A Cultural Resources Survey of the U-Haul Addition at Seguin Road Project Area, San Antonio, Bexar County, Texas

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Prepared for Baird, Hampton, & Brown, Inc.

City of San Antonio Master Development Plan Number 007-09

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South Texas Archeological Research Services, LLC
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Abstract

In mid February, 2009, South Texas Archeological Research Services, LLC, performed a cultural resources survey of the U-Haul Addition at Seguin Road project area in San Antonio, Bexar County, Texas. The survey focused on discovery, identification, and preliminary assessment of archeological resources within the project area, which was slated for commercial and industrial development under City of San Antonio Master Development Plan number 007-09. The project area contained approximately 33 acres of relatively unimproved land, consisting of fallow agricultural fields with grasses and scattered sapling trees, and the survey was conducted according to *Archeological Survey Standards for Texas, Minimum Survey Standards,* of the Texas Historical Commission, the standards adopted by the City of San Antonio's Historic Preservation Officer.

Fieldwork was preceded by an internet search within the *Texas Archeological Sites Atlas* of the Texas Historical Commission to determine whether or not the project area contained any previously discovered archeological resources that were recorded in the atlas and whether or not any portions of the project area had been previously surveyed. The results of that search were negative. Other background sources consulted revealed that the project area had been substantially disturbed by modern agricultural activities since at least about the mid 1960s and contained highly turbaceous silty clay soils, and was therefore unlikely to contain any intact or well-preserved archeological resources. However, the presence of a segment of an unnamed tributary of Martinez Creek, a second-order tributary of the San Antonio River, near the northeast corner of the project area increased the odds that the area may once have contained prehistoric archeological resources, some of which might have been missed by the disturbances.

A standard 100-percent pedestrian visual inspection of the surface of the project area and excavation of 13 archeological shovel tests throughout most of the project area were performed. Only very dark gray or gray-brown silty clay soils, of very uniform color and consistency, and containing virtually no visible natural inclusions, were encountered. No cultural resources believed eligible or potentially eligible for designation as landmarks, or estimated to have any appreciable historical or archeological significance or research potential, were found. Nothing was collected or curated in conjunction with the survey.

The Principal Investigator believed that future disturbances within the project area should not affect any important cultural resources and recommended to the project sponsors and the City of San Antonio Historic Preservation Officer that the proposed development project should proceed without further archeological work. In accordance with applicable city codes, the Principal Investigator also recommended that in the event of finds during construction of any cultural resources that might be historically or archeologically significant, work should be immediately suspended in the vicinity until the finds are be examined by a qualified archeological consultant or the City Historic Preservation Officer.

Acknowledgments

South Texas Archeological Research Services, LLC, was assisted in coordinating the survey of the project area by Mr. J. C. Garcia, P.E., with Baird, Hampton, & Brown, Inc., Engineering and Surveying company, of Grapevine, Texas, whose help is gratefully acknowledged. The performance during fieldwork of archeological technician Albert Uecker was exemplary. City of San Antonio staff archeologist Ms. V. Kay Hindes performed technical review for compliance with applicable city historic preservation codes for the project and the cultural resources survey report.

Introduction

On February 19, 2010, South Texas Archeological Research Services, LLC (STARS), conducted the fieldwork phase of a cultural resources survey of the U-Haul Addition at Seguin Road project area (Figure 1), San Antonio, Bexar County, Texas, for Baird, Hampton, & Brown (BHB), Inc. The survey focused on discovery, identification, and preliminary assessment of archeological resources. The project area was slated for conversion into a new industrial and commercial subdivision (Figure 2). Since it was in the City of San Antonio (COSA), the project area's proposed development under COSA Master Development Plan number 007-09 was subject to review by the city's Historic Preservation Officer (HPO) according to Division 3, Sections 35-634 through 35-640 of the city's Unified Development Code. Fieldwork and was done according to the Texas Historical Commission's *Archeological Survey Standards for Texas, Minimum Survey Standards*, the standard adopted by the HPO.

