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Spring Creek Nature Area Collin County, Texas

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Spring Creek Nature Area Collin County, Texas

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ARCHAEOLOGICAL SURVEY OF THE PROPOSED

SPRING CREEK NATURE AREA

COLLIN COUNTY, TEXAS

Texas Antiquities Permit Number 8257

Cody S. Davis, MA
Principal Investigator
and
Joy C. Tatem, BA

Submitted to:

RICHARDSON PARKS & RECREATION DEPARTMENT

411 W. Arapaho Rd. Suite 208
P.O. Box 830309
Richardson, TX 75083

Submitted by:

AR CONSULTANTS, INC.

805 Business Parkway
Richardson, Texas 75081

Cultural Resources Report 2018-10
January 22, 2018

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ABSTRACT

Richardson Parks & Recreation Department is planning new trails and park features for the additional acreage the city recently acquired around the Spring Creek Nature Area in Richardson, Texas. The city acquired an additional 50 acres in the southwestern portion of Collin County. The parks department has plans to construct new trails and park facilities on the properties to connect to existing facilities. The overall property is bounded by Renner Road on the north, Plano Road on the east, and Routh Creek Parkway on the west. The additional properties were surveyed and a total of 46 shovel tests were excavated on January 10, 11, and 15, 2018 under Texas Antiquities Permit 8257. The purpose of this investigation was to determine if significant cultural resources are present in the newly acquired acreage. Site 41COL82 was an Early Archaic prehistoric artifact scatter recorded during the original survey in 1991, however, the site was not relocated and appears to have been destroyed or eroded away. The site is therefore not recommended eligible for NRHP or SAL listing. Site 41COL304 is the remains of a mid-20th century historic trash scatter and is not recommended eligible for NRHP or SAL listing given the surficial nature of the site and broadly diagnostic artifacts. No other cultural resources were identified on or below the surface during the survey. Based on the results of the survey, ARC concludes that further cultural resource investigations for this project are unwarranted, and requests that the THC concur with this recommendation. However, if buried cultural materials are discovered during construction, the Archeology Division of the THC should be notified. The project will be curated at the Center for Archaeological Studies, Texas State University, San Marcos.

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INTRODUCTION

Richardson Parks & Recreation Department (RPRD) is planning new trails and park features for the additional acreage the city recently acquired around the Spring Creek Nature Area in Richardson, Texas (Figure 1). The city acquired 50 acres in the southwestern portion of Collin County. The RPRD has plans to construct new trails and park facilities on the properties to connect to existing facilities. The overall property is bounded by Renner Road (Rd) on the north, Plano Rd on the east, and Routh Creek Parkway on the west.

RPRD is managing the design of the park and has contracted with AR Consultants, Inc. (ARC) to conduct the intensive pedestrian survey of the additional 50 acres. However, four of those acres overlap with the previously recorded Routh Woods site, 41COL83 (TASA 2018), which has been determined ineligible for listing on the National Register of Historic Places, therefore no survey within that site was necessary (Figure 2). The site was thoroughly recorded and mapped during the DART Rail survey by GeoMarine, Inc. (Green et al. 1997). ARC conducted surveys and testing around both known cemeteries associated with the Routh Family and 41COL83, which are on private property (Rutherford and Skinner 2017; Rutherford et al. 2017). Additionally, the bulk of the site is on these private properties. ARC surveyed the original property for the Spring Creek Nature Area and recorded prehistoric site 41COL82 (Skinner 1991).

The cultural resource investigation was required because the City of Richardson is a state entity and Texas Antiquities Permit Number 8257 was issued for the archaeological survey. Relevant legislation includes the Antiquities Code of Texas (Texas Natural Resource Code, Title 9, Chapter 191). The Archeology Division of the Texas Historical Commission (THC) will review this report on behalf of the State.

This report is written in accordance with report guidelines used by the Archeology Division of the THC (Council of Texas Archeologists n.d.). The following report presents a brief description of the natural setting of the project area, followed by a discussion of the culture history and previous investigations within the study area. A chapter on the research design and methodology employed in the investigation is then followed by the results of the field investigation. The report concludes with recommendations followed by the references cited.

