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## **Final Report for Archeological Survey Proposed Roadway Expansion along Business (BS) 71 East (71E), west of La Grange, Fayette County, Yoakum District CSJ 0265-14-008**

Allen Bettis

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Final Report for Archeological Survey Proposed Roadway Expansion along  
Business (BS) 71 East (71E), west of La Grange, Fayette County, Yoakum District  
CSJ 0265-14-008

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# Final Report for Archeological Survey

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Proposed Roadway Expansion along Business (BS)  
71 East (71E), west of La Grange, Fayette County,  
Yoakum District  
CSJ 0265-14-008

Allen Bettis, Principal Investigator; Antiquities Permit No. 8767

May, 2019

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.





## Abstract

On behalf of the Texas Department of Transportation (TxDOT), AmaTerra Environmental, Inc. (AmaTerra) conducted an archeological survey for the proposed bridge construction along Business (BS) 71 East (71E) in La Grange at the Colorado River in Fayette County, Texas. Work consisted of visual inspection of the entire project area, including 100 percent pedestrian survey and excavation of 17 shovel tests and 11 backhoe trenches. Fieldwork was conducted May 15–17, 2019 by a team of two archeologists. Two archeological sites were recorded, consisting of a deeply buried isolated mussel shell concentration and a scatter of late nineteenth to early twentieth century brick rubble and household trash. Sites 41FY593 and 41FY594 are considered not eligible for listing in the National Register of Historic Places within the project's Area of Potential effects (APE).

The survey team found much of the project area to be heavily disturbed from road construction and maintenance, right-of-way (ROW) grading and maintenance, and utilities trenching and installation. This report recommends that no further archeological work is warranted at any location within the APE. No artifacts were collected as part of this project. All notes and field records will be provided to TxDOT-ENV for curation under Antiquities Permit 8767.

## Project Information

- **This survey is:**
  - The initial survey for this project.
  - a continuation of previous survey(s) due to:
    - access issues and/or
    - design changes
- **Date:** May 20, 2019
- **Date(s) of Survey:** May 15–17, 2019
- **Archeological Survey Type:**  Reconnaissance  Intensive
- **Report Version:**  Draft  Final
- **Jurisdiction:**  Federal  State
- **District:** Yoakum
- **County or Counties:** Fayette
- **USGS Quadrangle(s):** La Grange West, Texas
- **Highway:** Business 71 East
- **CSJ:** 0265-14-008
- **Report Author(s):** Aaron Norment
- **Texas Antiquities Permit Number:** 8767
- **Principal Investigator:** Allen Bettis
- **Estimated Percentage of Time that the Principal Investigator Was in the Field:** TxDOT PI: zero percent; AmaTerra technical expert (Aaron Norment): 100 percent.

## Project Description

- **Project Type:** Proposed Roadway Expansion and New Bridge Construction
- **Total Project Acreage:** 31.79 acres
- **Existing ROW Acreage:** 29.08 acres
- **New Right of Way (ROW) Acreage:** 2.71 acres
- **New Easement Acreage (includes temporary and permanent easements):** zero acres
- **Survey Area:** 31.79 acres
- **Project Description and Impacts:**

### *Proposed Facility*

The TxDOT Yoakum District proposes to construct a new bridge adjacent to the existing BS 71E bridge at the Colorado River in Fayette County. The existing facility consists of two 12-foot lanes with no shoulders carried on a 1,414-foot long by 35-foot wide metal truss bridge. The truss bridge consists of 13 spans and crosses the Colorado River in an east to west orientation. The existing bridge was constructed in 1941. A pedestrian sidewalk is located along the north side of the bridge and is separated from traffic by a concrete curb and steel rail. The existing ROW width varies throughout the project limits from approximately 80 feet to 330 feet. The proposed structure would be an 11-span concrete and steel girder structure. The bridge would be 1,400 feet long, 53 feet wide, and would carry two 12-foot travel lanes with ten-foot shoulders and a six-foot wide sidewalk. The centerline of the proposed bridge would be constructed approximately 54 feet downstream (south) of the existing structure centerline. A total of 2.71 acres of new ROW will be acquired.

- **Area of Potential Effects (APE):**

The APE is defined based on the most recent construction plans and schematics available at this time. The APE will extend from approximately 150 feet southwest of Water Street at Station 58+00 to approximately 220 feet west of Smith Street at Station 110+00 (**Figure 1**). The APE will have a total length of 0.985 mile (1.585 kilometers [km]) and will be limited to the approximately 29.08 acres (11.77 hectares) of existing ROW and the approximately 2.71 acres (1.1 hectares) of proposed new ROW. The project APE will consist of a total area of approximately 31.79 acres (12.865 hectares). The anticipated depth of ground disturbances will be approximately three feet (one meter [m]) to 40 feet (12.19 m) in depth below the existing ground surface.

Horizontal limits: 150 feet southwest of Water Street to approximately 220 feet west of Smith Street

- Typical width of any existing ROW (*if variable, provide upper and lower limits*): 80–300 feet

- Typical width of entire ROW, including existing and proposed new ROW (if variable, provide upper and lower limits): 80–300 feet
- Typical depth of impacts: 3–40 feet
- Maximum depth of impacts: 40 feet
- **No Survey Area:** N/A
- **Access Denied Area:** N/A
- **Survey Area:**

The survey area encompasses approximately 31.79 total acres, 29.08 of which is existing ROW and 2.71 is proposed new ROW.

**Parcel Number(s):** From west to east—Parcels #31804, #31787, and #38496. The remaining property is publicly owned/controlled by TxDOT.

**Project Area Ownership:** #31804 owned by Nelson Parks; #31787 owned by Larry Bippert; #38496 owned by Karlene Poll and Allison Blazek; Public (TxDOT) ROW.

## Project Setting

- **Natural Setting**
  - **Topography:** Topography consists of the wide, frequently inundated Colorado River floodplain surrounded by gently rolling sandy/loamy upland prairie within the Southern Blackland/Fayette Prairie as defined by the EPA (2011). Elevation within the APE varies from 200 to 275 feet above mean sea level. The project is situated along the floodplain and across multiple terraces of the Colorado River.
  - **Geology:** Holocene-aged alluvium and terrace deposits (USGS 2007).
  - **Soils:** The APE crosses nine major soil units (from west to east); Branyon clay, 0–1 percent slopes; Gholson very fine sandy loam, 1–3 percent slopes; Rabbs clay loam, 5–8 percent slopes; Weswood loam, occasionally flooded; Gad loamy fine sand, occasionally flooded; Coarsewood silt loam, occasionally flooded; Gad loamy fine sand, rarely flooded; Smithville fine sandy loam, 0–1 percent slopes; and Krum silty clay, rarely flooded (**Figure 2**; USDA-NRCS 2019).
  - **Potential Archeological Liability Map:** 1 (low potential), 2 (low shallow potential, moderate deep potential), 4 (moderate shallow potential low deep potential), 5 (moderate potential), 6 (moderate shallow potential, high deep potential), 8 (high shallow potential, high deep potential), and 9 (high potential) (**Figure 3**).
  - **Historic Land Use:** Historically, the land around the project appears undeveloped and used for range and pastureland for cattle. A 1958 USGS topographic map depicts the farmhouse just outside of the APE near 41FY594 that is currently being renovated (**Figure 4**). Additional historic topographic maps from 1934 and 1944 also show the house and an outbuilding (**Figures 5, 6, 7**).
  - **Land Use:** Today the land within the APE is BS 71E, state ROW, and utility easements. New ROW on the east and west side of the river is currently in pasture for cattle grazing.

- **Vegetation:** The project APE is a vegetated riparian woodland and dense grassland. Medium to very large pecan, elm, hackberry, cottonwood, willow, and sycamore trees are scattered throughout the APE and along the Colorado River. Grass covers most areas adjacent to the roadway. Portions of the APE are manicured park lawns maintained by the City of La Grange.

- **Estimated Ground Surface Visibility:** 0-10%

#### **Previous Investigations and Known Archeological Sites:**

The Texas Archeological Sites Atlas shows that one previously recorded site barely extends into the APE, and one survey intersects the APE (**Figure 8**). Site 41FY5 is situated on the north side of BS71, west of the river on an open terrace. The site was recorded in 1961 as a prehistoric site “rich in points,” but very little information is available on the site. The survey is located along BS71 and appears to be part of a Texas Department of Highways and Public Transportation (TDHPT) survey from 1980 (Atlas 2019). One National Register-listed structure is also within the APE, and that is the 1941 bridge spanning the Colorado River on BS71.

The City of La Grange, Texas and vicinity is very rich in archeological and historic resources. Four previously recorded sites are also within 1 km of the APE (see Figure 5). Site 41FY6 is located west of the river and south of the APE. The site was recorded in 1961 as an open campsite with many arrow points based on the reports of locals. Site 41FY42 was recorded in 1966 on the Frisch Auf Valley Golf Course. This site was recorded as a prehistoric Neo-American site with four burials and Scallorn arrow points in two of the burials. Site 41FY116 is also south of the APE and on the west side of the river and approximately 150 m east of 41FY6. Site 41FY116, recorded in 1977, is described as a prehistoric midden with flakes disturbed by county road construction. Site 41FY105 is located south of the APE and east of the Colorado River. Recorded in 1976, little information was gathered regarding the site. Artifacts observed in gopher backdirt include many small flakes, some burned clay, and bone.

Three additional archeological surveys were also conducted within 1 km of the APE; all south of BS71 (see Figure 5). Approximately 200 m south of BS71 on Country Club Road, a small survey was conducted in 1994 for the Federal Highway Administration (FHWA). Another survey was conducted in 1976 on behalf of the Environmental Protection Agency (EPA) and the Texas Water Development Board (TWDB), and a 1992 survey for the U.S. Army Corps of Engineers (USACE).

Additionally, the APE is less than 60 m from the Fayette County Courthouse Square National Register District. Within this district are two National Register listed properties. One is the county jail less than 225 m from the APE and the Fayette County Courthouse is 250 m from the APE. Two other NRHP listed properties are within 1 km of the APE, and they are the St. James Episcopal Church and the Nathaniel W. Faison House. Upwards of 12 historical markers are also within 1 km of the APE near the city center of La Grange, but conflicting locational information from the sites atlas has them depicted in different locations and, as a result, are not shown on Figure 5.

- **Evaluation of Project Setting:**

Much of the project APE has already been altered or heavily modified by roadway construction, maintenance, and utilities installation. However, the 2.71 acres of new ROW was far less disturbed and provided representative subsurface samples of the area.

## Survey Methods

- **Surveyors:** Aaron Norment and Joel Butler

**Description of Methods:** Survey efforts involved surface and subsurface (pedestrian survey, shovel testing, and backhoe trenching) investigations as necessary based on field conditions to determine the nature, extent, and if possible, the significance of any archeological resources discovered in the APE. Shovel testing occurred in areas deemed to have potential for intact archeological materials, while backhoe trenches were placed in areas to investigate for deep intact deposits. A total of 17 shovel tests and 11 backhoe trenches were excavated within the APE (**Figures 9a, 9b, 9c**). Shovel tests were dug to depths of 80 centimeters (cm) or to sterile clay, whichever was encountered first. All tests were marked using a hand-held GPS unit and logged on standardized forms that recorded profile characteristics, depth, and contents. Investigators took photographs of the landscape and various disturbances.

- **Subsurface Probes (Table 1)**

Table 1. Subsurface Probe Summary

Method	Quantity in Existing ROW	Quantity in Proposed New ROW	Quantity in Proposed New Easements	Total Number per Acre
Shovel Test Pits	10	7	NA	.53
Power Auger Probes	NA	NA	NA	NA
Mechanical Trenches/Scrapes	6	5	NA	.35

- **Other Methods:** *None*
- **Collection and Curation:**  NO  YES If yes, specify facility \_
- **Comments on Methods:** The methods used during the survey are an amended version of the Council of Texas Archeologist (CTA) standards, which call for one test every two acres for area surveys, or one shovel test every 100 m for linear projects. Subsurface test rates for this project equals .53 shovel tests and .35 backhoe trenches per acre; however, an

estimated 12–15 acres of the APE possessed accessible ground surface for shovel testing and trenching.

## Survey Results

- **Survey Area Description:** The APE was heavily disturbed. Numerous utilities crisscross the project area, hugging property lines, following the roadway, or traveling beneath the bridge. Existing utilities include buried fiberoptic and phone lines, buried high-pressure water and sewer lines, buried-high pressure natural gas lines, and electric lines and run along both sides of the road (**Figure 9**). Two city streets parallel BS71 within the APE: Boat Ramp Road east of the river and Carrol Lane west of the river. Approaches on the east and west ends of the bridge are built high to accommodate the bridge built in 1941 (**Figure 10**). The resulting steep road banks associated with these approaches consist of thick fill capping the intact ground surface. Recent rains had the Colorado River running high. Although within its banks, portions of the lower floodplain could not be accessed for survey. Despite disturbances, high water, buried utilities, and paved surfaces, portions of the APE were accessible for survey. Accessible areas include open pasture on the east side of the river in new ROW extending from the floodplain upslope and across an alluvial terrace, a city park beneath the BS71 bridge, and alluvial terraces on the west side of the river. New ROW on the west side of the river was accessible for pedestrian survey and shovel testing, but thick stands of small hardwoods rendered the area inaccessible for backhoe trenching. Soil varied throughout the project area but paint a picture of the active floodplain setting. Recent flood sands/silt and older sandy flood deposits blanketed the floodplain areas, while first and second terraces were capped with sand and silty clay and loam.