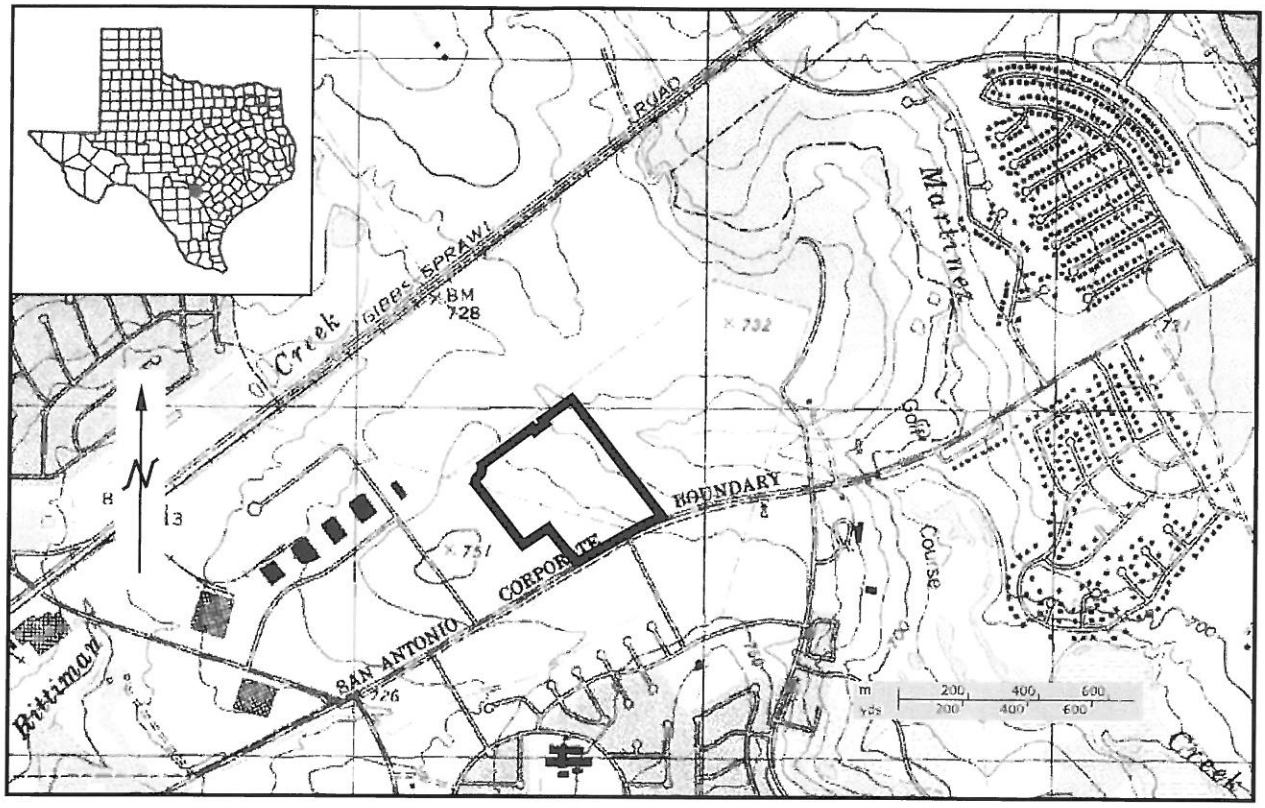

Figure 1. Project area (within bold outline) as plotted on section of *San Antonio East, Texas*, United States Geological Survey 7.5-minute quadrangle topographic map. Inset shows location of Bexar County in Texas.

The project area consisted of about 33 acres of gently sloping to flat, vacant land in eastern Bexar County near the southern border of the Balcones Escarpment and Fault Zone. It was roughly rectangular in shape with elevations ranging between about 220 and 230 meters above sea level, and consisted of open fields with thick surface grasses and a few short sapling trees. The fields were not under cultivation at the time of the survey, but had been recently used for agricultural production. The area was bordered on the west and northwest by additional open fields, on the northeast and east by a relatively new single-family residential subdivision, and on the south by Farm-to-Market Road 78. A minor unnamed tributary of Martinez Creek skirted the extreme northeast portion of the project area. Mid-1960s-vintage aerial photographs in *Soil Survey: Bexar County, Texas* (Taylor et al. 1966:Sheets

38, 46), indicated that virtually the entire project area was by then already disturbed by modern agricultural activities such as clearing, terracing, and cultivation.

A search of the THC's *Texas Archeological Sites Atlas* (Atlas; Texas Historical Commission 2010) made prior to fieldwork indicated that the project area contained no previously recorded archeological sites and had not been previously investigated. The survey included a 100-percent pedestrian examination of the surface of the project area, excavation of 13 archeological shovel tests throughout the area and production of this report. It was directed by Principal Investigator Herbert G. Uecker, who was assisted during fieldwork by Albert Uecker, Registered Professional Land Surveyor. This report conforms to the Council of Texas Archeologists guidelines for reports of negative findings.

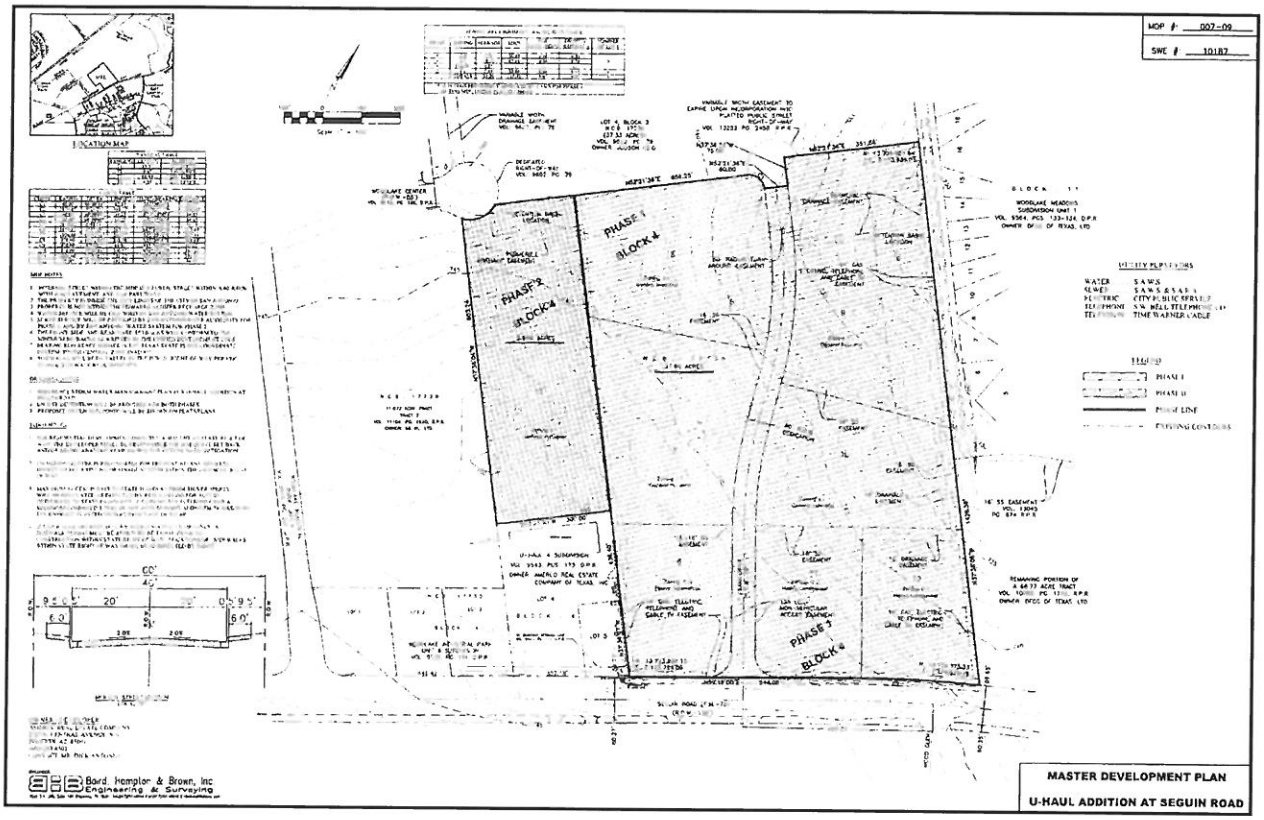

Figure 2. Master Development Plan of proposed U-Haul Addition at Seguin Road (reproduced courtesy of BHB).

General Background

Regional Natural Setting and Natural History

At the time of the survey, the regional physiographic and geologic setting of the project area had already been described in considerable detail (cf. Abbott and Woodruff 1986; Black 1989a:5-16; Black and McGraw 1985:40-54). Briefly, the project area is located near the southern edge of the Balcones Escarpment and Fault Zone at an average elevation of about 225 meters above sea level. The fault and escarpment region is also known as the Balcones Canyonlands. Intermittent faulting began in the area during the Miocene geologic epoch about 15-21 million years ago and continued until about a million years ago.

