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Intensive Archaeological Survey For Asphalt Package 2020-2 (UPIN 21103N3045-30001), Harris County, Texas

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**Intensive Archaeological Survey For Asphalt Package 2020-2 (UPIN
21103N3045-30001), Harris County, Texas**

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**INTENSIVE ARCHAEOLOGICAL SURVEY FOR ASPHALT PACKAGE 2020-2
(UPIN 21103N3045-30001), HARRIS COUNTY, TEXAS**

FINAL REPORT (Redacted)

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Texas Antiquities Committee Permit Number 9623

Cultural Resources Report No. 20-23

AHF20-083-01

January 14, 2021

MANAGEMENT SUMMARY

Raba Kistner, Inc. (RKI) was contracted by Harris County Engineering Department (CLIENT) to conduct archaeological investigations in support of road improvements along 5.35 miles (8.6 kilometer [km]) of existing road along House Road, Bauer Hockley Road, Becker Road, Kickapoo Road, and Badtke Road, located in northwestern Harris County, Texas. The purpose of this investigation was to identify any surface-exposed or shallowly buried cultural deposits within the limits of the proposed undertaking and, if possible, assess their significance and eligibility for inclusion in the National Register of Historic Places (NRHP) and for formal designation as State Antiquities Landmarks (SALs). As the project will be conducted on publicly-owned land and is sponsored by the Harris County Engineering Department, an entity of the State of Texas, the project was subject to review under the Antiquities Code of Texas (ACT) (Texas Natural Resources Code, Title 9, Chapter 191). All work was conducted in accordance with the Archaeological Survey Standards for Texas, as set forth by the Council of Texas Archaeologists (CTA) and the Texas Historical Commission (THC) under Texas Antiquities Committee Permit Number 9623.

Investigations consisted of a background review and intensive pedestrian survey augmented with shovel testing within the area of potential effects (APE). The background review revealed that the majority of the project area is underlain by soils derived from loamy deposits of the Pliocene-age Willis Formation. One area along Bauer Hockley Road totaling 1,100-feet (335 meters [m]) contained Holocene-age deposits. As such, in a background review submitted for consultation to the THC, **RKI** recommended that archaeological investigations focus on the area containing the Holocene-age deposits. Based on the information provided in the background review, the THC concurred with the recommendation. Therefore, the APE for the project is defined as the one 1,100-feet (335 m) area along Bauer Hockley Road within the 75-foot (22.8 m) right-of-way (ROW), totaling approximately 1.89-acres (0.76 hectares [ha]).

Field investigations were conducted on October 7, 2020. Antonio E. Padilla served as the Principal Investigator for the project and all fieldwork was conducted by Staff Archaeologists Adam Birge, Chris Matthews, and Archaeologist Tiffany Lindley. Report preparation was conducted by Tiffany Lindley. Adam Birge and Bruce Martin provided geographical information system (GIS) during fieldwork and report production.

During the pedestrian survey of the APE, it was found that the area had been lightly graded for the existing roadbed with both shoulders consisting of graded shoulders. The shoulders were observed to slope downwards to the tree line and in some cases along the northern side of the APE, upwards towards the tree line. Disturbances observed within the APE consisted of an existing culvert box and guard rails that had been installed at the crossing of Little Cypress Creek. As a result of the pedestrian survey, 4 shovel tests (CM1–CM2 and TL1–TL2) were attempted; however, only 2 were excavated. No cultural materials were observed on the surface or encountered within any of the shovel tests.

RKI has made a reasonable good faith effort to identify cultural resources within the APE. No significant deposits or features were identified during the intensive pedestrian survey. As such, **RKI** recommends no further archaeological investigations within the APE. However, should changes be made within the APE, further work may be required. All field records and photographs produced during investigations will be permanently housed at the Center for Archaeological Research at the University of Texas at San Antonio.

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CHAPTER 1. INTRODUCTION

Raba Kistner, Inc. (RKI) was contracted by Harris County Engineering Department (CLIENT) to conduct archaeological investigations in support of road improvements located approximately 1.2-mile (1.9 kilometer [km]) east of the City of Hockley in northwestern Harris County, Texas (**Figure 1-1**). The proposed project will involve the widening of approximately 5.35 miles (8.6 km) of existing roads, and will be conducted entirely within existing right-of-way (ROW). As the project will be conducted on publicly-owned land and is sponsored by the Harris County Engineering Department, an entity of the State of Texas, the proposed project is subject to review under the Antiquities Code of Texas (ACT) (Texas Natural Resources Code, Title 9, Chapter 191) by virtue of it representing a public undertaking. This legislation calls for the assessment of all proposed improvement activities that have a potential to disturb historically significant resources and significant subsurface deposits on lands owned by the State. Oversight of compliance with the ACT is provided by the Texas Historical Commission (THC).

Investigations consisted of a background review and intensive pedestrian survey augmented with shovel testing. The purpose of this investigation was to identify any surface-exposed or shallowly buried cultural deposits within the limits of the proposed undertaking and, if possible, assess their significance and eligibility for inclusion in the National Register of Historic Places (NRHP) and for formal designation as State Antiquities Landmarks (SALs). All work was conducted in accordance with the Archeological Survey Standards for Texas, as set forth by the Council of Texas Archeologists (CTA) and the Texas Historical Commission (THC) under Texas Antiquities Committee Permit Number 9623.

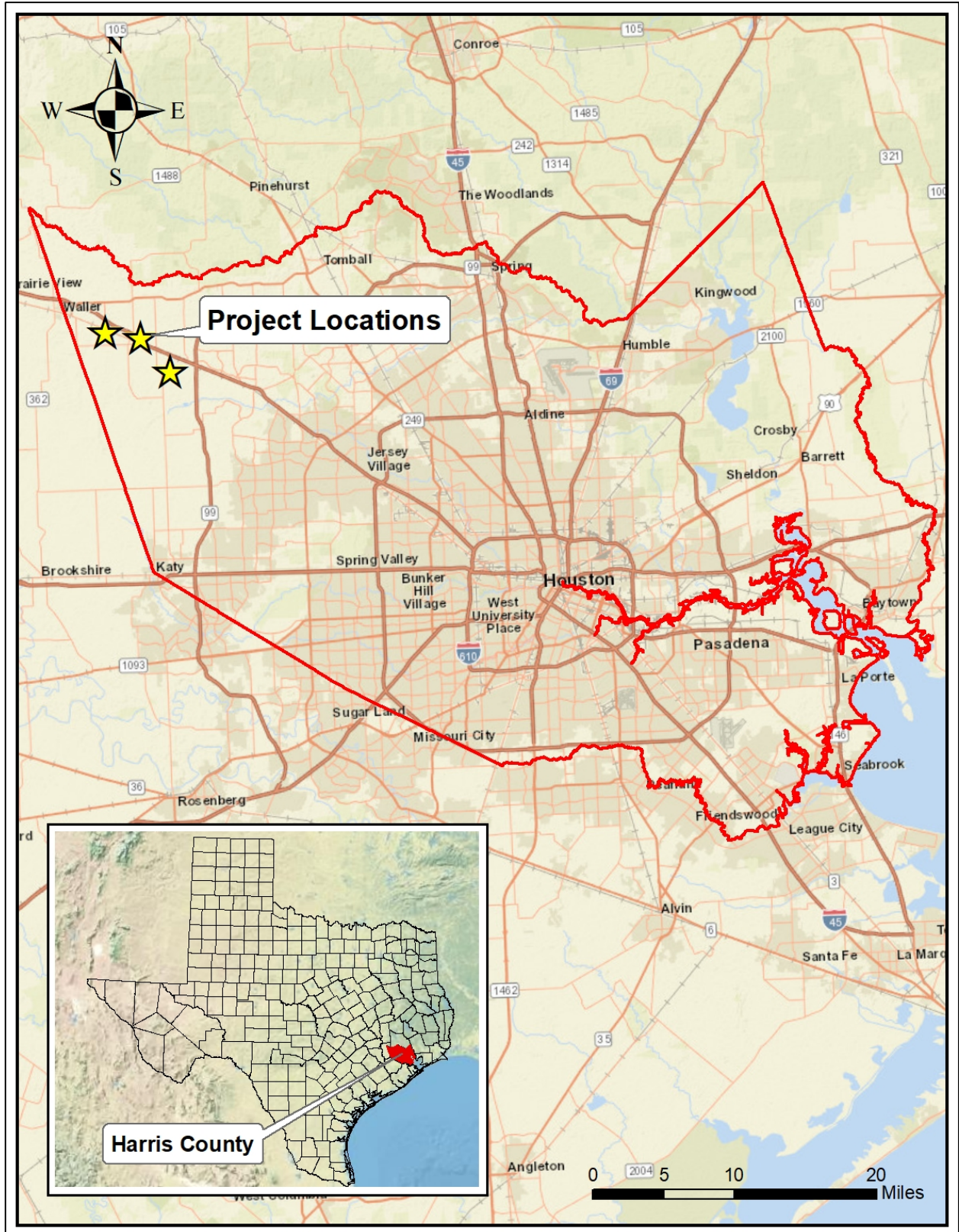


Figure 1-1. Project locations within northwest Harris County, Texas.