**Northeast Quadrant Results:** The northeast quadrant of the ROW measures approximately 5.6 acres from the existing centerline of BS71 to the northern edge of ROW and from the riverbank to the eastern terminus. Most of this quadrant is heavily disturbed. Along the northern margin is a stone lined drainage ditch used to drain city streets into the Colorado River (**Figure 11**). The ditch measures 230 m long and tapers from east to west with the east end measuring 10 m wide and the west end measuring 25 m wide. Between the southern ditch edge and road edge, the ROW is a steep bank that is part of the bridge approach (**Figure 12**). Beneath the bridge is a portion of the city park, as well as a portion of a damaged and abandoned parking lot. There is also a buried gas line and waterline running on either side of the stone-lined ditch and through portions of the park. The eastern terminus is just west of North Water Street, and between here and North River Street, the APE intersects existing businesses and paved parking lots (**Figure 13**). Two shovel tests (AN1 and AN2) were dug in this quadrant along the northern edge of the ROW and edge of the park. Both were negative with AN1 encountering gravel fill and flood sand, and AN2 quickly encountering concrete rubble and fill. No trenches were excavated in this quadrant due to the lack of available ground to dig and the numerous utilities crossing the area. Plus, shovel testing indicated a layer of fill across this portion of the park. No archeological materials were observed in the northeast quadrant.



**Southeast Quadrant Results:** The southeast quadrant of the APE measures approximately 9.1 acres from the centerline to the southern edge of the APE and from the riverbank to the eastern terminus. Two acres of this quadrant is new ROW, while the remaining is existing ROW. Most of the city park is within this quadrant with a parking lot covering a sizable portion of the park area (**Figure 14**). Boat Ramp Road parallels BS71 and runs to the park, terminating where the boat ramp enters the Colorado river. At the time of the survey, the river was high enough to conceal the boat ramp, which also restricted access to the lowest reaches of the floodplain. Between Boat Ramp Road and the fenceline marking the new ROW are a series of buried utilities, as well as a drainage ditch (**Figure 15**). From the intersection of Boat Ramp Road and BS71 to the eastern terminus, the APE is roadway and businesses. Nine shovel tests (JB7–JB15) and five backhoe trenches (BHT6–BHT10) were excavated in this area. Three of the shovel tests were excavated in new ROW, as well as the five trenches. Three of the trenches were excavated in the lower pasture just above the floodplain. These trenches showed a variety of different flooding episodes (**Figure 16a and 16b**). One major disturbance observed in the new ROW was a recent cut along the fenceline where a tree had fallen (**Figure 17**). Heavy equipment was used to blade the area and push the tree into the lower pasture, resulting in a new two-track road. The area left exposed occupies the terrace slope between the first and second terrace above the Colorado River. While examining this cut, several prehistoric flakes, mussel shell, historic brick, and whiteware were observed eroding on the ground surface. A layer of brick was observed eroding within the cut near the ground surface on the southern edge of the cut. Despite not recovering any additional prehistoric artifacts, the location was recorded as site 41FY594.

#### **Site 41FY594**

Site 41FY594 is a light scatter of prehistoric and historic debris, with the historic materials likely related to the nearby farmhouse just south of the APE. The site was first observed in an erosional cut within the slope of the landform leading to the lower pasture (**Figure 18**). Recent land clearing exposed several prehistoric flakes, mussel shell, a layer of brick, and ceramic, and recent rains eroded the slope cut exposing them even further (**Figure 19**). The two-track ranch road leading to the lower pasture appears to have been in use for many years. Pasture traffic from vehicles and grazing cattle likely exacerbated the effects of erosion and runoff. As a means of stabilizing the landform and filling ruts created from heavy use, various forms of rubble, trash, and gravel were imported to this location. Brick rubble and trash from the nearby house were likely deposited at this location to aid in filling low spots. The brick rubble does not have any recognizable shape that would suggest an architectural function, and the broken ceramics and glass further suggest that the area was used as a dump site.

BHT9 was excavated on the terrace just east and above the eroding slope cut to see if there were any intact features or artifacts related to the material seen nearby on the surface. The upper 80 cm of the trench consists of dark brown silty loam underlain by a dark reddish-brown sandy silt/sandy loam. Trenching did not recover any artifacts, and three shovel tests



were excavated nearby. Shovel tests JB12–14 were excavated in the vicinity with JB12 and JB13 both positive yielding historic artifacts. A single stoneware sherd (**Figure 20**) was recovered at 30 cm below surface in JB12, and a single brick fragment was recovered at 15 cm below surface in JB13. However, JB13 encountered a large rodent burrow, suggesting that the brick fragment could be from elsewhere. JB14 was approximately 50 m east of JB13 and recovered nothing. No additional prehistoric artifacts were observed outside of the erosional cut.

The site size is relatively small (0.10 acres), and is bounded to the south by the APE boundary, to the west by the terrace edge, to the north by the property fenceline with a buried gas line and road just beyond, and to the east based on the mentioned negative subsurface tests (**Figure 21**).

In an email exchange with one of the landowners, Karlene Poll, she explained that she and Allison Blazek purchased the property sometime in 2018. Being recent owners, they do not have much history on the land, but provided the name of Anne E. Kennedy, a previous owner of the estate comprising the property on which Site 41FY594 and the farmhouse are located. Apparently, this property had been in the family for several generations, with Anne Kennedy's grandparents owning it for quite some time. As seen in Figures 4–7, the structure is clearly marked on the maps, indicating it has been at this location since at least 1934.

The lack of additional buried prehistoric cultural material raised suspicions regarding the observed prehistoric artifacts in the eroding road cut. Because the recently cleared eroding landform appears to be a two-track road used for many years, perhaps there have been multiple filling and stabilization episodes to preserve it. The numerous river gravels and cobbles observed on the surface are out of place, however, there are many sources for them from nearby gravel pits. It is likely that the gravels observed in the erosional cut were dumped here, much like the brick rubble and historic trash, to aid in filling ruts and washouts. Additionally, soil was probably imported to help level and fill the area, and the prehistoric artifacts confined to the eroding road cut are likely transported from elsewhere. Therefore, the prehistoric component observed at this site is probably displaced.

It is possible that site 41FY594 extends south out of the APE, but likely only as a scatter of historic artifacts and debris related to the nearby farmhouse. The lack of additional prehistoric artifacts strongly suggests that the prehistoric component observed in the eroding road cut is transplanted from elsewhere. Although there are a variety of shallowly buried historic artifacts, no cultural features were observed, and the chance of encountering any intact buried features is minimal. Therefore, site 41FY594 is recommended as not eligible for listing in the National Register of Historic Places (NRHP) within the ROW and no further work is recommended prior to construction.

**Northwest Quadrant Results:** The northwest quadrant of the BS71E/Colorado River crossing measures approximately 6.4 acres from the current centerline to the northern boundary of the APE. Carrol Lane parallels BS71 on the north side through much of this quadrant, leaving only a small area east of Carrol Lane and north of BS71 with available ground

surface access. Numerous buried utilities traverse this quadrant. Buried water and sewer lines connect to a lift station along the northern edge of the ROW. In this same location, there is also a buried fiberoptic line, and a buried gas line runs through part of this quadrant as well (see **Figure 9**). Like the other areas along the river in the APE, the floodplain was under water, which restricted access to the lowest reaches nearest to the river. Areas beneath the bridge were also highly eroded (**Figure 22**), while others have been and continued to be used for illegal dumping. Modern trash and piles of construction rubble are scattered in different areas. The western approach of the BS71 bridge is built up on significant fill, which restricted access to the original ground surface. No shovel tests were excavated in this quadrant, but four backhoe trenches were excavated (BHT1–4) (**Figure 23**). It was in BHT2 that a deeply buried cluster of mussel shell was encountered and designated as site 41FY593 (**Figure 24**).

### **Site 41FY593**

Site 41FY593 is identified as a single prehistoric feature. It is prehistoric mussel shell cluster located on terrace deposits above the Colorado River floodplain (**Figure 25**). The site consists of this single mussel shell cluster with an associated single burned rock (**Figure 26**). It was located during excavation of BHT2 and was encountered at 1.6 m below surface within very moist dark reddish-brown silty clay. The mussel shell cluster was recorded as Feature 1, and, in BHT-2, was evidenced by at least six in situ shells, three to five loose shells and shell fragments, and a single fire cracked rock. The concentration covered an area measuring approximately 40–50 cm across. The area around the feature was scraped clean and all loose fill trowled through for artifacts. Trench walls were scraped clean and inspected for additional deeply buried artifacts, but none were observed. When trenching continued, the area immediately north of Feature 1 in BHT2 was carefully trenched to a depth of 2.1 m below ground surface. No additional artifacts or mussel shell was observed.

To better understand Feature 1, a second trench (BHT11) was excavated on the west side of BHT2 (**Figure 27**). The trench was excavated to a depth just above the feature and cleaned in search of additional shell. Once located in BHT11, loose fill was removed with the backhoe. The goal in doing this was to see how far the shell cluster extended to the west, if at all. Three additional mussel shells were observed west of the originally exposed portion of the feature; however, the cluster did not extend any farther in any direction. After photographing and recording additional details, trenching extended deeper to document the area beneath it in BHT11. As with BHT2, no additional artifacts were observed below Feature 1.

Feature 1 was a deeply buried isolated shell cluster with a fragment of fire cracked rock. The lack of additional artifacts nearby or additional features support this claim. This archeologically rich region has many prehistoric sites along the Colorado River (see **Figure 8**), and while other features could exist., trying to locate small isolated features like this could be a near impossible undertaking. According to construction plans for the proposed road improvements, impacts north of the current bridge appear to be minimal, if they will

occur here at all. Because of its small size and need to better contextualize it, backhoe trenching destroyed Feature 1 during discovery and recording. Since nothing remains of Feature 1, site 41FY593 is recommended as not eligible for listing in the National Register of Historic Places (NRHP) within the ROW, and no further work is recommended prior to construction.

**Southwest Quadrant Results:** The southwest quadrant of the right of way measures approximately 8.3 acres between the existing centerline and the southern boundary of the APE and from the western terminus to the west bank of the Colorado River. A large portion of the APE in this quadrant is open and accessible, but the road is built up and banked to accommodate its slight curve before approaching the bridge (**Figure 28**). The western bridge approach is also built up and steeply banked and could not be trenched. The floodplain area in this quadrant is wooded with towering sycamore and willow trees, but also under water due to recent rains. Shovel testing and trenching was conducted in this quadrant. Six shovel tests were excavated (JB1–JB6), as well as two backhoe trenches (BHTs 4 and 5). Two shovel tests were excavated in existing ROW (JB 1 and JB2), while the remaining four (JB3–JB6) were excavated in proposed ROW. The two backhoe trenches were excavated in existing ROW. Despite having ROE for the proposed ROW, BHT4 was placed close to the fenceline (**Figure 29**) within existing ROW due to the inability for the backhoe to access the wooded segment within proposed ROW. The four shovel tests excavated within proposed ROW reached 80 cm deep, demonstrating depth to the soil in this area, but BHT4 exceeded 80 cm deep showing a diffuse lower boundary transitioning to basal clay between 40–80 cm below surface (**Figure 30**). Conditions in the proposed ROW are likely very similar, if not identical, to those seen at BHT 4. No archeological materials were observed in the southwest quadrant.

- **Buffer Zone Description:** N/A.
- **Archeological Materials Identified:** Prehistoric mussel shell cluster (Feature 1) at 41FY593 and lithic debris, mussel shell, historic ceramics, and brick at 41FY594.

**APE Integrity:** Although portions of the APE have minimal potential to contain cultural material, while other areas have high potential, mirroring the PALM, significant impacts by previous roadway and bridge construction, buried utilities, and ROW cutting, filling, and grading have significantly decreased the APE’s integrity to contain intact cultural deposits.

## Recommendations

- **Results Valid Within (check all that apply to define the buffer zone):**

- |  |  |  |
|--|--|--|
| <i>No Survey Area (NSA)</i>              | <input type="checkbox"/> 50 feet of survey area  | <input checked="" type="checkbox"/> Variable, see map and see below. |
| <input type="checkbox"/> 50 feet of NSA  | <input type="checkbox"/> _25 feet of survey area |  |
| <input type="checkbox"/> ___ feet of NSA | <i>Either</i>                                    |  |

*Survey Area*

▪ **The Definition and Evaluation of this Horizontal Buffer Zone Is Based on One or More of the Following Considerations (check all that apply):**

The integrity of the areas within and adjacent to the setting is affected by prior clear cutting and ranching activities.

The survey shows that archeological materials are unlikely to exist in this area.

Other (specify): \_\_\_\_\_

**Archeological Site Evaluations:** 41FY593 and 41FY594

▪ **Comments on Evaluations:** Within the APE, these sites contain no potential for future research.