The regional geomorphology consists of a series of northeast to southwest trending fault scarps and associated erosional features. The regional drainage pattern is dendritic and major drainages in the region include the Medina, Guadalupe, and San Antonio Rivers. Many prominent streams, such as Cibolo, Culebra, Salado, Mud, Elm, and Helotes Creeks, also dissect the general area.

Base or parent rocks in the canyonlands zone include several members of the Lower Cretaceous series including the Del Rio shale formation, the Austin chalk, and the Buda, Edwards, and Glenrose limestones. These formations collectively range up to as much as 10,000 meters thick over much of central and south Texas. They were formed during the Cretaceous geologic period between about 120 and 65 million years ago. During the last several million years, numerous karst features have formed within the limestone formations, which also house the Edwards aquifer (cf. Veni 1988:11-26; 1998). The aquifer is a regional-scale phenomenon composed of porous beds of limestone and shale sandwiched between less permeable calcareous strata and it is virtually the sole source of potable water for much of central Texas. Soils in the canyonlands region are derivatives of the local bedrock and are typically very thin, stony, and underdeveloped in the uplands.

Ecologically, the area has been a resource-refugium zone since the middle of the Holocene geologic epoch about 7,000 years before present (B.P. [present being arbitrarily defined by culture historians as A.D. 1950]). It was at that juncture in time that the onset of the Altithermal climatic episode (Nance 1972) began to substantially alter the climate of the North American southwest, including Texas. The Altithermal was a period of relatively intense heating and drying that lasted, with many short breaks, until the present time. As the lush tall-grass steppes and mixed-grass prairies of south and west Texas were reduced to thorn scrublands and semiarid deserts over several millennia, both animal and human populations congregated in such areas as the Rio Grande basin and the mountain forests of west Texas and northern Mexico, and also in the central Texas Hill Country. South and west of the Hill Country, riparian zones slowly evolved into isolated ribbons of resources, and many unique places along the area's rivers and streams became centers of human population.

The project area is situated within a broad ecotonal zone that exhibits characteristics of three major natural regions (cf. Blair 1950; Riskind and Diamond 1988): (1) the Balconian Biotic Province, a subtropical, subhumid mixed woodland or parkland that is geographically congruent with much of the Texas Hill Country and is dominated by juniper-oak scrub forests; (2) the Tamaulipan Biotic Province, a subtropical to megathermal desert steppe or thorn scrubland that ranges southward from central Texas into the coastal and Rio Grande plains and well into northern Mexico that is dominated by huisache and mesquite; and (3) the Blackland Prairie, a subtropical, subhumid area characterized by mixed savannah grassland or prairie and by postoak-blackjack oak woodlands that ranges northward and eastward to the Red River area near the Texas-Oklahoma border. The climate of these regions during the last several millennia has been typified by short mild winters and long hot summers. Modern annual precipitation in the area averages about 700-800 mm and follows a bimodal pattern with maxima in May and September. The Balcones tablelands have sometimes been the locus of world record precipitation events triggered by tropical waves of warm moist air from the Gulf of Mexico colliding with colder dryer air of arctic and subarctic origins surging southward from the high plains (Caran and Baker 1986).

By the time of the survey, there were hundreds or even thousands of species of plants, animals, and insects thriving in central Texas. It is beyond the scope of this report to include a comprehensive listing or description of these species but the interested reader is referred to publications by Davis (1960), Enquist (1987), Everitt and Drawe (1993), Kutac and Caran (1994), Neck (1986), Riskind and Diamond (1986), Simpson (1988), and Vines (1984). Major terrestrial faunal species and avifaunal species of the area include the white-tailed deer, javalina, coyote, red fox, opossum, raccoon, ringtailed cat, squirrel, striped skunk, armadillo, wild turkey, bobwhite quail, Inca dove, white-winged dove, box tortoise, and western diamondback rattlesnake. Prominent raptors of the region include turkey and black vultures and various species of owls; and red-tailed hawks, eagles, and peregrine falcons. Also, modest numbers of cougar and bobcat are present in the less populated areas.

Prominent plant species and communities of the project area and immediate vicinity are typical of those found throughout much of central Texas. Live oak, mountain laurel, persimmon, and juniper are major tree varieties of the hill country scrub forests. Tree species such as mesquite, huisache, and blackbrush acacia; and many cacti and yuccas including prickly pear, Spanish dagger, and sotol are prevalent in lowland thorn shrub thickets. Stream courses and river bottoms of the region contain a broad spectrum of native deciduous trees including Spanish oak, cedar elm, hackberry, pecan, walnut, cherry, and ash. Whitebrush, giant ragweed, cockle burrs, snow-on-the-prairie, frost plant, and numerous other herbs and forbs cover the forest floors. Dozens of types of short and mid grasses carpet the region's prairies and savannas.

Regional Culture History and Cultural Ecology

Probably attracted by the abundance of pristine water, the steep ecological gradients, and the rich biotic microenvironments present, humans first occupied the central Texas area at least 11,000 years B.P. The local culture history contains four broad divisions (cf. Black 1989b:25-33, 1989c:48-57; Black and McGraw 1985:35-40; Hester 1980:27-37; Turner and Hester 1999:50-63): the Paleoindian period (ca. 11,000-8000 B.P.), the Archaic period (ca. 8000-1500 B.P.), the Late Prehistoric period (ca. 1500 B. P. to A.D. 1528), and the Historic period (ca. A.D. 1528 to present). During all but the Historic period, humans in the area were engaged in a nomadic to semi-sedentary hunting and foraging lifeway. Archeological evidence indicates that they were organized as small groups or bands that traveled much of the time in regular patterns, known as subsistence forays, in order to exploit a variety of seasonably available natural resources. This lifeway was practiced in most of North America for many thousands of years before the fifteenth century infusion of Europeans to the New World.

Such peoples were largely of Asiatic origin, but are variously referred to as aboriginals, native Americans, American Indians, ancient Americans, or early Americans. Apparently many of these pioneers entered North America from eastern Siberia via the Bering Strait sometime prior to about 15,000 B.P., probably during a major episode of global cooling and glaciation when an ice sheet or bridge connected Siberia to Alaska. They eventually spread throughout the Americas, and their cultures flourished and greatly diversified, especially during the last few thousand years. By the early eighteenth century when the Spanish established missions in Texas, several hundred Indian groups, each having a fairly distinct linguistic or socio-political identity, lived in the southwestern United States, Texas, and northern Mexico (cf. Campbell 1979:1, 1988:39; Schuetz 1976:1). The story of these peoples' prehistoric past encompasses the first three major periods in the culture history of the central Texas area.

