Volume 2017 Article 203

2017

Report On The Cultural Resource Investigations For The Abilene Regional Airport, Taylor County, Texas

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REPORT ON THE CULTURAL RESOURCE INVESTIGATIONS FOR THE ABILENE REGIONAL AIRPORT, TAYLOR COUNTY, TEXAS

Written by:
Gregg Cestaro, Elizabeth Porterfield, and Josh Haefner

ACT Permit #7911

Submitted to:
Garver Engineering, City of Abilene, Abilene Regional Airport
&
The Texas Historical Commission

Hicks & Company Archeology Series #285

March 2017

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INTRODUCTION AND MANAGEMENT SUMMARY

Pursuant to the Texas Historical Commission's (THC's) recommendation regarding the City of Abilene's compliance responsibilities for the Abilene Regional Airport (**Attachment A:** letter, William Martin to Ryan Mountain, October 21, 2016), Hicks & Company archeologists, working on behalf of the City of Abilene (the City), conducted a 100-percent archeology survey for the proposed Abilene Regional Airport located along State Highway 322 and Navajo Circle (**Figure 1**). A Hicks & Company historian also conducted a desktop review of previously identified or designated historic resources and a National Register of Historic Places (NRHP) evaluation of existing historic-age resources within the project area encountered during the archeological survey as the project falls under the purview of Section 106 due to involvement with the Federal Aviation Authority.

The proposed project will consist of the development of approximately 52 acres of land to expand current airport facilities. Associated impacts include building and foundation construction, utility installation, and at-grade paving. During initial review of potential impacts, the THC noted that the proposed project is located in a setting with good probability to contain archeological deposits, recommending archeological survey for the entire 52-acre area of potential effects (APE).

Investigations were conducted under Antiquities Code of Texas (ACT) Permit #7911 in accordance with the THC and the Council of Texas Archeologists (CTA) guidelines for intensive linear surveys with archeologists from Hicks & Company surveying 100 percent of the proposed APE on foot in transects spaced 30 meters apart. During survey, a total of 30 shovel tests were excavated and one new archeological site, Site 41TA358, was recorded. Due to a lack of chronological or cultural diagnostics, stratigraphic separation, the lack of testable or research components that would add valuable data to the archeological record, and a small assemblage size, Site 41TA358 is recommended as being not eligible for listing as a State Antiquities Landmarks (SAL) according to criteria listed in 13 TAC 26.12 or for listing with the NRHP.

During the field survey, three historic-age resources were surveyed within the immediate project area and nine additional resources were surveyed within parcels adjacent to the APE. The resources were photo-documented and evaluated for significance and integrity. With the exception of a single resource none are recommended eligible for listing in the NRHP. One resource, a historic-age hangar, appears to be architecturally significant and to have retained integrity of design, materials, workmanship, feeling, and association. It is therefore recommended potentially eligible for listing in the NRHP under Criteria A and C, for its association with the 1950s development of the Abilene Municipal Airport and as an intact example of a mid-twentieth century airport hangar. This resource is located approximately 0.12 kilometers (0.07 miles) from the proposed project area and will not be directly impacted by the

proposed improvements. The proposed project is therefore anticipated to have no effects to historic resources

Based on the results of the current survey, it is recommended that no archeological or historic resources (36 CFR 800.16(1)) or SALs (13 TAC 26.12) will be affected by the proposed project and no further archeological investigations are recommended prior to construction.

Fieldwork for the archeological survey was conducted on February 16, 2017, requiring approximately eighteen field hours to complete. Josh Haefner served as Principal Investigator for the project while Gregg Cestaro served as Project Archeologist. Gregg Cestaro and Josh Haefner conducted the survey. Elizabeth Porterfield, Gregg Cestaro, and Josh Haefner authored the report. Subsequent sections of this report include environmental and cultural backgrounds with a brief discussion of previous surveys and recorded sites, a description of field methodology, and a discussion of the results of the field investigation. This is followed by a conclusion containing formal regulatory recommendations. Also, included as **Appendix A** are locations of shovel tests and Site 41TA358. All project-generated notes, forms, and photographs will be curated at the Center for Archeological Studies Laboratory (CAS) in San Marcos, Texas. This report is offered in partial fulfillment of ACT Permit #7911.