**Further Work:** No further work is recommended for any portion of the BS71 proposed roadway expansion APE.

**Justification:** All work for this survey was conducted in compliance with Section 106 of the National Historic Preservation Act under the guidelines presented in 36 CFR 800, and in compliance with the Antiquities Code of Texas, whose guidelines are outlined under 12 TAC 26.

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<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.asp>, accessed on May 21, 2019.

United States Geological Survey (USGS)  
2007 Geologic Database of Texas. Digital Dataset.

## Figures

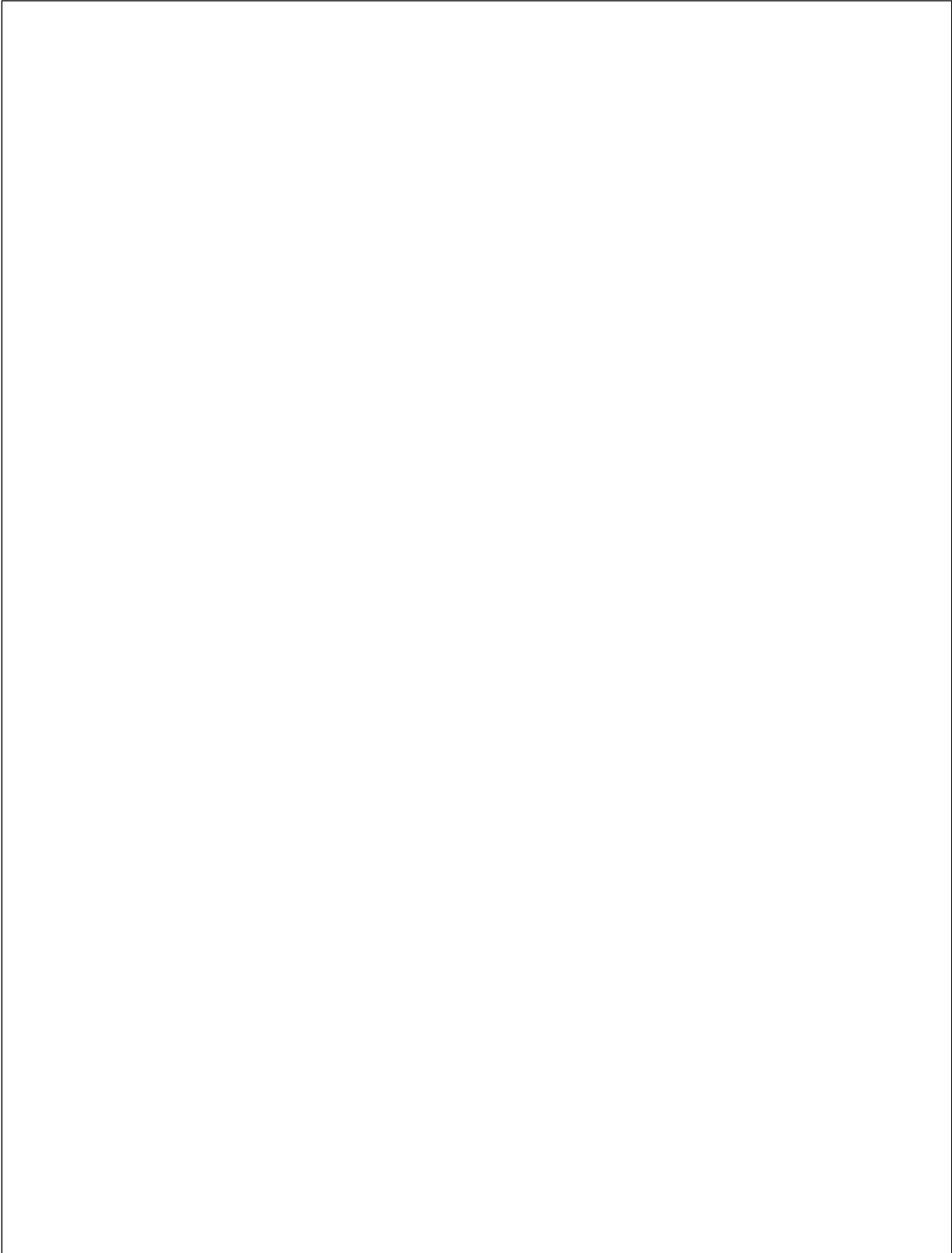


Figure 1. BS71E Project location in Fayette County, Texas on USGS topographic map.



Figure 2. Mapped soils within the APE.

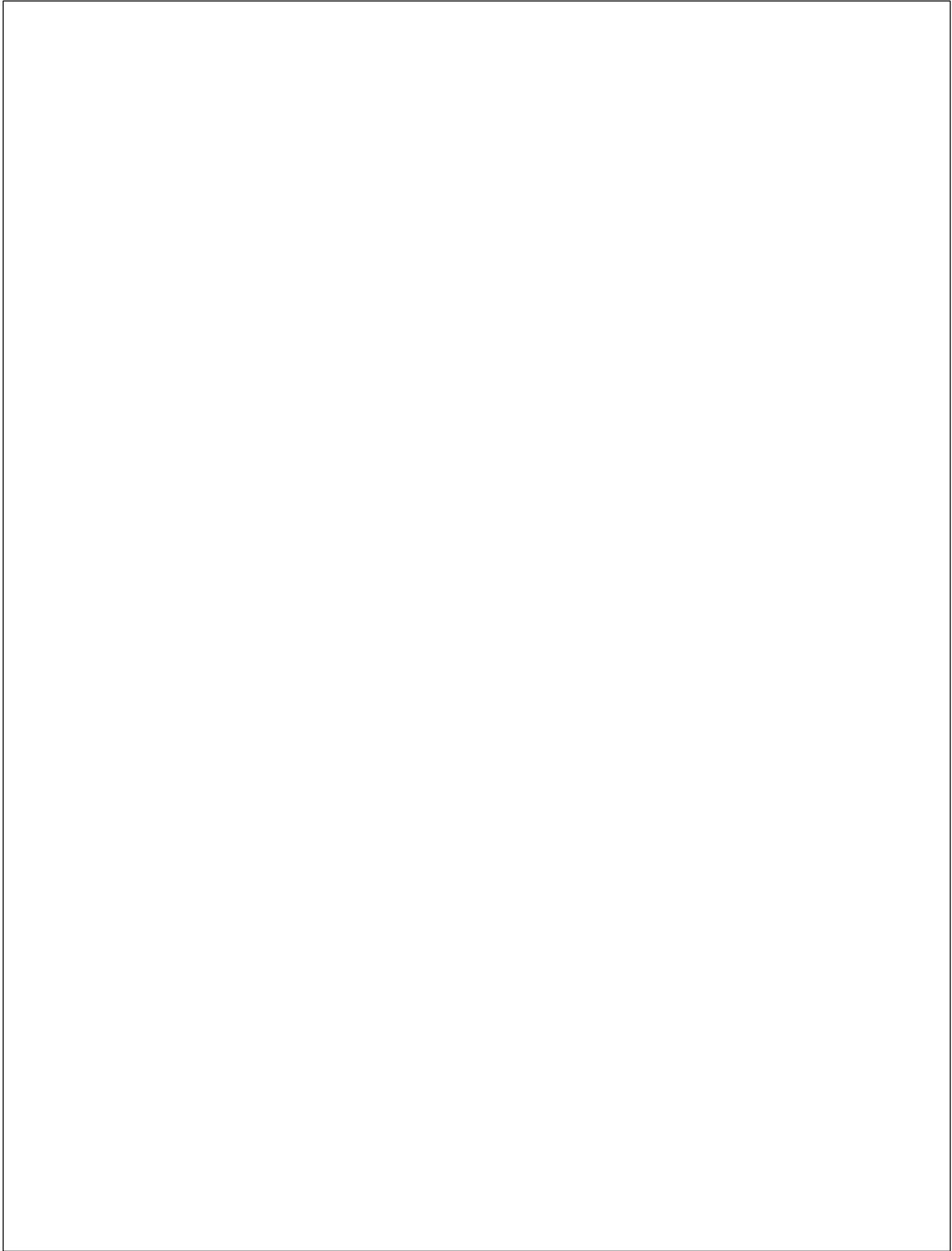


Figure 3. BS71E Project location on Yoakum District PALM.



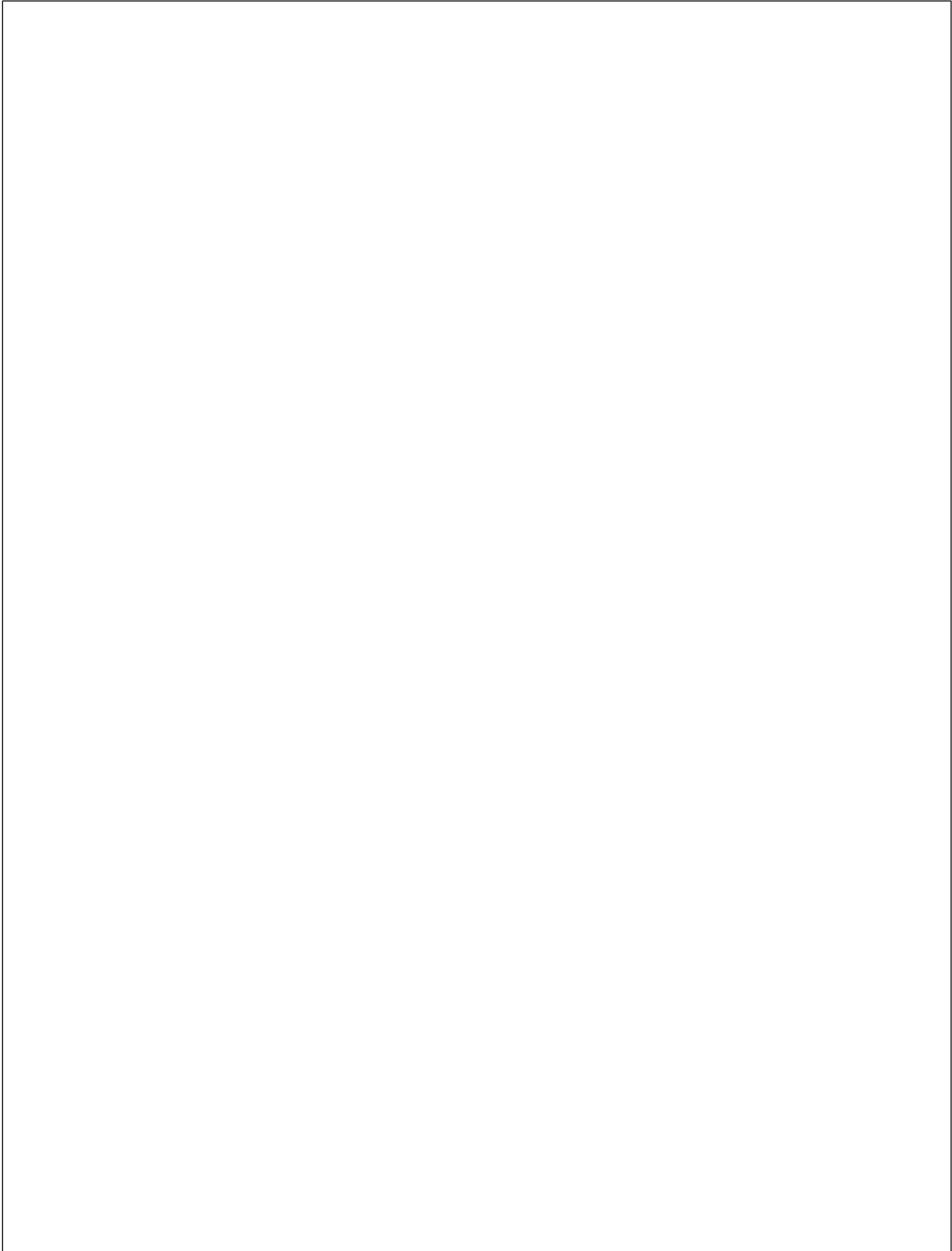


Figure 4. BS71E project location on 1958 topographic map, Fayette County, Texas.

