

Archaeological Survey of Leander Independent School District's Palmera Bluff Elementary School Site Project, Williamson County, Texas

Principal Investigator: Laura I. Acuña, M.A.

Author: C. Russ Shortes

Texas Antiquities Permit No. 8308

April 2018

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Atkins Project No. 100058546

April 2018

Management Summary

Project Name: LISD's Palmera Bluff Elementary School Site, Williamson County, Texas

Atkins Project No.: 100058546

Agency Permit: Texas Antiquities Permit No. 8308

Sponsor: Leander Independent School District

Project Location: Williamson County, Texas

Type of Investigation: Intensive Cultural Resources Survey

Regulatory Trigger: Antiquities Code of Texas

Principal Investigator: Laura I. Acuña

Crew Members: Sara K. Bodah, R. Benjamin Lee, C. Russ Shortes

Date(s) of Work: 2/8/2018

Person-Days: 2

Area Surveyed (acres): 18.1

Newly Recorded Sites: 0

Revisited Sites: 41WM1113

Curation: Center for Archaeological Studies at Texas State University

Comments: Atkins determined there are no significant cultural resources within the Area of Potential Effects that are eligible for designation as a State Antiquities Landmark (SAL) or for listing in the National Register of Historic Places (NRHP). Previously recorded site 41WM1113 was not encountered within the project area and no further work is recommended.

Abstract

The Leander Independent School District (LISD) contracted Atkins North America (Atkins) to conduct a cultural resources investigation for the proposed Palmera Bluff Elementary School Site Project in western Williamson County, Texas. The project is located approximately 1 kilometer (km) (0.62 miles) southwest of the intersection of the South Fork of the San Gabriel River and Ronald Reagan Boulevard. The proposed work will consist of clearing and excavation to prepare for the construction of an elementary school and associated ancillary facilities. The following investigations were performed under Texas Antiquities Permit No. 8308 in compliance with the Antiquities Code of Texas (ACT) (Title 9, Chapter 191, Texas Natural Resources Code of 1977) and other appropriate cultural resources legislation and guidelines, as well as those set forth by the Texas Historical Commission (THC) and the Council of Texas Archeologists (CTA). The investigations included a background review and an intensive pedestrian survey. The pedestrian investigations were completed on February 8, 2018. Laura I. Acuña served as Principal Investigator, with C. Russ Shortes serving as Project Archaeologist performing the field work and assisted by Sara K. Bodah and R. Benjamin Lee.

The area of potential effects (APE) is an irregularly shaped project area that measures 18.1 acres (7.3 hectares), with proposed depths of 1.8 meters (m) (6 ft) to account for utilities. The background review determined that previously recorded site 41WM1113 was within the southern portion of the APE. The pedestrian survey revealed that much of the project area has been severely disturbed by frequent land clearing activities, as evidenced by push piles of soil and vegetation debris. The ground surface visibility was approximately 30 to 40 percent, and 11 shovel tests were excavated within the APE. The number of shovel tests within the APE exceeded THC's minimum archaeological survey standards, and all shovel tests were negative for cultural material. Although previously recorded site 41WM1113 is mapped within the APE, the investigations did not encounter any evidence of cultural materials or features related to the site. The land clearing activities have destroyed or eliminated any evidence of the site within the APE.

Based on the findings, Atkins determined there are no significant cultural resources within the APE that are eligible for designation as a State Antiquities Landmark (SAL) or for listing in the National Register of Historic Places (NRHP). The portion of site 41WM1113 within the APE has been destroyed, and thus would not contribute to the overall eligibility of the site for designation as an SAL or listing in the NRHP. Therefore, Atkins recommends no additional cultural resources investigations for the APE. All field forms and photographs generated by this project will be curated at the Center for Archaeological Studies at Texas State University.

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I. Introduction

The Leander Independent School District (LISD) contracted Atkins North America, Inc (Atkins) to conduct a cultural resources investigation for the proposed Palmera Bluff Elementary School Site Project in western Williamson County, Texas. The project is located approximately 1 kilometer (km) (0.62 miles) southwest of the intersection of the South Fork of the San Gabriel River and Ronald Reagan Boulevard (**Figure 1**). The project will consist of developing the area for a proposed elementary school.