Project Description and Area of Potential Effects

The Project Area is located approximately 1.2 mile (1.9 km) east of the City of Hockley in northwest Harris County, Texas (**Figure 1-2**). The undertaking encompasses approximately 5.35 miles (8.6 km) of existing road along House Road, Bauer Hockley Road, Becker Road, Kickapoo Road, and Badtke Road, and will involve the widening of the existing roads from 22 to 24 feet (6.7 to 7.3 m). No new ROW will be acquired, all proposed work will be conducted with the existing ROW.

A review of historic aerial photography and historical maps from 1916 through 2016, determined that the APE and immediate surrounding areas were plowed fields, pasture, or remained undeveloped around Little Cypress Creek. A few residential complexes are along Bauer Hockley Road but outside the APE. In the 1990s and 2000s additional residential structures and a highway bypass for US-290 were constructed to the west, near Hockley, and within 1-mile (1.6-km) of the APE.

A background review of the project area revealed that the majority of the area is underlain by soils derived from loamy deposits of the Pliocene-age Willis Formation. Only one area along Bauer Hockley Road totaling approximately 1,100-feet (335 m) contains Holocene-age deposits. As such, in a background review submitted for consultation to the THC, **RKI** recommended that archaeological investigations focus on the area containing the Holocene-age deposits. Based on the information provided in the background review, the THC concurred with the recommendation.

Although the project area encompasses 5.35 miles (8.6 km), the Area of Potential Effects (APE) for the archaeological investigations is defined as the one area along Bauer Hockley Road, totaling 1,100-feet (335 m) within the 75-foot (22.8 m) ROW, totaling 1.89-acres (0.76 ha). The maximum depths of impacts will range from 2 to 3 feet (0.61 to 0.91 m) below the surface. The APE is depicted on the *Hockley (3095-221), Texas*. U.S. Geological Survey 7.5-minute topographic quadrangle map (**Figure 1-3**).

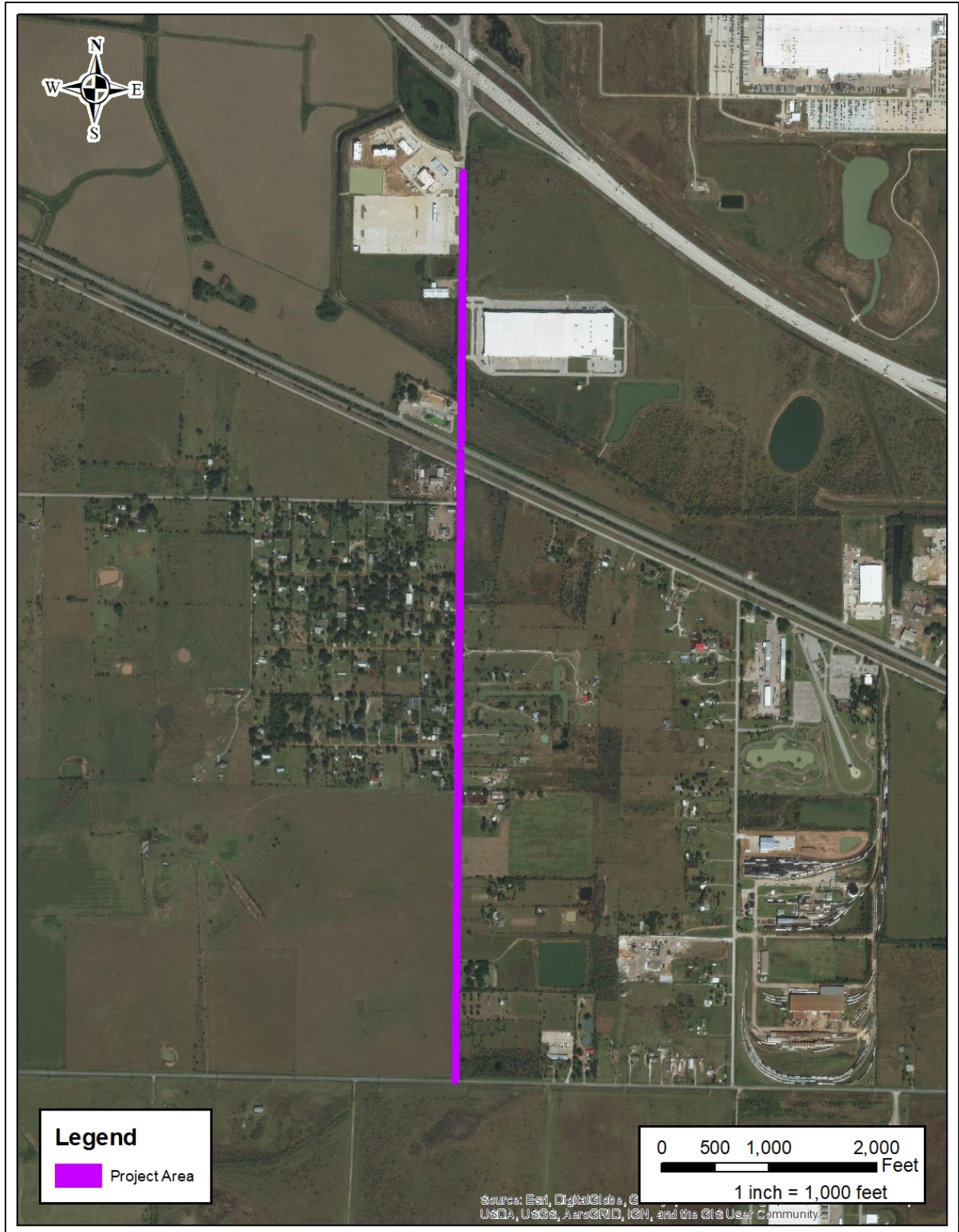


Figure 1-2. Overview of the Project Area.

