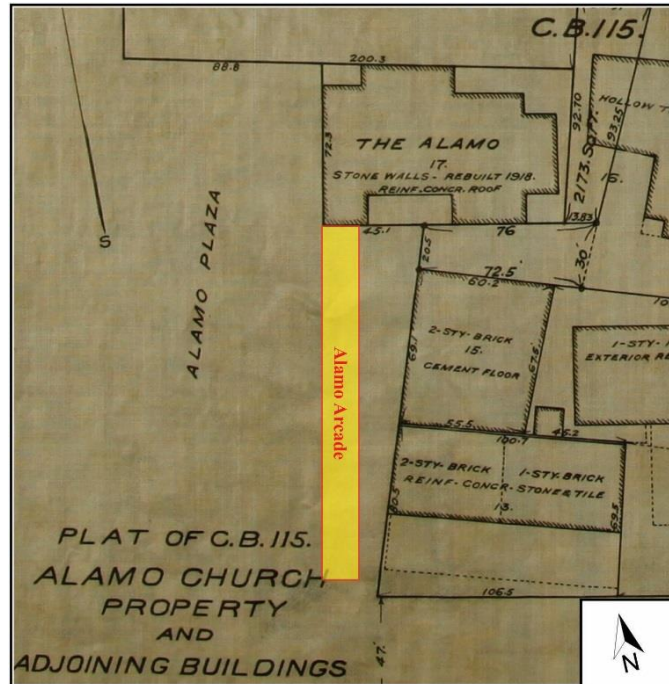


Figure 2-2. 1921 Alamo Church Property and Adjoining Buildings (cropped), from the City of San Antonio, Municipal Archives (by G. A. Fisher); Alamo Arcade footprint added (yellow highlight).

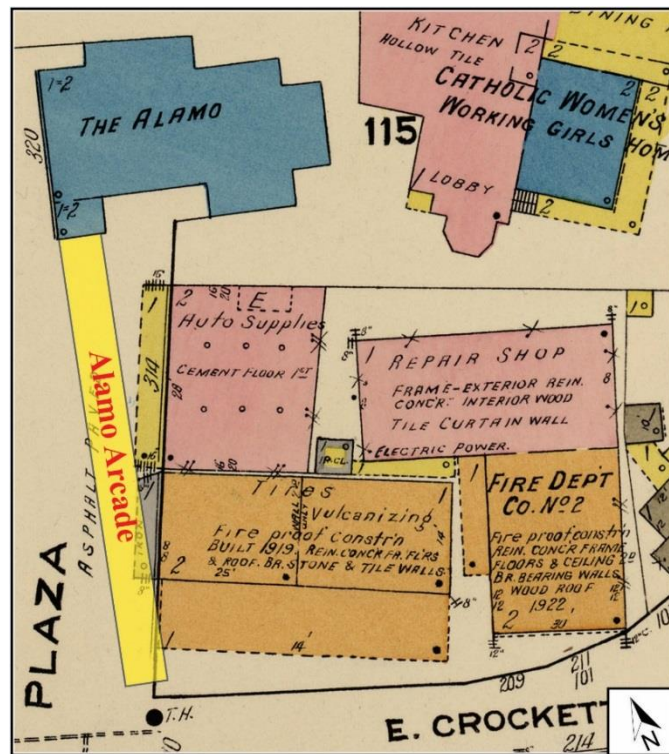


Figure 2-3. Close up of the 1922 Sanborn Fire Insurance Map (Vol. 2, Sheet 117); Alamo Arcade footprint added (yellow highlight).

Figure 2-4 shows a service station south of the church. The service station was described as a “two-story brick building a few feet south [that] seemed bigger than the Alamo itself” (Fisher 1996:104). CAR staff located two documents relating to the installation of gasoline tanks at this location. In 1916, Glen D. Gerhardt petitioned the City Commissioners for permission to install a gasoline tank at 310 S. Alamo Street (COSA Municipal Records 1916). There is no indication that this petition was approved. However, in 1918, the Central Fire Company was granted “permission to install gasoline pumps and tanks at 314 East Side of Alamo Plaza” (COSA Municipal Records 1918).