The following investigations were performed in compliance with the Antiquities Code of Texas (ACT) (Title 9, Chapter 191, Texas Natural Resources Code of 1977) and other appropriate cultural resources legislation and guidelines, as well as those set forth by the Texas Historical Commission (THC) and the Council of Texas Archeologists (CTA). The goals of the investigation were to locate, describe, document, and assess all existing cultural resources within the proposed project. The investigation included a site records search, a review of historic maps and aerial photographs, and an intensive pedestrian survey. The investigations were conducted under Texas Antiquities Permit No. 8308. The pedestrian investigations were completed on February 8, 2018 consisting of two person-days. Laura I. Acuña served as Principal Investigator, with C. Russ Shortes serving as Project Archaeologist performing the field work and assisted by Sara K. Bodah and R. Ben Lee.

Project Description

The project area is roughly semi-circular, extending 321 meters (m) (1053.15 feet [ft]) by 343 m (1125.33 ft), or 18.1 acres (ac); 7.3 hectares [ha] in size (**Figure 2**). The site will be subjected to clearing and excavation to prepare for the construction of an elementary school and associated ancillary facilities. The depth of impact is expected to be no deeper than 1.8 m (6 ft), a common depth for utilities. The Area of Potential Effects (APE) is an irregularly shaped area that measures 18.1 ac (7.3 ha) with depths down to 1.8 m (6 ft).

Project Setting

The project is situated on the uplands overlooking the South Fork of the San Gabriel. The underlying geology of the APE is mapped as the Keys Valley Marls of the Lower Cretaceous-age Fredericksburg Group (Bureau of Economic Geology [BEG] 1981). The Keys Valley Marls Formation is predominantly unconsolidated clay, limestone, mudstone, and chert (BEG 1981). Soils within the APE are mapped as Georgetown stony clay loam with 1 to 3 percent slopes. The Georgetown series is an upland soil consisting of moderately deep, well-drained, and slowly permeable soils that have formed over Cretaceous-era indurated limestone (United States Department of Agriculture, National Resources Conservation Service [USDA, NRCS] 2018). These Holocene-age soils are typically dark brown (7.5YR 4/2) clay loam about 18 centimeters (cm) (7 inches [in]) in thickness and overlying reddish brown (5YR 4/3) clay subsoil.