The Paleoindian period includes the terminus of the Pleistocene geologic epoch and the beginning of the Holocene. The climate of the period was generally somewhat cooler and more humid than that of later periods. The natural landscape in much of central Texas during this period consisted mostly of forest parkland, i.e., savannah grasslands with numerous clusters of trees. The lush vegetation of the period provided a trophic base which supported many large ice-age herbivores and carnivores. Sea level along the Texas coast is estimated to have been about 120 m lower than at present; thus, a broad seaward expanse of land, which is now inundated, existed during those times. Paleoindians were typically organized as small, nomadic, stone-age, hunting and foraging bands that often pursued such large game as bison, mammoth, and mastodon. The fact that they supplemented their diets with wild plant foods has been documented only occasionally in much of Texas because of the poor preservation of pollen and plant fibers in most local soils. The relatively few Paleoindian sites documented in Texas consist primarily of isolated finds of chipped stone spear points that exhibit highly distinctive styles and workmanship, and rare kill and butchering sites of Pleistocene game animals.

The Archaic period is characterized by a shift to generally dryer and warmer conditions, sometimes referred to as the Altithermal climatic period (Nance 1972). The Altithermal of Texas apparently was punctuated by alternating mesic and xeric episodes that were sometimes of significant duration and magnitude. In spite of these erratic patterns, the landscape gradually evolved into a mosaic of alternately sparse and lush savannah grasslands with isolated stands of trees on the uplands and heavier arboreal growth in the riparian zones. This drying out of the

land after the Pleistocene corresponds to broad changes in the lifeways and cultures of native peoples. The archeological record indicates that a substantial degree of diversification in human subsistence patterns occurred. Emphasis shifted from the hunting of large Pleistocene mammals, by then extinct, to a new focus on the hunting of smaller game and on plant food gathering, processing, and consumption. During most of the period the dominant lifeway continued to be nomadic hunting and foraging by small egalitarian bands who exploited scattered seasonal resources. As evinced principally by the appearance in the archeological record of large communal or clan cemeteries toward the end of the period, population growth resulted in land and other resource scarcities, prehistoric peoples began to form into large groups, and territorialism, sociopolitical complexity, and semi-permanent or permanent settlements formed.

The predominant type of central and south Texas archeological site of the period is the occupational refuse pile, or midden. Such midden sites are frequently large, open, seasonally occupied base camps located along rivers and streams. They were central places used for the accumulation, processing, cooking, and consumption of foods, and presumably for habitation as well. They were also occasionally used for burying the dead (Hester 1985). Burned rock middens are the most common type present at interior sites. At such sites, foods were often cooked in earthen pits lined with rock slabs or boiled in hide pouches filled with water, food, and hot stones. The rocks had to be routinely replaced as they disintegrated from continual exposure to the intense heat. This resulted in the gradual accumulation of large heaps of thermally fractured and discolored rocks mixed with food scraps, discarded tools, and tool manufacturing debris. Diagnostic projectile points, radiocarbon dates, and other archeological data from burned-rock-midden sites indicate that many of them were occupied intermittently for several hundreds or even thousands of years by peoples who normally wandered about in small bands, but who gathered into much larger bands for special seasonal activities and ceremonies. Additional information about burned-rock-midden sites is provided in the section on interpretation of research findings of this report. Other types of sites that are associated with the Archaic period include smaller, shorter-term occupancy or use sites such as upland hunting-butchering camps, quarry-workshop sites for the procurement of raw stone for the manufacturing of chipped stone tools, cavern or rockshelter habitation sites, isolated hearths and stone chipping scatters, burial and cemetery sites, and isolated finds or caches of projectile points or other tools.

During the Late Prehistoric period, plant domestication and other agricultural practices were gradually adopted. Due to the poor preservation of plant remains in prehistoric archeological deposits of central and south Texas, the extent to which these new subsistence activities were used is not known. The bow and arrow and ceramic technology were introduced from neighboring regions. Permanent settlements arose and trade networks for the routine exchange of goods with neighboring regions were greatly expanded. Sociopolitical relationships were elaborated and the concepts of local group identity and coherence were undoubtedly strengthened.

The impact of these changes on the lifeways of the native peoples living in central and south Texas during the period is just beginning to be known. Apparently with few exceptions, the Archaic lifeways practiced in south and south-central Texas continued largely unmodified into the Late Prehistoric period. The modifications in the technological and cultural inventory that occurred there during the Late Prehistoric period and that manifest archeologically include the production and widespread distribution of smaller, lighter stone tips for arrows and the

routine production and use of ceramics. The subsurface remains of prehistoric houses or village sites, and the attendant traces of nearby activity areas, fortification features, agricultural plots, and irrigation systems from the period are present in Texas, but are confined mostly to the northern, eastern, and western margins of the state. Ethnographic accounts from European explorers who ventured into the south Texas or Texas coastal areas during the sixteenth and seventeenth centuries also mention the existence of villages of crude structures, but at this writing there was little known archeological evidence for the existence of such structures (cf. Johnson 1997).

Many of the indigenous Texas Indian groups, including such long term residents of the central Texas region as the Coahuiltecans and Tonkawas, continued to engage primarily in nomadic hunting and foraging well into historic times. This was the case in spite of the fact that some of their Late Prehistoric predecessors had begun the routine practice of horticulture or agriculture, and had apparently settled in permanent or nearly permanent villages by about A.D. 500. Archeological evidence has recently emerged that indicates that small permanent or semi-permanent villages were probably present in what is now central Texas as early as the Middle Archaic period (Johnson 1997). Shortly after the accidental introduction of horses into American Indian culture in the sixteenth century by the Spanish, bison-hunting became the way of life for many tribes on the Great Plains, where nomadism also continued. The Apaches and Comanches are the main southern plains tribes that invaded the central Texas area from the west and north during the 1600s and 1700s, displacing, absorbing, or exterminating many of the original inhabitants of the area (cf. Hester 1980; Newcomb 1961; Sjoberg 1953). They also frequently raided European-American settlements in or near the Texas Hill Country. During the eighteenth century, most of the surviving indigenous groups apparently fled to outlying regions or sought protection from invaders in the Spanish missions.

