

Interim Report for Intensive Archeological Investigations

Proposed US 67 Interchange at Lake Ridge Parkway, Dallas and Ellis Counties, Dallas District CSJ 0261-01-041

Maura Hogan, Principal Investigator; Antiquities Permit No. 9195

November 2020

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 9, 2019, and executed by FHWA and TxDOT.

Abstract

On behalf of the Texas Department of Transportation (TxDOT), AmaTerra Environmental, Inc. (AmaTerra), conducted an intensive archeological survey of the proposed US 67 interchange at Lake Ridge Parkway, running through the southernmost part of the city of Cedar Hill and into the northernmost part of the city of Midlothian. The Area of Potential Effects (APE) extends along US 67 0.22 miles north of Shiloh Road to 120 feet south of Mount Lebanon Road, and runs approximately 0.4 miles from US 67 across from Lake Ridge Parkway. The total project area was 150.32 acres, including 88.45 acres of existing right-of-way (ROW) and 61.87 acres of proposed new ROW. The typical depth of impacts for the project is three feet, and the maximum depth of impacts is 55 feet. AmaTerra archeologists completed the survey under TAC Permit No. 9195 and fieldwork was conducted between January 8–13, 2020 by a team of archeologists. All the existing ROW and 49.09 acres of the proposed ROW were surveyed. Right-of-Entry (ROE) was not granted for 12.78 acres of the project area. The survey was conducted according to the Council of Texas Archeologists (CTA) standards, consisting of 100 percent intensive pedestrian survey supplemented with shovel testing and backhoe trenching along water crossings and areas with high potential for deeply buried archeological deposits. The survey resulted in 68 shovel tests and two backhoe trenches within the APE.

No previously recorded archeological sites were present within the project area and no new archeological sites were recorded during the survey. At the time of this survey, ROE had been granted for approximately 91 percent of the total project area. For the portions of the APE where ROE had been obtained for this survey, this interim report recommends that no further archeological work is warranted. However, further work is recommended prior to construction in six of the 14 parcels where ROE has not yet been granted; these parcels will require intensive archeological survey once ROE is granted for a future survey. No artifacts were collected as part of this survey. All notes and field records will be curated at the Texas Archeological Research Laboratory (TARL) in Austin, Texas.

Project Information

- This survey is:
 - \boxtimes the initial survey for this project
 - \Box a continuation of previous survey(s) due to:
 - $\hfill\square$ access issues and/or
 - □ design changes
- Date: 10/19/2020
- Date(s) of Survey: 01-08-2020 to 01-13-2020
- Archeological Survey Type: □ Reconnaissance ⊠ Intensive
- Report Version: ⊠ Draft □ Final
- Jurisdiction: ⊠ Federal ⊠ State
- District: Dallas
- County or Counties: Dallas, Ellis
- USGS Quadrangle(s): Cedar Hill and Lancaster
- Highway: US 67
- CSJ: 0261-01-041
- Report Author(s): Garrett Wheaton and Maura Hogan
- Texas Antiquities Permit Number: 9195
- Principal Investigator: Maura Hogan
- Estimated Percentage of Time that the Principal Investigator was in the Field: Maura Hogan (Principal Investigator) was in field zero percent of the time.

Area of Potential Effects and Survey Area

Area of Potential Effects (APE)

The APE is defined to encompass the limits of the existing right of way; proposed, new project right of way; permanent and temporary easements; and any project-specific locations and utility relocations designated by TxDOT. Note: the APE encompasses the entirety of the project area, regardless of the extent of prior archeological investigations, the particular locations subject to field investigations, or the portion of a project added through a design change. If impacts are not known, worst-case impacts are assumed in defining the APE.

See Attachment 1 for a map of the APE, which is based on the project information attached as Attachment 2.

No Survey Area:

Not applicable - the entire APE required survey and/or visual inspection.

Access Denied Area:

Surveyors did not have access to 12.78 acres of proposed new ROW, encompassing fourteen parcels (see **Appendix C**).

Survey Area:

The present survey focused on the 49.09 acres of proposed new ROW for which access was granted and the 88.45 acres of existing ROW.