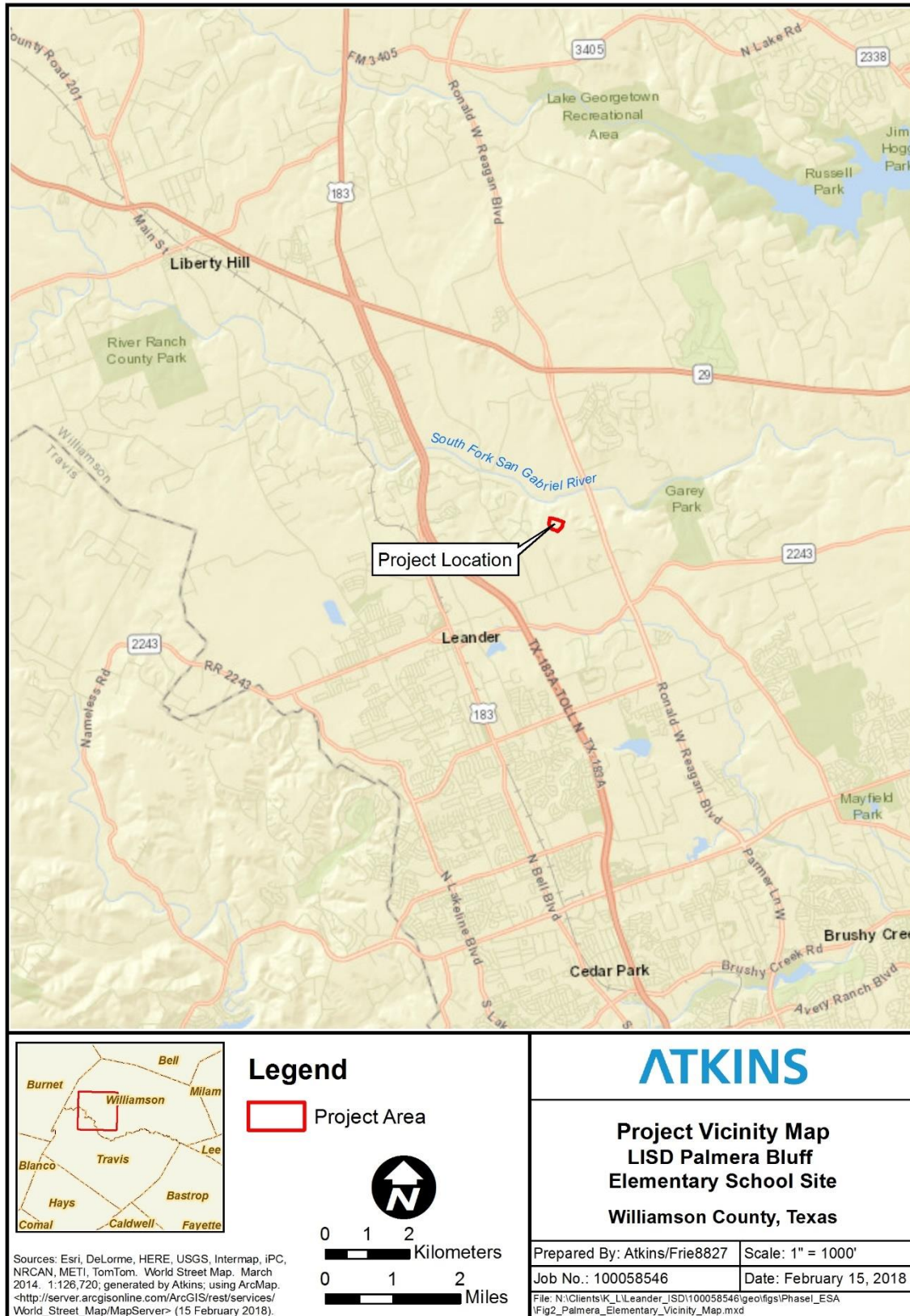


Figure 1. Project vicinity map.