The Historic period in Texas began in the early sixteenth century (ca. 1528-1536). The first Spaniard, if not the first European, to set foot on Texas soil was probably Alvár Núñez Cabeza de Vaca. He was sailing the Caribbean with an exploratory Spanish expedition and was shipwrecked off the Florida coast in 1528. For about the next eight years, he allegedly wandered along the gulf coast, well into Texas, and finally arrived in Mexico in 1536. By that time, the Spanish had conquered and dominated many of the aboriginal cultures that occupied Mexico, Central America, and a sizeable portion of South America, and thus established a foothold of European-style civilization in those areas. During the period from roughly the second decade of the sixteenth century to the terminal seventeenth century, the Spanish colonized all of what is now Mexico to the Rio Grande. In 1691, an expedition of Spaniards from Mexico penetrated Texas to San Pedro Springs, now located in the northern portion of San Antonio's central business district. In an often-quoted report to the viceroy, explorer Domingo Terán de los Ríos related:

> We marched five leagues over a fine country with broad plains---the most beautiful in New Spain. We camped on the banks of an arroyo, adorned by a great number of trees, cedars, willows, cypresses, osiers, oaks and many other kinds. This I called San Antonio de Padua, because we reached it on his day [Terán de los Ríos 1691 as quoted in Crook 1967:1-2].

Fray Damian Massanet, also with the 1691 Spanish expedition, is cited by Crook as attesting that they encountered a very large tribe of Payaya Indians at that same location.

Several more preliminary expeditions into Texas were conducted by the Spanish during the next few decades. The landing of the Frenchman René Robert Cavelier, Sieur de La Salle, on Matagorda Island in 1684 and the subsequent activities of the French in Texas appear to have consolidated the resolve of the Spanish to colonize the region north of the Rio Grande. Some Spanish families had permanently settled in the vicinity of San Antonio by 1715 (Chabot 1936:8), and by 1718 the Spanish officially established the first settlement north of the Rio Grande near San Pedro Park. Called San Antonio de Padua, it consisted of a mission and a presidio based on agriculture employing Indian labor and irrigation. This subsistence base was used by the Spanish for virtually the entire time that they controlled the area.

The Spanish soon expanded their colony southward along San Pedro Creek and the San Antonio River, and by 1726, citizens of the crown numbered about 200 in the San Antonio area. In 1731, a party of about 52 additional settlers arrived from the Canary Islands and joined the fledgling colony. The Bexar County missions south of the present Alamo were imported during the mid eighteenth century from what were originally satellite locations in east Texas, and the relocation constituted a final impetus for Spanish settlement in the vicinity. The missions continued active throughout much of the remainder of the eighteenth century. With the beginning of secularization of the missions in the early 1790s came the granting of what had previously been the mission-controlled lands in Texas to Spanish citizens. By the end of the mission era, the indigenous Indians who were, presumably, descendants of the

first human inhabitants of south and central Texas, had been virtually eradicated. Many of those who took refuge in the missions died of European-introduced diseases, and the hunting-gathering lifeways of the remnant populations radically disrupted by mission life and the trials of acculturation.

For many decades after the missions waned, the culture history of much of Texas continued to be dominated by their influences. Throughout the periods of Mexican and Texan independence, the U. S.-Mexican War, and until just prior to the Civil War, the subsistence base of the region was largely agricultural and local population growth was fairly benign. There were very few changes in land usage in the area throughout the reigns of several major imperial powers over almost a century and a half until the railroad and the Industrial Revolution came to the region (Fehrenbach 1978:114-117).

Due principally to the infusion of German culture into Texas, substantial changes in local land usage began to occur during the second quarter of the nineteenth century, and their affects lasted through virtually the remainder of the century. It is clear from the history of immigration in Texas that there were simultaneous appearances of significant numbers of several other ethnic groups, mostly of northern European origins, but German immigrants were remarkably talented and unusually tenacious settlers, organizers, builders, and commercializers in the Central Texas area. The Germans came early, quickly planted deep roots, and spurred much later development. As early as the 1830s, a few Germans had already migrated to Texas (Lich 1986:6). Substantial German colonization in Texas began in about 1845 with Prince Carl of Solms-Braunfel's founding of New Braunfels (Biesele 1930:119). During the next decade, the German settlements of Fredericksburg and Boerne developed in the Hill Country north of San Antonio. Contemporaneously, the Germanic population of San Antonio was on the increase and by 1876, according to the town assessor, totaled 5,630 Germans and Alsatians (Fehrenbach 1978:117).

The Germans settled principally along the Balcones Escarpment in central Texas. The Escarpment is the most prominent landform in the Central Texas region and has served as a transitional zone between broadly different lifeways throughout most of the Historic period: "Since earliest European settlement, the Balcones Escarpment stood as a cultural frontier, a dividing line between the farming economy of the coastal plain and the ranching economy of the Texas Hill Country. The Escarpment has greatly influenced the cultural development in the land which it transects [Palmer 1986:153]." Since about the beginning of the nineteenth century, and especially prior to the Civil War, the Escarpment has been the physical and cultural boundary between the Old South and the Old West.

Before the coming of the Industrial Revolution to the area during the late-nineteenth century, the economy of the Old South was based primarily on the growing of cotton, while that of the Old West was based mainly on livestock production (Abbott and Woodruff 1986:Preface). Many German-American settlers were attracted to the escarpment region because of its general physiological similarities to certain portions of Germany, such as Bavaria.

Local Culture Historical Context

Although the project area was within the corporate limits of San Antonio at the time of the survey, the nearest developed communities of any appreciable size at that time were Kirby, which was only a few kilometers to the southwest, and Windcrest, which was about the same distance to the north.

Kirby, Texas

Kirby is on Farm-to-Market Road 78 eight miles northeast of downtown San Antonio in eastern Bexar County. It became a station on the Galveston, Harrisburg and San Antonio Railway in 1877. In 1900, the settlement had a cotton gin, a blacksmith shop, and a population of 100. A post office operated at the site from 1907 to 1916, when service was discontinued and the mail sent to Converse. In 1930, Kirby had six businesses and 25 persons and in 1940 had four businesses and a population of 100. The population increased to 680 by 1965, by which time the community had incorporated. Since that time Kirby has grown rapidly, swelled by the growth of nearby San Antonio

and Converse, and in 1990 Kirby's population was reported as 8,326. By 2000, the official population was 8,673 (Texas State Historical Association 2010a).