Parcel ID(s): At the time of survey, right of entry was obtained for twelve parcels and denied for fourteen parcels across Ellis and Dallas counties (see **Appendix C**). The three parcels within Ellis County that are still privately owned for which right of entry was obtained, are: 235, 236, and 237. Right of entry was denied for five parcels in Ellis County, including 226, 227, 238, 284, and 286. The nine parcels within Dallas County for which right of entry was obtained are 0, 11, 12, 18, 23, 32, 34, 42, and 103. Right of entry was denied for nine parcels in Dallas County, including 3, 4, 6, 7, 13, 21, 33, 40, and 104. All other portions of the APE are current ROW and publicly owned by TxDOT.

Project Area Ownership:

The properties that are still privately owned, but with access are owned by: A&M Holdings LP, Atherton and Murphy Holding, Ronald Heitman, Swordglisten LTD, Gerald Bauer, City of Cedar Hill, Travis Mendez, and ALK Realty LTD.

Project Setting

Natural Setting

Topography: The APE falls within the Northern Blackland Prairie ecoregion and is defined by its flat plains (Omernik and Griffith 2013). It is underlain by Cretaceous chalks and shale with overlying dark fine soil. Elevations within the APE vary from 800 to 860 feet, increasing westwards within the project area.

Geology: According to the Geological Atlas of Texas, the APE is underlain by a single geologic formation. The Austin Chalk formation is characterized by Late Cretaceous age chalk and mudstone.

Soils: The APE crosses a variety of soil units (**Table 1; Figure 2**). Soils types including Dalco, Whitewright, Austin, Stephen, and Eddy are all derived from residuum from chalk. The broken alluvial landscape is comprised of silty alluvium of quaternary age derived from chalk (USDA-NRCS 2019).

Map Symbol	Soil Series
AuB, 5	Austin silty clay, 1- 3 percent slopes
6	Austin silty clay, 2–5 percent slopes, eroded
Br	Broken alluvial land, rarely flooded
23	Dalco Clay, 1-3 percent slopes
26	Eddy clay loam, 1 to 3 percent slopes
27	Eddy clay loam, 3 to 8 percent slopes
EcB	Eddy gravelly clay loam, 1–3 percent slopes
EdD2	Eddy soils, 3–8 percent slopes, eroded
28	Eddy-Whitewright complex, 8 to 20 percent slopes
StB, 67	Stephen silty clay, 1-4 percent slopes

Table 1: Soils within the APE (USDA-NRCS 2019).

Potential Archeological Liability Map: The Dallas Potential Archeological Liability Map shows that 10 percent of the project area has moderate to high potential for prehistoric archeological sites, concentrated around the North Prong Creek drainage. The rest of the project area has low to moderate potential for shallow deposits, and low potential for deep deposits. See **Figure 3**.

Vegetation: The APE falls within the Northern Blackland Prairie ecoregion. Historical vegetation in this region consisted of bluestems, yellow Indiangrass, and tall dropseed. The ecoregion is also defined by oak, hackberry, elm, ash, cottonwood, and pecan trees in bottom lands and along streams. Most of this vegetation has been cleared for crops, ranching, and both residential and commercial uses (Omernik and Griffith 2013).

Estimated Ground Surface Visibility: 0-20 percent. Localized areas had visibility up to 75 percent.

Historic Land Use:

Historical aerial images and topographic maps show that the majority of land within the APE has been used for agricultural activities. Only in recent years have commercial buildings begun to be constructed within the APE, along both sides of US 67. The majority of the project area lies within the city limits of Cedar Hill, while the southernmost area lies within Midlothian.

The city of Cedar Hill was founded in the 1850's, and the population was 500 by 1890. The population boomed in the 1980's after the construction of Joe Pool Lake (Stowers 2010). The city of Midlothian was colonized in 1848 and incorporated in 1888. The city suffered due to the Great Depression but saw growth in the 1970's due to the development of suburban housing. (Tarin 2010).

Current Land Use:

Currently, most of the APE is rural, used as pastureland. There are also a few commercial structures scattered throughout the APE, mainly on the eastern side of US 67.

Previous Investigations and Known Archeological Sites: Background research for this project consisted of an online records search through the Texas Historical Commission's (THC) Archeological Sites Atlas (THC 2019) and a review of historical maps and aerial photographs. Research focused on the identification of archeological sites, sites listed as State Antiquities Landmarks (SALs), Recorded Texas Historic Landmarks (RTHLs), National Register of Historic Places (NRHP) Sites and Districts, Historical Markers, cemeteries; and previously conducted archeological surveys within 0.62 mile (one kilometer) of the APE (**Figure 4**; THC 2019). The search identified one previously conducted survey and one pet cemetery within a kilometer of the APE. The previous survey does overlap the project area along US 67 (**Table 2**). The survey was performed in April of 1976 for Texas Department of Highways and Public Transportation. The pet cemetery does not overlap the project area and lies 700 meters north of the project area.