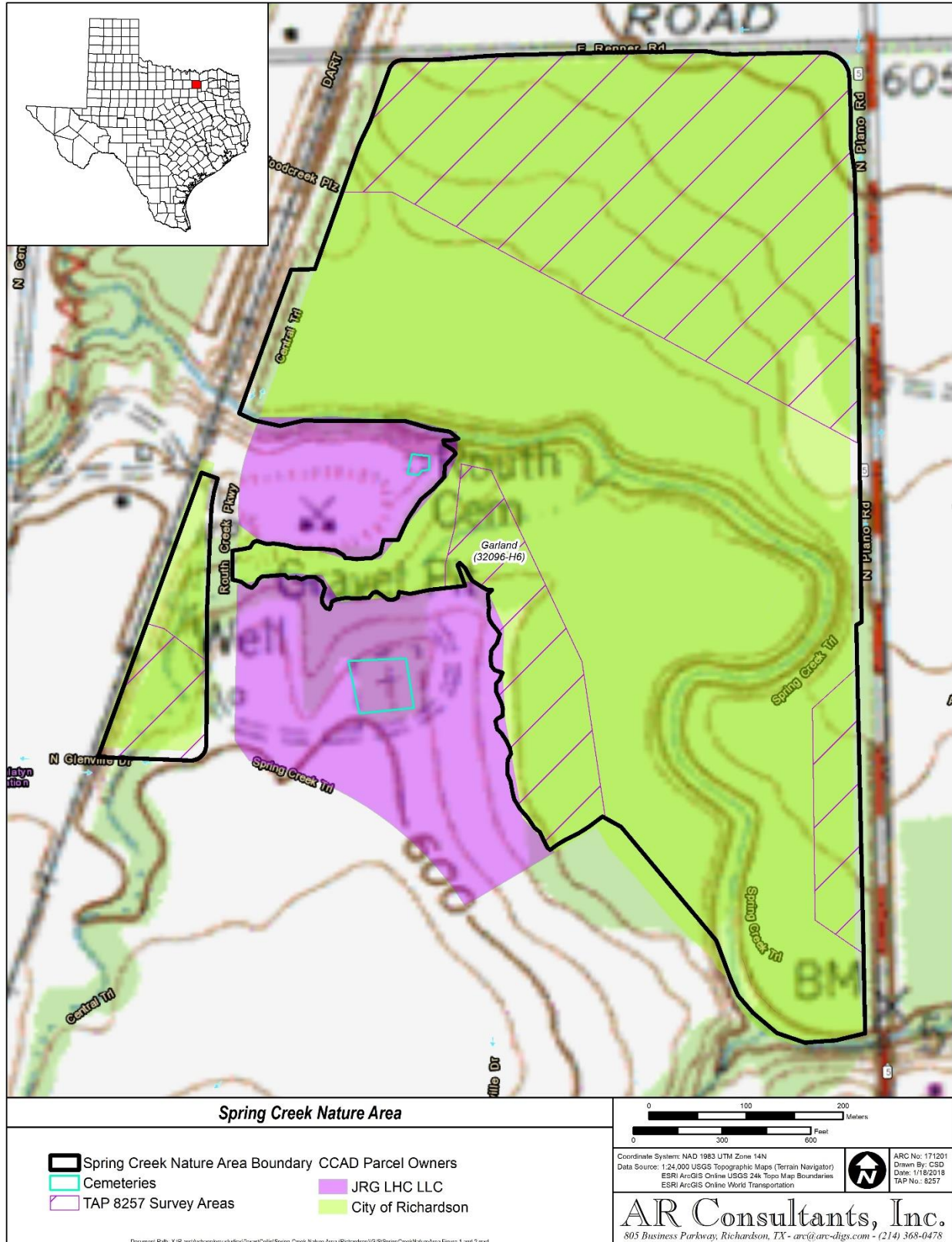


Figure 1. Spring Creek Nature Area shown in relation to parcel owners, known cemeteries, and survey areas on the Garland, TX 7.5' USGS topographic map.

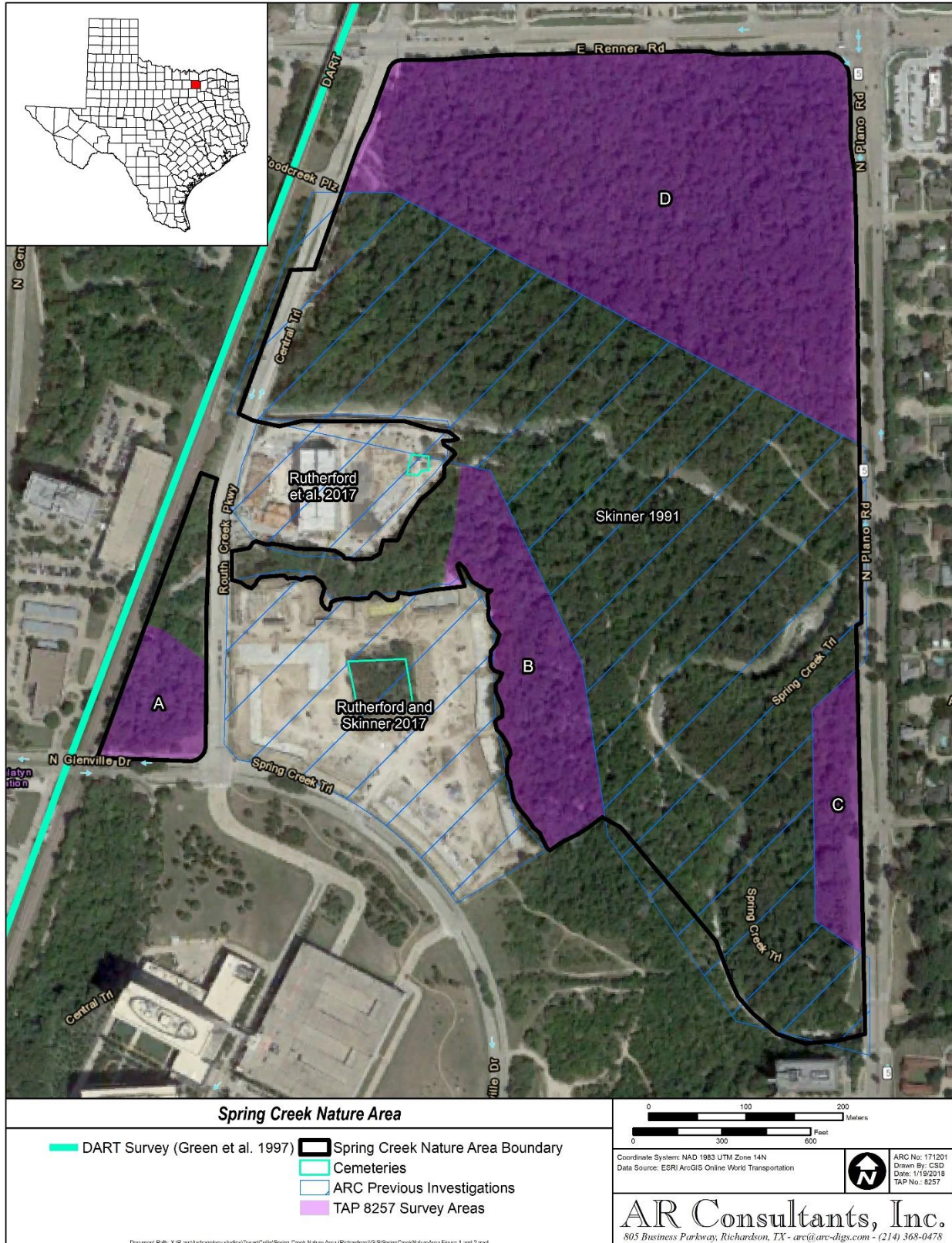


Figure 2. Spring Creek Nature Area shown in relation to labeled survey areas and previous investigations on a September 2017 Google Earth aerial photograph.

Administrative Information:

ARC Project Number: 171201
Sponsor: Richardson Parks & Recreation Department
Review Agency: The Archeology Division of the Texas Historical Commission
Principal Investigator: Cody S. Davis, MA
Field Dates: January 10, 11 and 15, 2018
Field Crew: Cody S. Davis and Joy C. Tatem
Field Person Days: 4.5
Acres Surveyed: approximately 46 acres
Sites Investigated:
 Prehistoric: 41COL82 (Revisit)
 Historic: 41COL304
Curation: Center for Archaeological Studies, Texas State University, San Marcos

NATURAL ENVIRONMENT

The project area is situated within the Northern Blackland Prairie Ecoregion of Texas. This ecoregion is composed of rolling to nearly level plains that formed over Upper-Cretaceous marl, chalk, limestone, and shale (Griffith et al. 2007:61-62). In a climax setting, the Northern Blackland Prairie is a tallgrass prairie, dominated by big and little bluestem, Indiangrass, and tall dropseed growing on the region's deep, fertile, "black waxy" soil, which gives the Prairie its name. Today, most of the study area supports a young growth of deciduous and juniper trees (Griffith et al. 2007: 62). Within areas A and B (Figure 2), there is an unnamed intermittent stream that drains north into a west to east flowing tributary of Spring Creek; areas C and D are within 100 meters of Spring Creek, though no streams are mapped within their bounds. Historic agricultural land use combined with upland topography creates an erosional environment in the study area that became forested in the historic period since farming stopped.