Windcrest, Texas

Windcrest is just east of the intersection of Interstate Highway 35 and Loop 410, ten miles northeast of downtown San Antonio in northeastern Bexar County. It was developed and incorporated in the late 1950s and rapidly expanded from a population of 441 in 1960 to 3,371 in 1970 and 5,332 in 1980. Since that time the population has been relatively static, with 5,331 inhabitants reported in 1990 and 5,105 in 2000 (Texas State Historical Association 2010b).

Martinez Creek

The named natural drainage closest to the project area is Martinez Creek, a tributary of Cibolo Creek. Martinez Creek trends roughly northwest to southeast about a kilometer northeast of the project area. Martinez Creek rises just east of the Windcrest subdivision in northeastern Bexar County (at 29°32' N, 98°22' W) and runs southeast for 16 miles to its mouth on Cibolo Creek, one mile southwest of Farm Road 2538 (at 29°26' N, 98°08' W). It traverses flat to rolling terrain surfaced by clay and sandy loam that supports mesquite and grasses (Texas State Historical Association 2010c).

The Cibolo Creek Corridor

Cibolo Creek is a tributary of the San Antonio River. Much of the following information about the Cibolo Creek corridor is adapted from, or closely follows Texas State Historical Association (2010d):

The Cibolo Creek drainage corridor, which includes the project area, is about 125 miles long and passes through six Texas counties: Bexar, Comal, Guadalupe, Karnes, Kendall, and Wilson. It forms the Bexar-Comal County line and the Bexar-Guadalupe County line. The culture history of the corridor is lengthy and colorful and the entire drainage system can be characterized as a unique historic landscape. Cibolo Creek was called Xoloton by the Coahuiltecan Indian groups of south Texas and northern Mexico and Bata Coniquiyoqui by the central Texas Tonkawan Indians of the early historic era. Apparently the meaning of these names has been lost. By 1721, it was known to the Spanish as Arroyo del Cibolo or Rio Cibolo, which mean Buffalo Draw and Buffalo River, respectively. This name apparently originated after the Spanish observed Indians driving buffalo over the steep bluffs lining the upper reaches of the creek.

At the Cibolo Creek archeological site near Sutherland Springs in Wilson County, literally hundreds of chipped stone projectile points, commonly called "arrowheads", scrapers, and other stone tools of the earliest prehistoric peoples of the Americas have recently been discovered in a sand mining pit. The full extent of the huge site has not yet been determined, but its artifacts have already been found scattered over a least 200 acres. Another very ancient site along the corridor was discovered during the late 1960s in a sinkhole on the Hitzfelter Ranch in Comal County, just east of Kendall County. Although the exact age of the site is not known, chipped stone tools and the burials of prehistoric peoples were found there associated with the skeletal remains of ice-age beasts including saber-toothed cats and mastodons. Other ancient sites along the corridor have been found near the Bat Cave and at the mouth of Natural Bridge Caverns in Comal County. At Natural Bridge Caverns, during occupations spanning several thousand years, prehistoric Indians repeatedly lined basin-shaped earthen pit ovens with slabs of limestone that were used as heating elements to cook meat and plant foods. As the slabs broke apart from frequent heating and cooling, they were tossed aside and replaced with fresh slabs, forming a type of site known to archaeologists as a burned rock midden. Literally thousands of such sites have been found along the rivers and major streams of central Texas, and they are especially numerous along the upper Cibolo.

A historic marker near a church at Czestochowa, the second oldest Polish colony in Karnes County, reads:

> Near this site [about 2.5 miles north on Cibolo Creek] stood the 18th-century Spanish fort of El Fuerte de Santa Cruz del Cibolo, usually called El Fuerte del Cibolo or El Cibolo. Built to protect the many Spanish ranches between San Antonio and La Bahia (now Goliad), the fort was occupied first from 1734 to 1737, and again from 1771 to 1782. The land between the San Antonio River and Cibolo Creek, called "El Rincon", was part of an area deeded by the King of Spain to missions and many private individuals. The site of El Fuerte del Cibolo was part of a private ranch called El Rancho de San Bartolo which belonged to Andres Hernandez. In 1772 the Spanish government formally authorized the establishment of fifteen presidios (forts) from California to Texas. El Fuerte del Cibolo, which had been reactivated in 1771, came under that authorization and remained an active fort until 1782. Twenty soldiers were stationed at El Fuerte del Cibolo on July 4, 1776. Some of them helped move cattle and horses from this area to the Gulf Coast, where Spanish forces under Gen. Bernardo de Galvez defeated the British during the American Revolution, thereby contributing to the winning of American independence.

In spite of the early presence of the Spanish, substantial settlement did not occur along the Cibolo Creek corridor until the influx of German Americans to the area during the 1840s and 1850s. In 1849, a small group of German colonists established one of the first communities along the upper reaches of Cibolo Creek, in what later became Kendall County. They named it Tusculum, after Cicero's home in ancient Rome. By 1852, the name had been changed to Boerne, in honor of Ludwig Boerne, a German poet and publicist. Several other communities were founded along Cibolo Creek by German immigrants during this period including Schertz and Bulverde, which was originally called Pieper's Settlement. Also in 1849, Dr. John Sutherland founded the community of Sutherland Springs along Cibolo Creek in Wilson County. By about 1910, the town had become world famous for its hot mineral springs, which were improved with bath houses and a fifty-two-room hotel. Visitors came there from as far away as Canada and even England.

Soils and Geoarcheological Context

According to the *Soil Survey: Bexar County, Texas* (Taylor et al. 1966:10, Sheets 38, 46), the principal surface soil within the project area is Houston Black clay (HuB). Houston Black clay is a thick black gumbo soil with a generally greasy consistency that is well known for its high shrink-swell and particle migration properties. It is typically very turbaceous, and slowly convects or "boils" over long periods of time.

In recent decades, Collins (1997) noted similar soils during geoarcheological work at the Alamodome development site and at several other locations in the San Antonio/Bexar County areas. At those locales, the soils are generally about 2-3 meters deep and rest above very ancient deposits of caliche-laden gravels. In several Houston Black clay profiles observed by the Principal Investigator at similar locations, columns were comparatively uniform in composition. The upper dark clay deposits had virtually no visible inclusions and were readily distinguishable from the light-colored caliche gravels below them, and no cultural evidence was present.