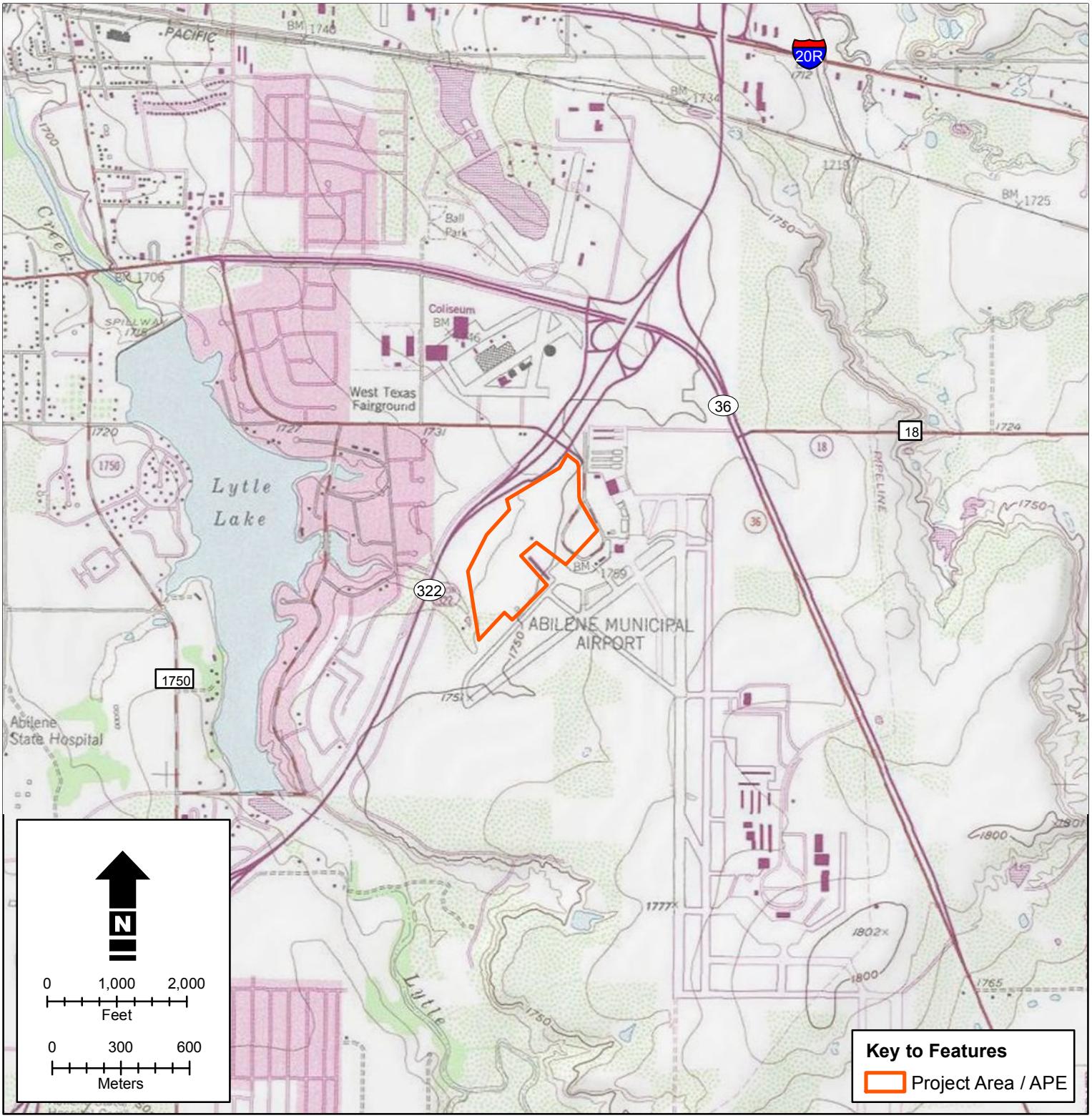
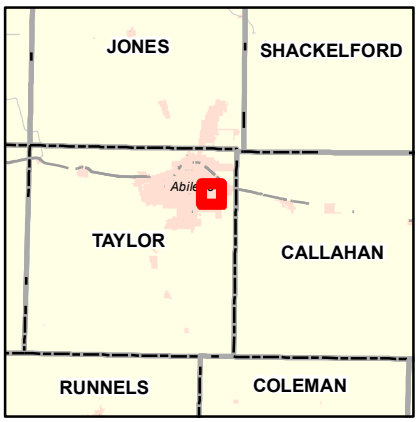


Figure 1
Project Area / APE

City of Abilene Regional Airport

USGS 7.5-minute Topographic Quadrangles:
Abilene East (USGS# 32099-D6), TX



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ENVIRONMENTAL BACKGROUND

Physiography

According to the Bureau of Economic Geology, the proposed project area is located in the North Central Plains region of Texas (BEG 1987). This area is a heavily eroded surface of the Upper Paleozoic and is characterized by meandering rivers that have eroded softer shales and sandstones, creating gently rolling hills and plains. In areas of sandstone and limestone, erosion has created steep slopes and severely dissected riverine edges. The North Central Plains rise in elevation from 900 feet to 3,000 feet above sea level. Flora for the area transitions from mesquite and lotebush in the west to oak, ash, and juniper stands in the east.

Geology

According to the Geologic Atlas of Texas, Abilene Sheet, the underlying geology of the Clear Fork Group (Pcf) within the proposed project area consists entirely of deep sedimentary deposits, undivided (BEG 1987) (**Figure 2**). This formation is comprised of mudstone, siltstone, sandstone, dolomite, limestone, and gypsum. The upper geology is commonly silty, with brownish-red and gray coloration. Silts occur in units one to three foot thick throughout, with locally dolomitic examples in the upper part of the unit. Reddish-brown, fine-grained sands are locally conglomeratic, crossbedded, lenticular, or thin-bedded as channel fill. Dolomite is present in units two inches to one foot thick mostly in the upper third of the Clear Fork Group. Gray limestone is present in thin discontinuous beds in the lower part. Gypsum and alabaster are present as thin lenses and veins in the uppermost part. Dating to the Permian, cultural deposits in such areas are more likely to be contained within overlying soils/sediment or on the surface itself.

Soils

According to the United States Department of Agriculture's Web Soil Survey for Taylor County, accessed on February 22, 2017, the proposed project is located within an area mapped as Valera silty clay, zero to one percent slopes, and Tobasa clay, zero to one percent slopes (**Figure 2**). Described as alluvium derived from limestone located on upland plains, the latter is noted by Abbott (2013) to possess low geoarcheological potential at any depth. Valera soils are described as located on footslopes and formed in clayey slope alluvium derived from limestone of Cretaceous age (USDA NRCS 2016). In typical pedon, fractured indurated limestone bedrock is encountered from 91 to 116 centimeters below ground surface. This series is unlikely to possess good geoarcheological potential at depths greater than a meter.