The underlying geology consists of Upper Cretaceous age Austin chalk undivided, with a thickness of about 600 ft (Bureau of Economic Geology 1967). The upper and lower parts include chalk and light gray massive calcareous clay. The middle part includes thin-bedded marl with inter-beds of massive chalk and light gray clay. Austin chalk is highly fractured, faulted, and jointed (Allen and Flannigan 1986). The chalk, which has weakened, has two upland soils on its surface: eroded Altoga silty clay with 5-8 percent slopes and Austin silty clay with 1-5 percent slopes (Hanson and Wheeler 1969: Sheet 59). These two soils underlie the entirety of area A, while also underlying portions of the other three areas (B, C, D). The A horizon of the Altoga series, where cultural deposits are most likely to be found, is approximately 7 inches thick and comprised of light brownish gray/pale brown silty clay. The Bw horizon is usually encountered directly below the A horizon. The topsoil of the Austin series averages approximately 16 inches of dark grayish brown/brown silty clays resting on a Bw horizon. Aside from these two soils, areas B and C are also underlain by the occasionally flooded Trinity clay with 0-1 percent slope and the Houston Black clay with 1-3 percent slopes; these soil series are very similar, characterized by an 8- to 16-inch-thick A horizon of very dark gray clay which rests on a Bkss1 horizon at 16 inches. Area D is also underlain partially by Houston Black clay, though the majority is underlain by Lewisville silty clay with 3-5 percent slopes. Much like the Austin series, the A horizon of the Lewisville series averages approximately 16 inches of dark grayish brown silty clay and rests directly on a Bw horizon.

CULTURAL HISTORY

A prehistoric chronology, based on Prikryl (1990), with an added historic period, for North Central Texas is presented below to provide the reader with a temporal framework for the culture history of the region.

Table 1. Cultural Chronology

Historic European	A.D. 1800 to present
Protohistoric [Historic Native American]	A.D. 1600 to A.D. 1800
Late Prehistoric	A.D. 700 to A.D. 1600
Late	A.D. 1400 to A.D. 1600
Middle	A.D. 1000 to A.D. 1400
Early	A.D. 700 to A.D. 1000
Archaic	6000 B.C. to A.D. 700
Paleoindian	ca. 11,000 B.C. to 6000 B.C.

The Paleoindian period is characterized as having small, nomadic bands of hunter-gatherers whose primary emphasis was the exploitation of now-extinct megafauna, such as mammoth and bison. Smaller game and plant gathering likely supplemented the Paleoindian diet (Meltzer and Bever 1995:59). As such, the archaeological record for the region consists of several distinctive styles of projectile points, such as the Clovis, Plainview, and Folsom. Currently, no Clovis points have been reported in Collin County, but numerous have been found in surrounding counties (Bever and Meltzer 2007:67-70). Subsistence patterns began to change as a general drying climatic trend swept the region, leading to extinction of many of the area's large mammals toward the end of the Paleoindian period.

The Archaic period is characterized by increased alluviation of water channels and a generally wetter environment than the previous period. This change in climate resulted in modification of Native American subsistence patterns, with broad exploitation of bottomland food resources. This, in turn, resulted in clusters of seasonal settlements along large drainages, including the Trinity River and its various forks and tributaries, and a marked increase in population density. With the advent of repeated, seasonal occupation of sites along drainages came a perceived increase in territorial constrictions among different groups in the region, with several authors citing the limited use of regional lithic resources as evidence of this trend (Skinner 1981; Prewitt 1983).

The Late Prehistoric period is interpreted as a dryer period, with a focus on procurement of faunal resources, agriculture, and food preservation. The appearance of pottery and the bow and arrow help date artifact assemblages to this period (Shafer 1977). The Protohistoric period is characterized by Native American abandonment of north central Texas in the period around 1500/1600, with almost no archaeological evidence found in the region dating to this time (Skinner 1988).

The Historic European period saw widespread Anglo settlement of north central Texas beginning in the 1830s. This expansion often resulted in brutal conflicts between settlers and nomadic bands of Native Americans (Garrett 1972:24). These early conflicts gave way to various Anglo strategies aimed at cohabitation, including peace treaties signed as early as 1843. Eventually, the entirety of north central Texas was settled, with numerous Anglo military installations established in the

region. After Texas became part of the United States in 1845, peace was short lived. The Civil War took its toll on the north central Texas population, as most of the able-bodied men left to fight for the Confederacy.

There is very little evidence of historic-era Native American occupation anywhere in the Dallas area, although historic accounts indicate that groups were present in the early 1800s. Beginning in the 1830s and continuing into the 1840s, the aboriginal inhabitants continued to play a role in the regional history. Garrett (1972:24) states, “Indian hostilities almost depopulated North Texas (of Anglo dwellers) after 1839. It dwindled to less than half.” Hostilities continued until the Republic of Texas and ten Native American tribes signed the Treaty of 1843. This treaty provided the impetus for settlement of several North Central Texas counties.

Collin County was separated from Fannin County in 1846 and McKinney became the county seat (Minor 2015). The first phase of settlement in Collin County was from 1840 to 1860. Commercial farming was not important until after the Civil War, and the early settlers were essentially self-sufficient. Besides domestic plants and animals, wild animals and plants were commonly consumed, so settlers established homesteads near creeks and rivers. In 1872, the Houston and Texas Central Railway became the first major route through the county, initiating the second phase of settlement near railroad hubs. By 1870, cotton, corn, and wheat were the main cash crops. The county experienced continuous growth until the Great Depression, but like most of the country, had recovered and was once again prospering by 1950. Post 1960, many farms and ranches turned to mechanized techniques and relied less on tenant farmers who had dominated the workforce in the 1800s and early 1900s. This led to a general decline in the county’s population. Recent decades have seen a dramatic increase in the county’s population and residential neighborhoods dominate the present-day landscape.

Previous Investigations

A search of TASA (2018) located no National Register of Historic Places (NRHP) properties or State Antiquities Landmarks (SALs) in the project areas or within a mile of the survey areas. There is one historical marker commemorating the late 19th century, Victorian-style Hill-Robberson House. Three archaeological sites, 41DL372, 41COL82, and 41COL83, are mapped within one mile of the study areas. The site boundary of 41COL83 overlaps with portions of areas A and B and site 41COL82 is less than 100 meters south of area D. Sites 41COL83 and 41DL372 are both historic homesteads. Site DL372 is located 0.55 miles southwest of the study area and was recorded during the Geo-Marine survey of the Dallas Area Rapid Transit (DART) corridor. Cultural materials were recorded through surface inspection and 16 shovel tests. Burned glass, whiteware, green glass, aqua glass, brick, cut nails, and a railroad spike were observed or recovered. The site was deemed ineligible for NRHP and SAL designation.

