Alamo Arbor Construction and Electrical Conduit Installation Monitoring, San Antonio, Bexar County, Texas

by
Kristi Miller Nichols

Principal Investigator
Steve A. Tomka

Texas Antiquities Permit No. 6738

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 78249-1644
Technical Report, No. 57

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Abstract:

In late December of 2013 and early January of 2014, the Center for Archaeological Research (CAR) of the University of Texas at San Antonio (UTSA) contracted with the Texas General Land Office (GLO) to monitor the excavation of trenches for the installation of electrical conduit and post holes associated with the Arbor expansion located at Mission San Antonio de Valero/Alamo (41BX6) in the heart of downtown San Antonio. The work conducted was located on the grounds closest to the intersection of Bonham and Houston Streets. Given the location on the grounds of the Alamo, the grounds have the potential to produce significant cultural deposits. During the course of the project, no significant or diagnostic artifacts were encountered. The excavations encountered disturbed soils that were related to the previous installation of utilities. As a result, CAR recommended no additional work was necessary within the current project area and allowed the installation to occur as planned.

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The author would like to thank the individuals that helped to make the project successful. Thank you to the Texas General Land Office for allowing CAR to conduct the necessary fieldwork. Thanks goes to Rick Young for producing the maps and figures seen in the report. Kelly Harris served as technical editor, and her services were greatly appreciated. The author would like to thank Dr. Steve Tomka for conducting the fieldwork. In addition, Marybeth Tomka prepared the documents for final curation. Thanks also go to Dr. Raymond Mauldin, Assistant Director of the Center for Archaeological Research, for providing guidance and insight during the preparation of the report.

Chapter 1: Introduction

On December 26 and 28, 2013, and again on January 8, 2014, a staff member from the Center for Archaeological Research (CAR) at The University of Texas at San Antonio (UTSA) monitored the construction and the installation of electrical conduits associated with the Alamo Arbor at site 41BX6 (Mission San Antonio de Valero/Alamo) in downtown San Antonio (Figure 1-1). Site 41BX6 is located in a National Register District (The Alamo Plaza Historic District) and is listed as a State Antiquities Landmark (SAL). Dr. Steve A. Tomka conducted the field work and the archaeological investigations under Texas Antiquities Permit No. 6738 in accordance with the Antiquities Code of Texas. The project area is located in the eastern portion of the garden behind the chapel, closest to the intersection of Houston and Bonham Streets. The affected area is adjacent to the current amphitheater and Arbor. The location of the Area of Potential Effect (APE) has potential for encountering significant cultural deposits. The proximity of the project area to the Mission Valero/Alamo compound increased the probability that subsurface deposits relating to mission occupation, as well as the battle period, could still be intact.

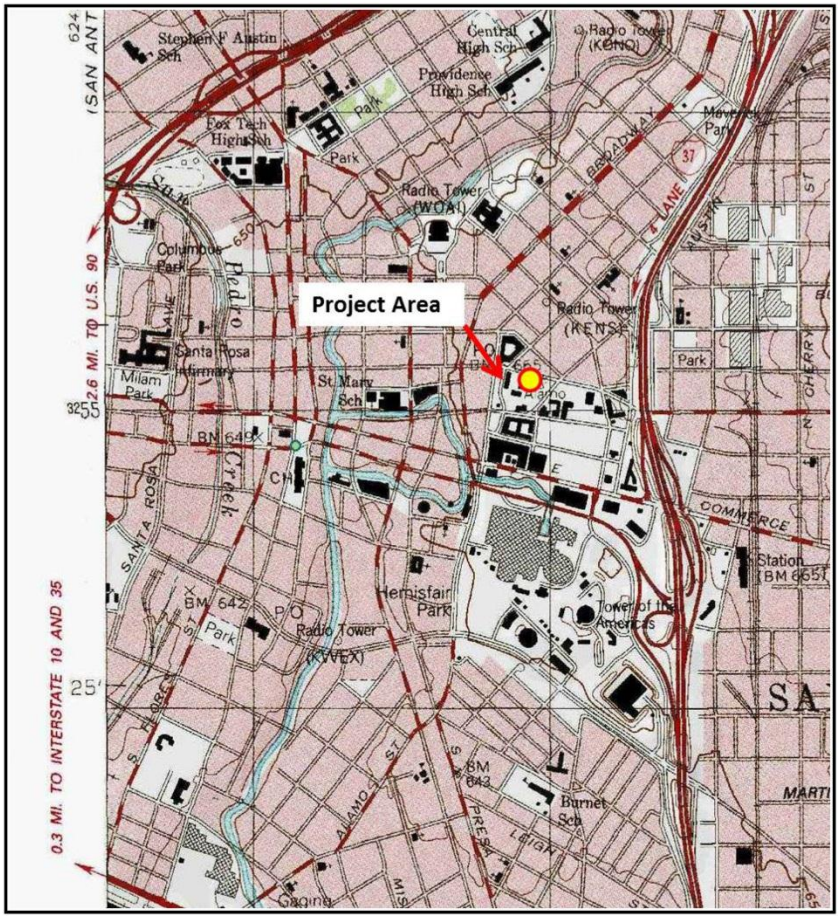

Figure 1-1. *Location of the project area on the San Antonio East USGS quadrangle map.*