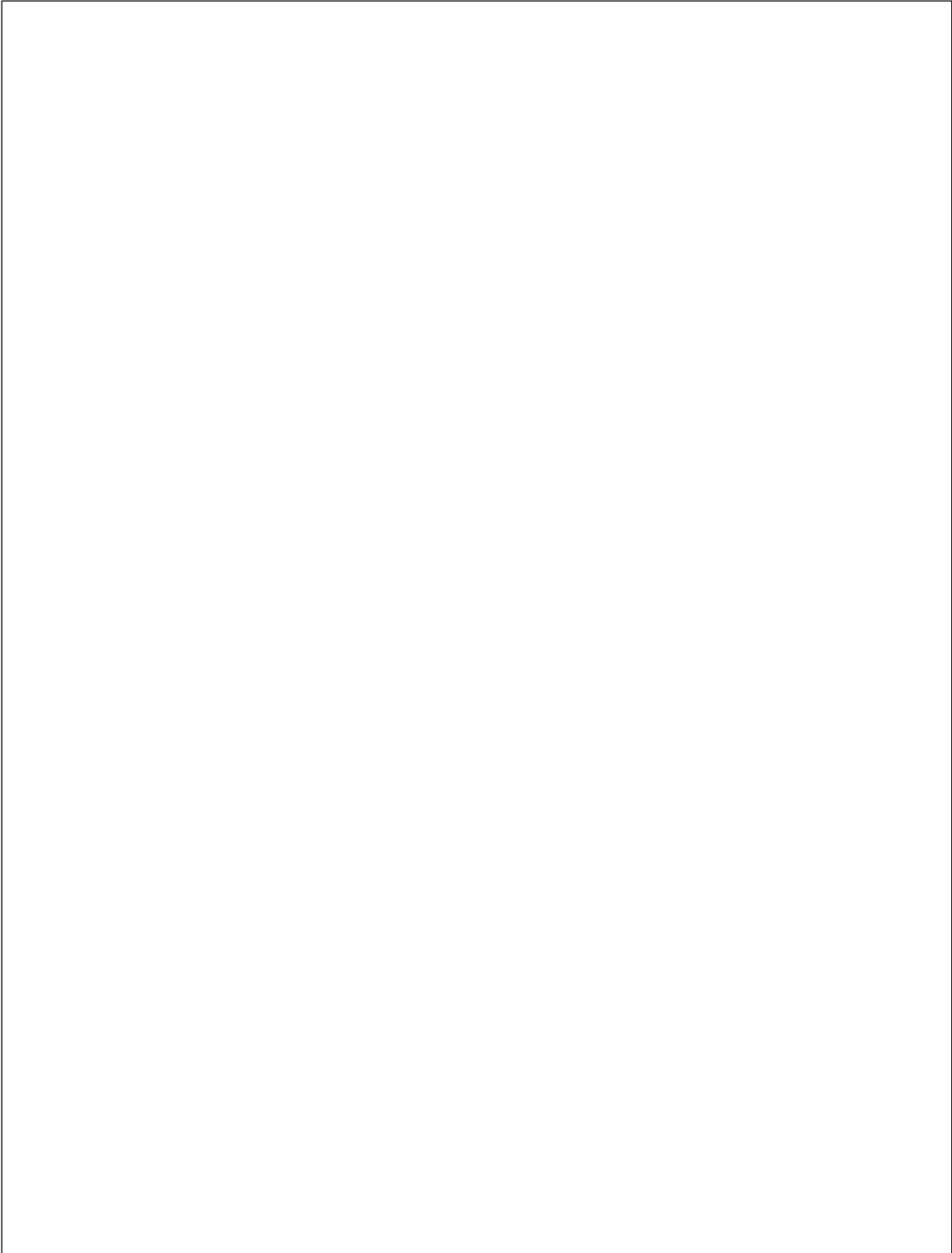


Figure 5. The APE overlaid on 1958 aerial photography.

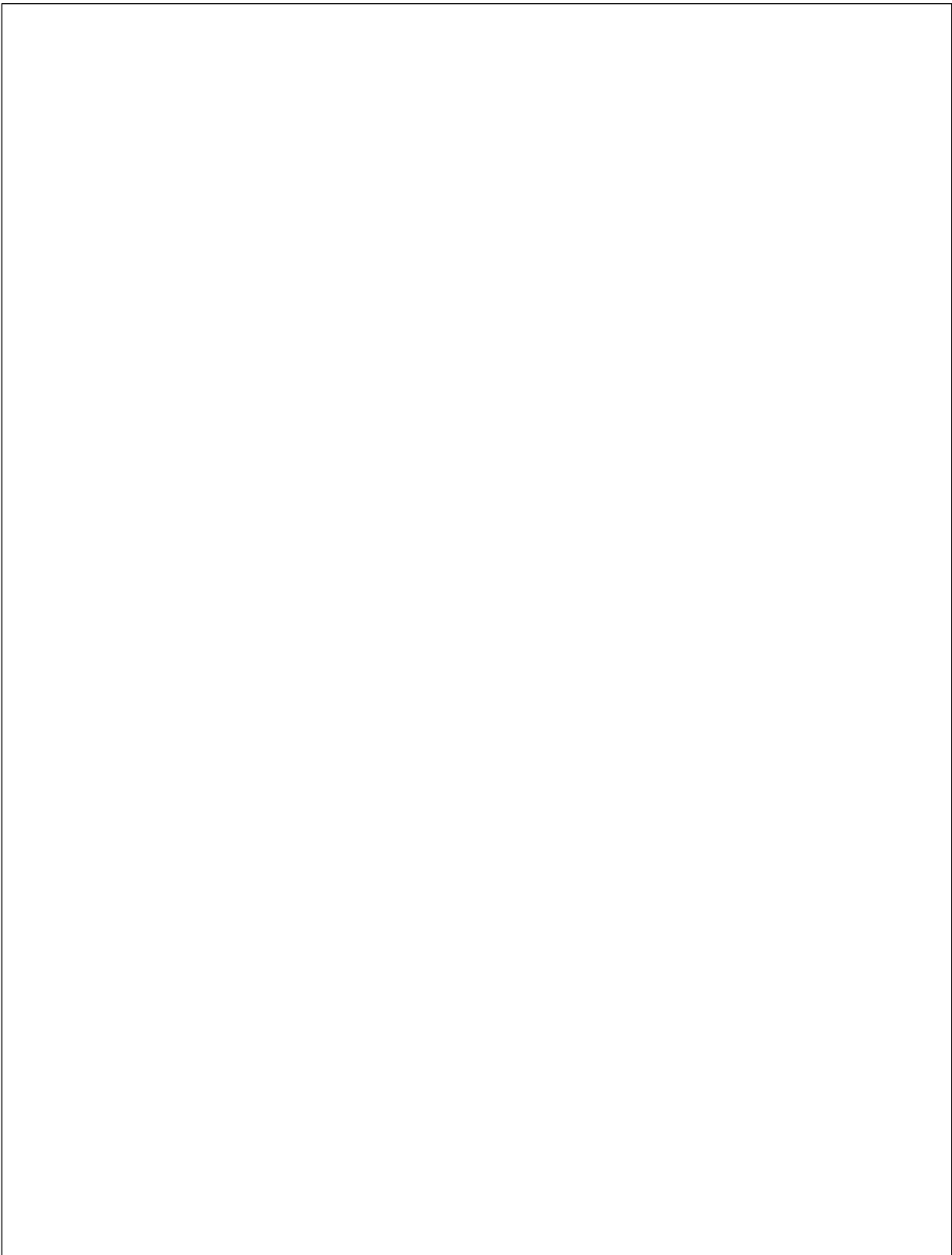


Figure 6. The APE depicted on 1944 flood protection USACE topographic map.

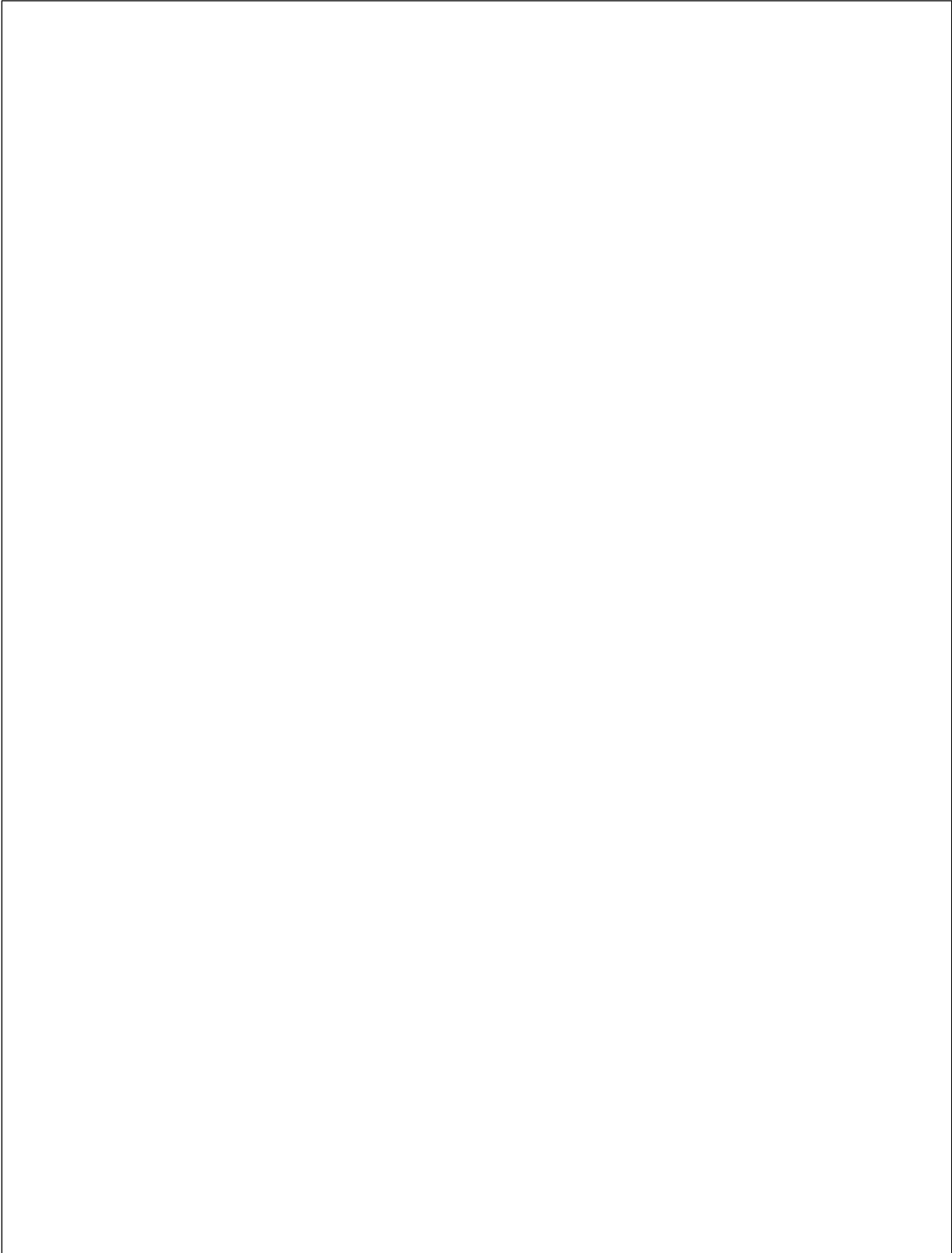


Figure 7. The APE depicted on 1934 topographic map.

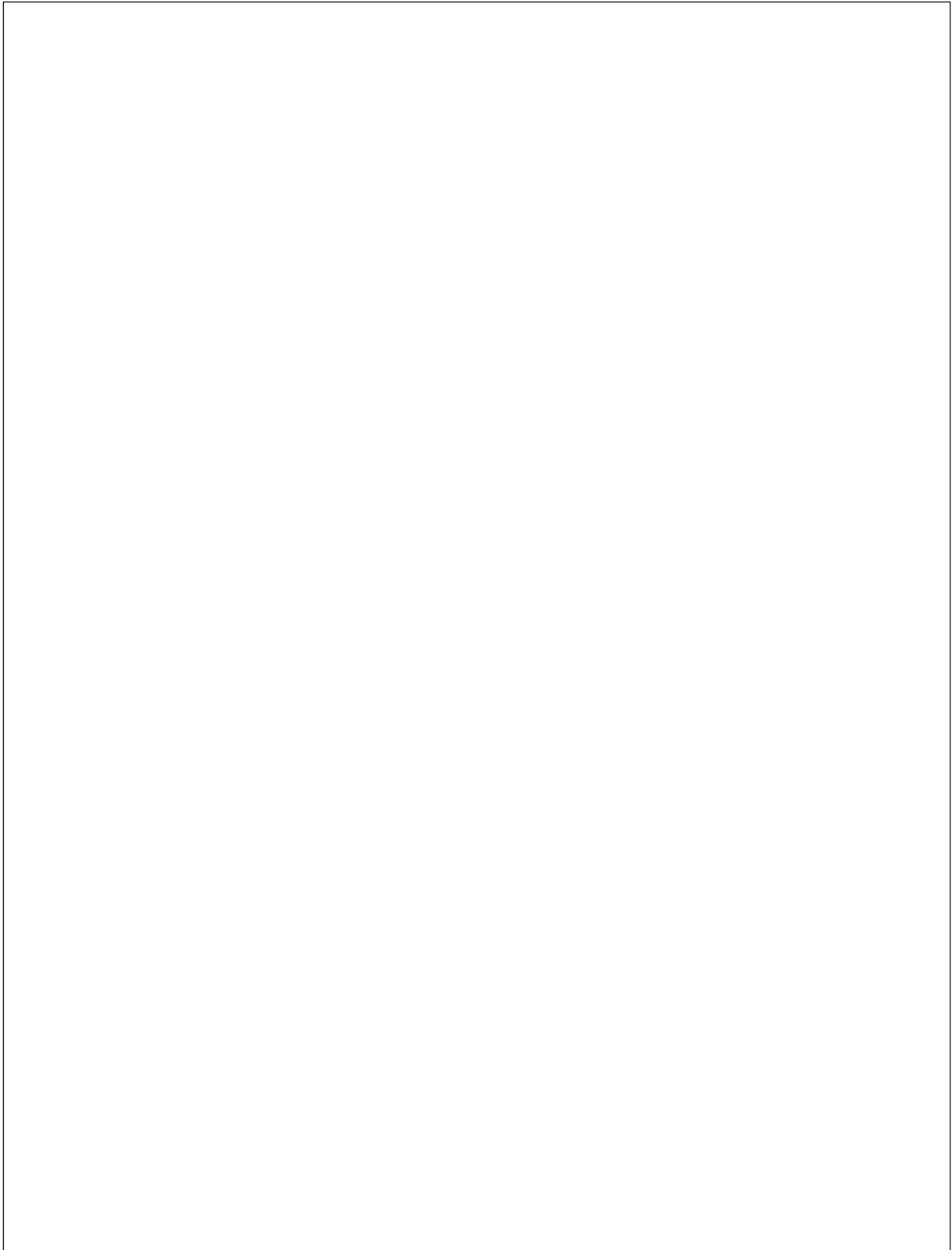


Figure 8. The APE showing locations of shovel tests and backhoe trenches.