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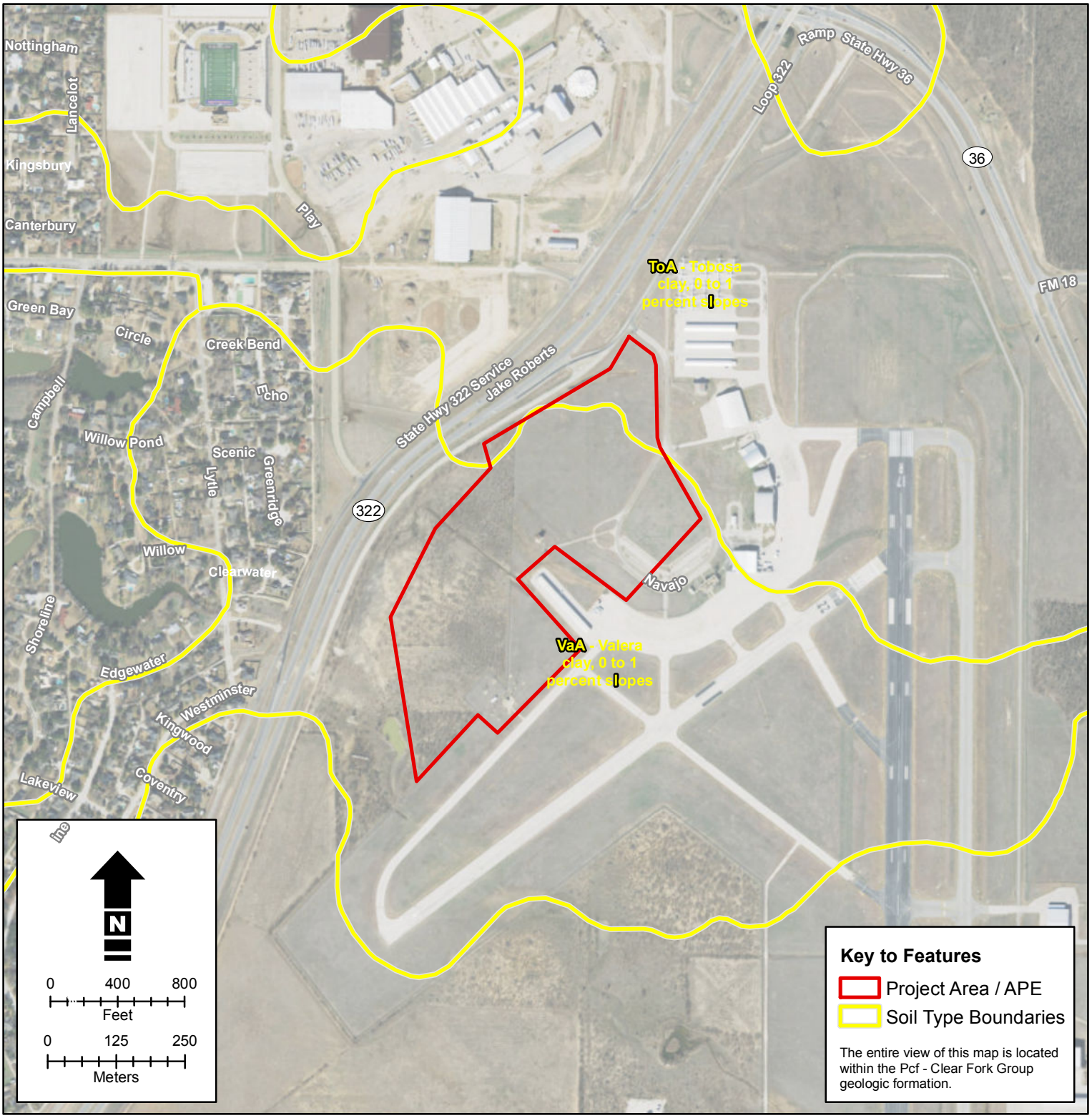


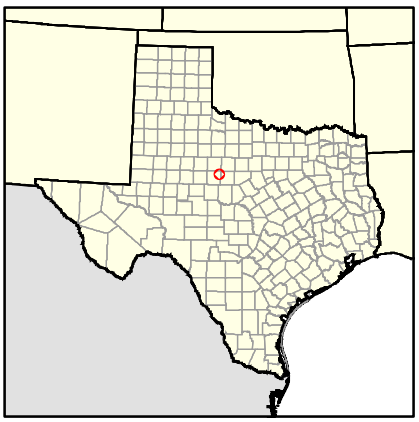
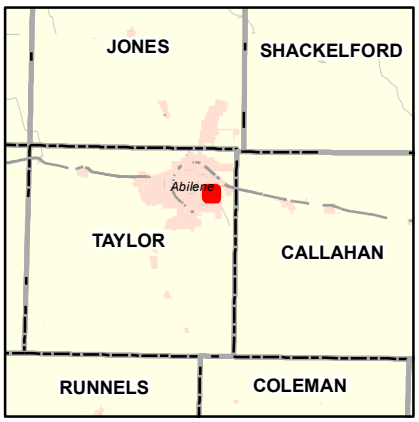


Figure 2
Soils and Geology
City of Abilene Regional Airport



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CULTURAL BACKGROUND

The project area lies within the northwestern reach of the North-Central Texas culture area as defined by Suhm et al. (1954). Generally, the cultural chronology of the area follows that proposed by Prikryl (1990): Paleoindian (8,500 years before present [B.P.]); Early Archaic (ca. 8,500–6,000 B.P.); Middle Archaic (ca. 6,000–3,500 B.P.); Late Archaic (ca. 3,500–1,250 B.P.); Late Prehistoric I (ca. 1,250–750 B.P.); Late Prehistoric II (750–250 B.P.); Protohistoric (A.D. 1,600–1,800); and Late Historic (A.D. 1,800–Present).

Paleoindian Period (Prior to 8,500 B.P.)

While there is considerable evidence for a Paleoindian presence in the North-Central Texas area, most of this evidence comes in the form of mixed artifact assemblages in surface contexts, limiting the information that can be gleaned for this time period (Meltzer 1987). Projectile points of Plainview and Dalton varieties occur with the most frequency, and their association suggests that the area was a borderland where Plainview occupations from the Rolling and High Plains interfaced with the Dalton culture from areas east (Johnson 1987). Due to mixed contexts, site dating has been done by cross referencing projectile points with same types from other, more controlled, sites. Cross dating of the Plainview and Dalton varieties date Paleoindian occupations to ca. 9,500–10,000 B.P. (Ferring and Yates 1997:5).

The oldest dated site within the North-Central Texas region, with a highly suspect age of 37,000 B.P., is the Lewisville Site. While claims that the site is in situ may be accurate, critiques cite lack of diagnostic artifacts (n=1) and erroneous radiocarbon dating due to lignite contamination as valid reasons to question claims to the site's antiquity (Stanford 1982).

More recent investigations at the Aubrey Clovis Site (Ferring 1989a, 1989b, 1990, 1995), located north of Lake Lewisville and west of Elm Fork, has added a significant amount to what is known of regional Clovis occupations. The site is approximately seven to eight meters below the top of the Elm Fork floodplain. While the Lewisville Site assemblage consisted of more than a handful of artifacts, recovered tool and debitage samples at Aubrey number over 10,000 (Ferring 1989a). All of the lithic materials at the Aubrey Site are non-local and indicative of long-distance trade. Analysis of this assemblage indicates that a curated technological organization coupled with intensive tool utilization was practiced (Ferring 1989a, 1989b). Faunal analysis suggests that there was variable exploitation of small, medium, and large game including bison, deer, rabbit, squirrel, fish, and turtle. Additionally, mammoth remains have been unearthed at Aubrey, although it is not clear if these animals are associated with subsistence practices.

Early Archaic (ca. 8,500–6,000 B.P.)

The vast majority of Early Archaic sites in the region are surface sites recorded in the Trinity River Basin and are recognized by the presence of Angostura, Early Split Stemmed, and Kirk projectile points as well as Clear Fork gouges (Byers 2007; Story 1990). In situ sites currently on record are limited to Lake Lewisville, which has an Early Archaic component as well as Paleoindian and Middle Archaic components (Ferring and Yates 1997). Early Archaic components have been recovered during excavations at the Aubrey Clovis Site. Ferring, however, has questioned their context (Ferring 1989a).