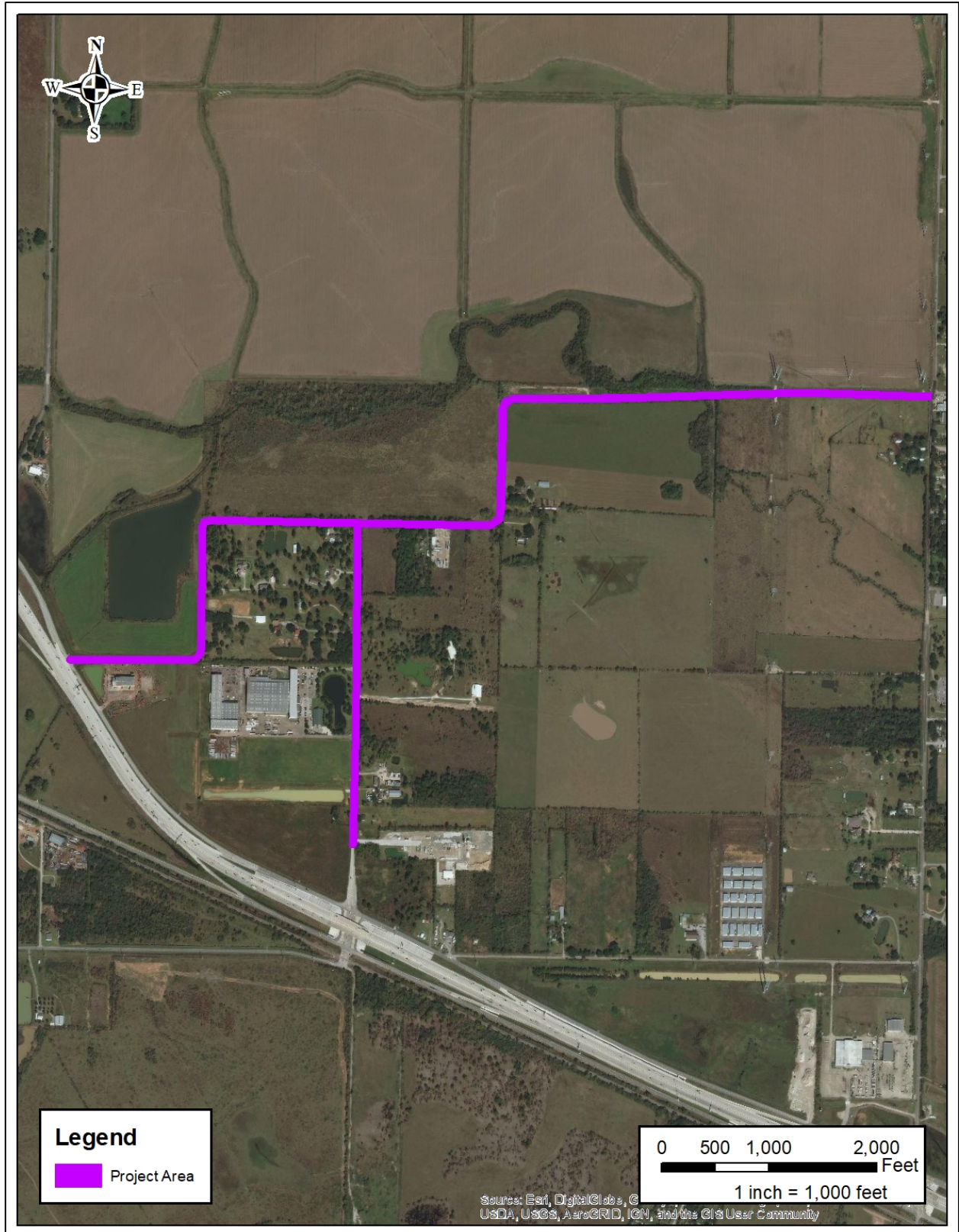


Figure 1-2. (cont.) Overview of the Project Area.

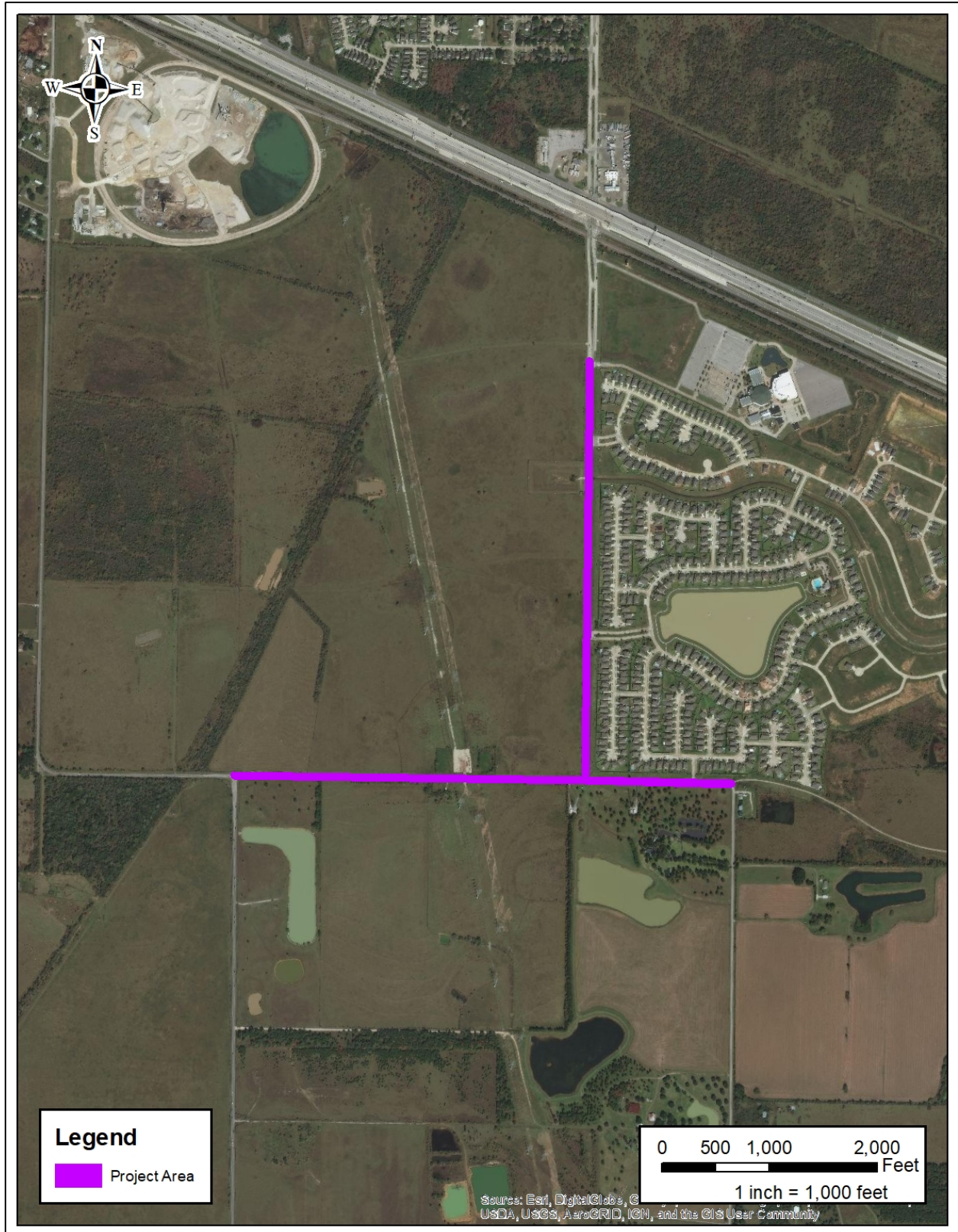


Figure 1-2. (cont.) Overview of the Project Area.