Chapter 2: Previous Research

At least sixteen archaeological projects have been recorded within the boundaries of site 41BX6. Figure 2-1 presents a summary of the dates and locations of these projects. The first project was conducted in 1966 (Greer 1967) in the Well Courtyard. The most recent excavations took place during the 2006 UTSA-CAR Archaeological Field School. This project focused on three areas within the site: just outside the long barracks inside the Well Courtyard, along the northern wall of the Well Courtyard, and just outside the northeast corner of the Calvary Courtyard (North Courtyard). The majority of the projects focused on gathering information about the chapel, the courtyards, and southern wall of the mission compound. Very few projects have been taken place within the gardens located to the east of the mission compound. No previous archaeological investigations had been conducted in the portion of the garden behind the Alamo that was affected by the Alamo Arbor construction.

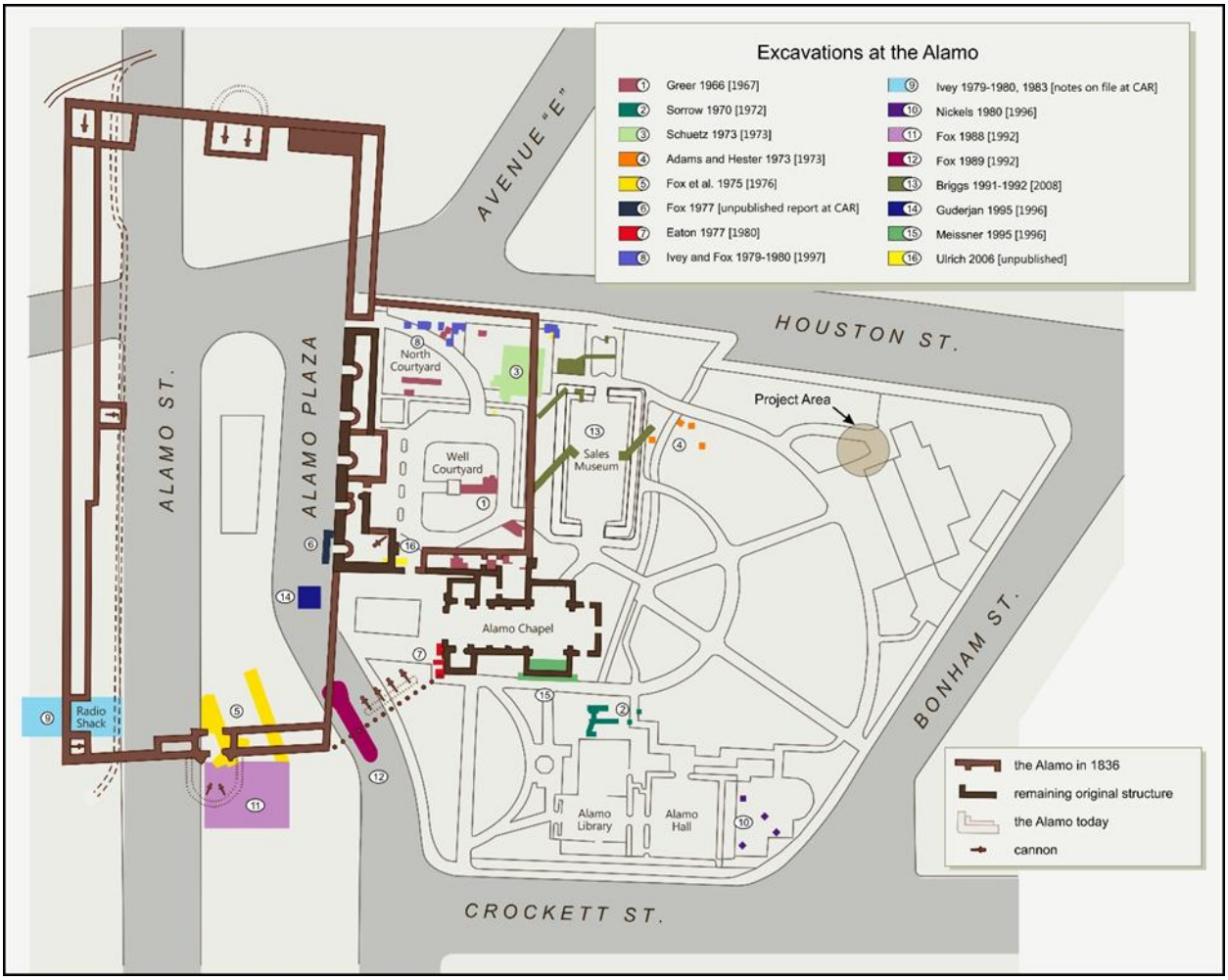