Year	TAC Permit	Investigator	Sponsor	Overlap APE
1976	n/a	n/a	TDHPT	Yes

Evaluation of Project Setting:

The APE includes the existing paved four-lane highway with frontage roads. The project area widens out at the intersection of US 67 and Lake Ridge Parkway to accommodate the future construction of the bridge for the overpass. Archeological sites could be present along the roadside, however road maintenance, construction, utility installation, and related activities, may have caused significant disturbance to soil in the area. The project area also crosses an agricultural field across US 67 from Lake Ridge Parkway. It is likely that the upper 30 cm of these soils (and any archaeological materials found therein) have been disturbed by plowing and mowing activities. Commercial development along US 67 has also impacted the APE.

Survey Methods

- Surveyors: Brittany McClain (Project Archeologist), Noel Steinle, Garrett Wheaton, Danielle Blut, Emory Worrell, Alexis Goodwill, Sydnee Pagan, and Natalie Nish
- Description of Methods: Survey efforts involved visual inspection supplemented with excavation of 68 shovel tests (Table 3; Appendix A), and two backhoe trenches (Table 4; Appendix B). A 100 percent pedestrian survey was conducted for the entirety of the APE with ROE with visual inspection being conducted from the current ROW into the 14 properties without ROE. The Project Archaeologist assessed the survey area for suitable trenching locations, and two loci in the central portion of the APE, along the North Prong Creek, were designated as having the highest potential for potentially deeply-buried archeological deposits. Backhoe trenches were excavated to lengths of about six meters, with widths of roughly one meter, and to depths of 25 and 60 centimeters. For each trench a wall profile of roughly 1.5 meters in width was cleaned with a shovel scraped and/or troweled for photography, measuring, and drawing. Shovel tests were excavated to bedrock or compacted soils, whichever was encountered first. The average shovel test terminated 30-40 cm below surface. AmaTerra staff marked all tests using a handheld GPS unit and logged each on standardized forms that recorded profile characteristics, depth, and contents. Shovel test spacing followed the Council of Texas Archaeologists (CTA) minimum standards for linear surveys with one shovel test every 100 meters, except where roadways, drainage and culvert improvements, utilities, flooded areas, or high ground visibility precluded the need for shovel testing. No sites were recorded within the APE.

During the survey, investigators took photographs of the landscape, sites' features, and various disturbances encountered.

Table 3. 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	0	68	n/a	1.43
Power Auger Probes	-	-	-	n/a
Mechanical Trenches/Scrapes	-	2	-	0.04

- Other Methods: None
- Collection and Curation: □ NO ⊠ YES If yes, specify facility: Records curated at TARL
- Comments on Methods: The methods used during the survey exceed the CTA standards, which call for one test every two acres for area surveys, or one shovel test every 100 meters for linear projects. The shovel testing rate for this project equals over one shovel test per acre, exceeding CTA standards.

Survey Results

Survey Area Description: The project consists of open pastures over moderately sloping hills, as well as developed commercial areas. Due to the variety of grasses in the APE, ground visibility was anywhere from 0–20 percent (**Figure 5**) with localized areas having approximately 75 percent visibility, where surface bedrock precluded the need for shovel testing. Portions of the APE on both the east and west sides of US 67, were heavily disturbed by roadway construction. These areas were terraformed, with manmade ditches and utilities running along the road.

Many of the properties (14 parcels) within the APE were lacking ROE, each of these was visually inspected from the existing ROW or adjacent parcels where ROE was granted. Recommendations for further work were made for each property based on the visual inspection. Further work was recommended for six of the 14 parcels with no ROE based on the relatively undisturbed appearance of the properties. Reasons for recommending no further work in the remaining parcels are listed below.

- Presence of commercial parking lots: Parcel 238 (Figure 12)
- Presence of driveway and terraforming: Parcel 13
- Surface bedrock present: Parcels 4, 40 and 104 (Figure 13)
- Presence of buried utilities and terraforming: Parcels 6 and 7 (Figure 14)
- Extensive evidence of buried utilities: Parcel 21 (Figure 15)

Pedestrian Survey Results: Pedestrian survey was performed within the existing ROW and on all properties with ROE (see **Appendix C**). Pedestrian survey in the project area did not identify any cultural materials or artifacts on the ground surface.