With little in the way of isolatable sites in the region, Early Archaic lifeways are hard to define for North-Central Texas. Generally, it is hypothesized that diffused hunting and gathering subsistence economies were practiced (Prikryl 1990; Ferring and Yates 1997).

Middle Archaic (ca. 6,000–3,500 B.P.)

The Calvert Site (41DN102) at Lake Ray Roberts is the only known buried *in situ* site that has a definitive association with the Middle Archaic period (Byers 2007). Associated with this site were a rock-filled hearth, a flexed burial of an adult male, and an unmixed assemblage of fauna and artifacts. Projectile points associated regionally with the Middle Archaic are Frio, Trinity, Carrolton, Wells, and the basal-notched Bell and Calf Creek types. These points are often used to date surface sites (Prikryl 1990). Prikryl (1990:71-74) notes that within the middle Elm Fork Trinity Valley there is a noticeable paucity in Middle Archaic sites when compared to other time periods. Prikryl (1990) attributes this to the altithermal, while Ferring and Yates (1997) note that in addition to dry climate and associated reduced occupation potential, existing sites may be deeply buried.

Late Archaic (ca. 3,500–1,250 B.P.)

In stark contrast to the Middle Archaic, sites dating to the Late Archaic are "by far the most common in the archaeological record" for North-Central Texas (Ferring and Yates 1997:6). Prikryl (1990) notes that regional surface collections contain between two to three times the amount of Late Archaic point types than points from other archeological periods. When compared to the Middle Archaic, the ratio increases to just over 60:1 (Prikryl 1990:52-53).

While Ferring and Yates (1997) note that regional buried Late Archaic sites are generally shallow and easily detected, they suggest that this alone cannot account for their numbers in the archeological record and posit an increase in population density. Story (1981) offers that this

population increase is the result of a shift in exploitation strategies, reduced mobility, and a climate shift back to more mesic conditions.

Late Prehistoric I (ca. 1,250–750 B.P.)

During the Late Prehistoric I period, new technologies included the bow and arrow and ceramics. The intermittent introduction of these technologies suggests a gradual, non-abrupt transition from the Archaic to the Late Prehistoric. Prikryl (1990) notes that characteristic projectile points such as Scallorn, Steiner, and Catahoula varieties were more commonly fashioned from quartzite during the early stages of the Late Prehistoric I. During the latter half of the Late Prehistoric I, there is an increase in the use of chert as a raw material for these point types. A brief xeric episode is posited for approximately 1,000 B.P., and differing sources for these projectile points may be tied to adaptive strategies as climate stress either tethered groups to certain resource locales and/or necessitated broader ranging residential movement. Dating to the end of the Late Prehistoric I (ca. 1,050 B.P–750 B.P), numerous graves were unearthed in Young County at the Harrell Site in periods of Plains Villager occupation at the site, about A.D. 1,200–1,500. From the arrangements of the individual interments and the discovery of arrow points among the bones, these mass graves have been interpreted as the result of violent events—perhaps raids from enemies competing for increasingly scarce resources such as fertile, well-watered farmland. Coupled with similar evidence of violence from sites across the Southern Plains, the Late Archaic in North-Central Texas appears to be a turbulent time. Typically, sites dating to the Late Prehistoric I period are located within floodplains and adjacent terraces.

Late Prehistoric II (ca. 750–250 B.P.)

The xeric conditions proposed for the Late Prehistoric I may have continued into the Late Prehistoric II period, which catalyzed a shift to a short grass prairie environment (Prikryl 1990). These grasslands may have brought back bison to the region in greater numbers. While other areas of Texas seemed to practice a mobile lifestyle possibly centered on the exploitation of the bison, North-Central Texas was also influenced by more settled cultures to the north and east. Diagnostic projectile points for this time period include Fresno, Perdiz, Maud, Washita, and Harrell. Other artifacts commonly found in assemblages dating to this period are Nocona Plain ceramics and horticultural tools fashioned from bison scapulas. Prikryl (1990) notes that chert continues to be the favored source material for lithic tools. Sites from terrace locales continue to dominate the archeological record, with the bulk of them occurring near or within the Cross Timbers/Blackland Prairie ecotone.

Protohistoric (A.D. 1600–1800)

Within the North Central Texas Archeological region, the Protohistoric period generally refers to the time span from AD 1600 to 1800. Prior to AD 1600, the European presence in this area was sporadic at best. In 1541 A.D., Francisco Vásquez de Coronado's expedition entered Texas following the Red River westward in search of gold and silver (Tyson 1981:14). Coronado is thought to have crossed the area near or within present day Haskell County. In 1542, Luis de Moscoso de Alvarado, who took over command of Hernando de Soto's expedition after de Soto's death earlier that year, arrived in north Texas. Alvarado, who entered from the east, brought diarists who described several Caddo groups living in dense populations in the area (Perttula 2010). Other explorers reportedly sought mineral wealth in small copper deposits along tributaries of the Brazos River. Centuries later, Jean-Baptiste Bénard, Sieur de La Harpe, a French captain and explorer, was granted a freehold concession on the Red River where, in 1719, he established Fort Malouin near an Upper Nasoni Indian village. From this location, La Harpe made several expeditions west into North-Central Texas to establish trade routes, travelling along the Red River where he encountered Caddo groups such as the Kitsai and the Wichita (Sturtevant 2001:567-568; Odell 2002:34–35).

After AD 1,600, Spanish influence in the area grew considerably from this point on. When the Spanish recognized the success of the French traders in north Texas, they began to recruit French explorers to help build their relationships with the natives in the region. In 1788, the French born explorer Pedro (Pierre) Vidal began an expedition to find a route from Santa Fe to Natchitoches on behalf of Governor Concha of Nuevo Mexico. Vidal and his expedition made their way to the Red River which they followed for some time before changing course, crossing the Sabine, and reaching Natchitoches that same year (Bolton 1915:130–131). Still, it was not until the beginning of the nineteenth century that the European presence on the Southern Plains became common, a result of the acquisition of Louisiana by the United States in 1803 and the increasing peace between the Spanish in Texas and the Plains Indians. For the Brazos Drainage Basin region it is unclear which specific aboriginal groups were residing in the area at the beginning of this period.