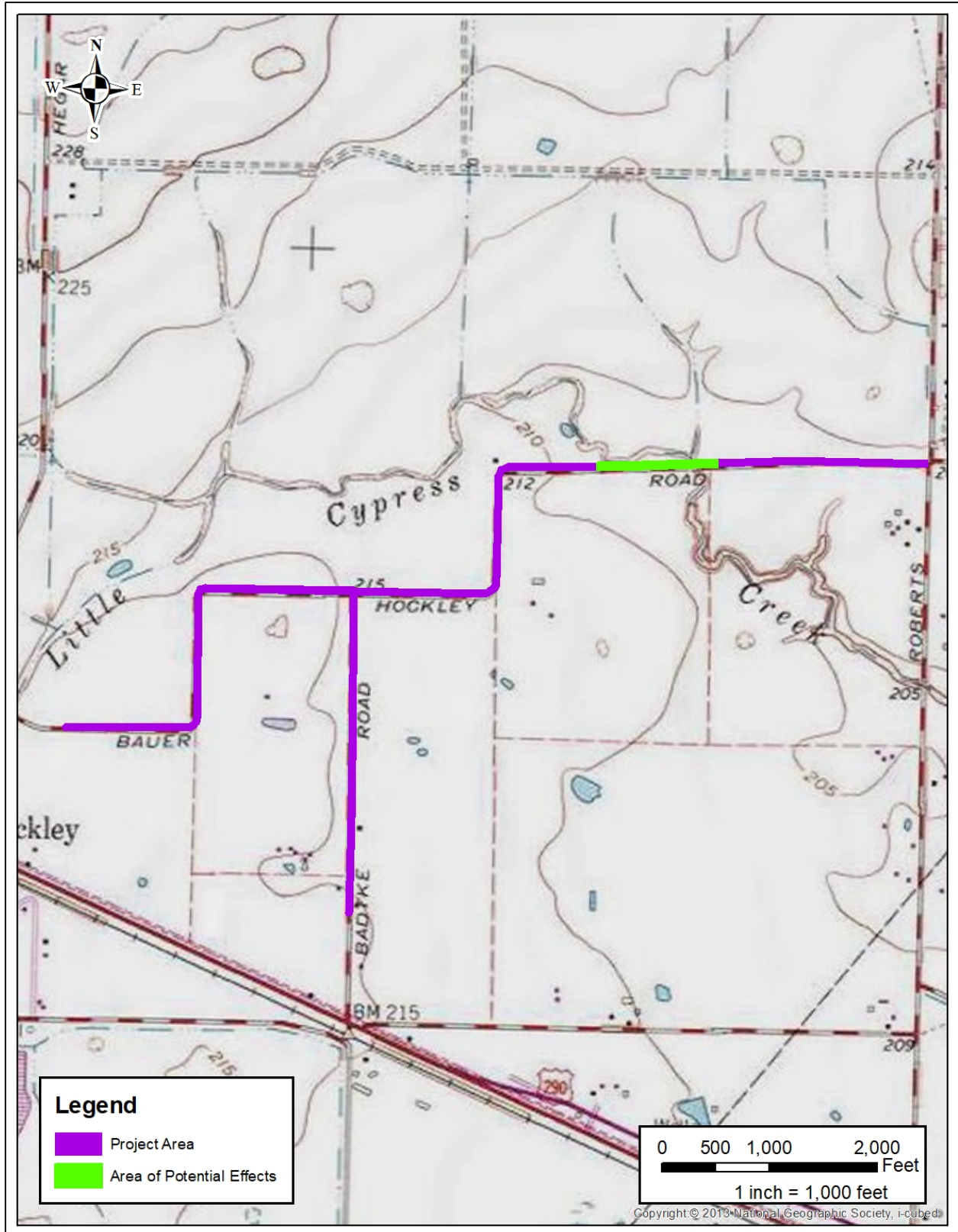


Figure 1-3. Area of Potential Effects depicted on the Hockley (3095-221), Texas. U.S. Geological Survey 7.5-minute topographic quadrangle map.

CHAPTER 2. ENVIRONMENTAL SETTING

The APE is mapped within the Northern Humid Gulf Coast Prairies ecoregion, a subdivision of the Western Gulf Coastal Plain ecoregion of southeast Texas (Griffith et al. 2007). The Western Gulf Coastal Plains are characteristically flat and suitable for grassland natural vegetation. The Northern Humid Gulf Coast Prairies ecoregion is a largely flat to gently sloping coastal plain that has poor drainage due to its low topographic relief and clay subsoils. Surface soils of the ecoregion often consist of fine textured clay, clay loam, or sandy clay loam. The natural vegetation was largely tallgrass grasslands occasionally interspersed with oak mottes; however, the ecoregion has been strongly impacted by development and historically native vegetation has largely been extirpated from much of the area.

Geology

The APE is underlain by the Pliocene-aged Willis Formation (Pow) (Moore and Wermund 1993). This formation is comprised of clay, silt, sand, and siliceous gravel of granule to pebble sized, including some petrified wood (Moore and Wermund 1993). Sand in this formation is non-calcareous and coarser than younger units. Additionally, the Willis Formation contains an abundance of iron oxide concretions (Moore and Wermund 1993).

Soils

Examination of Natural Resources Conservation Service (NRCS) data identified one soil type mapped within the APE: Snakecreek fine sandy loam (SnIA) (**Figure 2-1**) (NRCS 2020). The entirety of the APE is mapped as Snakecreek fine sandy loam and is described as deep, reaching a depth of 80 inches (203 cm) below surface. These soils are somewhat poorly drained and formed in loamy sediments derived from Holocene age alluvium (NRCS 2020).

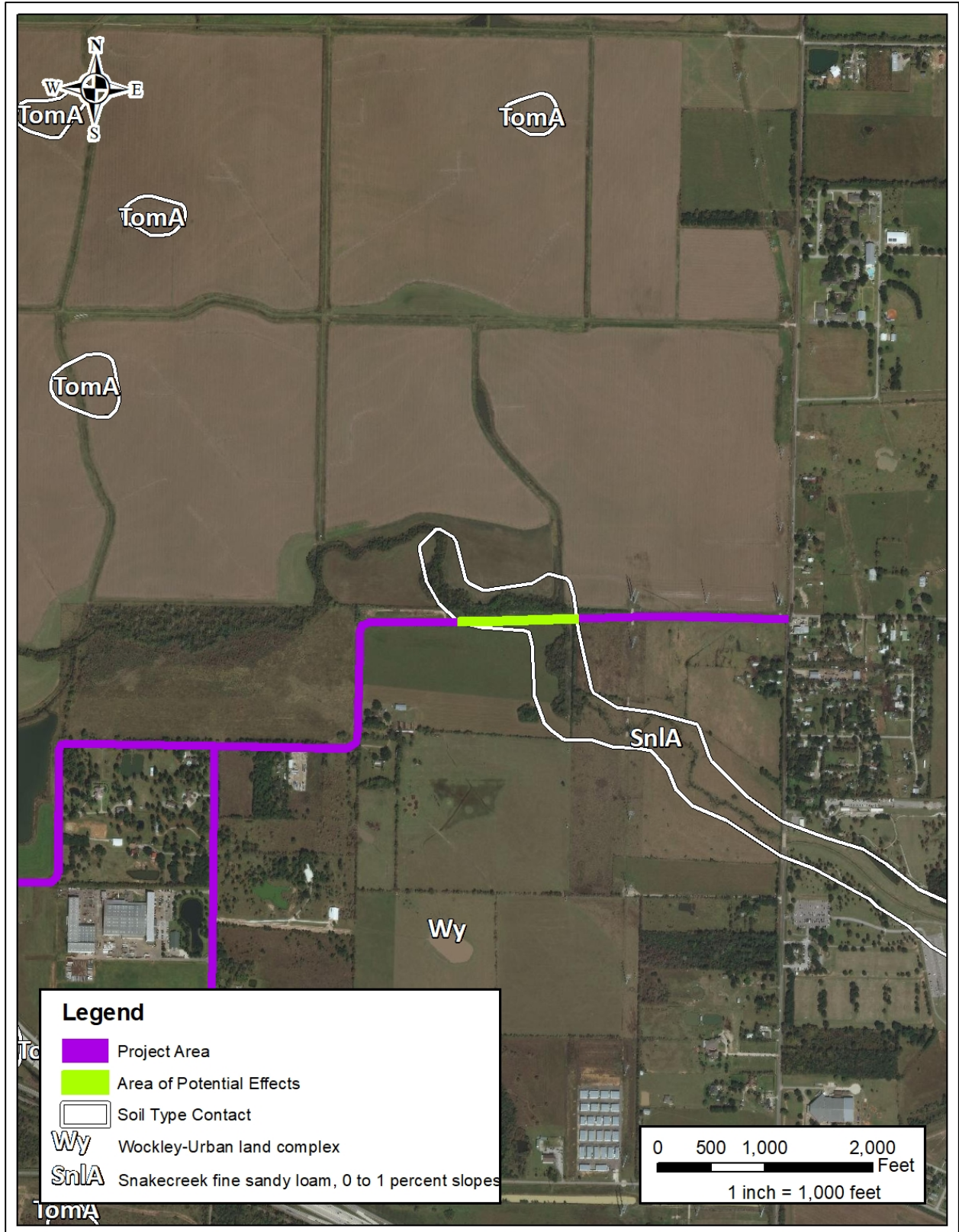


Figure 2-1. Soils mapped within the Area of Potential Effects.