Several parcels with ROE (12, 18, 103, and 235) were pedestrian surveyed only due to evidence of past disturbances. Utility lines run throughout parcels 18 and 235, negating and preventing any subsurface testing (**Figure 7**). Parcel 12 has been disturbed by the construction of a water tower as well as underground utilities, negating the need for shovel testing (**Figure 8**). A concrete driveway was present on the surface across Parcel 103 (**Figure 9**). Based on the amount of terraforming and subsurface disturbance associated with these areas, it was determined that the was little to no potential for intact cultural deposits to be located in these areas.

Shovel Testing Results: Shovel testing was performed following and/or exceeding CTA standards with a shovel test performed every 100 meters with the exception of areas with high visibility, or that had been disturbed. Archeologists excavated a total of 68 shovel tests (Figures 6a and 6b; Appendix A). No shovel tests were positive for cultural material. There was one typical soil profile throughout the APE. The soil profile consisted of a dark greyish brown (10YR 4/2) silty clay with limestone inclusions, overlying limestone bedrock.

Several types of disturbance were observed during the survey (see **Figures 7** to **9**, and **Appendix A**). Shovel tests located in areas of prairie or pasture have lively been subjected to disturbance caused by plowing, grazing, or mowing. Areas where mulch was found overlying topsoil may have been disturbed by landscaping activity. Disturbance from commercial developments, utilities, and roadway construction are present, and it is likely that activities related to the construction and normal use/maintenance of these features has disturbed sediments. Shovel tests were placed in proximity to disturbed areas to confirm that the areas affected have low potential for the preservation of archeological materials and this is supported by the lack of artifacts recovered during the shovel testing survey.

Backhoe Trench Results: All mechanical trenching was performed within parcel 11, as it was the only place within the project area with potential for deeply buried intact archeological deposits, for which ROE was granted. AmaTerra staff excavated two backhoe trenches within the APE (Figure 6a; Appendix B). The first trench was placed on the western side of North Prong Creek within 175 meters of the creek. The second trench was also placed on the western side of North Prong Creek, 95 meters from the creek. No cultural material was discovered in either of the backhoe trenches.

Backhoe Trench 01—BHT01 was placed approximately 175 meters west of North Prong Creek on a densely vegetated lowland. The vegetation consists of tall and short grasses. Soils in the trench included three stratified levels. Stratum I consisted of a 10YR 2/1 clay full of roots and rootlets. Stratum II consisted of a 10YR 3/2 clay. Stratum III consisted of smooth bedrock across the entire trench. The trench reached a maximum depth of 60 cmbs and no cultural material was observed (**Figure 10**).

Backhoe Trench 02—BHT02 was placed approximately 95 meters northwest of North Prong Creek on a densely vegetated lowland. The vegetation consists of tall and short grasses. Soils in the trench included two stratified levels. Stratum I consisted of a 10YR 3/2 clay full of roots and degraded bedrock. Stratum II consisted of a limestone bedrock. The trench reached a maximum depth of 25 cmbs and no cultural material was observed (**Figure 11**).

APE Integrity: The APE has been disturbed in most areas. The land has been affected by clear cutting for pastureland. Other portions of the APE have been terraformed from the construction of ditches for US 67, and the installation of utilities for suburban neighborhoods. The overall potential for cultural material and intact archeological deposits throughout the APE is low. However, there are still some areas, without ROE at the time of survey, that may contain intact archeological deposits.

Recommendations

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

No Survey Area (NSA)	Survey Area	Either
\boxtimes 50 feet of NSA	☑ 50 feet of survey	Variable
□ feet of NSA	area	
	25 feet of 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 agricultural activities.

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

Other (specify):

Archeological Site Evaluations

• Comments on Evaluations: No sites were found within the APE.

Further Work:

No further work is recommended within the APE where survey was conducted as no artifacts or sites were documented in these areas. For properties where ROE was not granted at the time of survey, a visual inspection of the APE was conducted. Based on observations of each parcel's setting and characteristics, there are several areas that may preserve intact archeological materials. The following parcels are recommended for additional survey once ROE is granted: 3, 33, 226, 227, 284, and 286 (see **Appendix C**). These properties are relatively undisturbed, except by clear cutting on parcel 227 and are recommended for shovel testing.