Site 41COL83, which is partially within the study area, was initially recorded by ARC in 1991 as the Routh Family Cemetery site (Skinner 1991). The site boundaries were expanded beyond the Routh Family cemetery by Geo-Marine to include the entirety of the Routh Family homestead, the Routh Family Cemetery, which includes a small pet cemetery, and the Jacob Routh Pioneer Cemetery (Green et al. 1997: 43-49). The Routh homestead is a mid-19th century homestead that included a wall, drainage, road, well-house, and bridge features. Historic artifacts of ceramic,

stoneware, animal bone, personal items, glass, brick, cement, railroad spikes, and insulator fragments were found at the site. One prehistoric artifact, the tip of a finished biface tool, was also found at 41COL83. The boundaries for the Routh homestead are based on positive shovel tests and surface scatter at the western portion of the site that may have been the location of a laborers' house and the surveys of the cemeteries associated with the Routh family. Archival research demonstrated that the Routh Family were involved with establishing a school and church along with the know cemeteries (Green et al. 1997: 38). The Routh home was also a stagecoach stop between Dallas and McKinney (Green et al. 1997: 38) and the route would have passed through the Spring Creek Nature Area. The area north of Spring Creek is thought to have been the Routh Family hunting area, and was not cleared for farming.

In 2015, Versar scraped around the perimeter of the Jacob Routh Pioneer Cemetery and found no evidence of unmarked grave shafts other than one pet burial (Penton 2015). In 2017, ARC revisited portions of 41COL83 as part of two private developments and in anticipation of construction around the cemeteries (Rutherford and Skinner 2017; Rutherford et al. 2017). ARC excavated additional shovel tests within the site as well as scraped and trenched around the cemeteries to confirm their boundaries. No burials were found outside the boundaries and the site was ultimately deemed ineligible for the NRHP or as an SAL. Both projects were allowed to proceed.

The 1991 ARC survey recorded site 41COL82 approximately 40 meters north of Spring Creek and 500 m south of Renner Rd. 41COL82 is a prehistoric site consisting of lithic debris, broken bifaces, and broken core fragments, possible fire-cracked rock, and a reworked side and basally notched dart point. The site was thought to be an Early Archaic temporary camp for subsistence activities. Artifacts were contained in a deposit of 20-30 cm thick topsoil that is resting on top of decomposing bedrock (Skinner 1991:12-14).

There are five linear surveys and three area surveys conducted within a mile of the study areas (TASA 2018). Two of the linear surveys were conducted by ARC (Skinner 2013; Todd 2004). Of the other three, two were conducted by the Texas Department of Transportation (TxDOT) in 1981 and 1982, while the third was conducted by Geo-Marine for DART in 1996 (Green et al. 1997; TASA 2018). Two of the area surveys were conducted by ARC (Davis and Coleman 2010; Skinner 1991). The other was conducted by Geo-Marine in 2005 (TASA 2018). The most recent area survey was conducted by Integrated Environmental Solutions, LLC. (Stone et. al 2017) and intersects the current project area C. Other than the three sites described above, none of the other surveys yielded positive results near the study area.

A review of historic aerial photographs indicates changes in land use for site 41COL83, which intrudes into study areas A and B. A 1953 aerial photograph indicates the agrarian nature of the study area and site 41COL83 (Figure 3). It shows structures to the west of the original Houston and Texas Central Railroad tracks running through site 41COL83. The Jacob Routh Pioneer Cemetery is clearly visible in the photograph, with the intermittent stream to the west. It also has recognizable farmland to the west, south, and east. There appears to be a structure to the east of the road across from the other Routh Homestead structures. By 1968 there appears to be little change in land use where the Routh homestead and the study area are. US 75 is shown just west of the structures on site 41COL83, with unimproved dirt paths going from the structures to US 75. The Jacob Routh Pioneer cemetery is still visible with no forest encroachment. The 1968 aerial is

clear enough to indicate the presence of the Routh Family Cemetery and the trail that leads to it. A 2015 aerial photograph indicates a radical change in land use since 1953. The buildings that were visible west of the railroad running through the site were absent in 2015. By 2015 they were replaced with commercial spaces. The agricultural use of the land to the west and southwest has been replaced by commercial buildings and road construction. The Jacob Routh Pioneer Cemetery is visible only because it appears to have a path around the perimeter. In this photograph, forest has been allowed to completely encroach on the agricultural land that once characterized the space around the cemetery and the adjacent farmland to the south. By 2015, the trail leading to the Routh Family Cemetery in 1968 has become an improved road. The 2017 aerial photograph shows that the developments around the cemeteries are well underway. Additionally, all four of the aerials shown in Figure 3 demonstrate that there was a cleared linear area in survey area D that extended from the Routh Creek Parkway and Renner Rd intersection southeast down to the major meander of Spring Creek. While the years have slowly been reclaiming this to dense vegetation, this area north of Spring Creek matches the description given for 41COL82 (TASA 2018; Skinner 1991: 12-13) as shown on the 1989 aerial that is closest to the time of site was recorded. There was a clear change from agricultural land use to commercial urbanization and forest encroachment indicated by the historic aerial photographs over the previous 60 years.



Figure 3. Spring Creek Nature Area shown on 1953, 1968, 1989, and 2017 aerial photographs.

RESEARCH DESIGN AND METHODOLOGY

Research Design

Based on previous investigation, the entirety of the Spring Creek Nature Area property and adjacent private properties were once owned by the Jacob Routh Family. The properties were in possession of the family until the mid-20th century. Based on the known prehistoric and historic archaeology of the area, we proposed the following two research questions.

The first research question concerns the prehistoric occupation of the study area. It was predicted that the study area had little likelihood of having been occupied prehistorically based on the low biotic diversity and lack of knappable gravels despite the presence of permanent water and the narrow tree corridor that was probably present along Spring Creek in the past. In nearby Dallas (Skinner et al. 1978:53-57), it has been concluded that prehistoric sites are rarely found in these upland settings, although the presence of site 41COL82 on the upland north of Spring Creek highlights the potential that predictive models are no guarantee of what will be found. As such, prehistoric archaeological sites might be present along the upland edge overlooking Spring Creek that were outside the original survey limits. Due to the small size of these water drainages, such sites are likely to be temporary hunting camps consisting of artifact scatters of lithic debris from imported cherts or local quartzite gravels, as well as fire-cracked rock similar to 41COL82.

The second question concerns the historic occupation of the study area. Given that the entirety of the study area was once associated with the Routh Family and site 41COL83. While site 41COL83 has been determined ineligible for the NRHP and SAL, other features could be found in the survey areas that would be associated with the family. The land use over the last 60 years tempers that potential. Since the area surrounding the study areas has been continuously occupied since the mid-19th century, historic structures could be located on the limestone uplands. Additionally, historic artifact scatters could be located along any drainage, gully or old roads through the properties.