CHAPTER 3. CULTURAL CONTEXT

Humans have inhabited the southeast region of Texas for at least 11,500 years, adapting to changes in climatic and biotic conditions as they occurred. Archaeologists researching long-term change in settlement structures, subsistence choices, and technological innovation have identified distinct coastal and inland adaptations in this region (Ricklis 2004; Story 1990). Southeastern Texas coastal populations took advantage of the abundant resources of the coastal prairie and nearby estuaries. The cultural chronology of the region is divided into six major time periods: Paleoindian Period (11,500 to 7,000 BC); Archaic Period (7,000 to 500 BC); Transitional Late Archaic or Early Ceramic Period (500 BC to AD 700); Late Prehistoric (AD 700 to 1700); Protohistoric (AD 1528-1700) and Historic (AD 1700 to present). An overview of the sequence of human occupation within the region is presented below.

Paleoindian Period

The oldest cultural materials found in the region date to the Paleoindian period. The period spans roughly from 11,500–8800 B.P. (Collins 1995, 2004). The Aubrey site in Denton County has one of the earliest occupations, with radiocarbon assays dating to between $11,542 \pm 11$ B.P. and $11,590 \pm 93$ B.P. (Bousman et al. 2004:48). Paleoclimatic proxy measures suggest that a cooler climate with increased precipitation was predominant during the Late Pleistocene (Mauldin and Nickels 2001), the later portion of the period.

Initial reconstructions of Paleoindian adaptations typically viewed these hunter-gatherers as traversing extreme distances in pursuit of now extinct mega-fauna such as mammoth and mastodon. While these Paleoindian populations did exploit the Late Pleistocene mega-fauna when it was accessible, a number of faunal assemblages from an increasingly larger number of sites indicate that the Paleoindian diet was more varied and consisted of a wide range of resources, including small game and plants. The Lewisville (Winkler 1982) and the Aubrey sites (Ferring 2001) produced faunal assemblages that represented a wide range of taxa, including large, medium, and small species. Information on the consumption of plant resources during the Paleoindian period is lacking. Bousman et al. (2004) reported that the late Paleoindian component at the Wilson-Leonard site reflected the exploitation of riparian, forest, and grassland species. Analysis of Paleoindian skeletal remains indicates that the diets of the Paleoindian populations may have been similar to Archaic period hunter-gatherer populations (Bousman et al. 2004; Powell and Steele 1994).

The early portion of the Paleoindian period was characterized by the appearance of Clovis and Folsom fluted projectile points that were used for hunting mega-fauna. Typical projectile points produced at sites with occupations dating to the later portion of the Paleoindian period included the Plainview, Dalton, Angostura, Golandrina, Meserve, and Scottsbluff types. Meltzer and Bever (1995) have identified 406 Clovis sites in Texas. One of the earliest, 41RB1, yielded radiocarbon assays that put the maximum age for the Paleoindian component at 11,415 ± 125 B.P. (Bousman et al. 2004:47).

Unfortunately, the Paleoindian Period is poorly represented across the state, including Southeast Texas. This can be attributed to two factors: issues pertaining to projectile point temporal classifications; and climatic and geologic processes during the Pleistocene-Holocene transition. Typological issues have made it difficult to distinguish between point types and styles in the region (see Bousman et al. 2004 and Story 1990). Furthermore, the number of Paleoindian sites in Southeast Texas is small, relative to the numerous sites in the Balcones Escarpment. Geologic explorations of ancient shorelines indicate that Paleoindian sites are most likely submerged due to the advance of the Gulf of Mexico inland. The occasional Paleoindian artifact and remains of Pleistocene fauna, which wash ashore at McFaddin Beach, Texas, confirms the presence of sites offshore (Abbott 2001:105-107; Story 1990:24- 25).

Archaic Period

The Archaic period dates between ca. 8800 to 1200 B.P. It is divided into three sub-periods: Early, Middle, and Late. During the Archaic, mobility strategies may have shifted to more frequent short distance movements that allowed the exploitation of seasonal resource patches. The intermittent presence of bison in parts of Texas, combined with changes in climatic conditions and the primary productivity of the plant resources may have contributed to shifts in subsistence strategies and associated technological repertoire. When bison were not present in the region, hunting strategies focused on medium to small game along with continued foraging for plant resources. When bison were available, hunter-gatherers targeted the larger-bodied prey on a regular basis.

Early Archaic

Collins (1995, 2004) suggests that the Early Archaic spans from 8,800 to 6,000 B.P. Projectile point styles characteristic of the Early Archaic include Angostura, Early Split Stem, Martindale, and Uvalde (Collins 1995, 2004). The Early Archaic climate was drier than the Paleoindian period and witnessed a return to

grasslands (Bousman 1998). Mega-fauna of the Paleoindian period could not survive the new climate and ecosystems, therefore eventually dying out. Early Archaic exploitation of medium to small fauna intensified.

The Wilson-Leonard excavation produced a wealth of cultural materials representative of a lengthy period in regional prehistory. The projectile point assemblages from the site indicate that the lanceolate Paleoindian point forms, such as Angostura, continue from the Paleoindian into the Early Archaic. However, these forms are replaced by corner- and basally-notched and shouldered forms (Early Triangular, Andice, Bell), and these quickly become the dominant points tipping the atlatl-thrown darts. In addition, the uses of small to medium hearths similar to the previous period were noted too. The appearance of earth ovens suggests a shift in subsistence strategies. The earth ovens encountered at the Wilson-Leonard site were used to cook wild hyacinth along with aquatic and terrestrial resources (Collins et al. 1998). Analyses of Early Archaic human remains encountered in Kerr County (Bement 1991) reveal diets low in carbohydrates in comparison to the Early Archaic populations found in the Lower Pecos region.

Middle Archaic

The Middle Archaic sub-period spans from 6000 to 4000 B.P. (Collins 1995, 2004; Weir 1976). Archaeological data indicates that populations may have increased during this time. Climate was gradually drying leading to the onset of a long drought period. Changes to the demographics and cultural characteristics were likely in response to the warmer and increasingly arid conditions. Projectile point styles included in this sub-period include Bell, Andice, Calf Creek, Taylor, Nolan, and Travis.

Subsistence during the Middle Archaic includes an increased reliance on nuts and other products of riverine environments (Black 1989). The upsurge of burned rock middens during the Middle Archaic represented the increased focus on the use of plant resources (Black 1989; Johnson and Goode 1994). Little is known about burial practices during the Middle Archaic, however an excavation of an Uvalde County sinkhole (41UV4) contained 25–50 individuals (Johnson and Goode 1994:28).

Late Archaic

The Late Archaic spans from 4000 to 1200 B.P. (Collins 1995, 2004). It is represented by the Bulverde, Pedernales, Kinney, Lange, Marshall, Williams, Marcos, Montell, Castroville, Ensor, Frio, Fairland, and Darl projectile points. The early part of the Late Archaic exhibited fluctuations in the temperature and rainfall. There appears to have been an increase in population at this time (Nickels et al. 1998).

While some researchers believe that the use of burned rock middens decreased during the Late Archaic, recent research has challenged this notion (Black and Creel 1997; Mauldin et al. 2003). Johnson and Goode (1994) discuss the role of burned rock middens in relation to acorn processing.

Burials related to the Late Archaic in Central and South Texas suggests the region saw an increase in population. This increase may have prompted the establishment of territorial boundaries which resulted in boundary disputes (Story 1985). Human remains dating to this sub-period have been encountered near the Edwards Plateau.

Large cemeteries located in the coastal plain have provided insight into the Middle and Late Archaic. The Harris County Boy's School site provided insight into how evolving estuaries changed site function and use over time. During the Middle Archaic, the site was located inland from the Galveston Bay estuary. Estuaries were exploited during mid-summer, but by late summer to early fall, people moved inland. The exploration of shell middens and fish otolith studies revealed that this subsistence strategy continued through the Late Archaic (Aten 1983:158-159). The Ernest Witte Site (41AU36) provided insight into long-distance trade during the Late Archaic. Items such as sting ray spines and columella atlatl weights from either the Texas or Florida Gulf Coast, corner tang knives from the Edwards Plateau, and stone gorgets from the Ouachita Mountains of Arkansas, were found at the site (Story 1990:237-243).