Figure 2-1. *Previous archaeological investigations at 41BX6.*

A brief review of the early Sanborn Fire Insurance Maps indicates the project area to be in a section of the Alamo complex that had remained undeveloped until the late nineteenth century. The 1885 map shows that the area presently occupied by the Arbor was not developed, and the nearest structure was a hay and grain warehouse that may be located near a portion of the conduit trench (Figure 2-2). The 1889 map shows that the warehouse was no longer on the lot, but by 1892, a new structure appeared on the lot labeled as a marble cutting building. In 1896, the building was relabeled as a marble works (Figure 2-3); however, by 1904 the marble works building was gone. All of these maps depicted the area closest to the current Arbor as undeveloped.

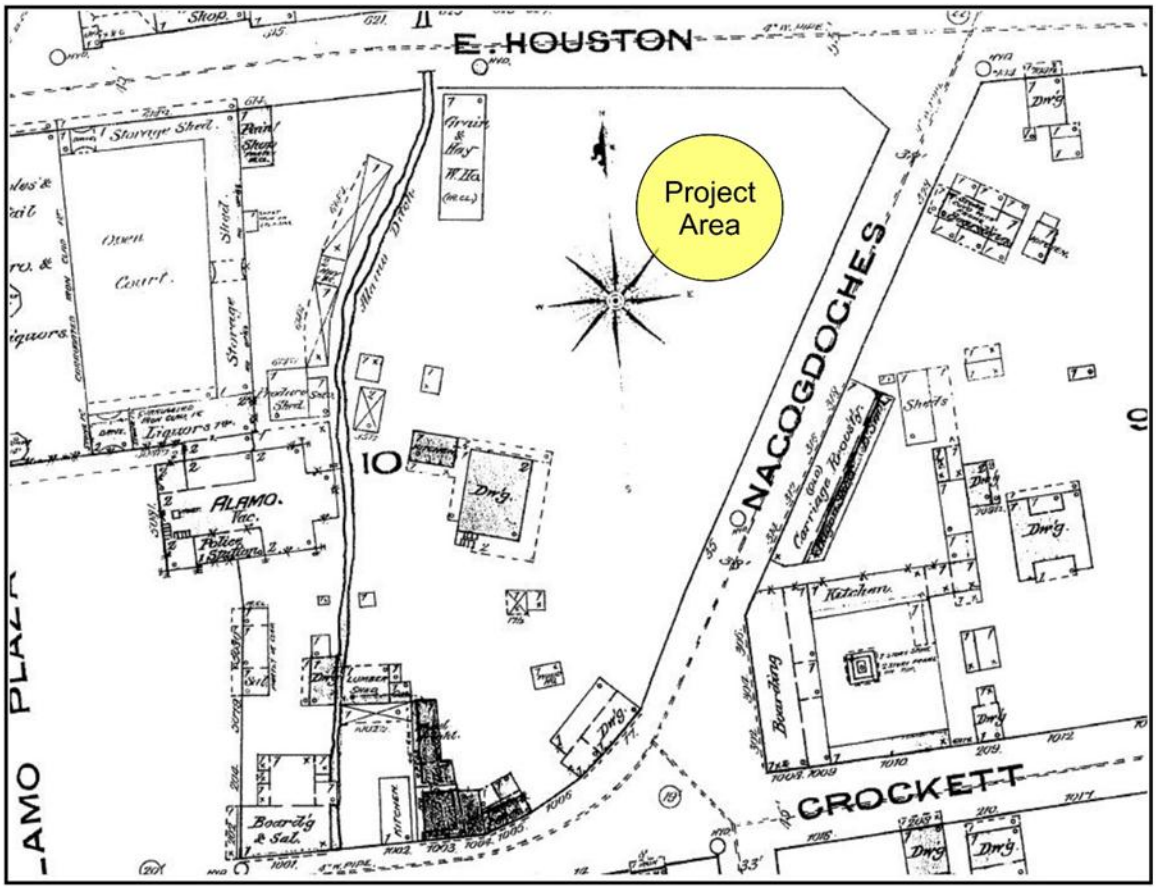

Figure 2-2. *The 1885 Sanborn Fire Insurance Map depicting the area to the east of the Alamo including the project area. Note that Nacogdoches was later renamed Bonham Street.*