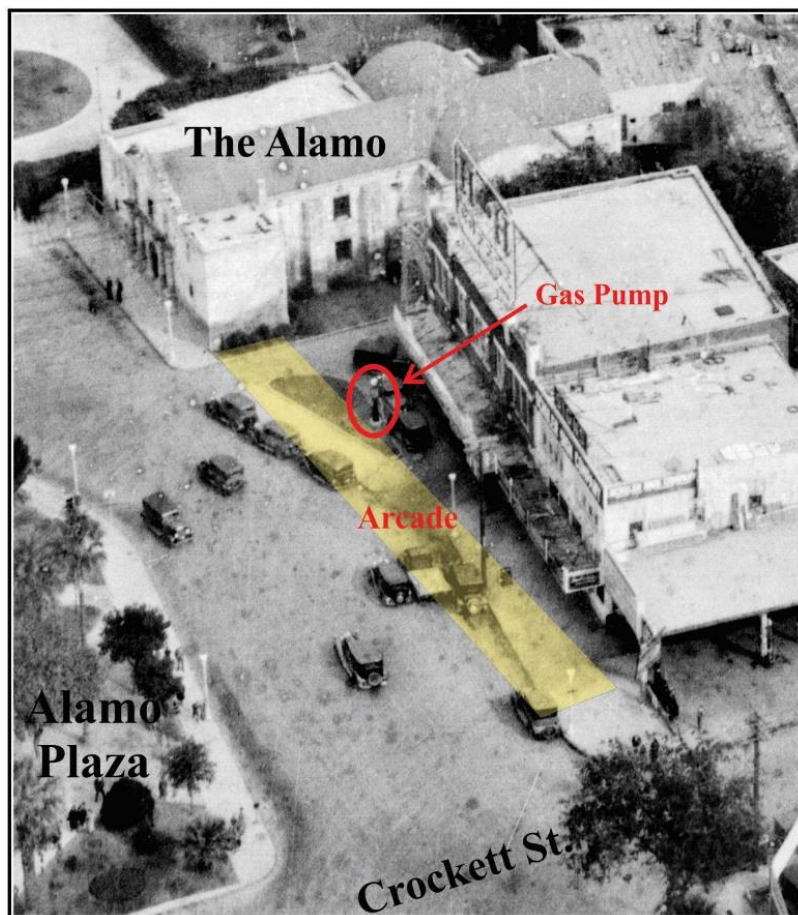


Figure 2-4. A 1931 Aerial of Alamo Plaza and surroundings (close-up); note the fuel pump at center (UTSA-Institute of Texan Cultures [ITC] San Antonio Light Collection, L-1547-D); Alamo Arcade footprint added (yellow highlight).

Figure 2-5 shows the demolition of the commercial buildings. The gas pump indicated in Figure 2-4 is shown again in Figure 2-5.