Methodology

Survey was conducted in accordance with the standards set forth by the THC (n.d.). Field personnel walked the survey areas in transects no wider than 30 m. Shovel tests were excavated throughout the tract averaging two per acre, where the slope was less than 20 percent and the ground visibility less than 30 percent. Shovel tests (STs) averaged 30 cm in diameter, implementing the use of an auger when necessary. All loamy or sandy soils were screened through ¼" wire mesh screens. The clay fill was inspected visually and broken into smaller chunks in order to determine if cultural materials were present. Shovel tests will be excavated to the bottom of the Holocene deposits according to THC standards (n.d.). ST soil matrices were described on the basis of composition, texture, and color. The Munsell Soil Color Chart (2010) was used to identify soil colors. Field personnel made notes about the ground exposure, drainages, soil types, and disturbed areas where subsoil was exposed. Photographs were taken during the survey using a 16-megapixel, GPS-equipped, digital camera. ST and project boundary locations were marked with a handheld GPS receiver.

RESULTS

This chapter is divided into three sections. The first describes the study area's setting along with results of the pedestrian survey; the second describes the recording of historic site 41COL304 and the revisit of site 41COL82. Conclusions derived from the survey close the chapter. While shovel tests are described generally throughout the survey results, they are detailed in Table 2 at the end of the survey results section.

Survey Results

The general environment of area's A-D was very similar, with thickly wooded tracts of various trees (including bois d'arc, sweet gum, hackberries, and oak) and an impressive understory of greenbrier and shrubs; this, in addition to leaf litter and modern trash covering the forest floor, resulted in 0 to 10 percent ground visibility. The only exceptions to this were the existing Spring Creek Nature Area nature trails meandering through the project areas and where the woods were thinner due to project areas bordering main roads/construction areas. A total of 46 acres (not including the 4 acres that overlapped 41COL83) and 27 STs were excavated within the survey areas (Figure 4).

Area A, located west of Routh Creek Parkway, covers approximately 3 acres and contains STs 1-2. A small drainage cuts between these two STs, otherwise the general environment here is the same as described above (Figure 5). ST1 consisted of 65 cm of very dark brown clay loam underlain by very dark brown silty clay speckled with 10-percent calcium carbonate. ST2 revealed 45 cm of very dark grayish brown loamy clay with 30 percent degraded sandstone/shale bedrock.

Located northeast of the intersection of Routh Creek Parkway and N. Glenville Drive, area B covers approximately 10 acres and contains STs 3-7. The soil profile of STs 3-4 were similar, with 60 cm of black clay loam underlain by brown/very dark gray silty clay with 10 to 20 percent calcium carbonate. ST5 revealed 85 cm of mottled dark brown/yellowish brown silty clay with 20-percent calcium carbonate. ST6 (Figure 6) contained a soil profile with 65 cm of mottled black/very dark grayish brown silty clay. ST7 revealed 70 cm of very dark brown loamy clay underlain by mottled very dark grayish brown/dark yellowish brown silty clay.

Area C, located immediately west of N. Plano Road, covers approximately 3 acres and contains STs 8-9. ST8 revealed 40 cm of very dark grayish brown clay, while ST9 revealed 20 cm of very dark brown clay loam underlain by mottled brown/very dark grayish brown clay loam. Bordering the project area, survey crew observed a berm parallel to the road (Figure 7 and Figure 4).

The largest area, D (Figure 8), is located southwest of the intersection of E. Renner Road and N. Plano Road; this area covers approximately 33 acres and contains STs 10-27. STs 10-15, 21-22, and 27 revealed similar soil profiles with 5-50 cm of black/very dark brown loam/clay loam underlain by very dark gray/black silty clay/clay. STs 16-19 were also analogous, with a 5- to 20-cm-thick A horizon of black/very dark brown loam underlain by mottled brown/black/very dark gray clay/silty clay. ST20 revealed 50 cm of black clay, while STs 23-26 revealed mottled soils. STs 23-26 were alike, with 40 cm of very dark grayish brown/black clay loam underlain by mottled light yellowish brown to dark grayish brown clay.

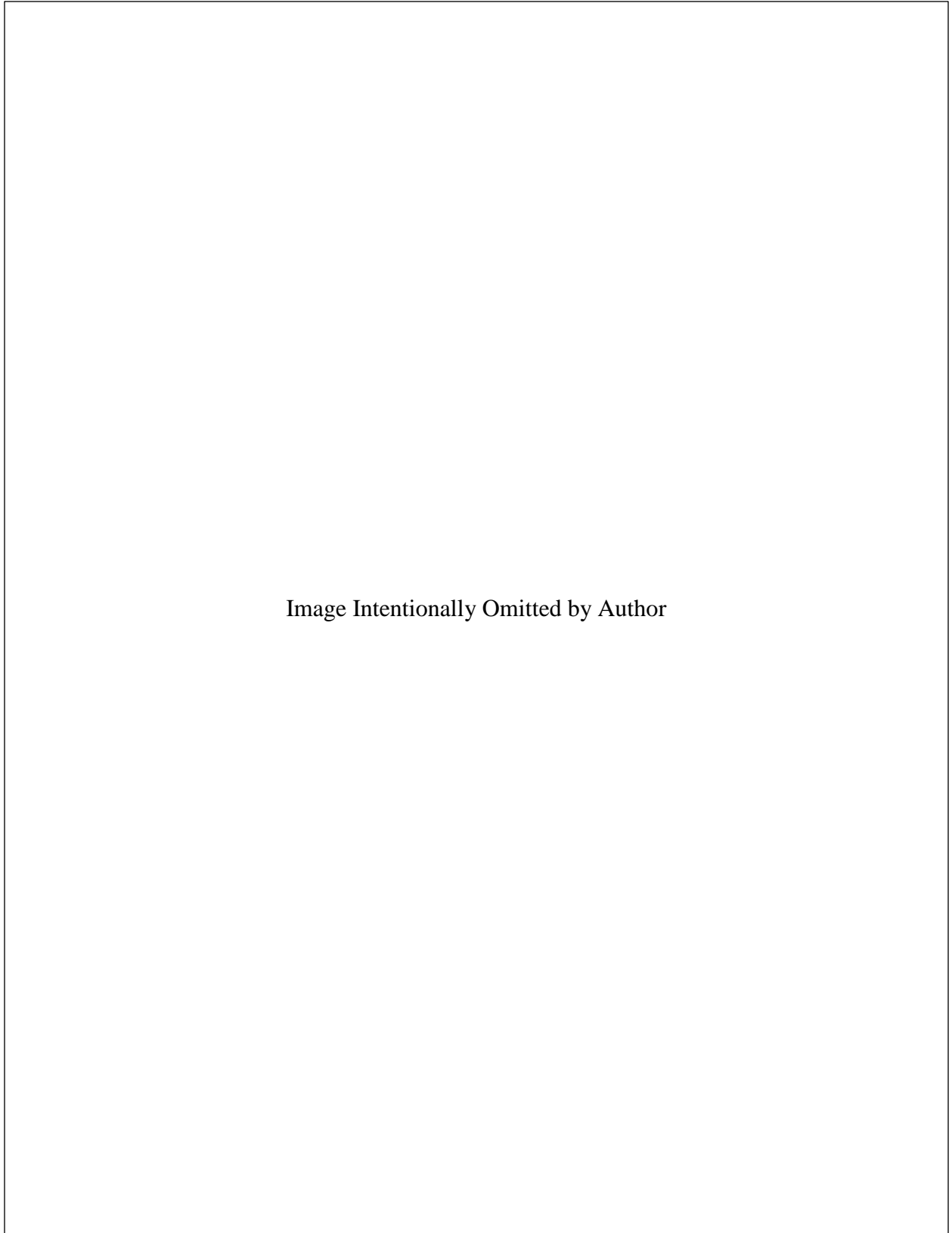


Figure 4. ST locations shown on 2009 1 m LiDAR derived elevation map (TNRIS 2018).