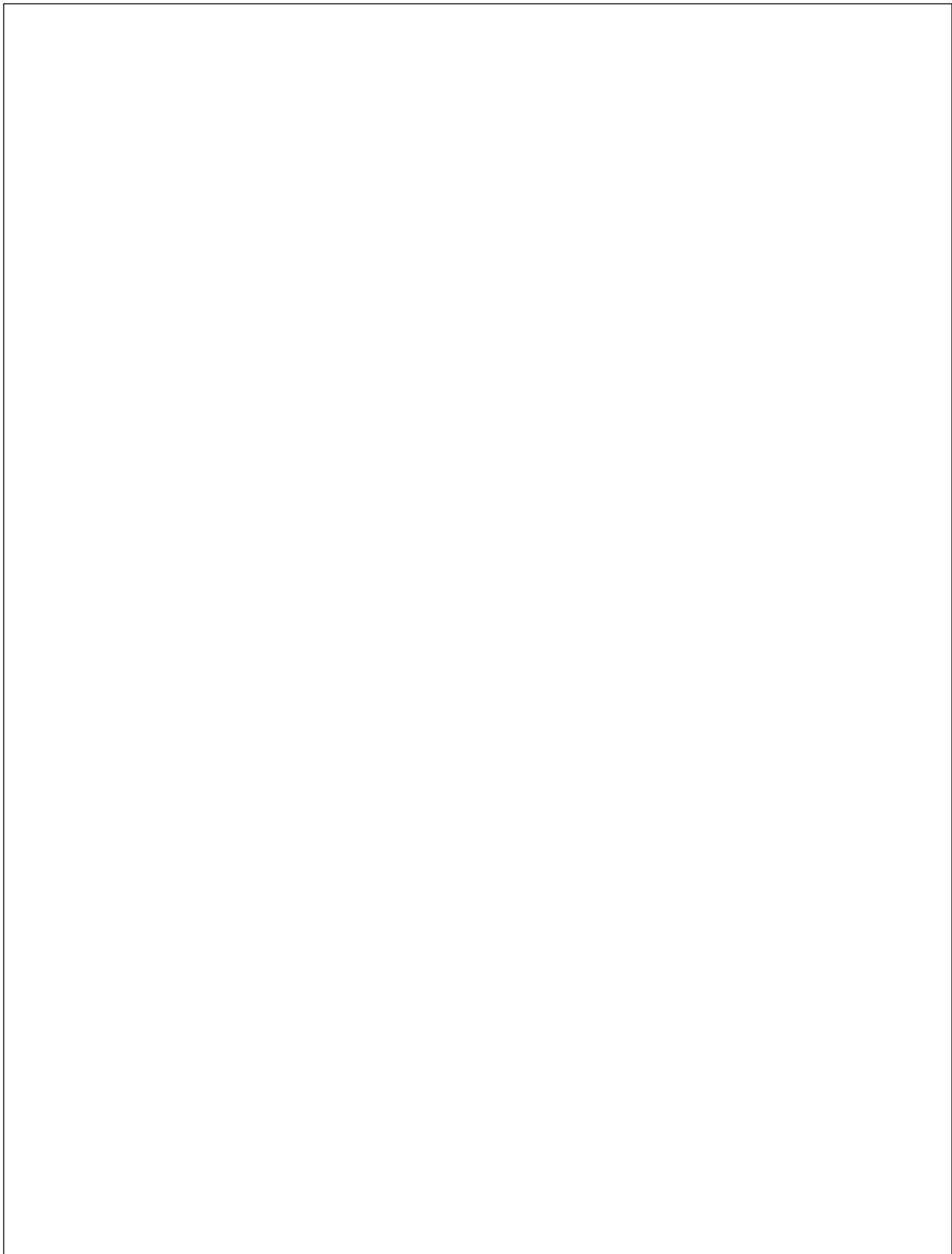


Figure 9a. Placement of shovel tests and backhoe trenches within the APE (east end).

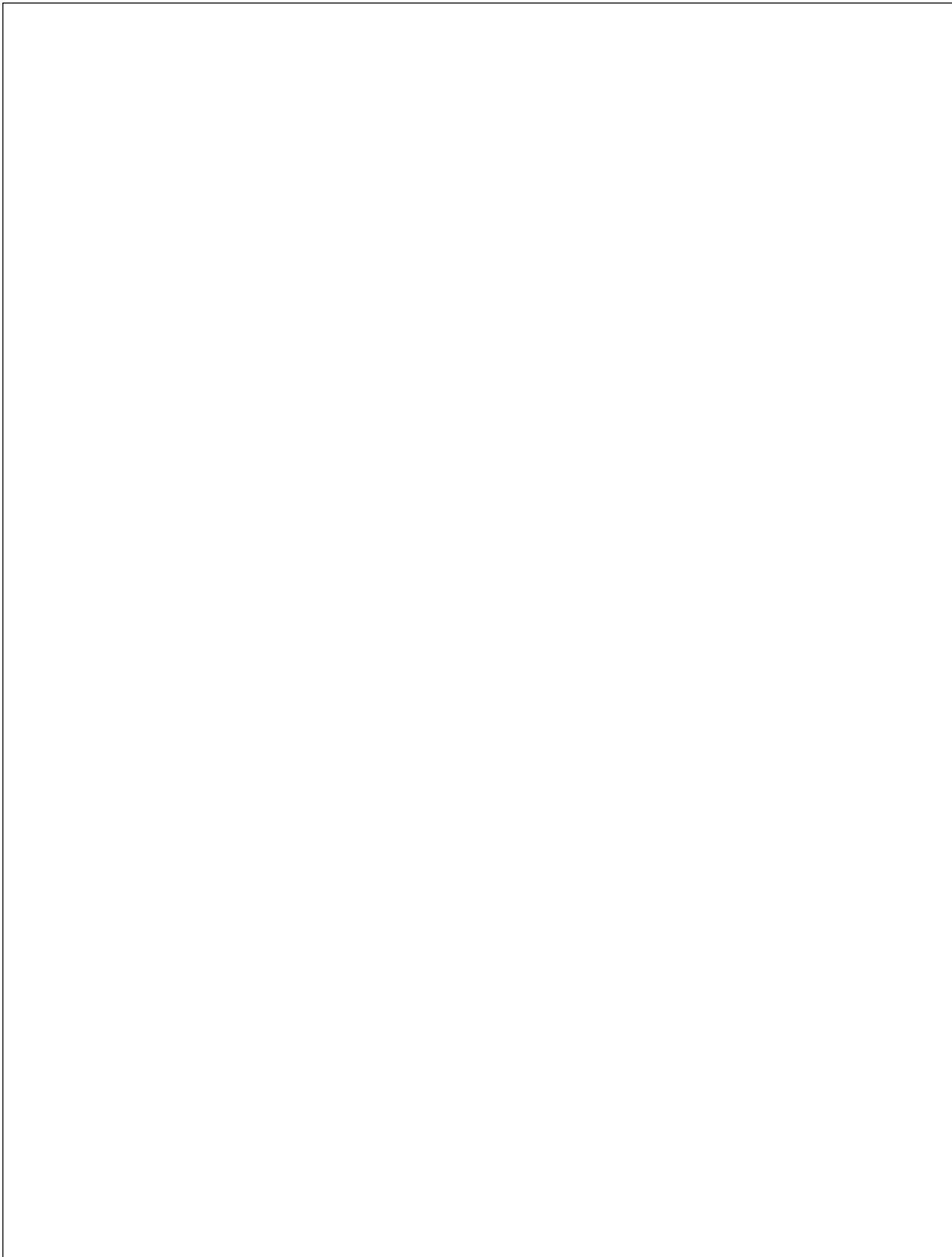


Figure 9b. Placement of shovel tests and backhoe trenches within the APE (central portion).



Figure 9c. Placement of shovel tests and backhoe trenches within the APE (west end).





Figure 10. Buried utilities along northern edge of ROW in APE, southwest quadrant.





Figure 11. Steep bridge approach (right frame) on west side of river with buried utilities within APE, southwest quadrant.





Figure 12. Stone-lined drainage ditch within APE, northeast quadrant.





Figure 13. Steep bridge approach on east side of river, northeast quadrant.





Figure 14. Eastern terminus of APE. Note pavement and businesses, northeast quadrant.



Figure 15. City park and parking lot beneath BS71E bridge within APE, southeast quadrant.





Figure 16. Drainage ditch with buried gas line along fenceline, southeast quadrant.





Figure 17a. Backhoe Trench: BHT6 profile; excavated in southeast quadrant.





Figure 17b. Backhoe Trench: BHT8 profile; excavated in southeast quadrant.

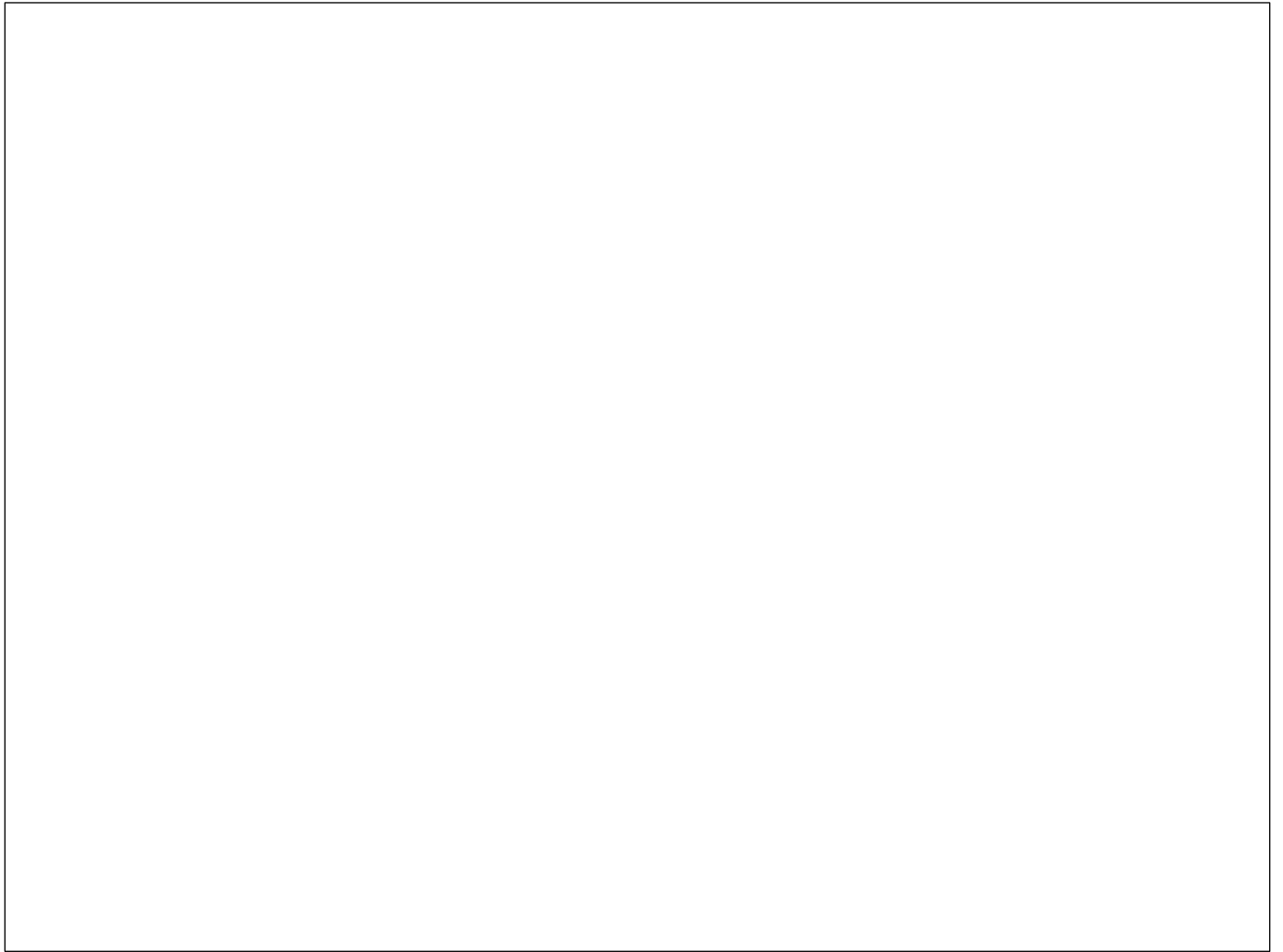


Figure 18. APE in new ROW in southeast quadrant showing recent clearing within site 41FY594.