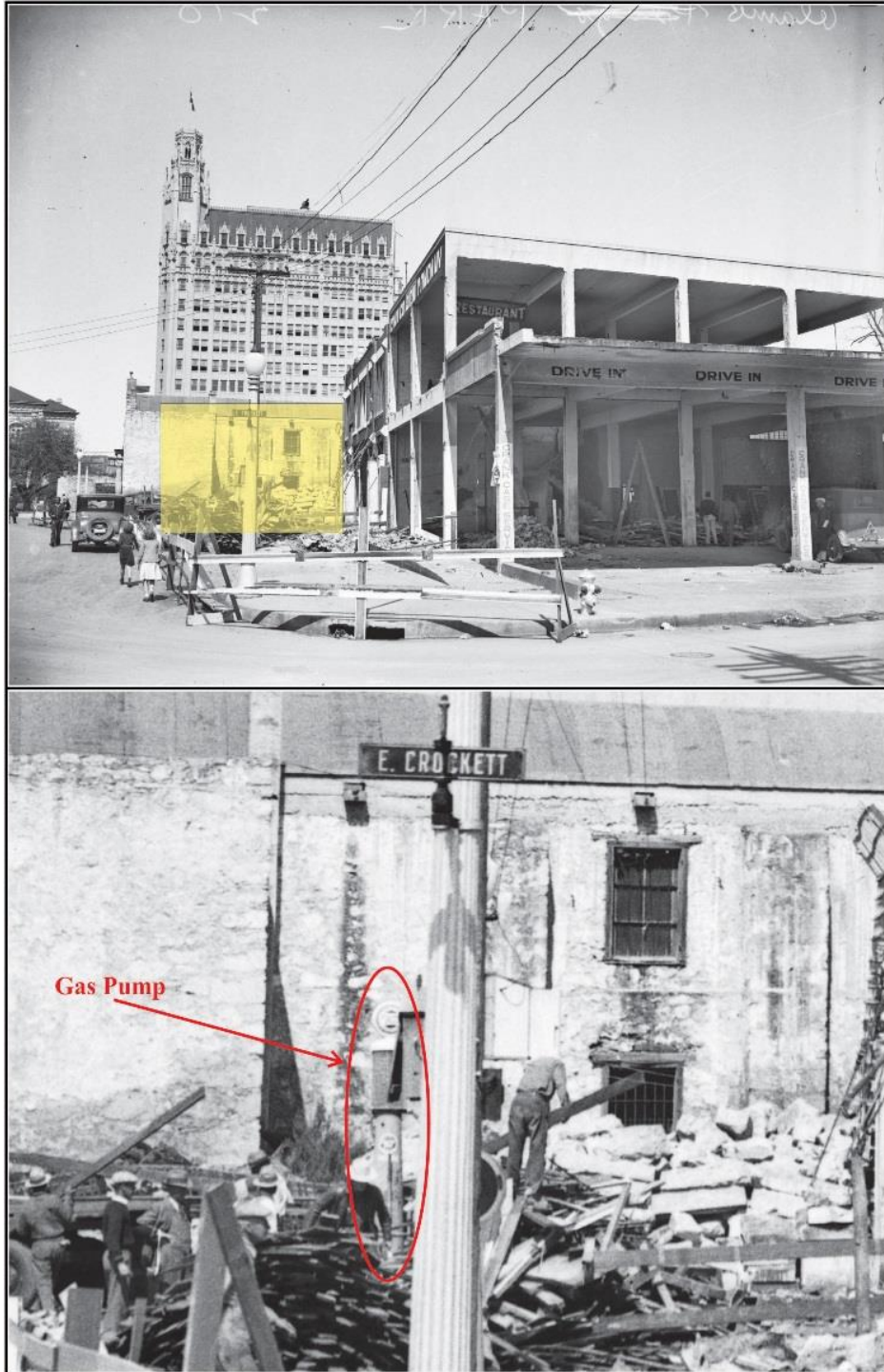


Figure 2-5. Demolition of commercial buildings (ca.1934) south of the Alamo Church, full view above (highlighted inset below); bottom - close up of area showing the gas pump (UTSA-ITC, San Antonio Light Collection, L-0210-A).

Figures 2-6 and 2-7 show the progression of the Alamo Arcade construction progress. Figure 2-8 shows a completed view of the arcade.



*Figure 2-6. Photograph of arcade construction in September 1934.
Original San Antonio Light caption: "Weathered limestone, salvaged
from buildings previously located on the site, is used for the arcade"
(courtesy of UTSA-ITC, San Antonio Light Collection L-0342-D).*



*Figure 2-7. Photograph of arcade construction in September 1934.
Original San Antonio Light caption: "Construction of the Alamo Arcade,
with arches evocative of the conventos at Mission San Jose and
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0342-E).*



Figure 2-8. Photograph of completed arcade in 1934. Original San Antonio Light caption: "Plants, contributed by Texas residents, are planted in front of the arcade and in the Alamo garden" (courtesy of UTSA-ITC, San Antonio Light Collection L-1547-H).

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Chapter 3: Field and Laboratory Methods

Field Methods

To accommodate the requested archaeological services, the CAR scheduled two staff archaeologists to be on site to monitor hand-excavations of six holes that were between 18-in. (45.7-cm) and 24-in. (61-cm) in diameter and 24-in. (61-cm) deep. The installation of the conserved cannon took place beneath the midpoint of six arches along the east side of the arcade.