Transitional Late Archaic/Early Ceramic Period

Although Ricklis (2004:189) argues that the introduction of pottery into the region marks the end of the Archaic period, archaeological evidence indicates that there was cultural and technological continuity throughout this time period. The earliest pottery in Southeast Texas assemblages appears around 200 BC. Tchefuncte ceramics, typically thick-walled vessels, date to AD 200 and are found in the Galveston Bay area. In the inland region, sandy paste ceramics were adopted around AD 500 (Ricklis 2004:200). The

adoption of ceramics does indicate a change in how people stored, processed, and prepared plant and animal resources. In addition, the rapid innovations of ceramic technology in the region provide further evidence of distinct ethnic groups inhabiting the coastal and the inland regions.

Late Prehistoric Period

The Late Prehistoric period begins ca. 1200 B.P. (Collins 1995, 2004), and appears to continue until the Protohistoric period (ca. A.D. 1700). A series of traits characterize the shift from the Archaic to the Late Prehistoric period. The main technological changes were the adoption of the bow and arrow and the introduction of pottery. The period is divided into two phases: The Austin phase and the Toyah phase. At the beginning of this period, environmental conditions were warmer and dryer. However, moister conditions appear after 1000 B.P. (Mauldin and Nickels 2001). Plant and faunal remains at Late Prehistoric sites indicate that subsistence practices are similar to that of the Late Archaic. Projectile points associated with the Austin phase include the Scallorn and Edwards types. The Toyah phase is characterized by the prominence of the Perdiz point (Collins 1995, 2004).

Most researchers concur that the early portion of the Late Prehistoric period saw a decrease in population density (Black 1989:32). Radiocarbon dates from some sites have indicated that the middens were utilized during the Late Prehistoric. Some archaeologists feel the peak of midden use was after A.D. 1 and into the Late Prehistoric (Black and Creel 1997:273). Radiocarbon dates from Camp Bowie middens provide evidence that supports Black and Creel's arguments that burned rock middens were a primarily Late Prehistoric occurrence (Mauldin et al. 2003).

Beginning rather abruptly at about 650 B.P., a shift in technology occurred. This shift is characterized by the introduction of blade technology, the first ceramics in Central Texas (bone-tempered plainwares), the appearance of Perdiz arrow points, and alternately beveled bifaces (Black 1989:32; Huebner 1991:346). Prewitt (1981) suggests this technology originated in north-central Texas. Patterson (1988), however, notes that the Perdiz point was first seen in southeast Texas by about 1350 B.P., and was introduced to west Texas some 600 to 700 years later.

Early ceramics in Central Texas (ca. A.D. 1250 to 1300) are associated with the Toyah phase of the Late Prehistoric and are referred to as Leon Plain ware. The Leon Plain ceramic types are undecorated, bone-

tempered bowls, jars, and ollas with oxidized, burnished and floated exterior surfaces (Ricklis 1995). There is notable variation within the type (Black 1986; Johnson 1994; Kalter et al. 2005). This variation can be attributed to differences in manufacturing techniques and cultural affiliation. Analysis of residues on ceramic sherds suggests that vessels were used to process bison bone grease/fat, mesquite bean/bison bone grease and deer/bison bone grease (Quigg et al. 1993).

The return of bison to South and Central Texas during the Late Prehistoric resulted from a drier climate in the plains located to the north of Texas and increased grasses in the Cross-Timbers and Post Oak Savannah in north-central Texas (Huebner 1991). The increased grasses in the two biotas formed the “bison corridor” along the eastern edge of the Edwards Plateau and into the South Texas Plain (Huebner 1991:354–355). Rock shelter sites, such as Scorpion Cave in Medina County (Highley et al. 1978) and Classen Rock Shelter in northern Bexar County (Fox and Fox 1967), have indicated a shift in settlement strategies (Skinner 1981). Burials encountered that dated to this period often reveal evidence of conflict (Black 1989).

Protohistoric and Historic Period

The Historic period is marked by the first European contact with indigenous populations in Texas. During this period, there was intermittent contact between the native groups and Spanish explorers. The period encompasses the approximately 175 years before the Spanish significantly impacted the indigenous groups in the area. A few encounters between the indigenous communities and Europeans were recorded, including those of Cabeza de Vaca (1528-1536) and the French settlement of Fort Saint Louis established by Rene Robert Cavelier, Sieur de La Salle (1685-1689) (Weddle 2001).

French explorers and traders encountered Atakapan groups, including the Arkokisas (Orcoquisacs) and Bidai in the 1730s and 1740s. French trade items, including glass beads and nails, are found at Arkokisas sites from this time period (Ricklis 2004:198). From early ethnohistoric accounts, it is clear that sub-groups of the Atakapans utilized coastal and inland resources, and the confluences of streams and rivers for camps (Anderson 1999:154-176; Aulbach 2012:15). A French presence in the region spurred the Spanish to establish missions and marks the start of the Historic period. However, these settlements were short-lived and the Spanish left the region by 1756.

Harris County

In 1824, Stephen F. Austin issued land grants along the Brazos, Colorado, and San Bernard Rivers to Anglo immigrants who are called the Old Three Hundred (Long 2020). Part of this settlement included future Harris County, which would become the southeastern border for Austin's colony (Henson 2020a). In 1826, John R. Harris founded Harrisburg near Brays Bayou and Buffalo Bayou that was later established as a port of entry for the region in 1833. Due to its location and port, Harrisburg served as the home for President David G. Burnet and Vice President Lorenzo de Zavala of the Republic of Texas. Harrisburg was burned down by Santa Anna shortly before the battle of San Jacinto. Following the Texas Revolution, the county of Harrisburg—later Harris County—was created and the small city of Houston was recognized as a county seat. Development of the area through railroads, canals, and other industry started following the Civil War.

Harris County truly emerged as an important industrial zone in 1911 with the approval for the formation of the Harris County Ship Channel Navigation District. By 1914, the U.S. Army Corps of Engineers had completed a 50-mile long and 25-foot deep channel that ran from the Gulf of Mexico to its terminus at the Port of Houston (Henson 2020b). The addition of oil refineries in the area along Buffalo Bayou and the San Jacinto River prompted both the deepening and widening of the channel to accommodate larger vessels. The Harris County Navigation District has since become highly profitable and owns several facilities related to shipping such as the Long Reach Docks, the container facility at the Bayport Industrial Complex, and a bulk handling plant at Greens Bayou. Additionally, in the 1950's the Harris County Navigation District partnered with both the national and state government to construct the Washburn Tunnell under Buffalo Bayou as well as the Baytown-La Porte Tunnel beneath the San Jacinto River (Henson 2020b). Another engineering feat accomplished in Harris County was the construction of the Astrodome in 1965, which was the first stadium of its kind with air conditioning and facilities for multiple sports (Chandler 2020). Also in the 1960's, the land east of Webster, Texas became the home of the National Aeronautics and Space Administration (NASA) Manned Spacecraft Center, which was later renamed the Lyndon B. Johnson Space Center in 1973 (Alexander and Kleiner 2020).

The ship channel has attracted numerous industries, which caused a surge in population. The census of 1930 recorded 359,328 people in Harris County, which surpassed both Dallas and Bexar Counties by more than 100,000 people (Henson 2020b). By 1960, the population of Harris County was over 1 million people.

In 1990, the population of Harris County reached 2,818,199 people, the majority of which were both Anglo and Hispanic (Henson 2020b). The most recent population estimate for Harris County shows that it has approximately 4,713,325 people living within the county (United States Census Bureau 2020).

Town of Hockley

Closer to the project area is the town of Hockley, Texas. It is thirty-six miles (fifty-eight km) northwest of Houston on highway 6, U.S. Highway 290 and the Southern Pacific line in northwestern Harris County. The earliest settler in the vicinity was Sam McCurley in 1829. In 1835, the community was established by George Washington Hockley. In the 1860's there was a movement to create a new county called Hockley, with the town as the new county seat, though the efforts failed. In 1890 the community population was 296 with two general stores and a hotel by 1892. The town remained mostly the same through until the 1990's when the population rose slightly and businesses increased to around 45 (Kleiner 2020).