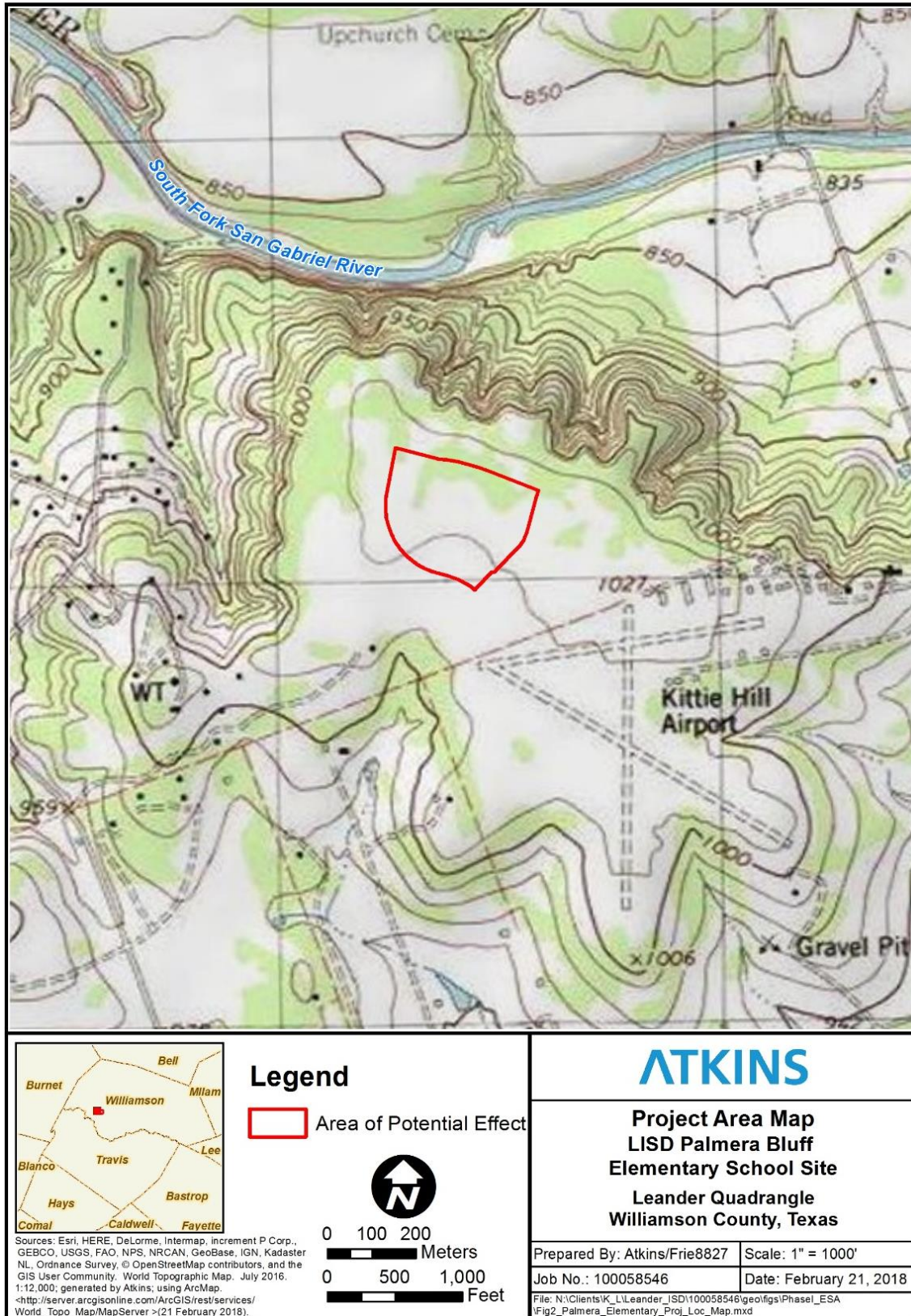


Figure 2. Project area map.

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II. Cultural Context

The project is located in the southwestern portion of Williamson County. Due to the project setting and results, the following cultural background will focus on the prehistoric context of the region. Williamson County is located in the Central and Southern Archeological Planning Region of Texas (Mercado Allinger et al. 1996). According to previous research, the cultural developments in this region are generally divided into four primary chronological and developmental stages: Paleoindian, Archaic, Late Prehistoric, and Historic. Changes in material culture over time have been used as indicators of these four temporal periods. A generally accepted theory for the changes observed in material culture is that behavioral and social adaptations occurred in response to changes in the environment/food resources (Binford 1979).

The earliest occupations documented for this area date to the Paleoindian period (prior to 10000 to about 6000 B.C.). This period coincides with the decline of the Wisconsin glaciation and is characterized by a relatively cool and moist climate. Paleoindian populations formed small groups of transient hunters whose lifeways revolved around the exploitation of now-extinct Pleistocene megafauna such as mammoth and mastodon, as well as camel and bison. In regions outside of the Great Plains including Texas, big game hunting was most likely supplemented by the exploitation of plants and other food resources including marine and freshwater food sources and smaller game.

The distinctive toolkit of the Paleoindian period includes finely chipped and sometimes fluted lanceolate-shaped projectile points. The most prominent identified projectile point types that are typically recognized include (in chronological order): Clovis, Folsom, Plainview, Golondrina, Scottsbluff, and Angostura (Black 1989). Evidence for Paleoindian occupations have primarily been found as ephemeral surface finds, with few recorded intact sites investigated in this region. The lack of subsurface site identification is due to Paleoindian site deposits located within various deep alluvial settings that are difficult to locate and study. While most sites from this time period have been found on the surface, at least three Paleoindian sites in the central Texas area have been recorded and investigated; these include the Kincaid Rockshelter in Uvalde County (Collins 1988), the Levi site in Travis County (Alexander 1963), and the Wilson-Leonard site in Williamson County (Collins 1998).

At the end of the Paleoindian period, however, the archaeological record exhibits evidence of a diversification of subsistence patterns that marks the beginning of a long and complex chronological period referred to as the Archaic period (6000 B.C. to 800 A.D.) (Hester et al. 1989). The Archaic period is commonly divided into three or more subdivisions, most often designated as Early (6000 to 3000 B.C.), Middle (3000 to 1000 B.C.), and Late (1000 B.C. to 800 A.D.). Archaic period cultures are generally characterized as having a more diversified resource base than earlier groups, with subsistence dependent on hunting smaller/modern species of game, including deer and rabbit, and gathering edible roots, nuts, and fruits (Black 1989). Common site types include rockshelters, campsites, lookout sites, and quarry sites. These sites are usually located near a water source.

Early Archaic material culture contain many characteristics of the material culture from the preceding Paleoindian period such as lateral edge grinding; therefore, the Early Archaic is sometimes viewed as a transitional phase between the Paleoindian and the Archaic periods. Early Archaic central Texas artifact forms have been found outside of central Texas; the variety of well-crafted projectile point types distributed over a large area has prompted Prewitt (1981) to suggest that these people were organized in small, dispersed populations that moved across broad territories.

The Middle Archaic can be subdivided into early (Clear Fork) and late (Round Rock) intervals. Nolan and Travis projectile point types are indicative of the Clear Fork interval, and the Round Rock interval is marked by Pedernales, Marshall, and Langtry point types. The burned rock midden site type becomes extremely common during this period, suggesting an intense and perhaps rather specialized plant-processing economy (Black 1989). Weir (1974) has also suggested that an increase in population and possible developments in social organization occurred during this period. An increase in quantity and frequency of projectile points at some sites are found during the Middle Archaic period. Morphologically, the projectile points tend to be large and straight stemmed and are often more expedient compared to points from earlier or later periods.