CAR archaeologists monitored Alamo facilities staff and were prepared to intercede if and when any archaeological deposits were encountered. If intact archaeological features were encountered, the Alamo Trust, Inc. and the THC were to be notified immediately. All work was to be halted so that CAR could consult with these entities and a decision could be made on how to proceed. The excavated soils were screened and all cultural material was secured and returned to the CAR lab for processing. The monitoring activities included maintaining daily notes, photo logs, and photos of the work-in-progress. A lab-based illustrator (GIS) supported these monitoring activities.

Laboratory Methods

Throughout the project, the analysis and organization of records, artifacts, and daily logs was ongoing. All records 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 completed with pencil. Any artifacts collected during the monitoring were brought to the CAR laboratory, washed, air-dried, and stored in 4-mil zip-lock, archival-quality bags. Any materials needing extra support were double bagged, and acid-free labels were placed in all artifact bags. Each laser printer generated label contained provenience information and a corresponding lot number. Where appropriate, the artifacts were separated by class, stored in acid-free boxes, and labeled with standard tags.

All field notes, forms, and drawings were placed in labeled archival folders. Digital photographs were printed on acid-free paper, and placed in archival-quality page protectors to prevent accidental smearing due to moisture. All recovered artifacts and project-related materials, including the final report, were permanently stored at the CAR's curation facility.

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Chapter 4: Results of Monitoring

Archaeological monitoring for the hand-excavated holes was completed at three different times. Excavations and installations occurred as the cannon were returned from conservation. Excluding the main arch at the north end, there are eight arches at either side of the Alamo Arcade. The six cannon were installed under six of the arches (Figure 4-1).



Figure 4-1. Project area showing a view of Alamo Arcade. Exterior (top) with first two (C1 and C2) cannon installed and locations for cannon C3 through C6. Interior (bottom) with holes for C3 and C4 completed and locations of C5 and C6 (view south).

Monitoring of C1 and C2 Holes (February 15, 2018)

The first two cannon support holes (C1 and C2) were located at the north end of the arcade and along the east side of the arcade walkway. The holes were 24-in. (61-cm) in diameter and 24-in. (61-cm) deep. A 12-in. (30.5-cm) layer of mulch was removed, exposing a 6-in. (15.2-cm) layer of dark clay. A light colored, mix of sandy soil and limestone gravel and dark clay was exposed at 18 in. (45.7 cm), which continued to 24 in. (61 cm) below the surface (Figure 4-2).



Figure 4-2. C1(left) and C2 (right) holes excavated to 24 in. (61 cm) below the surface.

The first cannon support hole (C1) produced artifacts between 18 and 24 in. (45.7 and 61 cm) below the surface. The second cannon support hole (C2) produced artifacts between 14 in. and 24 in. (35.5 and 61 cm) below the surface. Very few artifacts were recovered.

Monitoring of C3 and C4 Holes (March 22, 2018)

The two holes excavated for C3 and C4 were located mid-way through the arcade and along the east side of the arcade walkway. Both holes were 18-in. (45.7-cm) in diameter and 18-in. (45.7-cm) deep. A 6-in. (15.2 cm) layer of mulch was removed, exposing a light to dark colored clay with 10 percent gravels. This stratum continued to 18 in. (45.7 cm) below the surface. Once the Alamo staff completed hand-excavating C3 and C4, CAR staff cleaned the walls and floor (Figure 4-3). As seen in Figure 4-3, the strata was mixed

and mottled, dark to light colored clays, with bits and pieces of charcoal imbedded. Cannon support hole 3 (C3) and C4 produced few artifacts. The recovered artifacts were in mixed deposits between 6 in. and 18 in. (15.2-45.7 cm) below the surface.