Late Historic Period (A.D. 1800–Present)

The City of Abilene (Downs 2017) owes its start primarily to ranchers as well as land and railroad speculators. Before the arrival of the railroad in 1881, the area of Abilene had been inhabited by native populations, the United States military, hunters, and ranchers. Cattlemen began intensive utilization of the area after native populations were driven out at around 1870. In 1880, the Texas and Pacific Railway began to push westward into the area where several ranchers and businessmen, including Clairborne Merchant, John Merchant, John Simpson, John T. Berry, and S. L. Chalk, convinced Texas and Pacific Railway that the proposed rail would cross the northern part of the county and that a new town would be established between Cedar

and Big Elm creeks. The name Abilene was given by C. W. Merchant, after a Kansas cattle town. By 1890 the city had a population of 3,194.

Abilene's first airport developed in 1926 when aviation cadet L.E. Derryberry convinced local lawyer J. McAlister Stevenson and Dr. M. T. Ramsey to establish a local airport and flying school. The airport was located on 100 acres of land owned by Stevenson east of Abilene (in the location of today's Abilene Zoo). Ramsey soon purchased the property from Stevenson and increased the facility to 210 acres (*The Abilene Reporter-News*, April 25, 1954). In 1929, the city took over the property, and it was officially dedicated as the Abilene Municipal Airport in 1930 (Freeman 2016). The runways reportedly remained gravel until 1942 when they were expanded and paved with concrete. In 1945, the airport featured four runways and two hangars and was serviced by American and Pioneer airlines (Freeman 2016). A city bond program was initiated in 1950 for the creation of a new airport directly south of the existing facility (south of old U.S. Highway 80) and west of State Highway 36 (*The Abilene Reporter-News*, April 25, 1954). The new Abilene Regional Airport opened in December 1953 and is the facility within and adjacent to the proposed project area. The new airport featured a terminal building, a number of new hangars, and an administration building. The former control tower and three existing hangars were relocated to the site from the original airport (*The Abilene Reporter-News*, April 25, 1954). It appears that the former airport (north of old U.S. Highway 80) was no longer in use after 1954, although the runways and some structures remained visible on a 1957 topographic map. The former airport, at that time, was identified as the West Texas Fairground. No evidence of the former airport buildings remains today, but remnants of the former runways are still visible.

The Abilene Zoo was created within the location of the former airport in 1966. Improvements to the Abilene Municipal Airport were undertaken in 1967, including construction of much of the present-day Abilene Regional Airport complex southeast of the 1950s facility (Freeman 2016). The 1950s Abilene Municipal Airport buildings remain standing but are no longer utilized for commercial flights.

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PREVIOUS INVESTIGATIONS AND RECORDED SITES

Archeological Resources

According to the THC's Online Sites Atlas (the Atlas) accessed on February 21, 2017, there have been no previous archeological surveys within the APE (**Figure 3**). The nearest recorded survey, located approximately 125 meters northeast of the APE, is a survey conducted by the Federal Highways Administration in 1995. No archeological sites are mapped as being located within one kilometer (0.62 miles) of the APE. The nearest Official Texas Historical Marker (OTHM) to the project area is the Abilene State School located approximately three kilometers (1.86 miles) to the west. The nearest cemetery to the project area is Abilene State Cemetery located approximately 2.5 kilometers (1.55 miles) to the southwest.

Historic Resources

Prior to field survey, a Hicks & Company architectural historian performed a desktop file search for non-archeological, above-ground cultural resources within a one-quarter mile (1,300 foot) study area from the edge of the proposed project area. The THC's Historic Sites Atlas was reviewed for previously identified properties, including NRHP sites or districts, State Antiquities Landmarks (SALs), Recorded Texas Historic Landmarks (RTHLs), Official Texas Historical Markers (OTHMs), cemeteries, and local neighborhood surveys. The Texas Department of Transportation (TxDOT) Google Earth layers for historic resources and districts were reviewed. Historic aerial photography, available for 1967, and historic topographic maps, available for 1957 and 1967 were also assessed. The file search was performed in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* guidelines. One previously designated historic resource was identified within the 1,300 foot study area: the Bankhead Highway Historic District (Section D). The district was listed in the National Register of Historic Places in 1998 under criterion A for its association with transportation. The district is located approximately 0.14 kilometers (0.09 miles) northeast of the project area between Loop 322 (Jake Roberts Freeway) and State Highway 36. No other previously identified or designated historic resources were identified within the 1,300 foot study area.