According to Collins (1997), the upper, dark-colored clays are very turbaceous and typically extend several meters to the bottom of the Holocene deposits. Thus, prehistoric archeological resources, which are found only rarely within such soils, are almost always poorly preserved due to the high shrink-swell and particle migration characteristics of the deposits. Collins has further asserted that, because these soils are so turbaceous, accurate dating of archeological resources found within them is usually not possible unless time-diagnostic artifacts are found in good associations with those resources. Based on the established ages of similar soils in the region, Collins speculated that the dark clays above the caliche gravels are of Holocene age and the caliche gravels are of Pleistocene vintage. Topsoils and subsoils encountered by the STARS survey team at the surface and in shovel tests within the project area closely matched the descriptions for Houston Black clay (Figure 4).

The thin shield of chert and limestone gravels and cobbles scattered across the surfaces of many landscapes in portions of the Gulf Coastal Plain, the Rio Grande Plain, and the Blackland Prairie regions is derived primarily from the Edwards and Glenrose limestone formations of the Balcones Escarpment. In the Rio Grande Plains region, it is particularly noticeable as relatively dense deposits capping secondary terraces or hilly uplands (cf. Hester and Hill 1972:37). It is known as the Uvalde Gravels or as the Uvalde Formation (Loomis et al. 1992).

Although no Uvalde Gravels were seen during the STARS survey of the project area (possibly due to vegetative cover and/or stone raking and removal over decades by farmers), apparently it was present as thin surface scatters or small natural concentrations at a large, previously recorded archeological site along Martinez Creek just to the north. The gravels were of great importance to the local prehistoric human groups as sources of raw chert for chipped stone tool manufacturing, limestone for heating elements in earth ovens, and for a multitude of other uses (cf. Hester 1989:119-120 and Hester et al. 1991 regarding the cultural importation of exotic lithic materials to several regions of Texas from remote sources during prehistory).

Ten geo-bores were drilled within the project area in 2007 and 2008. The bores encountered dark gray-brown silty clay to depths of between about two and five feet below the surface over yellowish brown silty clay to the bottoms of the tests, which averaged about 15 feet below the surface. Following the interpretations of Collins (1997), the Principal Investigator believed that the yellow-brown basal clay probably originated no later than during the mid-Pleistocene geologic epoch, and at least several hundred thousand years ago, and its presence at such shallow depths obviated the need for backhoe trenching in conjunction with the survey.

Field Investigation Methods and Results

Surface visibility throughout much of the project area was only about 10-20 percent at the time of the survey, and recent rains had rendered about six acres of the northeastern-most portion of the project area too wet for subsurface testing. Fieldwork consisted of a 100-percent pedestrian examination of the surface of the project area and excavation of 13 archeological shovel tests within the portion of the project area dry enough for testing (Figures 3-4). Pedestrian transects averaged about 15 meters apart. Shovel tests were each about 30 centimeters in diameter, ranged from 60 to 100 centimeters deep, and averaged about 65 centimeters in depth. Soils encountered in the tests were 10YR2/1 to 10YR3/1 very dark gray-brown silty clay. Other than small roots and humus near the surface, there were virtually no visible inclusions in the shovel test matrix. Screening of excavated matrix was not feasible due to soil moisture content and the viscous consistency of the silty clay matrix. In lieu of screening, excavated matrix was carefully troweled through and examined visually for the presence of cultural evidence. Three of the 16 tests originally planned, Shovel Tests 1, 6, and 7, were omitted due to excessive soil moisture at their locations (Figure 4). None of the tests yielded cultural evidence, and with the exception of discovery during the surface survey of a small, concrete-slurry composition livestock feed or water trough (Figure 5), no discrete cultural evidence was encountered within the project area. The Principal Investigator estimated that the trough originated sometime during about the 1950s to 1960s.

Interpretations and Recommendations

The survey team encountered no cultural resources that, in the opinion of Principal Investigator, were eligible or potentially eligible as archeological sites or other types of landmarks. Soils within the area were highly turbaceous and unlikely to contain any intact or well preserved archeological resources. Background information and the findings of the survey indicated that most or all of the project area was substantially disturbed by modern human activities since at least about the mid 1960s. Therefore the Principal Investigator recommended to BHB and the COSA-HPO that the proposed project should proceed without further archeological work, except in the event of finds during construction of cultural resources that might be significant. The Principal Investigator recommended that in the event of such finds, in accordance with applicable city historic preservation codes, work should be stopped in the vicinity and the finds should be examined by a qualified archeological consultant or the COSA-HPO.