Justification:

Further work is recommended for six undisturbed parcels for which ROE was not granted at the time of survey, including 3, 33, 226, 227, 284, and 286. Survey is recommended due to the potential for intact cultural remains within the APE. No further work is recommended for the existing ROW and the 12 parcels that were surveyed, including 0, 11, 12, 18, 23, 32, 34, 42, 103, 235, 236, and 237. Additionally, no further work is recommended for the eight parcels for which access was not granted that have been subjected to significant disturbance and are thus unlikely to have preserved cultural resources (Parcels 4, 6, 7, 13, 21, 40, 104, and 238).

References Cited

Barnes, V. E.

1991 Geologic Atlas of Texas, Dallas Sheet. Bureau of Economic Geology, University of Texas at Austin.

Omernik, G.E., and J. M. Griffith

2013 Ecoregions of Texas (EPA) – The Encyclopedia of Earth. Electronic document, http:// www.eoearth.org/view/article/152207/, accessed November 2019.

Stowers, C.

2010 Handbook of Texas Online, "Cedar Hill, TX (Dallas County)," accessed January 2020, http://www.tshaonline.org/handbook/online/articles/hfc04. Published by the Texas State Historical Association.

Tarin, R. G.

2010 Handbook of Texas Online, "Midlothian, TX" accessed January 2020, http://www.tshaonline.org/handbook/online/articles/hgm06. Published by the Texas State Historical Association.

Texas Historical Commission (THC)

2019 Texas Archeological Sites Atlas Online. Electronic document, http://ellis.thc.state.tx.us/, Accessed November 2019.

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS)

2019 Ellis County, Texas – Web Soil Survey. Electronic document, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.asp, accessed on November 2019.



Attachment 1

Figure 1: Project Location.

Attachment 2. ECOS Project Description



Attachment 3. Report Figures

Figure 2: Map of Soils within the Project Area.



Figure 3: PALM of Project Area.



Figure 4: Map of Known Sites and Archeological Surveys in the Project Area. (Atlas)



Figure 5: Example of Typical Visibility within the Project Area.



Figure 6a: Survey Results of the Northern Portion of the Project Area.



Figure 6b: Survey Results of the Southern Portion of the Project Area.



Figure 7: Utility Disturbance for Parcel 235.



Figure 8: Utility Disturbance for Parcel 12.



Figure 9: Driveway in Parcel 103.



Figure 10: BHT01 Overview.



Figure 11: BHT02 Overview.



Figure 12: Disturbances for Parcel 238.



Figure 13: Example of Surface Bedrock on Parcels 4, 40, and 104.



Figure 14: Disturbances for Parcel 6.



Figure 15: Utilities within APE for Parcel 21.

Appendix A: Shovel Test Table

Shovel Test	Positive/ Negative	Northing	Easting	Depth	Color	Texture	Disturbances	Cultural Material
NN01	N	3603620	690123	0-20	10YR 4/4	Si Lo	Eagle formation	none
				20+	-	Gravel	-	
NN02	N	3602643	690086	0-25	10YR 3/4	Si Lo	lots of gravel	none
				25+	-	Gravel		
NN03	N	3602648	690176	0-5	10YR 3/4	Si Lo	Gravel	none
NN04	N	3602759	690084	0-5	10YR 3/4	Si Lo	disturbed	none
NN05	Ν	3602765	690182	0-5	10YR 3/4	Si Lo	disturbed	none
NN06	N	3602952	690081	0-25	10YR 4/4	CI Lo	possibly disturbed	none
NN07	N	3602947	690181	0-30	10YR 4/4	CI Lo	some gravels and bedrock	none
NN08	N	3602957	690284	0-15	10YR 4/4	CI Lo	wood mulch above topsoil	none
NN09	N	3602944	690389	0-40	10YR 3/4	Cl Lo	small drainage	none
						bedrock		
NN10	N	3602950	690492	0-10	10YR 4/4	CI Lo		none
NN11	N	3602957	690592	0-35	10YR 4/4	CI Lo w/ gr	limestone inclusions	none
NN12	N	3602963	690697	0-5	10YR 4/4	CI Lo	limestone inclusions	none
NN13	N	3603164	690102	0-30	10YR 3/4	CI Lo	flat prairie	none
NN14	N	3603194	690111	0-25	10YR 3/4	CI Lo	flat prairie	none
NN15	N	3603225	690123	0-45	10YR 3/4	CI Lo	flat prairie	none
AG01	N	3603530	690088	0-10	10YR 4/3	Si Lo	pasture, frontage	none
				10+		bedrock	road to east	
AG02	N	3603043	689933	0-20	10YR 4/2	clay	w/ caliche inclusions, pasture	none
AG03	N	3602674	690089	0-10	10YR 3/2	CI Lo	disturbed field, next	none
				10+		bedrock	to concrete plant	
AG04	N	3602681	690188	0-30	10YR 3/2	Cl Lo w/caliche	disturbed field, next to concrete plant	none
AG05	N	3602860	690186	0-12	10YR 4/3	Si Lo	disturbed field, powerline	none
AG06	N	3602869	690281	0-15	10YR 4/3	Cl Lo w/caliche	wood chips on top, disturbed field	none