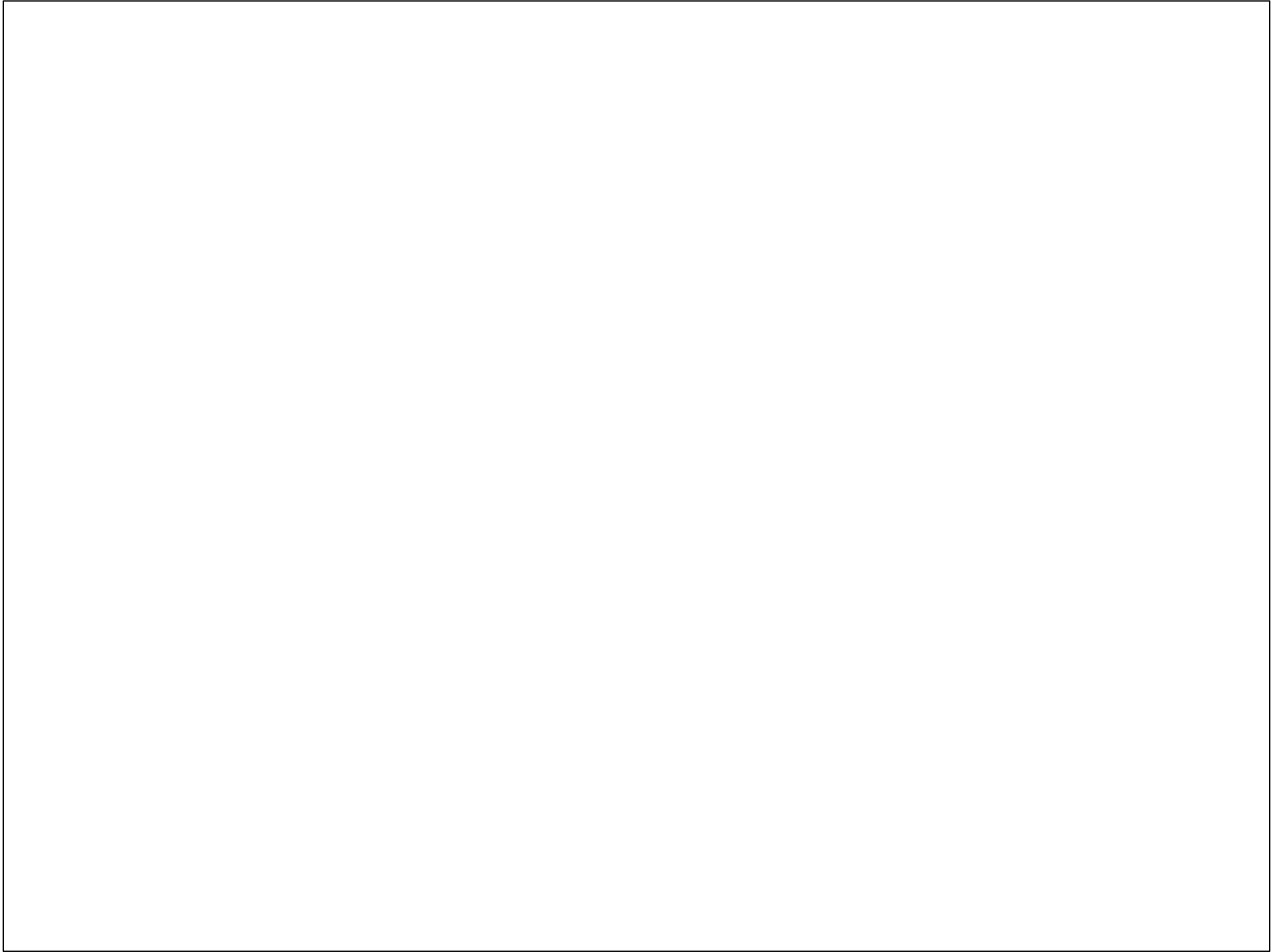


Figure 19. APE in new ROW in southeast quadrant showing 41FY594. Note the cut going downslope at the right of the frame.



Figure 20. Artifacts recovered in road cut from 41FY594.





Figure 21. Stoneware sherd from shovel test JB12, Site 41FY594.

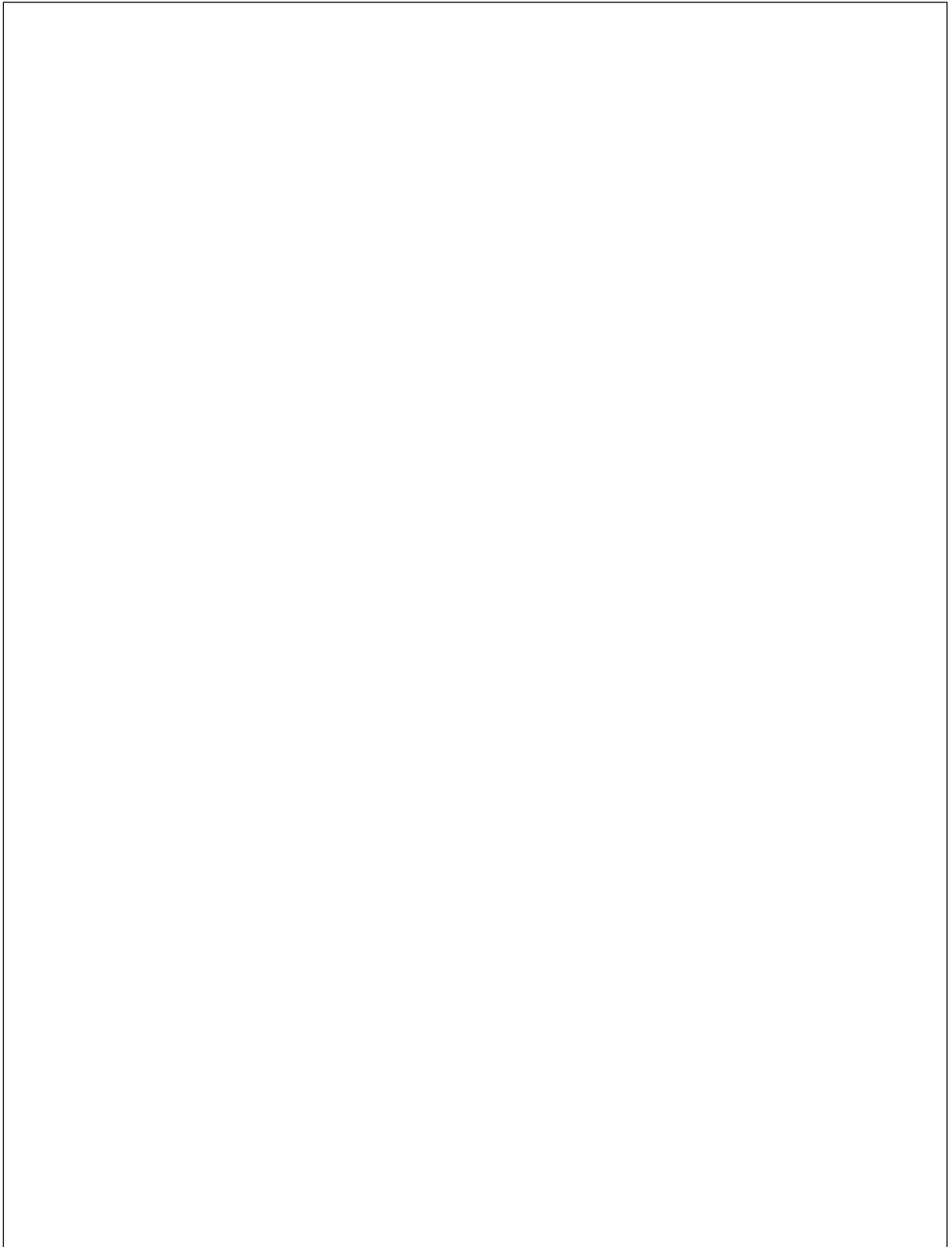


Figure 22. Site map of 41FY594.



Figure 23. Eroded area beneath the BS71E bridge within the northwest quadrant. Note high water from recent flooding.





Figure 24. Excavation of BHT 3 in southwest quadrant of APE.



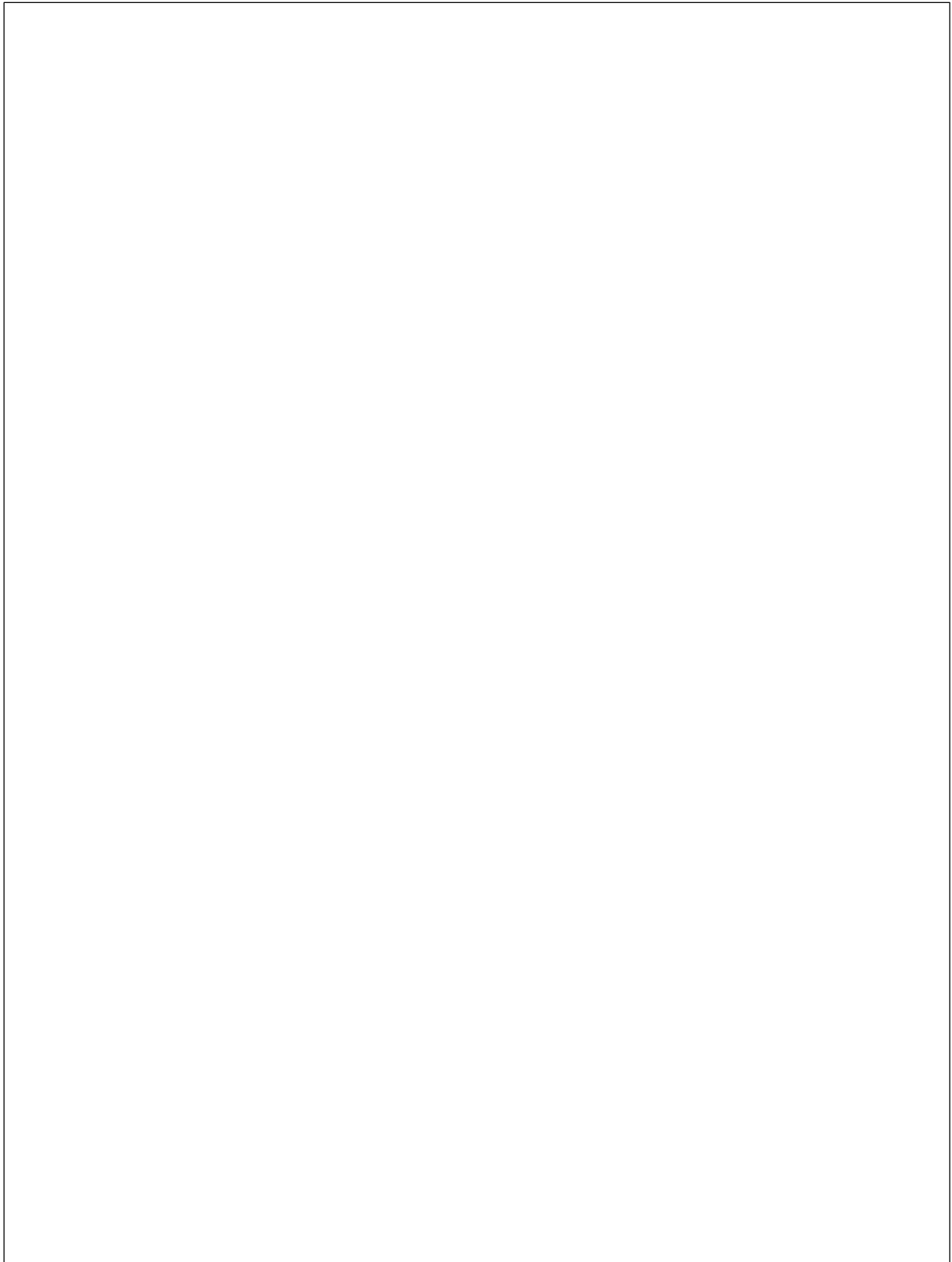


Figure 25. Mussel shell cluster (Feature 1) located in BHT2 within Site 41FY593.