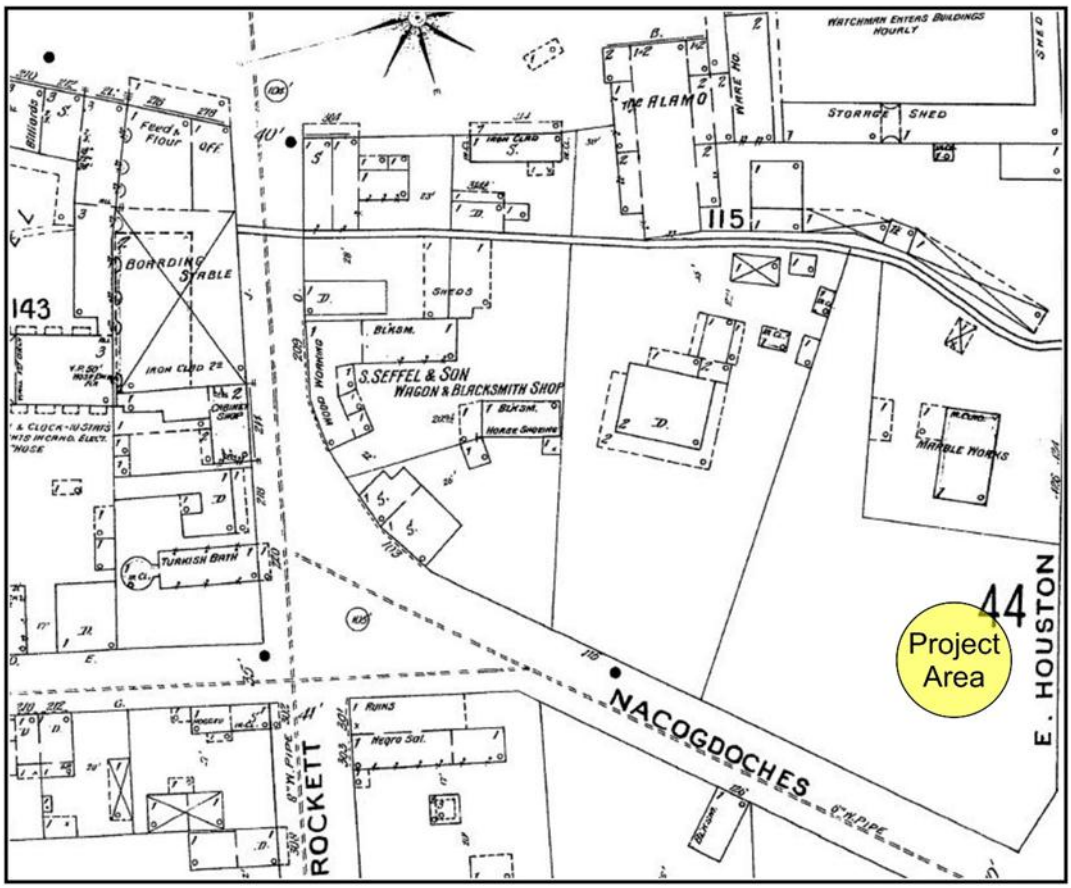

Figure 2-3. *The 1896 Sanborn Fire Insurance Map. The project area is located near the intersection of E. Houston and Nacogdoches (Bonham).*

The 1911-1924 Sanborn Fire Insurance Map series revealed a bowling alley and tailor in the project area (Figure 2-4). It also appears that there were several storefronts and a restaurant located along E. Houston that may be near a portion of the conduit trench. By the time the 1912-1951 volumes of the maps were completed, all structures that had been previously constructed on the eastern portion of the lot were gone. The Alamo Shrine grounds were beginning to take shape with the construction of the Alamo Sales Museum, located to the northeast of the chapel, and the DTR Library/Alamo Hall, which was located to the southeast of the chapel. The remainder of the grounds were not developed.