By the beginning of the Late Archaic there was an increase in the diversity and geographic range of projectile point types found in this region. Diagnostic projectile point types from the early part of the Late Archaic include the Bulverde and Pedernales types. Later in the period, the Darl, Ensor, Frio, and Mahomet point types were used more frequently.

Terraces remained the primary locations for sites during this period; however, rockshelters were a more common site type than in previous periods, and the frequency of burned rock middens decreased. Prewitt (1981) has suggested that the proliferation of projectile point types may represent a return to the Early Archaic pattern of small, dispersed bands whose seasonal rounds encompassed larger geographic areas. The latter part of the Late Archaic indicates populations utilized a wider variety of food resources, suggesting that changes in population or food resources, and/or climatic stress might have occurred.

The Late Prehistoric period (800 to 1600 A.D.) is marked by the introduction of several technological advances, most notably the bow and arrow and ceramics. The bow and arrow quickly became the standard weapon, replacing the throwing stick (atlatl), and small, thin arrow points became a diagnostic tool for this time period. After the adoption of the bow and arrow, plainware ceramics were introduced into the area; this development probably came from agricultural groups to the east or northeast. Indications of possible major population movements, changes in settlement patterns, and perhaps lower population densities occur during the Late Prehistoric period (Black 1989).

The early Historic period (after 1600 A.D.) begins with European contact and settlement. During this time, the area was inhabited by numerous aboriginal groups including the Jumano, Tonkawa, Lipan Apache, and Comanche (Newcomb 1961). The Jumano initiated extensive trading activities with the Caddo in East Texas and Trans-Pecos groups to the west (Suhm 1958). The Tonkawa, originally in Oklahoma, were one of many native peoples displaced in the second half of the

nineteenth century by the horse-using Apache and forced to move south and southwest (Newcomb and Campbell 1982). During the early part of the nineteenth century, the Tonkawa, represented by a consolidation of remnants of diverse bands, occupied an area between the Trinity and San Antonio Rivers (Gatschet 1891; Newcomb 1961; Sibley 1922; Sjoberg 1953). The Lipan Apache and Comanche entered the area from the Plains in pursuit of food. Their weapons included the bow and arrow and lance. Trade items such as glass beads, European-made ceramics, gun parts, and metal arrow points indicate contact-period occupations.

Anglo settlement in the area of Williamson County began in the 1830s (Odintz 2010). These occupations were frequently harassed up until the 1860s by the Comanches, who had arrived in the region in the eighteenth century. During the 1830s and 1840s, various forts and military posts were established, which eased most of the native hostilities after 1846. The influx of settlers into the area produced a population of roughly 250 people by 1848, at which time Williamson County was created from the western portion of Milam County, with its county seat established at Georgetown (Odintz 2010). Prior to the Civil War, Williamson County was growing in population and focused primarily on agricultural communities. Following the war, property values dropped significantly. This trend was reversed in the 1870s by both the increase of the livestock industries and the farming of cotton. While the cotton industry began to decline following the Great Depression, the production of wool and mohair increased significantly, reaching production highs in the 1950s (Odintz 2010).

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III. Methods of Investigation

The primary goals of this investigation were to (1) locate any cultural resources that may exist within the APE; (2) assess their potential for State Antiquities Landmark (SAL) and/or National Register of Historic Places (NRHP) eligibility; (3) assess the effect of the proposed construction on the located resources; and (4) provide site-specific recommendations for mitigation of adverse impact to any SAL or NRHP-eligible properties or properties of unknown eligibility.

Background Review

Atkins archaeologists conducted a preliminary cultural resources background review of the area within 1 km (0.62 miles) of the APE utilizing available records and literature at the Texas Archeological Research Laboratory (TARL), J.J. Pickle Research Campus at The University of Texas at Austin, with the purpose of determining the location of previously recorded archaeological sites (sites issued a trinomial/recorded at TARL). The THC's online Restricted Archeological Sites Atlas files were also used to identify NRHP-eligible and -listed properties and sites, NRHP districts, cemeteries (including Historic Texas Cemeteries [HTC]), Official Texas Historical Markers (OTHM) (including Recorded Texas Historic Landmarks [RTHL]), SALs, as well as any other potential cultural resources such as National Historic Landmarks (NHLs), National Monuments, National Memorials, National Historic Sites, and National Historical Parks. As a secondary source of NRHP-listed properties and NHLs, the National Park Service's (NPS) NRHP database and GIS Spatial Data, as well as the NHL Program, were consulted. Additionally, historic aerial photographs and topographic maps were utilized to review the historic development of the project area.