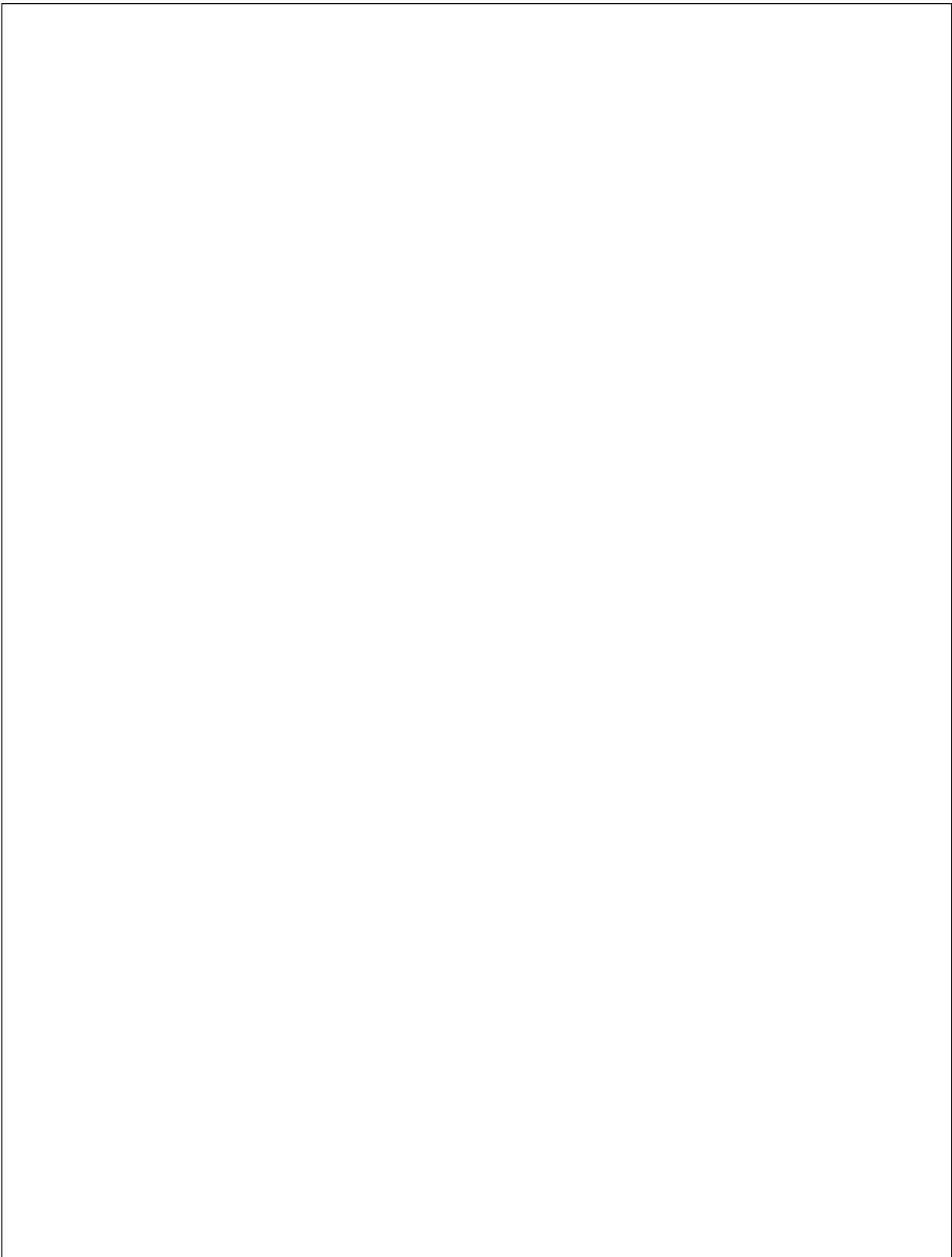


Figure 26. Site map of 41FY593.

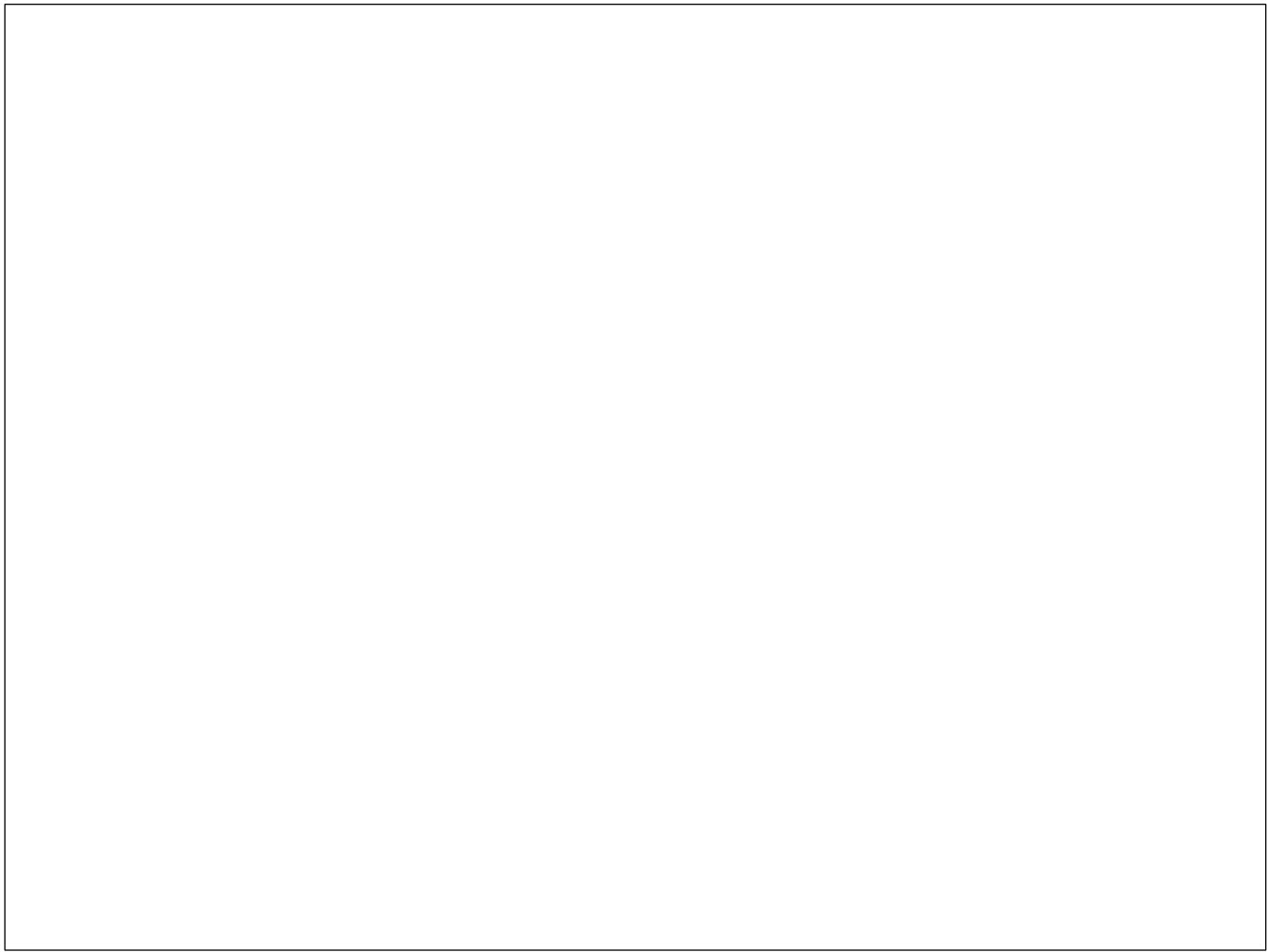


Figure 27. Feature 1, mussel shell cluster, with burned rock to the left.

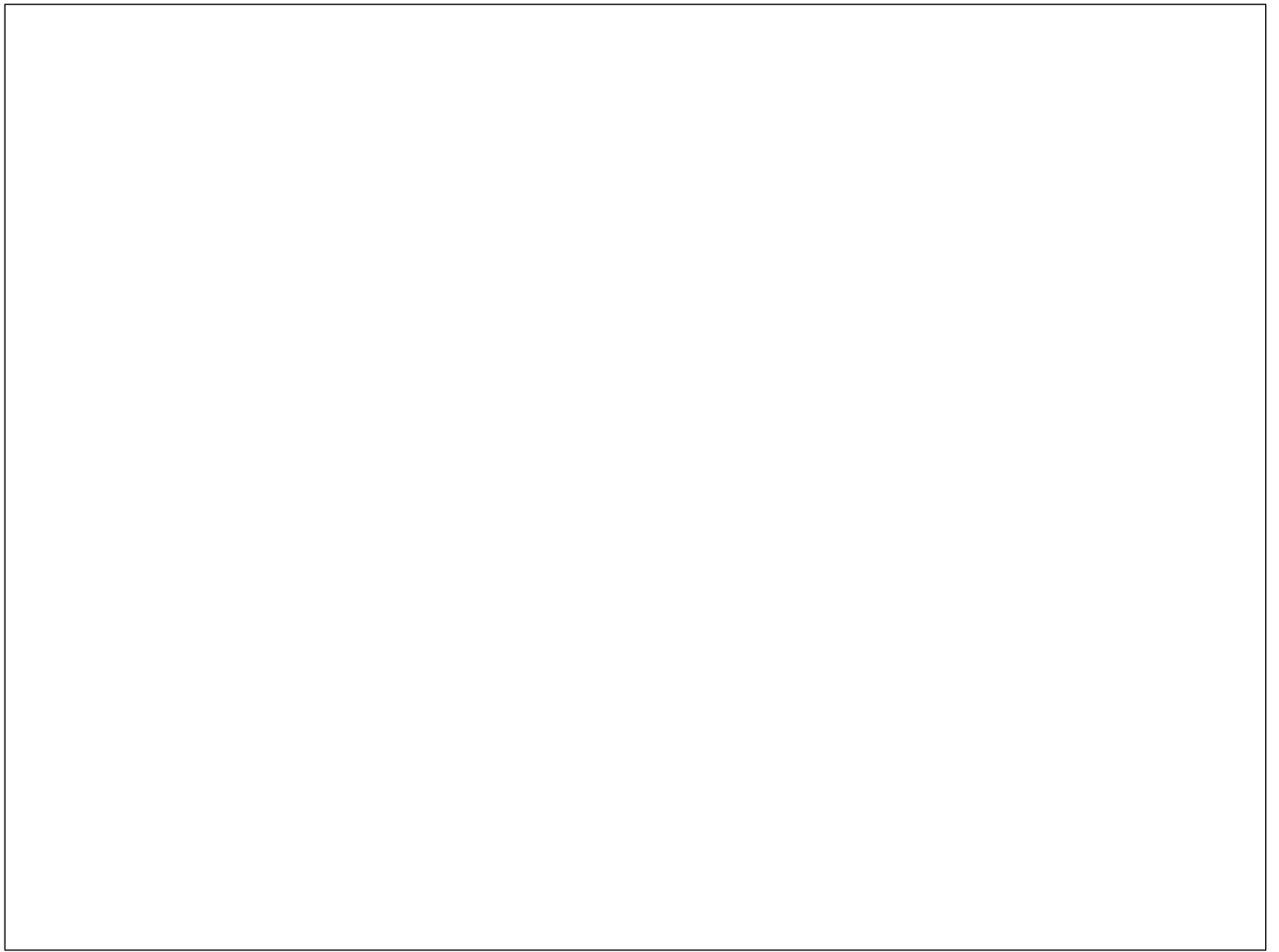


Figure 28. Trenching of BHT11 at Site 41FY593.



Figure 29. Bridge approach on west side of river on BS71E. Note steep bank from road construction.





Figure 30. Location of BHT4 in southwest quadrant along ROW fenceline. Note numerous trees in background rendering access difficult.





Figure 31. South wall profile of BHT4.



## Shovel Test and Backhoe Trench Tables



SHOVEL TESTS

Shovel Test	Positive/Negative	Northing	Easting	County	Depth	Color	Texture	Disturbances	Cultural Material
JB-1	N	3309533	703452	Fayette	0-20	10 YR 3/3	Cl Lo w/Sa	disturbed	
				Fayette	20-40	5 Y 4/5	Sa Lo		
				Fayette	40-60				
				Fayette	60-80		Sa Cl@70 cm		
JB-2	N	3309537	703568	Fayette	0-40	10 YR 3/4	Sa Lo	sparse silty gravel through out	
				Fayette	40-60	10 YR 4/4	Sa Cl Lo	dense root mass at 60cm	
JB-3	N	3309561	703769	Fayette	0-40	10 YR 3/4	Sa Lo		
				Fayette	40-60	10 YR 4/4	Sa Cl Lo	silty gravels to depth	
				Fayette	60-80	10 YR 5/4	Sa Cl Lo		
JB-4	N	3309570	703825	Fayette	0-60	10 YR 3/3	Sa Cl Lo		
				Fayette	60-80	10 YR 3/3	Sa Lo		
JB-5	N	3309561	703888	Fayette	0-40	10 YR 3/3	Cl Lo w/Sa		modern glass
				Fayette	40-60	10 YR 3/4	Sa Cl Lo		
				Fayette	60-80	10 YR 3/4	Sa Lo		
JB-6	N	3309597	703919	Fayette	0-80	10 YR 3/4	Si Sa	on natural levee	
JB-7	N	3309724	704132	Fayette	0-20	10 YR 3/4	Sa Lo		
				Fayette	20-40	10 YR 2/4	Cl	mottled w/ road gravel, poss. buried electric	
JB-8	N	3309575	704201	Fayette	0-20	10 YR 2/3	Sa Cl	Mixed with trash and imported gravels	
				Fayette	20-40	mottled	Cl	Mixed with trash and imported gravels	