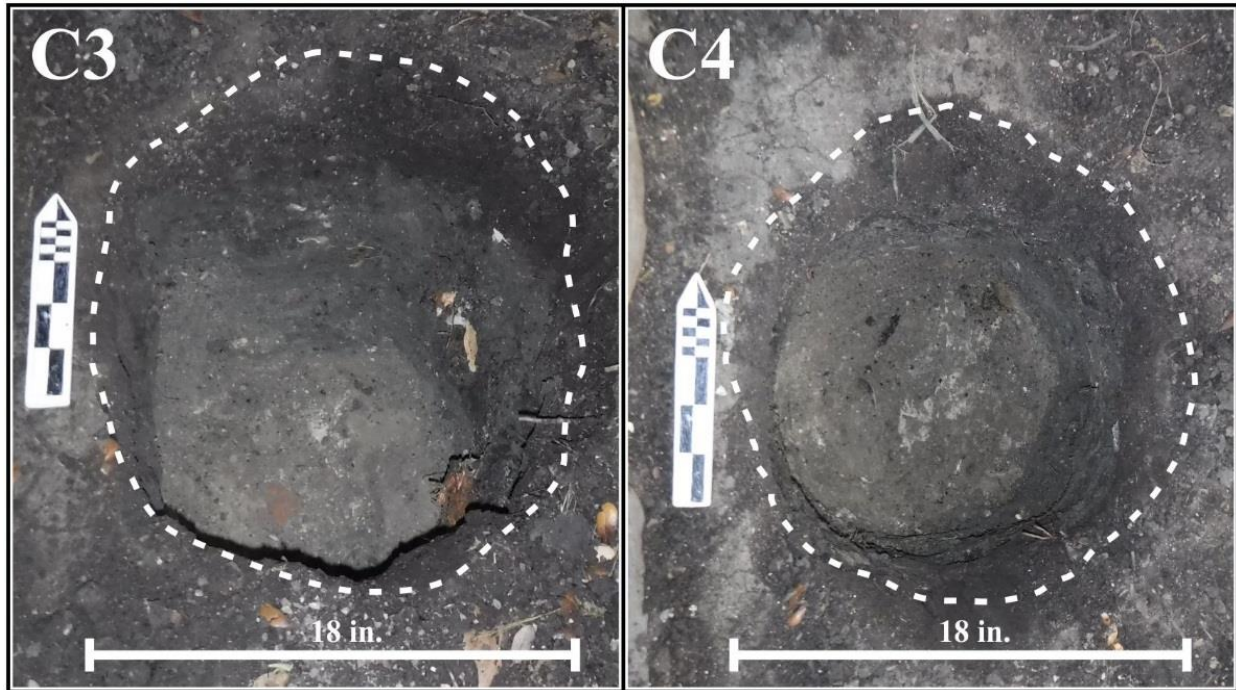


Figure 4-3. C3 (left) and C4 (right) holes excavated to 18 in. (45.7 cm) below the surface and 18 in. (45.7 cm) in diameter. Note mottled sediments.

Monitoring of C5 and C6 Holes (June 7, 2018)

Cannon support holes C5 and C6 were not monitored by archaeologists as excavations took place prior to notification. CAR staff were informed the afternoon of June 7 that Alamo staff had hand-excavated two additional holes (C5 and C6) to 12 in. (30.5 cm) below the surface. It was the understanding of the Alamo staff that disturbance no greater than 12 in. (30.5 cm) below the ground surface did not require archaeological monitoring. This misunderstanding was communicated to the THC, and CAR staff visited the site on the morning of June 8. CAR staff noted that cement had already been poured into the C5 and C6 holes, and the metal supports for the cannon were already in place (Figure 4-4). The excavated soils had been spread into the garden area. CAR staff investigated the soils and observed no artifacts in the garden.



Figure 4-4. C5 and C6 locations prepared for cannon installation (facing south).

Summary

The hand-excavated holes did not adversely impact any buried cultural deposits. The last two hand-excavated holes should have been monitored, or at the least, the THC should have been consulted. Figure 4-5 illustrates the result of the C1 installation, which is representative of the other cannon installations.