Field Investigations

Atkins archaeologists conducted an intensive archaeological survey of the proposed project area that was of sufficient intensity to determine the nature, extent, and, if possible, significance of any cultural resources located within the APE. The survey followed the minimum archaeological survey standards for such projects as set forth by the THC and the CTA. Atkins thoroughly documented any exceptions. The archaeological field crews judgmentally employed shovel testing to probe for subsurface cultural materials, and visually inspected the ground surface.

Shovel tests were excavated in 10-cm (3.9-inch) arbitrary levels to a 100-cm (39.4-in) depth or to pre-Holocene deposits, whichever was encountered first. The soil matrix was screened through ¼-inch mesh, unless it was dominated by clay; clay soils were hand sorted and visually inspected for the presence of cultural materials. Atkins plotted each shovel test location using a submeter GPS receiver, and recorded each test on appropriate project field forms. The THC's minimum archaeological survey standards require one shovel test per every two acres for a project area between 11 and 100 ac (4.5 and 40.5 ha) in size, or in this case nine shovel tests. Shovel tests were typically excavated at 100-m (328-ft) intervals along transects spaced 30 m (98.4 ft) apart. Shovel testing frequency varied depending on the nature of the disturbances and soils. Areas

determined in the field to be sufficiently deflated, disturbed, and/or contaminated as to not require shovel testing were documented and explained.

During the survey, all located cultural resources were to be fully delineated within the APE. Sites were to be defined by a minimum of six shovel tests except in areas where ground surface visibility was greater than 30 percent or where precluded by soil conditions, disturbances, or project boundaries. Site boundaries were to be delineated within the APE by two negative shovel tests for each positive shovel test, not to exceed 15 m (50 ft), in radial directions or following a distinct landform within the constraints of the project boundaries. Site features, settings, and representative cultural materials were to be photographed, mapped, and marked with a GPS device. A detailed plan map of each site was to be produced using standard techniques, and features and site boundaries to be documented using a submeter GPS receiver. A State of Texas Archeological Site Form was filled out for the previously recorded site mapped within the APE.

Atkins proposed a diagnostic-only collection survey. Only artifacts such as projectile points, historic artifacts with maker's marks or other definitive characteristics, or other unusual artifacts were to be collected during the survey efforts. Any artifacts such as common lithic debitage, historic-age trash, or burned rocks were to be photographed, tabulated, analyzed, and documented in the field, but not collected.

Analysis and Curation

Immediately following the completion of fieldwork, all paperwork was transported to Atkins' in-house laboratory for processing. As required by the ACT, Atkins will submit project documentation to the Center for Archaeological Studies (CAS) at Texas State University after THC has accepted the draft report.

IV. Results

Background Review

The literature review determined that a southeastern portion of the APE was previously surveyed, and one previously recorded site (41WM1113) is within the APE boundaries. In addition, the review identified eight previously recorded archaeological sites (41WM28, 41WM104, 41WM105, 41WM106, 41WM107, 41WM1115, 41WM1277, and 41WM1320) and one cemetery (Upchurch Cemetery WM-C041) within a 1-km (0.62-mile) radius of the project (Texas Archeological Sites Atlas [Atlas] 2018).

The southeastern portion of the APE was previously surveyed in 2005 during the proposed County Road (CR) 274 Extension Project conducted by Archaeological and Cultural Sciences Group (Nash 2005). The extension project was 36.5 m (120 ft) wide and 4.4 km (2.76 mile) long, and several sites were recorded during the investigations, including site 41WM1113 and 41WM1115 (discussed below). Site 41WM1113 is located within the southeastern portion of the current APE. The site is a surficial prehistoric quarry site of about a dozen flakes, two biface fragments, and several possible tested cobbles (Nash 2005). Based on the findings, the investigations determined that the site was not eligible for listing in the NRHP and no further work was recommended (Nash 2005). The site was determined ineligible for inclusion in the NRHP by the THC (Atlas 2018).