Figure 5. General environment within survey area A at the location of ST1. View is facing northeast.



Figure 6. General environment within survey area B at the location of ST6. View is facing west.



Figure 7. General environment within survey area C at the location of ST8 looking towards berm along N. Plano Rd. View is facing northeast.



Figure 8. General environment within survey area D at the location of ST16. View is facing south.

Table 2. Shovel Test Description for General Survey.

ST	Depth (cmbs)	Description	Comments/Artifacts
1	0-65 65-80	Very dark brown (10YR2/2) clay loam Very dark brown (10YR2/2) silty clay w/10% CaCO ₃ (<1 mm)	None
2	0-45	Very dark grayish brown (2.5Y3/2) loamy clay w/30% degraded sandstone and shale (<5 mm)	None
3	0-60 60-80	Black (10YR2/1) clay loam Brown (10YR4/3) silty clay w/20% CaCO ₃ (<1 mm)	None
4	0-60 60-70	Black (10YR2/1) clay loam Very dark gray (10YR3/1) silty clay w/10% CaCO ₃ (<1 mm)	None
5	0-85	Dark brown (10YR3/3) silty clay mottled w/20% dark yellowish brown (10YR4/4) silty clay and 20% CaCO ₃ (<1 mm)	None
6	0-65	Black (10YR2/1) silty clay mottled w/20% very dark grayish brown (10YR3/2) silty clay	Terminated due to roots
7	0-70 70-100	Very dark brown (10YR2/2) loamy clay Very dark grayish brown (10YR3/2) silty clay mottled w/10% dark yellowish brown (10YR4/4) silty clay	None
8	0-40	Very dark grayish brown (10YR3/2) clay	Terminated due to roots
9	0-20 20-25	Very dark brown (10YR2/2) clay loam Very dark grayish brown (10YR3/2) clay loam mottled w/20% brown (10YR5/3) clay loam	None
10	0-20 20-30	Very dark brown (10YR2/2) clay loam Black (10YR2/1) silty clay	Terminated due to roots
11	0-20 20-30	Black (10YR2/1) loam Very dark gray (10YR3/1) silty clay	Terminated due to roots
12	0-25 25-40	Black (10YR2/1) loam Very dark gray (10YR3/1) silty clay	None
13	0-15 15-30	Very dark brown (10YR2/2) loam Black (10YR2/1) silty clay	Terminated due to roots
14	0-5 5-40	Very dark brown (10YR2/2) loam Black (10YR2/1) silty clay	None
15	0-10 10-25	Black (10YR2/1) loam Very dark gray (10YR3/1) silty clay	Terminated due to roots
16	0-10 10-40	Black (10YR2/1) loam Very dark gray (10YR3/1) silty clay mottled w/10% brown (10YR4/3) silty clay	None
17	0-20 20-30	Black (10YR2/1) loam Very dark gray (10YR3/1) silty clay mottled w/20% brown (10YR4/3) silty clay	Terminated due to roots
18	0-5 5-30	Black (10YR2/1) loam Very dark gray (10YR3/1) clay mottled w/10% brown (10YR4/3) clay	Terminated due to roots
19	0-20 20-40	Very dark brown (7.5YR2.5/2) loam Black (10YR2/1) clay mottled w/10% brown (10YR4/3) clay	None
20	0-50	Black (10YR2/1) clay	None
21	0-50 50-60	Black (10YR2/1) clay loam Dark grayish brown (10YR4/2) clay	None
22	0-30 30-50 50-60	Very dark gray (10YR3/1) clay loam Dark grayish brown (10YR4/2) clay loam Gray (10YR5/1) clay	None

ST	Depth (cmbs)	Description	Comments/Artifacts
23	0-40	Black (10YR2/1) clay loam	None
	40-50	Brown (10YR4/3) clay mottled w/10% light yellowish brown (10YR6/4) clay	
24	0-40	Black (10YR2/1) clay loam	None
	40-50	Brown (10YR4/3) clay mottled w/30% light yellowish brown (10YR6/4) clay	
25	0-40	Very dark grayish brown (10YR3/2) clay loam	None
	40-50	Dark grayish brown (10YR4/2) clay w/10% light yellowish brown (10YR6/4) clay	
26	0-40	Very dark grayish brown (10YR3/2) clay loam	None
	40-50	Dark grayish brown (10YR4/2) clay w/10% light yellowish brown (10YR6/4) clay	
27	0-50	Very dark grayish brown (10YR3/2) loamy clay	None
	50-80	Dark grayish brown (10YR4/2) clay	

41COL82 (revisit)

As a part of the TAP, an attempt to revisit site 41COL82 was made, since the site had been recommended for further work after the original recording (Skinner 1991: 19). However, revisiting the site was problematic, as the site centroid did not show on TASA (2018) at the time the survey was initiated. Therefore, the report description and the UTM found on the site form on TASA (2018) were used to relocate the site area. The UTM on the site form did not have an associated datum, therefore the site coordinates were entered in NAD27 and NAD83 to see which matched the report description. The report stated that the site was found in an exposed oil field road on the ridge north of Spring Creek and west of Plano Rd (Skinner 1991: 12-13). In addition to the UTM, the site form also had a general description of the site location, which stated the site was about 500 m south of Renner Rd (TASA 2018). Based on this information, the location of the NAD27 point was chosen as it was nearly identical to the description, as the NAD83 point was nearly 700 m south of Renner Rd and essentially south of Spring Creek. Additionally, the photo of the site in the original report, demonstrated it was in a fairly open area, which corresponded well with the 1989 aerial (Figure 9). Figure 4 of the 1991 report was taken looking to the southeast along the eroded roadway (Figure 10), which closely matched what was observed by field personnel in 2018 (Figure 11). The area was largely open with prairie grasses and older oaks, while younger invasive vegetation like mesquites and greenbrier filled the understory.