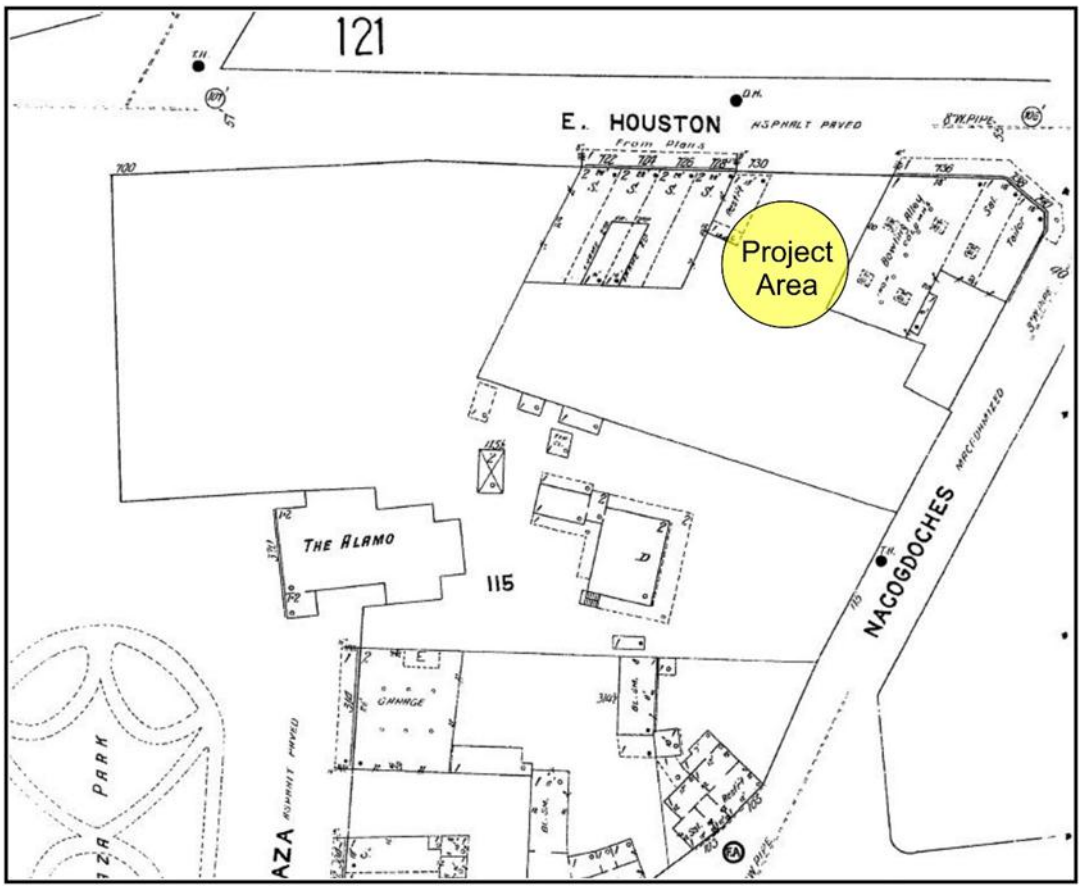

Figure 2-4. *The 1911-1924 Sanborn Fire Insurance Map showing a bowling alley in the vicinity of the project area.*

Chapter 3: Field and Laboratory Methods

Field Methods

The excavation of the trench for the electrical conduits was monitored by CAR staff to observe if intact significant cultural remains were present. In addition, CAR staff monitored the excavation of holes for three proposed piers that would support the Arbor expansion. The backdirt was inspected for unique cultural items during the course of the trenching. The trenching and drilling were photo-documented throughout the project. Should intact deposits be encountered, the excavations were to stop to allow time for the archaeologist to record the location and document the contents. Only diagnostic artifacts were to be collected during the course of the work, although none were encountered.

Laboratory Methods

Since no artifacts were collected during the course of the project, the items left for curation were the documentation of the work conducted at the site. All records generated and obtained during the project were prepared in accordance with federal regulation 36 CFR part 79, and THC requirements for State Held-in-Trust collections. Additionally, the materials were curated in accordance with current guidelines of the CAR. Field notes, forms, and photographs were placed in labeled archival folders. Digital photographs were printed on acid-free paper, labeled with archivally appropriate materials, and placed in archival quality page protectors. Ink-jet produced maps, illustrations, and graphics were also placed in archival quality page protectors to protect against accidental smearing due to moisture. All project related documentation is permanently housed at CAR.

Chapter 4: Survey Results

The original Scope of Work (SOW) called for two principal tasks to be carried out by an archaeologist, the monitoring of the trenching for the installation of the conduit and the monitoring of the excavation of the holes for the three new piers to support the addition to the Arbor. Three visits to the project area were made by the CAR archaeologist, the first two on December 26 and 28, 2013, and the final visit on January 8, 2014. During the first visit, the contractor had marked out the route of the installation but had not begun the excavation of the trenches nor that of the pier holes. Construction monitoring took place on the final two visits when the contractor was engaged in subsurface work.

The first phase of the project consisted of the monitoring of the trenching for the installation of the new electrical conduits from the existing electrical boxes located on the north wall of the complex to the new Arbor facility. The proposed route of the conduit installation is shown in Figures 4-1, 4-2, 4-3, and 4-4.

The trench extended from the eastern entrance along the north wall to the northern edge of the previously existing Arbor (Figure 4-1). The route for the trench followed alongside the north wall of the Alamo complex, turned east, and crossed the existing landscaping beds (Figures 4-2 and 4-3), the concrete sidewalk, an existing sidewalk, an additional area of landscaping (Figure 4-4), and a second sidewalk before it arrived at the northwest corner of the Arbor. Originally, plans called for the trench to be approximately 18 inches in depth. However, since this depth could have potentially reached below the depth of disturbance due to landscaping and fill, the contractor sought permission to install the electrical conduits at a shallower depth. At the recommendation of the Texas Historical Commission (THC), depth not exceeding 12 inches below the current surface was to be exempt from monitoring. The requested shallower depth was granted to the electrical contractor with the condition that the conduits be covered by concrete to prevent accidental damage. Therefore, the actual depth of the trenches was between 10 and 12 inches below the surface (Figure 4-5).