Eight previously recorded sites, one cemetery, and several previously conducted surveys are within a 1-km (0.6-mile) radius of the project area. Most of the sites are located north of the project area along the South Fork of the San Gabriel River. Site 41WM28, located 0.98 km (0.61 miles) northwest of the project and recorded on private property in 1961, is a burned rock midden with an undetermined eligibility for listing in the NRHP (Atlas 2018). Sites 41WM104, 41WM105, 41WM106, and 41WM107 are approximately 0.53 km (0.33 miles) north of the project area and were recorded in 1963 during the San Gabriel Reservoir project (Atlas 2018). Site 41WM104 is a surface scatter of prehistoric artifacts including three pottery sherds and several lithic tools. The site was revisited in 2002 during a Parmer Lane expansion project and again in 2014 for the Ronald Reagan Boulevard Main Pipeline extension project (Nash and Staples 2002; Perrine and Treichel 2014). The site was determined ineligible for listing in the NRHP by the THC (Atlas 2018). Site 41WM105 was recorded as a prehistoric lithic and burned rock scatter with a twentieth-century historic artifact scatter. The site boundaries were expanded to include site 41WM1277 (description below) after a site revisit in 2015 during the Bar W Ranch private development survey (Atlas 2018). Based on the site form, 41WM105 was recommended as not eligible for listing in the NRHP and no further work was recommended (Atlas 2018). Sites 41WM106 and 41WM107 are burned rock middens and their NRHP eligibility is listed as undetermined on the Atlas (2018).

Site 41WM1115 was also recorded in 2005 during the CR 274 expansion project and is located approximately 0.89 km (0.55 miles) southwest of the project area. The site consists of an 1899 Victorian-style house built in Leander and moved to the property in 1975 (Nash 2005). A second

house moved to the property in the same year serves as an outbuilding (Atlas 2018). The site was determined ineligible for listing in the NRHP by the THC (Atlas 2018). Site 41WM1277 was initially recorded in 2014 during a survey for the Leander Municipal Utility District No. 3 Wastewater Treatment Plant (Owens 2014). The multicomponent site consists of prehistoric artifact scatter with burned rocks and a sparse early to mid-twentieth-century artifact scatter. The site was revisited in 2015 during the Bar W Ranch private development survey investigations and incorporated into the site boundaries of 41WM105, and was determined not eligible for listing in the NRHP (Atlas 2018). Site 41WM1320 was also recorded during the 2015 Bar W Ranch private development survey (Atlas 2018). The site consists of a historic-age, dry-stacked, limestone rock wall measuring approximately 490 m (1,607 ft) long east–west by roughly 0.6 m (2 ft) in width. Based on the site form, the site was recommended as not eligible for listing in the NRHP and no further work was recommended (Atlas 2018).

Upchurch Cemetery (WM C0-41) is located approximately 1 km (0.60 miles) north of the project area and adjacent to 41WM105. The cemetery was recorded as a European-American cemetery with marked burials dating from 1860 to 1900 (Perrine and Treichel 2014).

In addition, several previously conducted cultural resources investigations lie within 1 km (0.6 miles) of the proposed project area. In 1965, the United States of America Corps of Engineers surveyed the South Fork of the San Gabriel. Although no further information about the survey was identified, the investigation is likely part of the San Gabriel Reservoir project that recorded numerous sites along the South Fork of the San Gabriel River, including sites 41WM104–41WM107 north of the project area. In 2002, the Archaeological and Cultural Sciences Group conducted a survey of a proposed extension of Parmer Lane (roughly now Ronald Reagan Boulevard). The survey revisited site 41WM104 (Nash and Staples 2002).

In 2014, Horizon Environmental Services, Inc. (Horizon) was selected by the engineering firm of Carlson, Brigance & Doering, Inc. (CBD) on behalf of Leander Municipal Utility District (MUD) No. 3 to conduct a cultural resources inventory survey and assessment for the proposed development of a 4.3-hectare (10.7-acre) wastewater treatment plant. The survey resulted in the recording of a previously unknown archaeological site, 41WM1277 (Owens 2014). Also in 2014, HRA Gray & Pape, LLC, conducted a survey of approximately 6 miles of a proposed main pipeline extension along Ronald Reagan Boulevard. The survey revisited six previously recorded archaeological sites including 41WM104 and 41WM1113 (Perrine and Treichel 2014).

Field Investigations

Atkins archaeologists conducted a 100 percent pedestrian survey of the APE on February 8, 2018 (**Figure 3**). At the time of the survey, the majority of the project area was vegetated primarily by pasture grasses, prickly pears, live oak trees, and juniper (**Figure 4**). A majority of the project area showed signs of recent and past clearing activities of extensive vegetation. Aerial imagery from 1962 indicates the land was likely dedicated to agricultural activities, primarily animal grazing (NETR Online 2018). The area was revegetated over time and was cleared again sometime after 2012 (NETR Online 2018). Signs of more recent clearing could be seen within and outside the project area in the form of mounded soil and dead vegetation (**Figures 5 and 6**). The repeated

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Figure 3. Shovel test map.