Using the centroid as a starting point, a shovel test was placed on the exact coordinates. From there, an additional nine shovel tests were excavated in the cardinal directions from the centroid. The first four were 10 m from the centroid, then STs were placed at 5 m intervals beyond that. Transects were terminated to the south and west as the terrain began to drop drastically. The eastern transect was terminated as it approached an easement along Plano Rd. After all, 10 of these were negative, field personnel excavated an additional nine STs in the open area and to the north back up onto the upland ridge. All 19 STs excavated in the area were negative (Table 3). The area was also scoured for surface artifacts matching the original description, but no artifacts were found. The profiles from all the STs generally contained 30 to 50 cm of dark gray or grayish brown loam on top of mottled brown and yellowish-brown clay frequently with degrading limestone bedrock. Given the negative results of the survey, it is likely the site has been completely destroyed by trail construction or has eroded down into Spring Creek, based on the heavily eroded nature of the terrain southwest of the centroid.

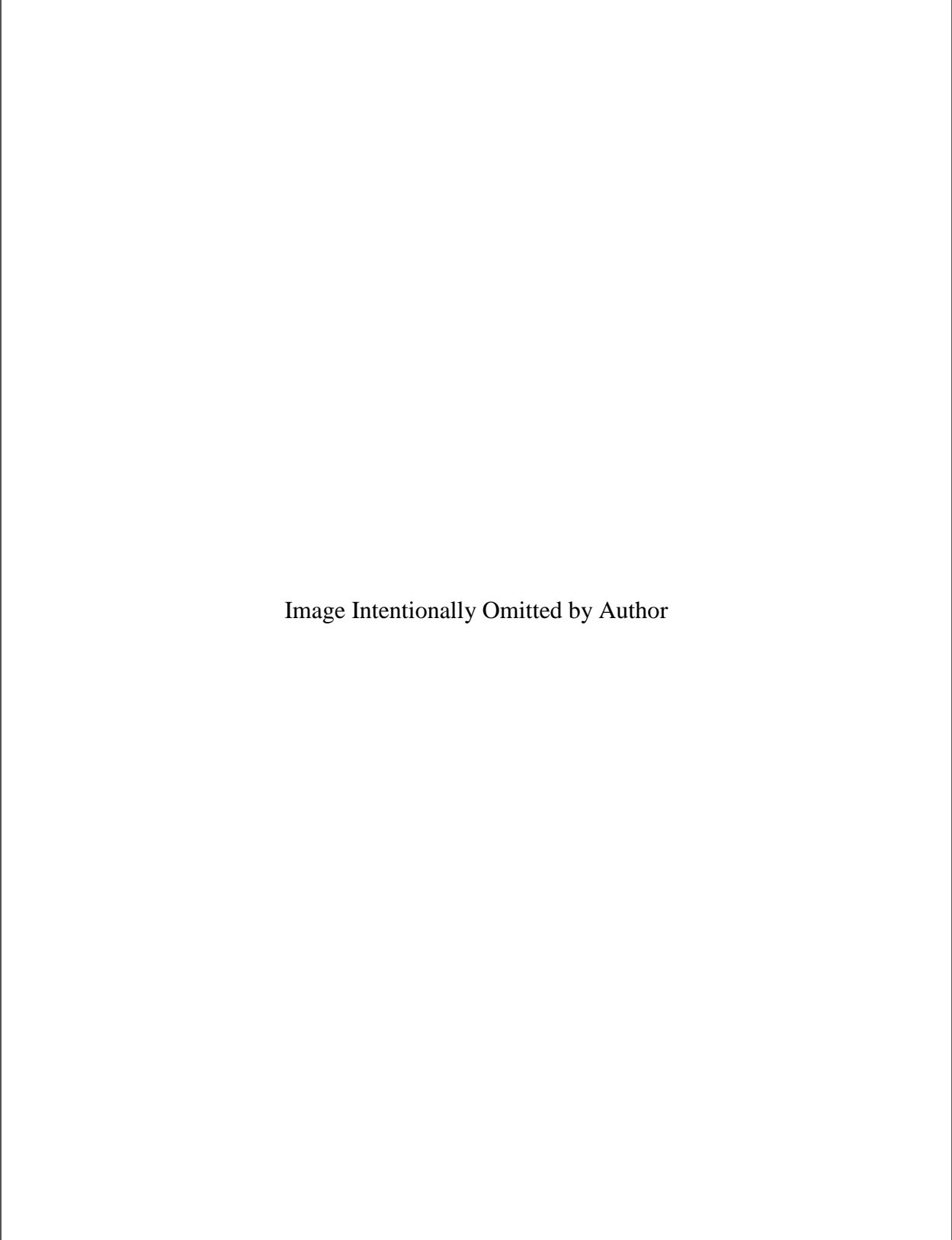


Image Intentionally Omitted by Author

Figure 9. NAD27 and NAD83 site coordinates shown in relation to STs on the 1989 and 2015 aerials as well as the 2009 1 m LiDAR derived elevation map (TNRIS 2018).



Figure 10. Figure 4 from the 1991 Spring Creek report looking southeast across 41COL82.



Figure 11. Looking southeast along trail toward the NAD27 centroid, which is close to the trail marker in the background.

Table 3. Shovel Tests Description for 41COL82.

ST	Depth (cmbs)	Description	Comments/ Artifacts
COL82-1	0-40 40-60	Dark gray (10YR4/1) clay loam Light yellowish brown (10YR6/4) clay w/degraded limestone bedrock and large gravel (though nothing knappable)	None
COL82-2	0-40 40-50	Dark gray (10YR4/1) clay loam Light yellowish brown (10YR6/4) clay w/degraded limestone bedrock and large gravel (though nothing knappable)	None
COL82-3	0-40 40-50	Dark brown (10YR3/3) clay loam Light yellowish brown (10YR6/4) clay w/degraded limestone bedrock	None
COL82-4	0-20 20-30	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay w/degraded bedrock	None
COL82-5	0-30 30-40	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay w/degraded limestone	None
COL82-6	0-30 30-40	Dark grayish brown (10YR4/2) clay loam Light yellowish brown (10YR6/4) clay w/degraded limestone	None
COL82-7	0-50 50-60	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay mottled w/50% brown (10YR4/3) clay	None
1	0-40 40-50	Dark gray (10YR4/1) clay loam Light yellowish brown (10YR6/4) clay w/degraded limestone	None
2	0-40 40-50	Dark grayish brown (10YR4/2) clay loam Light yellowish brown (10YR6/4) clay mottled w/30% dark grayish brown (10YR4/2) clay	None
3	0-30 30-40	Dark gray (10YR4/1) clay loam Light yellowish brown (10YR6/4) clay w/degraded limestone	None
4	0-40 40-50	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay mottled w/50% dark grayish brown (10YR4/2) clay	None
5	0-50 50-60	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay mottled w/50% dark grayish brown (10YR4/2) clay	None
6	0-40 40-50	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay mottled w/50% dark gray (10YR4/1) clay	None
7	0-50 50-90	Very dark gray (10YR3/1) clay loam Dark gray (10YR4/1) clay mottled w/30% yellowish brown (10YR5/6) clay	None
8	0-10 10-20	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay mottled w/50% dark grayish brown (10YR4/2) clay	None
9	0-40 40-50	Very dark grayish brown (10YR3/2) clay loam Light yellowish brown (10YR6/4) clay mottled w/40% brown (10YR4/3) clay	None
10	0-30 30-35	Very dark brown (10YR2/2) loamy clay Very dark grayish brown (10YR3/2) clay w/20% CaCO ₃ (<1 mm)	None
432	0-40	Black (10YR2/1) loamy clay mottled w/20% brown (10YR5/3) loamy clay	Terminated due to roots
433	0-30 30-40	Black (10YR2/1) loamy clay Black (10YR2/1) clay mottled w/20% very dark grayish brown (10YR3/2) clay	Modern plastic found throughout top 30 cm