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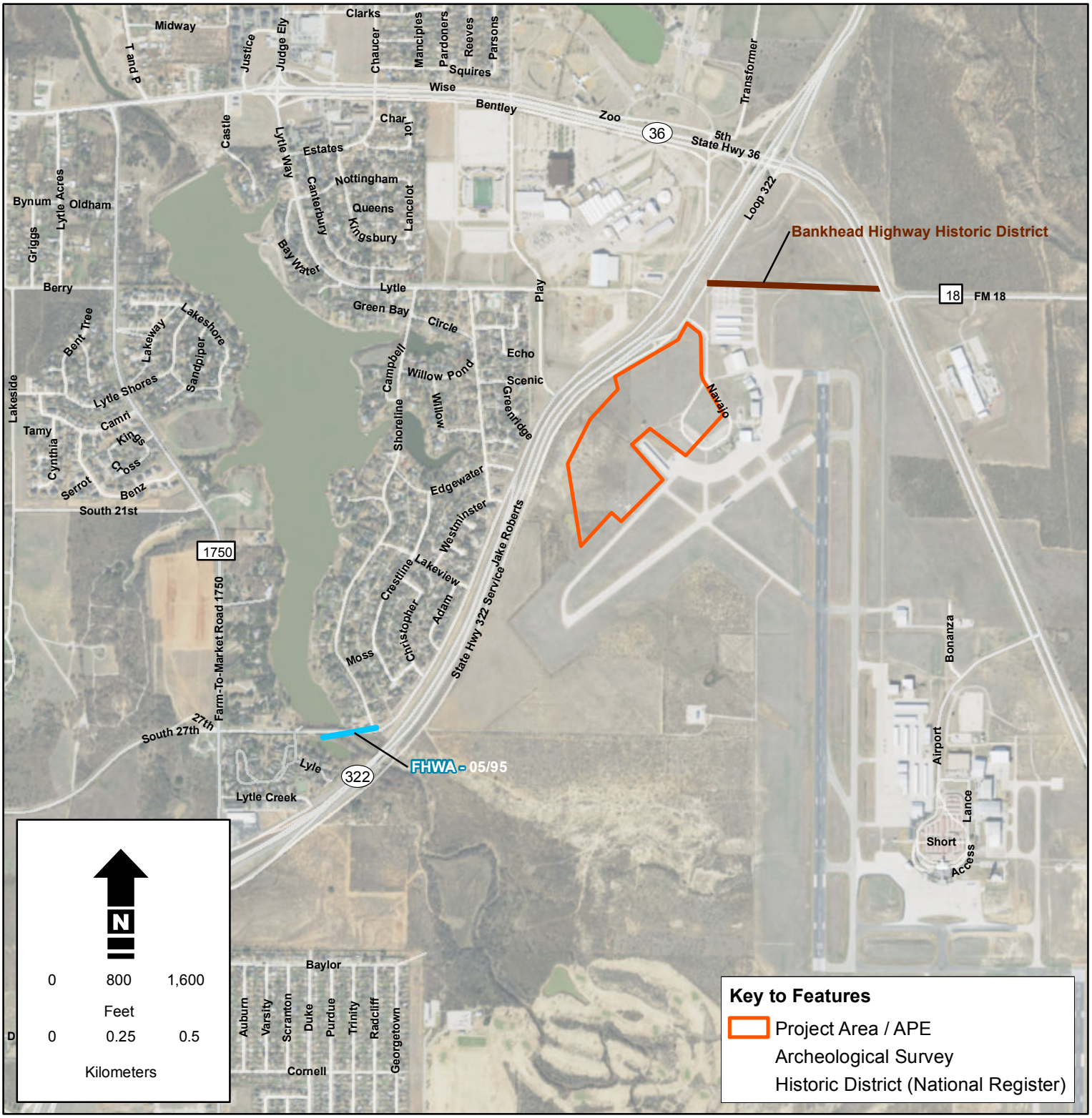
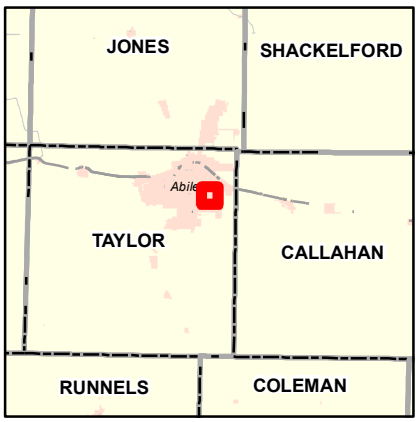


Figure 3
Cultural Resources & Surveys Conducted within One Kilometer of Project Area / APE

City of Abilene Regional Airport



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METHODOLOGY

Archeological Survey

For this project, Hicks & Company proposed to conduct pedestrian survey of the APE, supplemented by shovel testing in areas of less than 30 percent ground survey. The project area is unlikely to possess good geoarcheological potential at depths greater than a meter. Therefore, in coordination with the THC it was determined that backhoe trenching is unwarranted for this project.

For shovel testing, the project area was tested at a rate that exceeded one subsurface test per every two acres, in accordance with the THC's minimum standards for intensive areal survey. Investigators recorded their observations and the results of shovel tests through notes, standardized shovel test forms, and photographs. Shovel tests were excavated to a depth of one meter or bedrock, and sediment from all shovel tests was screened through ¼-inch hardware cloth. Shovel test locations were recorded utilizing GPS technology. The survey followed a no-collection policy in which artifacts were recorded, identified, and quantified in the field but returned to their find location.

Site 41TA358, recorded during this survey was investigated with subsurface tests, though, surficial in nature its boundaries were determined by the extent of lithics distributed across the surface. Identified sites were recorded in accordance with the THC's standards for site investigation. Site location was recorded utilizing GPS technology, and data was recorded on standardized forms.

Historic Resources Survey

In order to evaluate potential effects to historic resources, an APE was established as 300 feet (91.44 meters) from either side of the proposed project area. All historic-age resources located on parcels partially or wholly within the 300-foot APE were photo-documented and assessed for National Register of Historic Places (NRHP) eligibility. For this project, historic-age resources are standing structures 45 years of age or older or those constructed in or before 1972. The project area is located on a large parcel that includes the adjacent historic-age resources associated with the 1950s Abilene Municipal Airport.

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RESULTS OF FIELD INVESTIGATIONS

Archeological Survey

On February 16, 2017, Hicks & Company archeologists performed a 100 percent intensive archeological survey supplemented by shovel testing of the proposed 52-acre improvements project at Abilene Regional Airport. Clear, cool, sunny weather aided in the survey, however previous rains had made the silty clay loam wet and sticky. The survey proceeded in three areas: the existing open ground outside the restricted fence line that features a post-1957 era metal balloon tower and metal shed; a wooded area of honey locust trees, prickly pear, and grass pasture with older historic ranching infrastructure evident; and an open area within the restricted airport fence that featured a portable building. All areas combined were approximately 52 acres with a total of 30 shovel tests excavated. Of note is a 150 meter x 50 meter prehistoric surface scatter in the far west of the wooded parcel.

The first area surveyed was the eastern half of the proposed APE which is bounded by a State Highway 322 Service Road to the north and Navajo Circle to the east. Within this open-field area survey, two metal buildings, paved historic asphalt driveways and concrete platforms, as well as defunct power poles occur in association in the southwest corner of this section. The larger of the two structures is a historic-age, two-story, 1950's-era balloon tower with two tall roll-up doors at the north and south end of the building. The smaller historic-age shed is to the southeast of the balloon tower and has an associated wooden pole with a dilapidated dish antenna hanging downward from the top of the pole. Further information about these structures is included below in the Historic Resources Survey section below. The west edge of this parcel is bounded by airport security fencing.

Fourteen negative shovel tests and one positive shovel test were excavated in this section of the APE with less than 30 percent visibility. Shovel tests STGC1–STGC7 ranged from 27 centimeters below surface (cmbs) to 45 cmbs in depth, while shovel tests STJH1–STJH7 ranged from 30 (cmbs) to 50 cmbs. Testing proceeded from the east and then to the west. STGC1-6 exhibited a moist and sticky dark grayish brown (10YR 4/2) to slight reddish brown (5YR 3/3) silty clay with small amounts of inclusions (5%) consisting of small whitish pebbles or rounded quartzite gravels (approx 30cmbs) or small cobbles at 10cmbs (STGC2) and 30cmbs (STGC3). Of interest is STGC7 where the immediate occurrence of a fragmented, gravelly, and gritty pinkish orange bedrock in an orange silty clay matrix which was excavated to 27cmbs.