Figure 4. Project overview from southeastern edge of APE, facing northwest.



Figure 5. Overview of push pile located near shovel test RL04, facing east.



Figure 6. Overview of push pile located near the central northern edge of APE, facing west.

clearing of this area likely contributed to the deflation of the already shallow soil. Ground surface visibility was 5 percent due to thick grasses within the APE.

In total, eleven shovel tests were placed within the APE in areas where soils appeared to exist and surface visibility was low. Shovel testing revealed shallow, disturbed, unconsolidated clay with chert and other stone cobbles. The tests were generally shallow, 10 cm or less, but a few reached 40 cm. Several cobbles within the soil showed signs of fracturing due to machine clearing. All of the shovel tests proved negative for cultural materials (Appendix A). The THC's minimum archaeological survey standards require nine shovel tests for a project this size, and investigations exceeded the required number by two.

The background review identified a portion of site 41WM1113 within the southern portion of the APE (**see Figure 3**). The size of the site, as determined from TARL maps and the Atlas, in the project area is approximately 80 m (262.46 ft) by 36 m (118.11 ft). An intensive surface inspection of the area was conducted and three shovel tests were placed within the recorded site boundaries. However, no signs of cultural material or features were located. The extensive land clearing activities conducted within the parcel have likely removed all evidence of the site. Due to the lack of cultural materials, Atkins determined that the portion of site 41WM1113 within the APE has been destroyed. The portion of the site within the APE does not have any cultural materials, and thus, significance to contribute to the overall eligibility of the site for designation as an SAL or for listing in the NRHP. Based on the findings, no further work is recommended for the APE.

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V. Summary and Recommendations

On behalf of LISD, Atkins completed cultural resource investigations of the Palmera Bluff Elementary School Site Project in Williamson County, Texas. The work included a background review and an intensive pedestrian survey of the 18.1-acre (7.3-ha) APE. The work was completed in compliance with the Antiquities Code of Texas under Texas Antiquities Permit No. 8308, under Principal Investigator Laura I. Acuña.

The background review determined that previously recorded site 41WM1113 was within the southern portion of the APE. The pedestrian survey revealed that much of the project area has been severely disturbed by frequent land clearing activities, as evidenced by push piles of soil and vegetation debris. The ground surface visibility was approximately 30 to 40 percent, and 11 shovel tests were excavated within the APE. The number of shovel tests within the APE exceeded the THC's minimum archaeological survey standards, and all shovel tests were negative for cultural material. Although previously recorded site 41WM1113 is mapped within the APE, the investigations did not encounter any evidence of cultural materials or features related to the site. Three shovel tests were excavated within site boundaries and all were negative for cultural materials. The land clearing activities have destroyed or eliminated any evidence of the site within the APE.

Based on the findings, Atkins determined there are no significant cultural resources within the APE that are eligible for designation as an SAL or for listing in the NRHP. Therefore, Atkins recommends no additional cultural resources investigations for the APE. If evidence of previously undiscovered cultural remains is encountered during the construction of the proposed project, it is recommended that the discovery be evaluated by a qualified archaeologist who can provide recommendations on how to proceed in accordance with federal and state regulations. All field forms and photographs generated by this project will be curated at CAS.

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Appendix A. Project Shovel Test Data

Shovel Test #	Trinomial	Level	Depth (cmbs)	P=Pos N=Neg	Munsell Soil Color	Soil Texture	Description/Comments
SB01		1	0-5	N	10YR3/1	Clay	Abundant cobbles
SB02		1	0-10	N	10YR3/1	Clay	Abundant cobbles
SB03		2	0-20	N	10YR3/1	Clay	Abundant cobbles
SB04	41WM1113	4	0-35	N	10YR3/1	Clay	Ended at compact clay
SB05		1	0-5	N	10YR3/1	Clay	Ended at compact clay
SB06	41WM1113	4	0-40	N	10YR3/1	Clay	Ended at compact clay
RL01		1	0-2	N	10YR3/1	Clay	Abundant cobbles
RL02		1	0-10	N	10YR3/1	Clay	Abundant cobbles
RL03		2	0-25	N	10YR3/1	Clay	Abundant cobbles
RL04	41WM1113	4	0-40	N	10YR3/1	Clay	Abundant cobbles

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