Previous Archaeological Investigations and Known Cultural Resources

RKI conducted a desktop review to determine if any previously conducted archaeological investigation or any cultural resources had been documented within the APE. Examination of the Texas Archeological Sites Atlas (*Atlas*), an online database maintained by the THC, revealed that a single linear survey coincided with the APE (**Figure 3-1**) (THC 2020). Examination of a 1-mile (1.6-km) radius of the project area identified five additional archaeological surveys and one previously recorded archaeological site (41HR365) (**Figure 3-1** and **Tables 3-1 and 3-2**). No other documented cultural resources were identified within the 1-mile (1.6-km) buffer around the project area.

A single linear survey, conducted by Lower Colorado River Authority (LCRA) in 2003, under the sponsorship of the LCRA, is mapped parallel to the APE. The survey did not encounter any archaeological sites (THC 2020). An additional five archaeological surveys were undertaken within the 1-mile (1.6-km) buffer (**Table 3-1**). The earliest known survey was an area survey conducted by HRA Gray & Pape, LLC for Harris County Public Infrastructure Department in 2006. A 2013 area survey by Atkins for Harris County Flood Control District and 2015 area survey by Moore Archaeological Consulting for Harris County overlapped portions of the 2006 survey. None of these three surveys recorded any archaeological sites (THC 2020). The remaining two surveys within 1-mile of the APE lack any additional recorded information in *Atlas*. One

survey was either a linear or area survey, while the other was conducted parallel to State Highway 290 to the southwest of the APE.

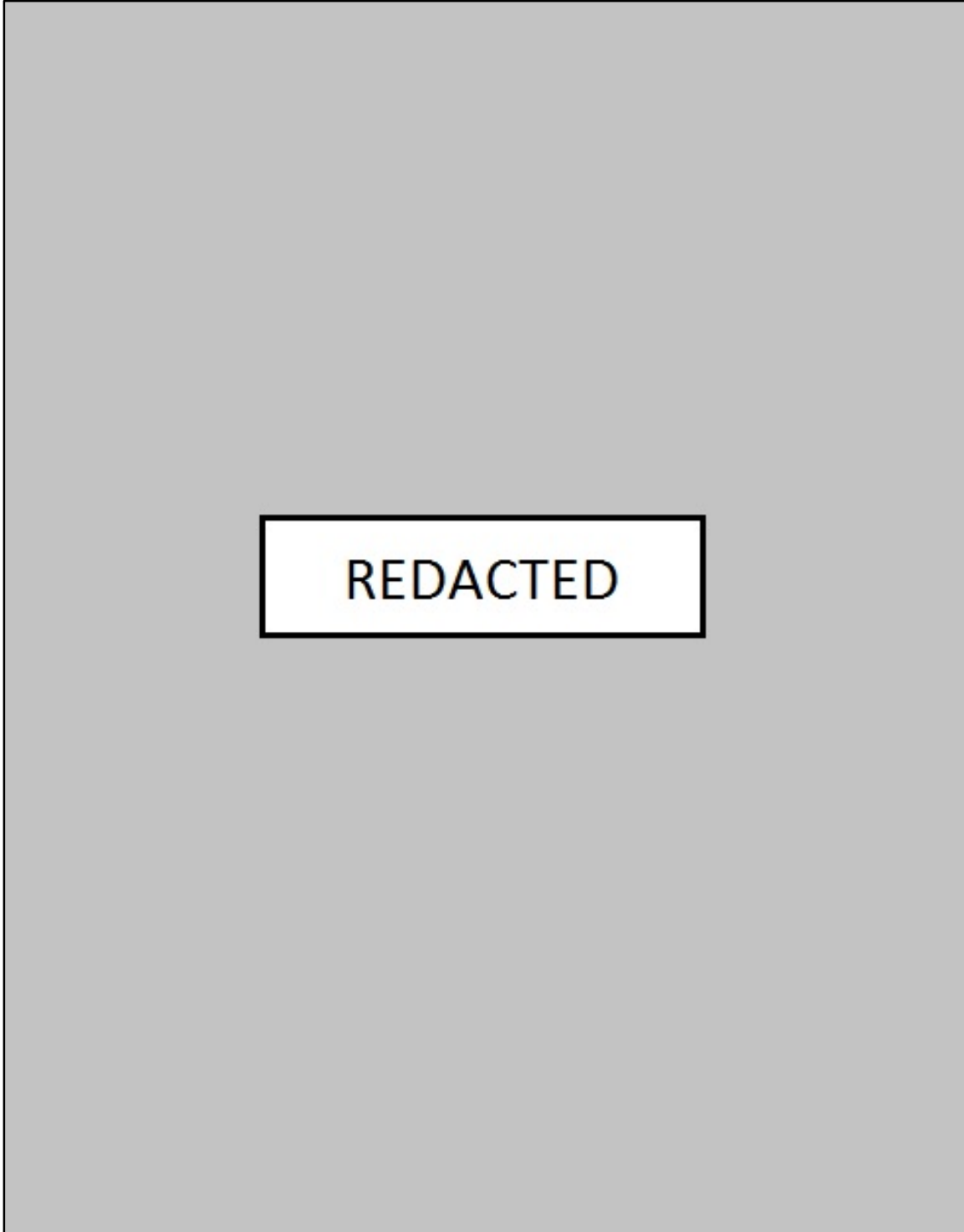


Figure 3-1. Previously conducted archaeological investigations and cultural resources within 1-mile (1.6-km) of the APE.

Table 3-1. Summary of Previously Conducted Investigations Within 1-mile (1.6-km) of the APE.

Year of Investigation	Distance from APE	Investigative Firm/TAC Permit No.	Brief Summary of Investigations
2003	Within APE	LCRA/TAC No. 3043	Linear survey conducted under the sponsorship of LCRA.
2006	0.4 mile southeast	HRA Gray & Pape, LLC/TAC No. 4251	Area survey conducted under the sponsorship of the Harris County Public Infrastructure Department.
2013	0.57 mile southeast	Atkins/TAC No. 6617	Area survey conducted under the sponsorship of the Harris County Flood Control District
2015	0.33 mile southeast	Moore Archaeological Consulting/TAC No. 7286	Area survey conducted under the sponsorship of Harris County.
Not listed	0.8 mile west	Not listed in <i>Atlas</i> .	No additional details in <i>Atlas</i> .
Not listed	0.98 mile southwest	Not listed in <i>Atlas</i> .	No additional details in <i>Atlas</i> .

Table 3-2. Summary of Known Cultural Resources Within 1-mile (1.6-km) of the APE.

Cultural Resource	Distance from Project Area	Resource Description	Eligibility Status
41HR365	0.89 mile north	Primarily lithic scatter with one historic lock recovered by property owners.	Indeterminable

The one archaeological site (41HR365) within the 1-mile buffer was recorded based on interviews with two locals that identified the site either as an isolated historic find or a cache of tested chert cobbles. Both interviewees reported 35 tested chert cobbles, two projectile points, and a cast iron lock. One of the interviewees reported that the cobbles were found on a sandy knoll, which he trenched via a backhoe and reported no additional cultural materials. Interviewees reported that these materials were recovered in or near a tributary of Spring Creek (THC 2020).

CHAPTER 4. METHODS OF INVESTIGATION

To ensure the project adhered to the requirements of the regulating agencies, **RKI** performed an intensive pedestrian survey augmented with shovel testing of the APE. All work complied with THC and CTA guidelines and standards. Investigations ensured that if historic or prehistoric deposits and/or features were present within the APE, they were properly recorded and evaluated prior to negative impacts associated with the proposed project. The ground surface inspection along the direct APE was accomplished with archaeologists walking transects spaced approximately 30 m apart with shovel tests being placed at intervals of approximately 100 m.

Field Methods

The entire APE was subject to an intensive survey augmented with shovel testing totaling 1,100-feet (335 m). The THC minimum survey standards recommended for linear surveys of project areas is one shovel test every 100 m. The direct APE was 335 m, thus requiring 4 shovel tests. During the survey, **RKI** archaeologists attempted four shovel tests; however, only two shovel tests were excavated due to a buried concrete bridge abutment.