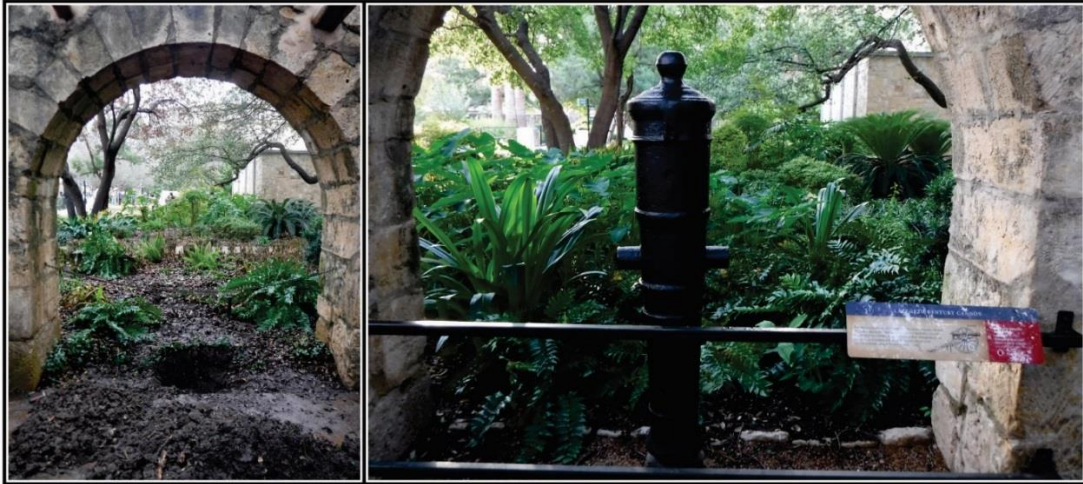


Figure 4-5. C1 before (left) and after (right) with interpretive signage installed (view east).

Artifacts

In total, 476.33 g of cultural material was recovered from the Alamo cannon excavations (C1, C2, C3, and C4). The recovered material is summarized in Table 4-1. Artifacts recovered included 182.32 g of construction material, 238.08 g of metal, 42.87 g of faunal bone, two charcoal samples, and a single sherd of Native American ceramic. Most of these artifacts were recovered from a layer of construction fill found approximately 14-18 inches (35.56-45.7 cm) below the surface. Construction material, metal, and faunal bone were the most common classes of artifacts and were recovered from each provenience.

Table 4-1. Material Recovered from the Alamo Cannon Monitoring

Cannon Support Hole	Depth (in.)	Construction	Metal	Faunal Bone	Charcoal	Native American Ceramic
1	18-24 (construction fill)	60.59 g	149.08 g	8.17 g	0.23 g	1 sherd
2	14-24 (construction fill)	122.1 g	10.23 g	1.27 g	3.62 g (embedded in soil)	-
3	6-18	2.07 g	28.45 g	0.74 g	-	-
4	6-18	6.29 g	50.32 g	32.69 g	-	-

The construction material recovered included brick fragments (n=5), ceramic tile (n=1), mortar (n=1), and painted concrete (n=1). The metal included three fasteners, a heavily corroded nail fragment, an unidentified cylindrical cast iron object, and unidentified ferrous scrap. The unidentified faunal bone (n=4) recovered included cut bone and burned fragments. Both charcoal samples derived from the construction fill layer. The Native ceramic sherd was also recovered from the fill layer. It is a bone-tempered body sherd 7.58 mm in thickness.

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Chapter 5: Summary and Recommendations

A review of previous archaeological studies of Mission *San Antonio de Valero*, the Alamo (41BX6), confirmed that the current APE had not been previously investigated by archaeologists. However, projects conducted by CAR (Eaton 1980) and Sorrows (1972) to the immediate north and east of the APE, respectively, serve to demonstrate that intact cultural deposits are extant below 24 in. (61 cm).

Archeological monitoring along the east side of the Alamo Arcade recovered construction material, unidentified faunal bone, and one bone-tempered Native ceramic sherd. The hand-excavated holes did not extend below 24 in. (61 cm). The strata in this area was heavily disturbed to the terminal depth, and the recovered artifacts were in disturbed contexts. A review of available historic maps and photos revealed that the area to the immediate east of the Alamo Arcade was commercially developed by the 1920s and included masonry structures and related infrastructure. It is unknown to what extent the construction of these commercial enterprises or their demolition (ca. 1933) impacted earlier deposits.

CAR found no intact cultural deposits or features. Work can continue where no cultural materials are present; however, if buried cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area. The THC's Archaeology Division should be consulted on further actions that may be necessary to protect the cultural remains.

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