Similarly, Shovel tests STJH1–STJH7 exhibited a moist and sticky dark brown to reddish brown silty clay loam with small amounts of inclusions (2%) consisting of small whitish pebbles or rounded quartzite gravels. Positive shovel test STJH7 encountered concrete at 15 cmbs.

Additional testing here revealed concrete fragments of differing slope angles suggesting an older push pile of fragmented concrete from an unknown locale.

Upon completion of the open area in the east, work progressed in the wooded western half of the parcel starting at the northeast corner nearest the service road. This area is bounded by airport security fencing to the east and south, a lake and drainage to the west, and a large drainage along the southern edge of State Highway 322 Service Road to the north. This wooded parcel is primarily used as pasture as evidenced by fresh cattle. Additionally, four piles of rocks **(Figure 4)** were also located in the southern corner in association older corral posts. These rock piles are considered a result of agricultural land clearing activities as opposed to structural debris.

Fourteen negative shovel tests were excavated in this wooded pasture that had better visibility at 50 percent with exposed ground surfaces. Shovel tests STGC8–STGC13 ranged from 25 cmbs to 45 cmbs while shovel tests STJH8–STJH 16 ranged from 25 cmbs to 45 cmbs. Soils were primarily a moist sticky dark brown (10YR 4/2) silty clay, with some tests exhibiting a reddish brown (5YR 3/3) silty clay centrally. Though shovel tests did not indicate subsurface evidence of prehistoric cultural materials, surface finds of lithic artifacts in the western half of the wooded pasture, though diffuse, was recorded as archeological Site 41TA358 **(Figure 5)**. Artifacts noted included a biface fragment of tan chert **(Figure 6)** located near STJH13. Additionally, noted artifacts include a quartzite flake, three tan chert flake fragments, and a small tan chert core fragment of low quality. These artifacts are restricted to a 150 meter x 50 meter section of the western edge of the wooded pasture from the Corral posts north to the surveyed turnpoint opposite the spillway along the State Highway 322 Service Road. Seven negative shovel tests were excavated within and around the site boundary yielding no subsurface finds in the shallow silty clays of the pasture.

The final area surveyed was a small triangular parcel inside the restricted fencing of the airport adjacent to hangar and runway facilities. This grassy area had a small, non-permanent, airport-related structure bounded by fencing to the west. Two negative shovel tests, STGC13 and STJH17, were excavated to 37 cmbs and 45 cmbs, respectively. Both shovel tests exhibited a moist, sticky, dark brown (10YR 4/2) silty clay to depth turning into a hard clay.

Figure 4. Rock Piles 1 and 2 located in the southern corner of the project area. Rock piles 3 and 4 are just out of frame in the upper left hand corner. View to the east.

Figure 5. Overview of Site 41TA358 from southern edge facing north.

Figure 6. Biface fragment found near Shovel test JH13 within the wooded pasture. This is one of six lithic artifacts seen on the surface.

Historic Resources Survey

The project area contains structures and an entry road associated with the former Abilene Municipal Airport that opened in December 1953 (**Figures 8–17)**. The airport replaced an earlier Abilene Airport located slightly northwest on the north side of State Highway 36. Two structures of historic-age as well as a portion of the entrance road, now known as Navajo Circle, are located within the project area. The first historic-age structure is a small two-story, metal-clad building with a single-story, shed-roof side addition **(Resource 1) (Figure 7)**. The building has a flat roof with remnants of metal framing posts extending above the roofline. The remains of a metal staircase along one elevation provided access to the roof. The building features two-story, metal rolling doors on opposite elevations and a small door below the side staircase. The side addition features metal-framed windows and a single door. A second, single-story side addition was originally located on one elevation (as evidenced on recent Bing Maps aerials) but it has since been removed. The building appears to have been constructed sometime after 1957. It does not appear on a 1957 topographic map, but it is visible on a topographic map and aerial photograph in 1967. The second historic-age structure within the project area is a small, single-story, metal-clad building with a gabled roof (**Resource 2**). The original windows have been enclosed, but the building has retained a single door at one end. The building also appears on a 1967 topographic map and aerial photograph. The portion of the roadway (Navarro Circle) that is within the project area was the original entry road for the Abilene Municipal Airport upon its completion in 1953 (**Resource 3**). Today, the paved road surface is in poor condition and appears to be used primarily for small aircraft parking.

The buildings do not appear to be architecturally significant, but according to an airport worker who provided information to archeologists during the field survey, the larger, two-story building was reportedly used as a balloon tower and mooring site for blimps. The worker stated that the Hindenburg Blimp had been moored at the site, but this appears to be inaccurate as the building does not appear until after 1957, and the Hindenburg Blimp was destroyed during a landing in New Jersey in 1937. Research indicated, however, that subsequent blimps did land at the Abilene Municipal Airport. Two Goodyear Tire and Rubber Company blimps, the *Columbia* and the *America*, made landings at the Abilene Municipal Airport in 1964 and 1971, respectively. The *Abilene Reporter-News* documented the blimp takeoffs and landings, but it was unclear from the newspaper articles whether the above-referenced building was utilized (Mosteller 1964; Tucker 1971). The 1964 newspaper article mentioned that at each blimp landing site, “four big mooring stakes must be driven into the ground by pile drivers,” and that at the Abilene Municipal Airport the stakes hit bedrock four feet below the ground surface, requiring the use of a pneumatic drill. Reportedly, “the crew was still trying to penetrate the stubborn rock” when the blimp landed (Mosteller 1964).

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Figure 7
Historic-age Resources within the APE
City of Abilene Regional Airport

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Additional historic-age resources are located outside of the immediate project area but within the parcel partially within the 300-foot APE. These resources are associated with the former Abilene Municipal Airport and include one commercial/administrative building (**Resource 4**), three hangars (**Resources 5–7**), and three long, narrow, metal warehouse/storage buildings (**Resources 8–10**) that are evident on a 1957 topographic map, as well as an additional large hangar (**Resource 11**) and a large, gabled metal storage building or hangar (**Resource 12**) that are visible on a 1967 topographic map.

Resource 6 is a historic-age hangar that appears to be architecturally significant as it has retained integrity of design, materials, workmanship, feeling, and association and is therefore recommended potentially eligible for listing in the NRHP under Criteria A and C, for its association with the 1950s development of the Abilene Municipal Airport and as an intact example of a mid-twentieth century airport hangar. This resource is located approximately 0.12 kilometers (0.07 miles) from the proposed project area and will not be directly impacted by the proposed improvements.