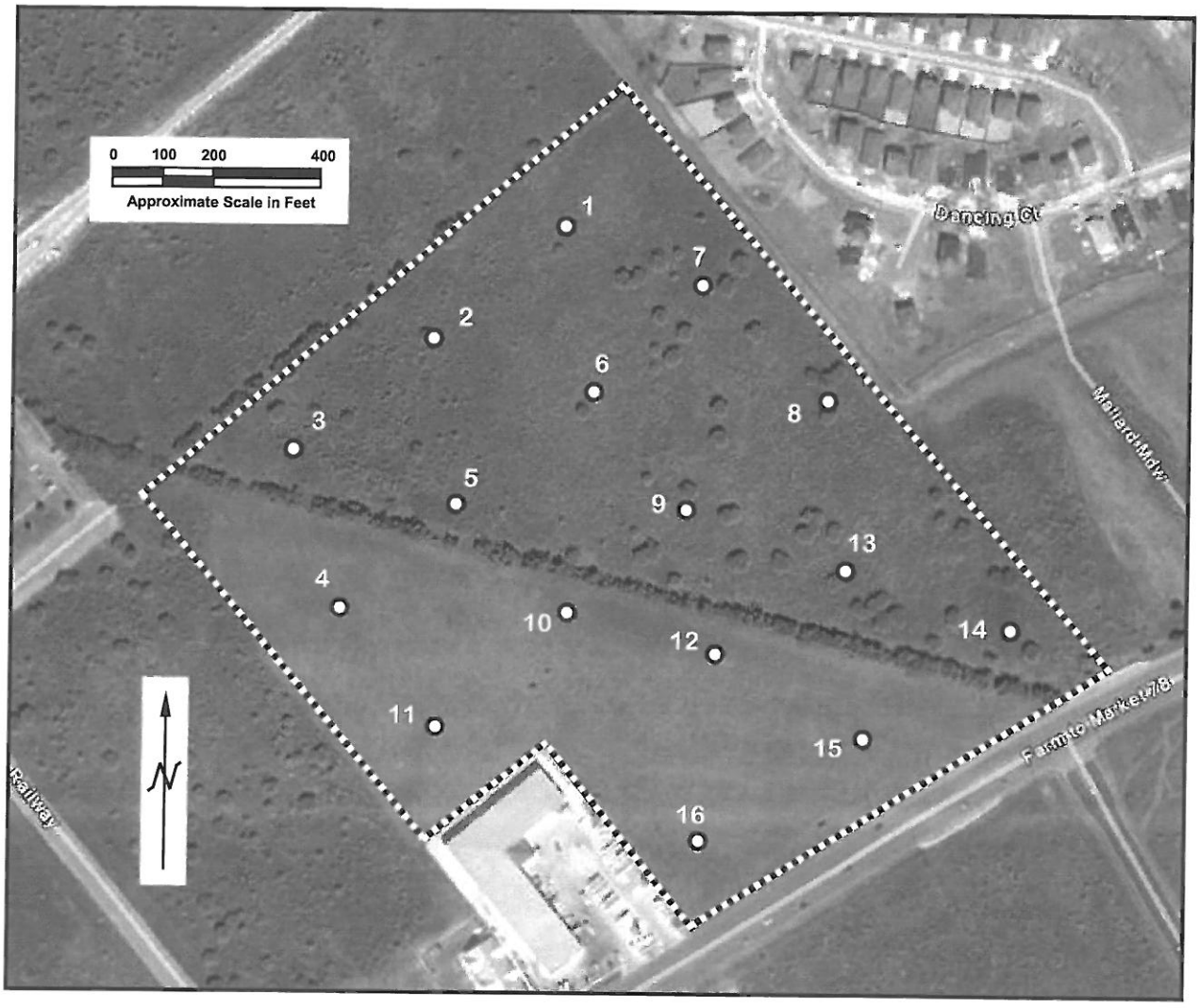

Figure 3. Project area (within dashed black-and-white border) superimposed over 2010-vintage satellite photograph, showing approximate locations of STARS shovel tests planned (white dots). Shovel Tests 1, 6, and 7 were not able to be excavated due to excessive soil moisture at those locations. See Figure 4 photographs for ground-level views of representative shovel tests.

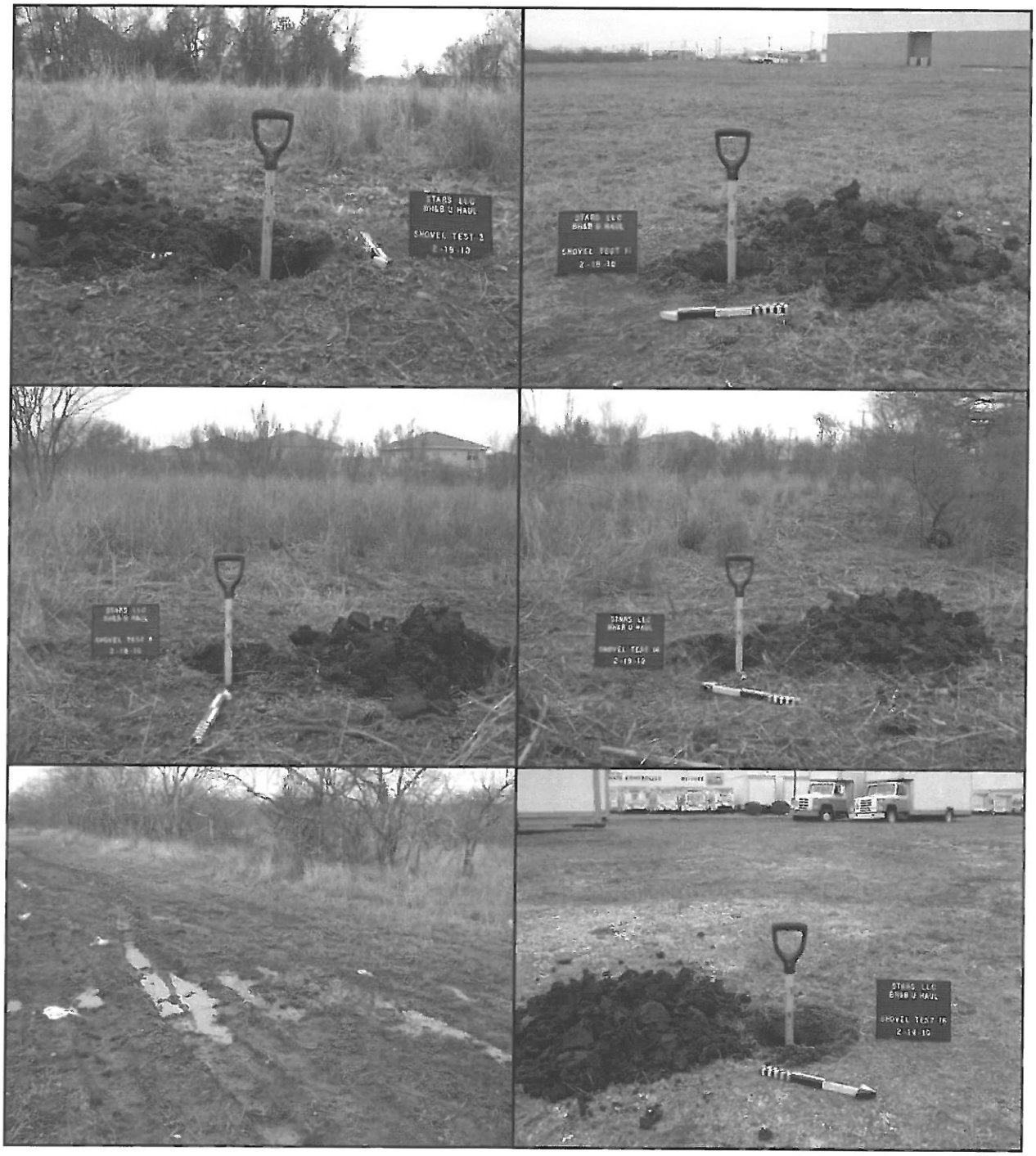

Figure 4. Photographs of project area at the time of the STARS survey. Left column, top to bottom: Shovel Tests 3 and 8, in progress, and view of surface in northeast portion of project area showing puddles from recent rains. Right column, top to bottom: Shovel Tests 11, 14, and 16, in progress. Excavated matrix shown is typical of all tests.

Figure 5. Two views of small concrete-slurry livestock water or feed trough in fallow agricultural field near location of Shovel Test 16 (Figure 3). Yellow portion of shovel handle is about 37 centimeters long.

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