The initial excavation of the trench along the north wall and across the flowerbed was monitored to ensure that the contractor did not exceed the 12-inch depth. The monitoring halted when the trenching arrived to the first sidewalk since the contractor needed time to remove the concrete to continue the trench. The remaining portion of the trench was inspected after it had been excavated. No modern or historic artifacts were noted in the back dirt. The presence of numerous pre-existing electrical lines and plumbing pipes associated with the sprinkler system indicated that the area was heavily impacted prior to the present project. The proposed conduit was to run just beneath the existing utilities and irrigation lines (Figure 4-6).

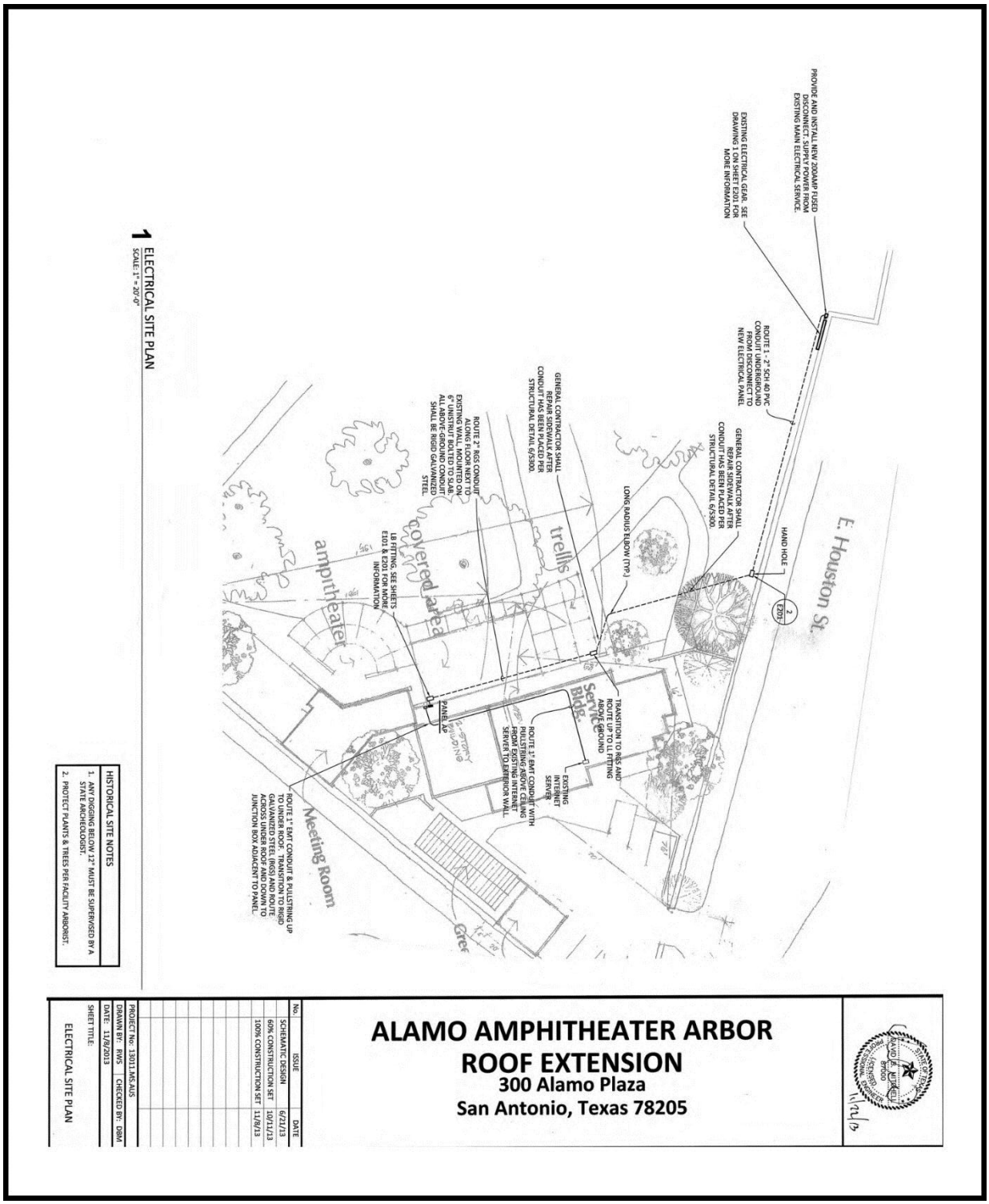

Figure 4-1. *Proposed orientation of the electrical conduit.*

Figure 4-2. *Existing circuit breaker box on north wall of complex and chalk-line indicating orientation of proposed trench.*