Figure 8. Historic-age building (Resource 1) identified as balloon tower within project area reportedly utilized for blimp mooring

Figure 9. Historic-age building (Resource 2) within project area near resource associated with blimp mooring

Figure 10. Resources 1 and 2 within project area

Figure 11. Former portion of Navajo Circle (Resource 3) within project area now used for airplane parking

Figure 12. Administrative/commercial building (Resource 4) visible on 1957 topographic map

Figure 13. Hangar (Resource 5) visible on 1957 topographic map

Figure 14. Hangar (Resource 6) visible on 1957 topographic map

Figure 15. Hangar (Resource 7) visible on 1957 topographic map

Figure 16. Storage building (Resource 12) visible on 1967 topographic map with warehouses visible on 1957 topographic map (Resources 8-10) in background

Figure 17. Hangar (Resource 11) visible on 1967 topographic map

CONCLUSIONS AND RECOMMENDATIONS

Archeological Resources

On February 16, 2017, Hicks & Company conducted a 52-acre cultural resources survey of the proposed improvements at Abilene Regional Airport. The archeological investigation consisted of a pedestrian survey supplemented by the excavation of 30 shovel tests, only one of which was positive for cultural materials: a historic or recent push pile of broken concrete. While no shovel tests demonstrated a subsurface prehistoric presence, a 150 meter x 50 meter surface scatter of six prehistoric lithic artifacts indicates a prehistoric presence and was issued a trinomial, 41TA358. This light lithic scatter does not meet any of the criteria for consideration for the NRHP and is recommended as ineligible for SAL listing.

Historic Resources

During the field survey, three historic-age resources were surveyed within the immediate project area and nine additional resources were surveyed within the parcel partially within the 300-foot APE. The resources were photo-documented and evaluated for significance and integrity. With the exception of **Resource 6** discussed previously, none of the resources appear to be architecturally significant, and all of the structures have been altered over time through incorporation of new cladding, replacement windows, and additions that have undermined their integrity. The resources are therefore recommended not eligible for listing in the NRHP. **Resource 6**, a historic-age hangar, appears to be architecturally significant and to have retained integrity of design, materials, workmanship, feeling, and association. It is therefore recommended potentially eligible for listing in the NRHP under Criteria A and C, for its association with the 1950s development of the Abilene Municipal Airport and as an intact example of a mid-twentieth century airport hangar. This resource is located approximately 0.12 kilometers (0.07 miles) from the proposed project area and will not be directly impacted by the proposed improvements. The proposed project is therefore anticipated to have no effects to historic resources.

The project is recommended to proceed to construction with no further coordination for archeological or historical resources required for compliance with Section 106 of the NHPA or the Antiquities Code of Texas. In the unlikely event that archeological resources are identified during the course of construction, all work in the immediate vicinity should cease until the THC is notified and appropriate actions are determined. All project-related materials will be permanently curated at CAS in San Marcos, Texas.

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APPENDIX A TEXAS HISTORICAL COMMISSION'S RECOMMENDATION LETTER

TEXAS HISTORICAL COMMISSION
real places telling real stories

October 21, 2016

Ryan Mountain
Garver
2049 Joyce Blvd
Fayetteville, AR 72703

Re: Project review under the Antiquities Code of Texas and the National Historic Preservation Act: Property Release-Abilene Regional Airport, Taylor County (FAA and City of Abilene; Tracking #201701204)

Dear Mr. Mountain:

Thank you for your correspondence describing the above referenced project. This letter serves as comment on the proposed federal undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission. As the state agency responsible for administering the Antiquities Code of Texas, these comments also provide recommendation on compliance with state antiquities laws and regulations.

The review staff, led by David Camarena Garcés, has examined our records. According to our maps, the 52-acre tract proposed for development is located in an area where archeological survey has not been previously conducted. Archeological sites have been recorded nearby in similar landforms in Taylor County therefore we recommend that all areas subject to development be surveyed by a Secretary of the Interior qualified professional archeologist. If there is the potential for deeply buried cultural deposits within the depth of impacts, deeper subsurface investigations (such as backhoe trenching) will be required. In addition, any buildings or structures 45 years old or older that are located on or adjacent to the project area should be documented with photographs and included in the report.

If the survey is being performed on public land or within a public easement your contract archeologist must obtain an Antiquities Permit from our office before any investigations are undertaken. An Antiquities Permit can be issued as soon as we have a completed permit application. A report of the investigations should be produced in conformance with the Secretary of the Interior's Guidelines for Archaeology and Historic Preservation, and submitted to this office for review.

You may obtain lists of most professional archeologists in Texas on-line at: www.councilof texasarcheologists.org or www.rpanet.org. Please note that other potentially qualified archeologists not included on these lists may be used. This cultural resource survey should include a pedestrian survey that conforms to the "Archeological Survey Standards for Texas" (available online at: http://www.thc.state.tx.us/project-review/statutes-regulations-rules).

Thank you for your cooperation in the review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review or if we can be of further assistance, please contact David Camarena Garcés at 512/463-6252 or david.camarena@thc.state.tx.us.

Sincerely,

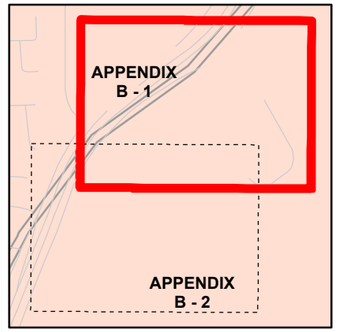
William A. Martin

for
Mark Wolfe, State Historic Preservation Officer

APPENDIX B SHOVEL TEST LOCATIONS

PROJECT AREA & SHOVEL TEST LOCATIONS

City of Abilene
Regional Airport



State Hwy 322 Service
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322
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Play
Navajo
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Navajo

STGC1
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STJH4
STJH1
STJH8
STGC4
STJH6
STJH7
STJH5
STJH2
STGC6
STJH3
STJH16
STGC8
STJH9
STGC12
STGC5
STGC3
STGC2

Key to Features

- Artifacts
- Shovel Test Locations
- Archeological Site
- Project Area

N

0 80 160 240
Feet

0 25 50 75
Meters

APPENDIX B - 1

FIGURE B-2 REDACTED DUE TO SENSITIVE SITE LOCATION DATA