Shovel tests measured from 12 to 13-inches (30 to 33 cm) in maximum diameter and were excavated in 8-inch (20 cm) levels, with all soils screened through a ¼-inch mesh to observe artifacts. Depths of shovel tests extended to 16-inches (40 cm) below surface. A shovel test form was completed for each excavated shovel test. Data collected from the shovel test included the final excavation depth, reason for termination, disturbances noted, and references a brief soil description (texture, consistency, Munsell color, inclusions). The location was recorded using a sub-meter accurate, hand-held Trimble GPS unit. A shovel test log containing data from each shovel test is provided in Appendix A.

Laboratory Methods

The project adhered to a temporally diagnostic artifact collection only policy. No diagnostic artifacts were identified during the course of the investigations, thus, no artifacts were collected. All project-related documentation produced during the survey were prepared in accordance with federal regulation 36 CFR Part 79, and THC requirements for State Held-in-Trust collections. Field notes, field forms, photographs,

and field drawings were placed into labeled archival folders and converted into electronic files. Digital photographs were printed on acid-free paper, labeled with archivally appropriate materials, and were placed in archival-quality plastic sleeves when needed. All field forms were completed with pencil. A copy of the report and all digital materials were saved onto a CD and stored with field notes and documents. Records will be permanently housed at the Center for Archaeological Research at the University of Texas at San Antonio.

CHAPTER 5. RESULTS OF INVESTIGATIONS

On October 7, 2020, **RKI** conducted an intensive cultural resources survey of the approximately 1.89-acre APE for the proposed Harris County Asphalt Package 2 Project. The investigation consisted of a pedestrian survey augmented by shovel testing. As a result of the investigations, a total of 4 shovel tests (CM1–CM2 and TL1–TL2) were attempted; however, only 2 were excavated (**Figure 5-1**). Shovel tests CM2 and TL2 were not excavated due to Little Cypress Creek and a buried culvert at the crossing. No cultural materials were observed on the surface or encountered within any of the shovel tests.

The APE was situated along the existing ROW of Bauer Hockley Road. The southern shoulder was approximately 7-feet (2 m) wide and the northern shoulder was approximately 10-feet (3 m) wide (**Figure 5-2**). The terrain was generally level due to grading; however portions of the edges of shoulders sloped downward towards the tree line (**Figure 5-3**). Due to the natural topography, a portion along the northern side of the APE gradually sloped upwards (**Figure 5-4**). Vegetation within the APE was comprised of grasses, allowing for no surface visibility (see **Figures 5-2–5-4**). Disturbances observed within the APE consisted of an existing culvert box and guard rails that had been installed at the crossing of Little Cypress Creek (**Figure 5-5**). The culvert box extend east/west approximately 300-ft (91.4 m) from the eastern-most extent of the APE. During the pedestrian survey of the APE, no cultural materials were observed on the surface of the APE.

Shovel Testing

As part of the pedestrian survey, **RKI** attempted a total of 4 shovel tests within the APE. Two shovel tests (CM2 and TL2) were not excavated due to the presence of a culvert box, which was obscured beneath a layer of vegetation. Depths of the excavated shovel tests reached a depth of 16-inches (40 cm) below surface and were terminated due to compact sandy soils. Soils encountered uniform. The average shovel tests exhibited a soil profile of a dark grayish brown (10YR 4/2) sandy loam underlain by a brown (10YR 4/3) sandy clay with the only inclusions being some gravels near the surface (**Figure 5-6**). Redoximorphic features were present in both shovel tests, with soils appearing to be hydric. One shovel test (TL1) had mussel shell fragments mixed throughout both the sandy loam and sandy clay. All shovel tests were negative for prehistoric and historic subsurface cultural materials.



Figure 5-1. Results of the investigation.



Figure 5-2. View along centerline of APE at the western end; facing east.



Figure 5-3. Overview of northern shoulder of Bauer Hockley Road within APE gradually sloping upward; facing west.



Figure 5-4. Overview of a portion of the northern shoulder of Bauer Hockley Road within APE gradually sloping upward; facing west.



Figure 5-5. Overview of culvert and guard rails at Little Cypress Creek; facing west.



Figure 5-6. Shovel Test CM 1 terminated at 40 cmbs due to compact soils.

CHAPTER 6. SUMMARY AND RECOMMENDATIONS

Raba Kistner, Inc. (RKI) was contracted by Harris County Engineering Department (CLIENT) to conduct archaeological investigations in support of road improvements along 5.35 miles (8.6 kilometer [km]) of existing road along House Road, Bauer Hockley Road, Becker Road, Kickapoo Road, and Badtke Road, located in northwestern Harris County, Texas. The purpose of this investigation was to identify any surface-exposed or shallowly buried cultural deposits within the limits of the proposed undertaking and, if possible, assess their significance and eligibility for inclusion in the National Register of Historic Places (NRHP) and for formal designation as State Antiquities Landmarks (SALs). As the project will be conducted on publicly-owned land and is sponsored by the Harris County Engineering Department, an entity of the State of Texas, the project was subject to review under the Antiquities Code of Texas (ACT) (Texas Natural Resources Code, Title 9, Chapter 191). All work was conducted in accordance with the Archaeological Survey Standards for Texas, as set forth by the Council of Texas Archaeologists (CTA) and the Texas Historical Commission (THC) under Texas Antiquities Committee Permit Number 9623.

Investigations consisted of a background review and intensive pedestrian survey augmented with shovel testing within the area of potential effects (APE). The background review revealed that the majority of the project area is underlain by soils derived from loamy deposits of the Pliocene-age Willis Formation. One area along Bauer Hockley Road totaling 1,100-feet (335 meters [m]) contained Holocene-age deposits. As such, in a background review submitted for consultation to the THC, **RKI** recommended that archaeological investigations focus on the area containing the Holocene-age deposits. Based on the information provided in the background review, the THC concurred with the recommendation. Therefore, the APE for the project is defined as the one 1,100-feet (335 m) area along Bauer Hockley Road within the 75-foot (22.8 m) ROW, totaling approximately 1.89-acres (0.76 hectares [ha]).

On October 7, 2020, **RKI** conducted an intensive cultural resources survey of the approximately 1.89-acre APE. During the pedestrian survey of the APE, it was found that the area had been lightly graded for the existing roadbed with both shoulders consisting of graded shoulders. The shoulders were observed to slope downwards to the tree line and in some cases along the northern side of the APE, upwards towards the tree line. Disturbances observed within the APE consisted of an existing culvert box and guard rails that had been installed at the crossing of Little Cypress Creek. As a result of the pedestrian survey, 4 shovel

tests (CM1–CM2 and TL1–TL2) were attempted; however, only 2 were excavated. No cultural materials were observed on the surface or encountered within any of the shovel tests.

RKI has made a reasonable good faith effort to identify cultural resources within the APE. No significant deposits or features were identified during the intensive pedestrian survey. As such, **RKI** recommends no further archaeological investigations within the APE. However, should changes be made within the APE, further work may be required. All field records and photographs produced during investigations will be permanently housed at the Center for Archaeological Research at the University of Texas at San Antonio.

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APPENDIX A
Shovel Test Log

Shovel Test Log

Shovel Test No.	Depth (cm)	Munsell	Soil Color	Soil Texture	Inclusions	Positive/Negative	Cultural Materials	Reason for Termination / Comments
CM1	0-20	10YR 4/2	Dark Grayish Brown	Sandy Loam	10% gravels, 5% redoximorphic features	Negative	-	-
	20-40	10YR 5/3	Brown	Sandy Clay	10% redoximorphic features	Negative	-	Compact Soils at 40 cmbs
CM2	0-20	-	-	-	-	-	-	No Dig
TL1	0-20	10YR 4/3	Brown	Sandy Clay Loam	-	Negative	-	-
	20-40	10YR 4/3	Brown	Sandy Clay	-	Negative	-	Compact soils at 40 cmbs
TL2	0-20	-	-	-	-	-	-	No Dig