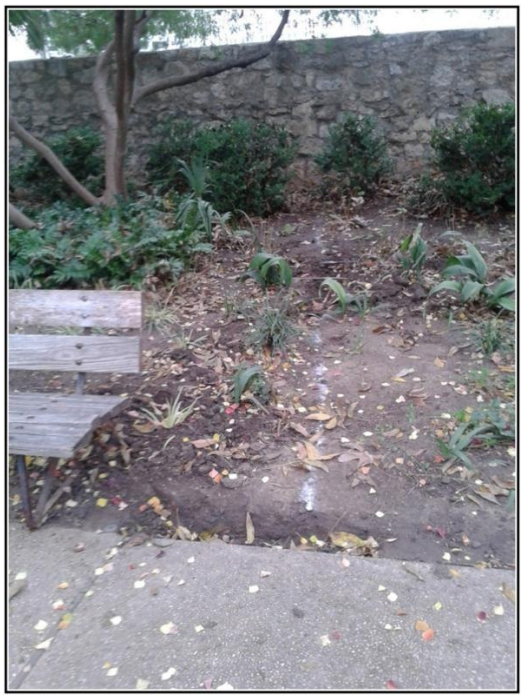

Figure 4-3. *Orientation of proposed electrical line from north wall of complex to first sidewalk.*

Figure 4-4. *Orientation of proposed electrical line across second flowerbed. Note the corner of the Arbor roof in the background.*

Figure 4-5. *Trench for electrical conduit along first sidewalk before it was removed.*

Figure 4-6. *Conduit trench with pre-existing utility and irrigation lines, looking toward north wall of the complex.*

The CAR archaeologist returned to the site on January 8, 2014, to monitor the excavation of the post holes. A total of three post holes were manually excavated as per the engineering plans (Figure 4-7). These post holes were located approximately 6 feet apart and adjacent to the currently standing Arbor. The original plans called for the post holes to extend to a terminal depth of 22 inches below the top of the slab or 3 inches into the limestone, whichever was greater. However, given the thickness of the existing concrete slab present in the area and the nearly 18 inches of base underlying the slab, it was decided that the pier support holes needed to penetrate only to the depth of the base or the top of the clay loam that marked the undisturbed substrate within the complex. Monitoring of these excavations indicated that this depth was approximately 23 inches below the surface.

Three holes were manually excavated to provide for footings for the support posts. These holes were to allow for the extension of the current Arbor. Each post hole measured 24-x-24 inches and extended to a depth of 23-23.5 inches below the surface.