41COL304

Site 41COL304 consists of a historic trash dump in what was likely an old stock pond on the Routh Family property. The site consists of a scatter of broken concrete, a concrete pipe, asphalt, t-posts, plastic, unmarked commercial bricks, and fencing materials (Figure 12). The depression is approximately 18 m N/S by 16 m E/W and was approximately 217 m². Ground surface visibility was generally better than 30 percent and mottled gray and yellowish-brown subsoil was exposed on the surface. The concrete was broken up and could be associated with the pipe. The concrete had large aggregate and is probably early to mid-20th century in age, as were the commercial bricks. The 1963 aerial shows that the property on the north side of Spring Creek was bisected by a two-track road that extended from the northwest corner down to the southeast corner near site 41COL82 (Figure 3 and Figure 13). Dense vegetation has reclaimed the road as shown on the 2015 aerial. According to the discussion on 41COL83, the Routh Family site, a stagecoach once ran through the area from Dallas to McKinney and stopped at the Routh home (Green et al. 1997:38). At first the road shown on historic aerials was thought to be the same as the stagecoach road, however, information provided by the RPRD demonstrated that their informants show the stagecoach crossed Spring Creek near 41COL82 and ran in the complete opposite direction as the road shown on the aerials (Figure 14). Therefore, the road shown on historic aerials was likely cleared by the Routh family as a way to access the area and the stock pond was likely dug to water livestock and/or attract game animals. This area was reported to RPRD as the Routh Family hunting area. This clearing and water resource would have provided hunters with a great line of site for hunting. Additionally, near ST10 the remains of a ladder nailed to an old tree was found, likely representing an old hunting stand (Figure 15). The location of this tree shows at the edge of the clearing on the 1963 aerial. The ladder was made from commercially cut lumber and wire nails and was therefore considered an isolated occurrence.



Figure 12. Overview of 41COL304. View is to the west.



Image Intentionally Omitted by Author

Figure 13. Location of site 41COL304 shown on the 1963 and 2015 aerials as well as the 2009 1 m LiDAR derived elevation map (TNRIS 2018).

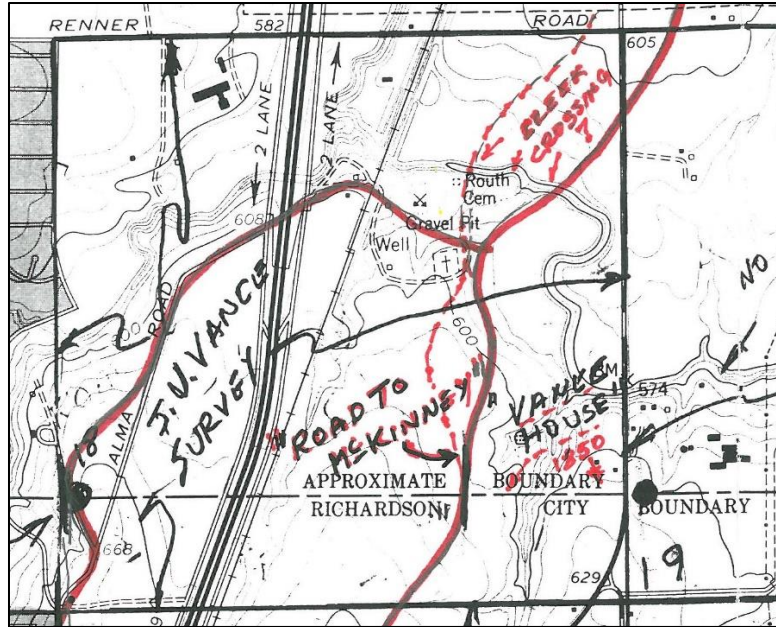


Figure 14. Red lines show estimated stagecoach roads shown by informant to RPRD. Map courtesy of RPRD.



Figure 15. Tree ladder found approximately 10 m northwest of ST10. View is to the east.

Conclusions

Beyond site 41COL304, no other cultural resources were found during the survey of the project area. In terms of prehistoric resources, while 41COL82 had been recorded and documented in 1991, no evidence of the site was found. The site may have been destroyed by the original trail construction in 1991 or the ephemeral site may have largely been eroded away given the eroded nature of the upland ridge edge on the south side of the site. ARC concludes that site 41COL82 is not recommended as eligible for NRHP listing or for designation as an SAL. Site 41COL304 is a historic trash scatter found in an old stock pond at the edge of an old two-track road. The site consists of concrete fragments, a pipe, asphalt, fencing materials, and brick fragments. Given the disturbed nature of the area from the stock pond excavation and the broadly diagnostic nature of the artifacts, ARC concludes that the site is not recommended as eligible for NRHP listing or for designation as an SAL. The property cannot be tied to any significant individuals or events (36 CFR 60.4a-b). Based on surface scatter and lack of subsurface cultural deposits, it is unlikely the sites hold any further potential to provide insight into past lifeways or environments (36 CFR 60.4d)

RECOMMENDATIONS

The purpose of this investigation was to determine if significant cultural resources are present in the newly acquired properties added to the Spring Creek Nature Area in Collin County, Texas. Site 41COL82 was an Early Archaic prehistoric artifact scatter recorded during the original survey in 1991, however, the site was not relocated and appears to have been destroyed or eroded away. The site is therefore not recommended eligible for NRHP or SAL listing. Site 41COL304 is the remains of a historic trash scatter and is not recommended eligible for NRHP or SAL listing. No other cultural resources were identified on or below the surface during the survey. Based on the results of the survey, ARC concludes that further cultural resource investigations for this project are unwarranted, and requests that the THC concur with this recommendation. However, if buried cultural materials are discovered during construction, the Archeology Division of the THC should be notified.

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