Shovel Test	Positive/ Negative	Northing	Easting	County	Depth	Color	Texture	Disturbances	Cultural Material
JB-9	N	3309806	704333	Fayette	0-20	10 YR 3/8	Si Lo	large chert gravels	
				Fayette	20-40	10 YR 3/3	Cl	mottled clay	
JB-10	N	3309815	704374	Fayette	0-45	10 YR 3/3	Si Lo	very dense chert gravels, Asphalt @45cm	
JB-11	N	3309788	704331	Fayette	0-40	10 YR 4/4	Si Lo	large gravel below 20	
				Fayette	40-60	10 YR 5/4	coarse sand	mixed with some asphalt	
JB-12	P	3309722	704260	Fayette	0-20	10 YR 3/3	Si Sa Lo		
				Fayette	20-40	10 YR 3/3	Si Sa Lo		1 glazed (salt) stoneware @30cm
				Fayette	40-60	10 YR 3/3	Si Sa Lo		
				Fayette	60-80	10 YR 3/3	Si Sa Lo		
JB-13	P	3309713	704259	Fayette	0-80	10 YR 3/3	Si Sa Lo	burrow 20- 80cm	1 brick frag@15cm
JB-14	N	3309726	704279	Fayette	0-80	10 YR 3/3	Si Sa Lo		
JB-15	N	3309684	704158	Fayette	0-20	10 YR 4/3	Sa Lo		
				Fayette	20-40	10 YR 4/3	Sa Lo	concrete rubble 30- 40cm	
AN-1	N	3309754	704074	Fayette	0-20	brown	Sa	asphalt	
				Fayette	20-80	red brown	Sa	terrace in active flood plain	
AN-2	N	3309756	704120	Fayette	0-37			disturbed mix of soil and concrete rubble	

## BACKHOE TRENCH DATA

Trench Number	Zone	Depth (cm)	Description	Cultural Material
1	1	0-50	very dark brown loamy clay, likely from road construction	modern trash
	2	50-160	reddish brown silty loam on T-3 above Colorado River	none
2	1	0-36	Very dark brown loamy clay, Gravel fill imported, some brick (dumped under bridge)	modern trash
	2	36-75	dark grayish brown silty clay, some snails	none
	3	75-210	dark reddish brown silty clay, numerous snails, Deeply buried cultural feature (fea 1)	Fea.1 mussel shell @1.64m
3	1	0-12	Humic Clay loam, very dark brown, numerous roots	modern trash
	2	12-184	Brown, pale yellowish brown to reddish brown, silty sand, flood deposit, very thick	none
4	1	0-30/40	very dark brown loamy clay, Humic, numerous small roots	modern trash
	2	30/40-100	dark reddish brown loamy clay, roots throughout, same as BHT-1. Very high clay content	none
5	1	0-40	Dark brown loamy silt. Gravels dumped here as well as small roots	modern trash
	2	10-145	reddish brown silty sand, lots of sand. Weak structure, walls collapsing	none
	3	145-174	pale brown fine sand, silty sand, week structure, walls collapsing	none
6	1	0-37	pale yellowish brown sand, abrupt lower boundary	none
	2	37-84	brown sandy silt, small amount of clay, small river gravels throughout	none
	3	84-105	brown to dark brown silty loam band of faint darker sediment	none
	4	105-119	dark brown silty loam, bands of faint darker sediment	none
	5	119-134	reddish brown sandy silt with some clay	none
7	1	0-40	loose moist yellowish brown silty sand	none
	2	40-64	pale yellowish brown silty sand	none
	3	64-74	greyish brown silty loam with some clay	none
	4	74-110	strong brown silty clay	none
	5	110-165	brown to reddish brown sandy loam, silt content high	none
8	1	0-6	very loose sand at surface, recent	none
	2	Jun-38	pale yellowish brown silty sand	none
	3	38-57	greyish brown silty loam with some clay	none
	4	57-102	strong brown silty clay	none
	5	102-153	brown to reddish brown sandy loam with silt	none

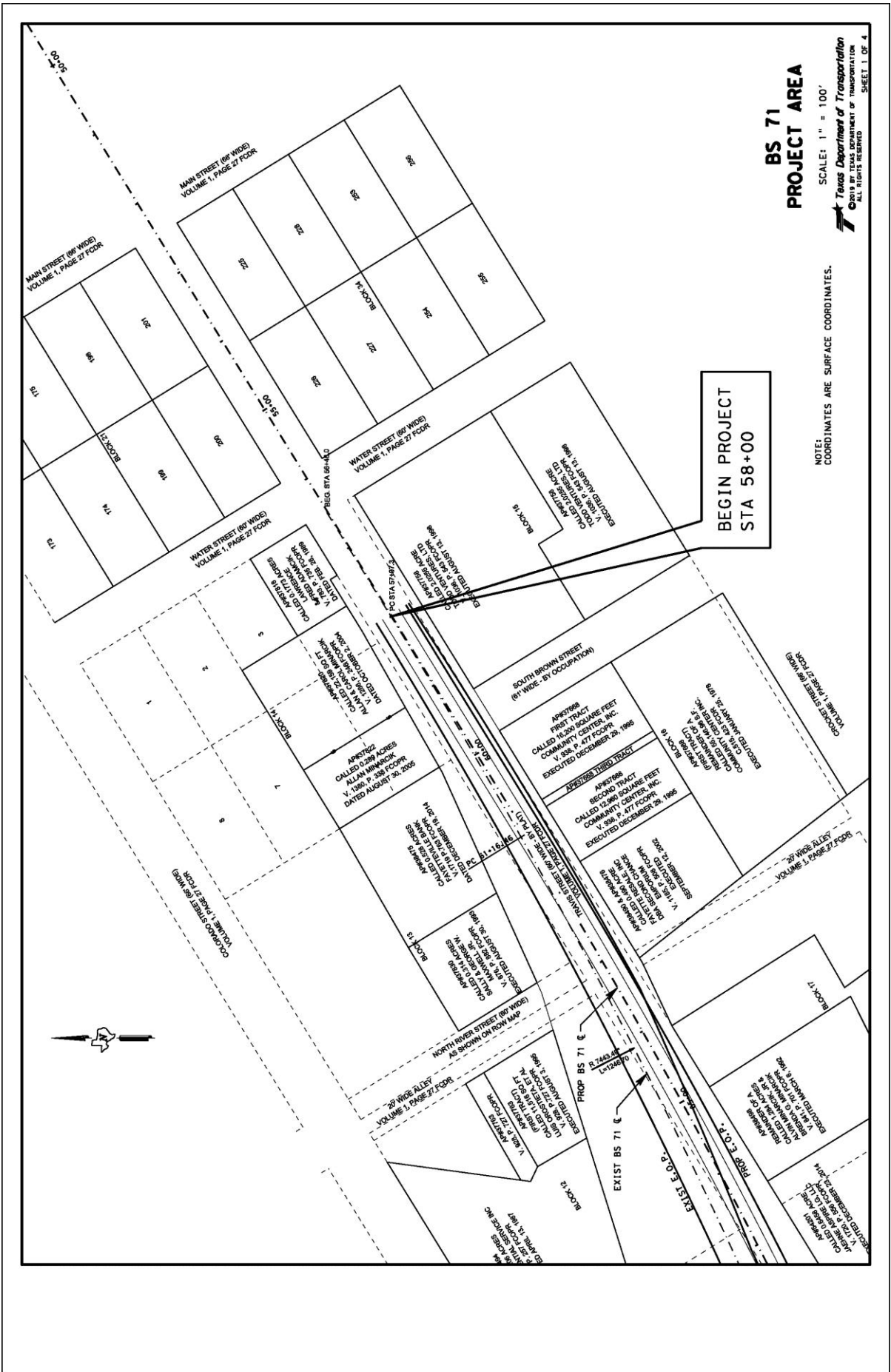
Trench Number	Zone	Depth (cm)	Description	Cultural Material
9	1	0-79	dark brown silty loam (upland) with numerous small roots	none
	2	79-100	dark reddish brown sandy silt/silty sand	none
10	1	0-12	dark brown sandy silt, some large gravels, unsorted, likely imported	none
	2	12-110	very dark greyish brown, silty clay, High clay content	none
	3	110-140	dark reddish brown silty clay, likely sterile subsoil	none
11	1	0-34	very dark brown loamy clay. Imported gravel fill and brick at surface (dumped under bridge)	modern trash
	2	34-70	dark greyish brown silty clay	none
	3	70-220	dark reddish to greyish brown silty clay, part of Feature 1	Fea.1 from BHT.2

This report was written on behalf of the Texas Department of Transportation by:



11842 Rim Rock Trail  
Austin, Texas 78737

## Attachments- Schematics



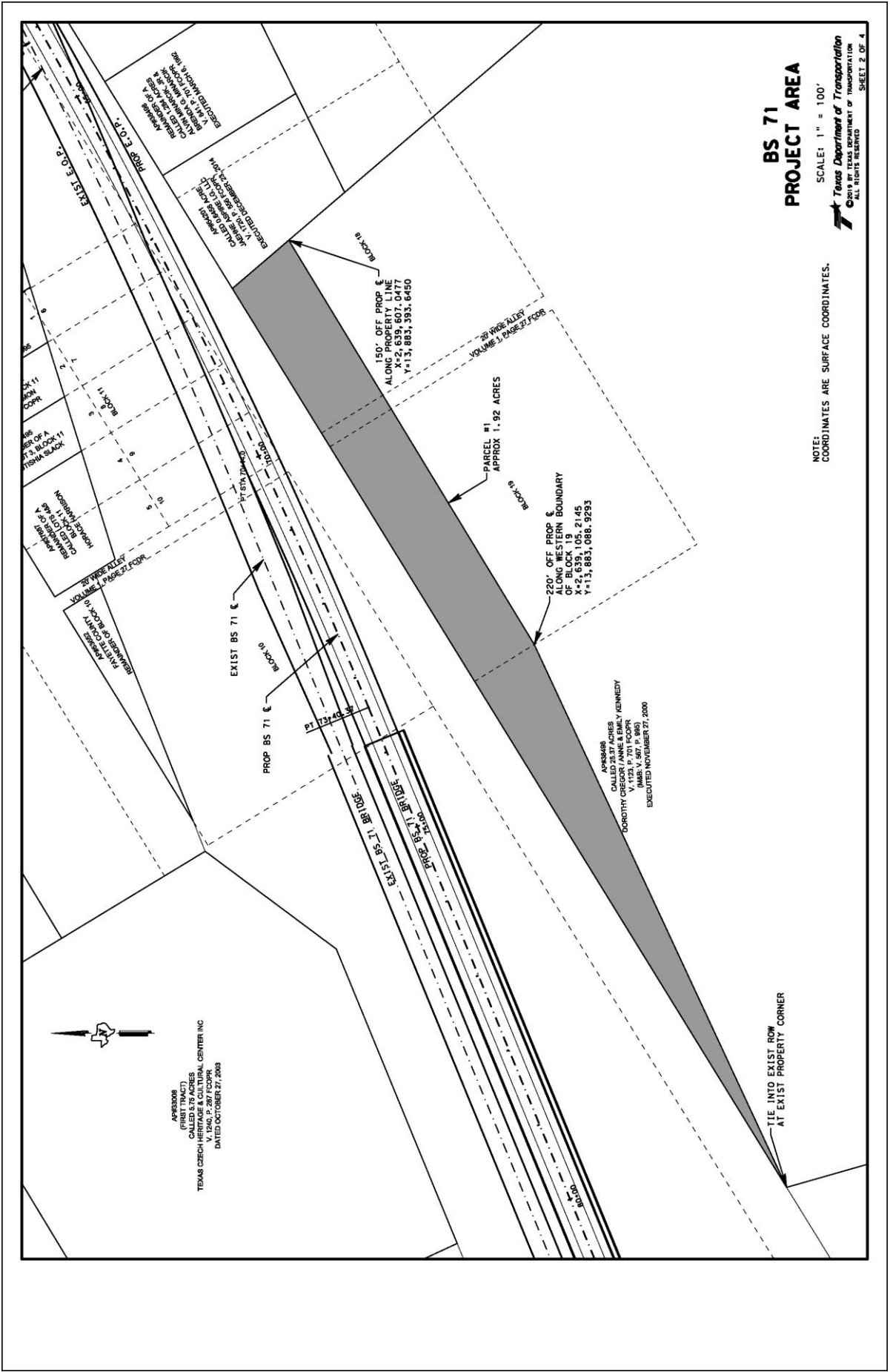
**BS 71  
PROJECT AREA**

SCALE: 1" = 100'

Texas Department of Transportation  
 ALL RIGHTS RESERVED  
 SHEET 1 OF 4

NOTE:  
 COORDINATES ARE SURFACE COORDINATES.

BEGIN PROJECT  
 STA 58+00



**BS 71  
PROJECT AREA**

SCALE: 1" = 100'  
 Texas Department of Transportation  
 CIVIL & TRAIL DIVISION  
 ALL RIGHTS RESERVED SHEET 2 OF 4

NOTES:  
 COORDINATES ARE SURFACE COORDINATES.

APPROX  
 (FIRST TRACT)  
 CALLED 5.76 ACRES  
 BY TEXAS CZECH REPUBLIC CENTER, INC.  
 V. 1240, P. 207 FLOOR  
 DATED OCTOBER 27, 2003

APPROX  
 CALLED 0.92 ACRES  
 BY DOROTHY GREGORY, ANNE & EMILY KENNEDY  
 V. 1123, P. 701 FLOOR  
 (MBS) DATED NOVEMBER 27, 2000  
 EXECUTED NOVEMBER 27, 2000