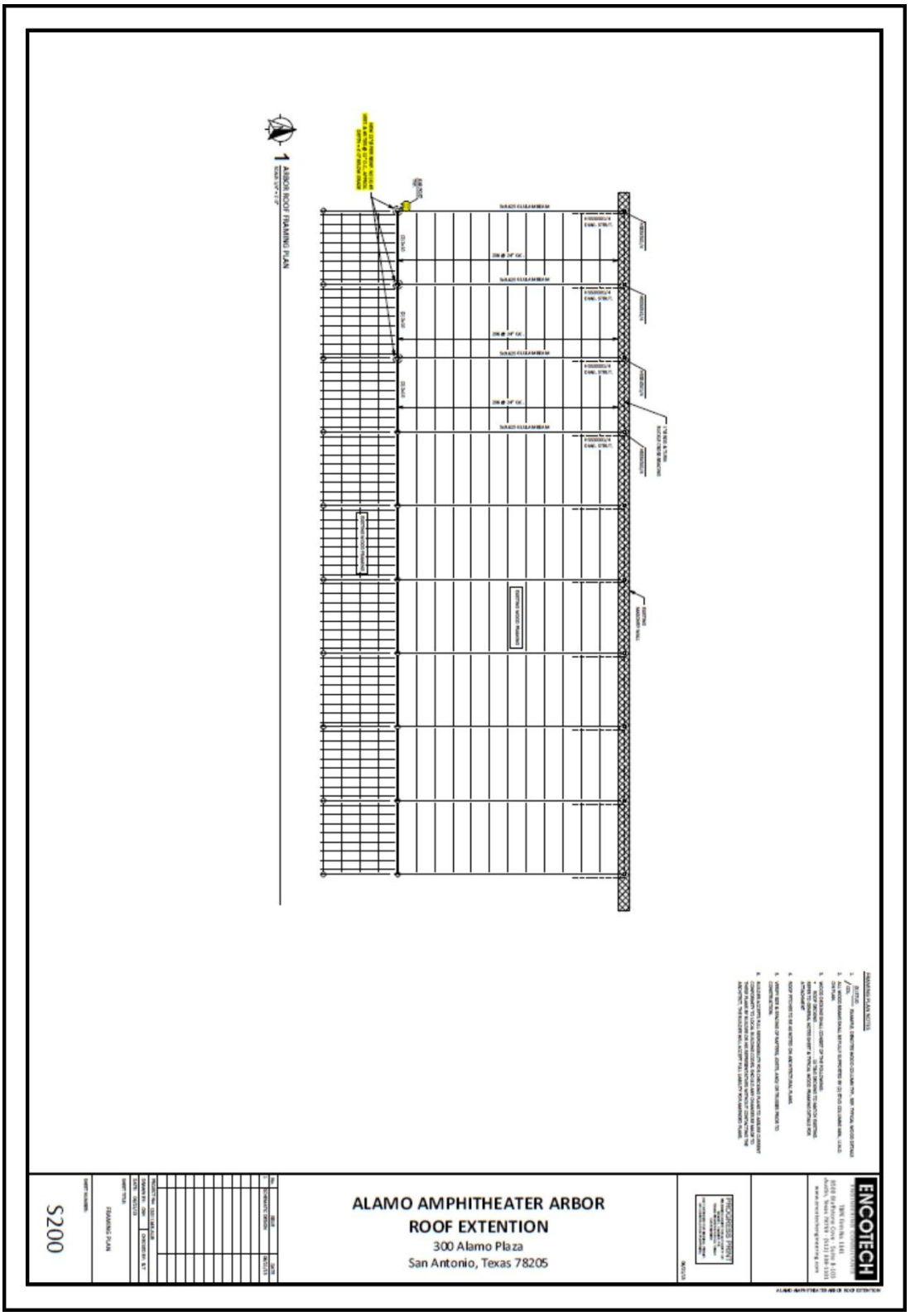

Figure 4-7. *Plan drawing of the location of the three post holes.*

Prior to the excavations for the post holes, the concrete sidewalk was mechanically sawed. Each post hole had a 24-x-24-inch section of concrete removed (Figure 4-8). The concrete appeared to extend to approximately 5 inches below the surface. The base of the concrete was reinforced with rebar (Figure 4-9). Beneath the concrete was a layer of very light yellow caliche base. Below the base, the post holes encountered dark brown clay loam that represented the undisturbed soil of inside the Alamo complex (Figure 4-9). The excavators were instructed to halt the excavations at the top of this zone.

Figure 4.8. *Post hole with scale showing depth of excavation. Note small area of dark brown soil along one edge of base.*

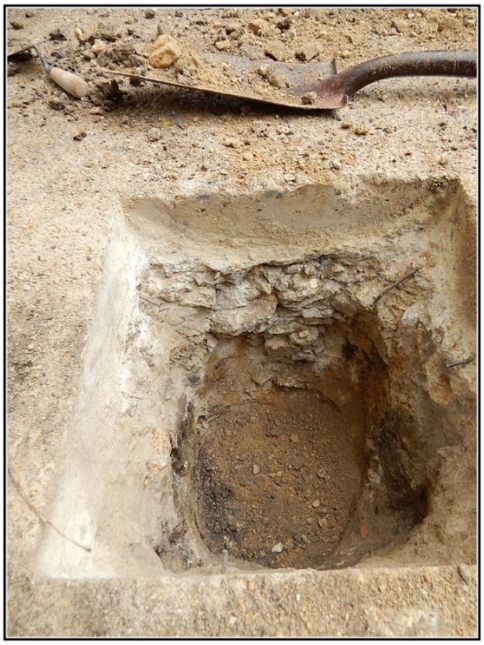

Figure 4-9. *Reinforced concrete and fill in post hole. Note the small patch of dark brown clay loam in bottom of the unit.*

Chapter 5: Summary and Recommendations

In summary, the monitoring of the excavation of post holes and a conduit trench occurred over two days. The Area of Potential Effect is located in the northeastern portion of the Alamo grounds, close to the intersection of E. Houston and Bonham Streets. The review of previous archaeological investigations indicated that the project area fell within a portion of the grounds that has not been previously investigated. In addition, a review of the historic Sanborn Fire Insurance Maps reveals that the majority of this portion of the Alamo grounds was undeveloped for many years. The exception being the bowling alley noted on the 1911-1924 map.

During the monitoring, no significant cultural deposits were encountered. No artifacts were collected during the project. Because of the variance obtained by the electrical contractor to permit shallow conduit installation, the conduit trench excavation did not reach below the landscaping matrix. The excavation of the three post holes only penetrated to the base of the existing fill overlying the undisturbed clay loam found within the Alamo complex, therefore, the post holes did not impact undisturbed deposits.

Based on the monitoring of these construction activities, it is the CAR's conclusion that none of the construction tasks associated with these improvements impacted intact and/or significant deposits. However, further investigations are recommended for future construction activities that may occur throughout the Alamo grounds.

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