Shovel Test	Positive/ Negative	Northing	Easting	Depth	Color	Texture	Disturbances	Cultural Material
AG07	N	3602875	690381	0-20	10YR 4/3	Cl Lo w/caliche	disturbed low brush field, powerlines	none
AG08	N	3602881	690483	0-5		wood chips	low brush field, powerlines to south	none
				5-35	10YR 4/3	clay		
				35-40	10YR 4/4	clay		
AG09	N	3602874	690586	0-10	10YR 4/3	Cl Lo w/caliche	low brush field, powerlines to south	none
AG10	N	3603134	690099	0-25	10YR 4/3	Cl Lo w/caliche	disturbed low brush field	none
				25-30	10YR 4/3	Cl Lo w/Bdrk		
AG11	Ν	3603212	690149	0-37	10YR 3/3	Clay	low brush field	none
NS01	N	3603690	690101	0-20	10YR 4/6	CI Lo	cattle pasture	none
				20+		bedrock		
NS02	N	3603344	690009	0-30	10YR 4/4	Si lo	cattle pasture	none
				30-50	10YR 4/4	cl Lo		
NS03	N	3602703	690097	0-15	10YR 4/4	Si Lo	very disturbed next to caliche rd	none
NS04	Ν	3602698	690198	0-5	10YR 5/3	bedrock		none
NS05	N	3602788	690083	0-5	10YR 5/3	Degraded Bdrk	disturbed	none
NS06	N	3602827	690261	0-5	10YR 5/3	Degraded Bdrk	disturbed soils in storage yard	none
NS07	N	3602828	690375	0-10	10YR 4/4	Degraded Bdrk	disturbed soils in storage yard	none
				10+		bedrock		
NS08	N	3602819	690479	0-30	10YR 4/4	Si Cl w/Bdrk	low brushy area	none
				30+		bedrock		
NS09	N	3602825	690584	0-30	10YR 4/4	Si Cl w/Bdrk	low brushy area	none
				30+		bedrock		
NS10	N	3602824	690684	0-10	10YR 4/4	Si Cl w/Bdrk	low brushy area	none
				10+		bedrock		
NS11	N	3602863	690677	0-15	10YR 4/4	Si Lo w/Bdrk	open pasture, tall grass	none
				15+		bedrock		

Shovel Test	Positive/ Negative	Northing	Easting	Depth	Color	Texture	Disturbances	Cultural Material
NS12	N	3603102	690089	0-20	10YR 4/4	Si Lo	next to transmission	none
						w/Bdrk	line and gas line	
				20+		bedrock		
NS13	N	3603099	690194	0-40	10YR 4/4	Si Lo	in pasture,	none
				40+		Cl	overgrown	
NS14	N	3603257	690158	0-40	10YR 4/4	Si Lo w/gr	in pasture,	none
				40+	10YR 4/2	Cl Lo w/gr	overgrown	
GW01	N	3603446	690034	0-20	10YR 4/2	CI Lo	pasture	none
GW02	Ν	3603463	689995	0-35	10YR 3/2	Cl	pasture	none
GW03	Ν	3603163	689951	0-40	10YR 4/2	Cl Lo	pasture	none
GW04	N	3602735	690078	0-25	10YR 4/2	Cl Lo	open field	none
				25-45	10YR 4/2	Cl		
GW05	N	3602736	690771	-		No dig	surface concrete	none
GW06	N	3602981	690081	0-40	10YR 3/2	Cl	open field	none
GW07	N	3602978	690174	0-30	10YR 3/2	Cl	open field	none
GW08	N	3602982	690271	0-40	10YR 3/2	Cl w/ gr	open field	none
GW09	N	3603019	690259	0-30	10YR 3/2	Cl	open field	none
GW10	N	3603025	690155	0-25	10YR 3/2	Cl w/gr	open field	none
GW11	N	3603035	690078	0-25	10YR 3/2	Cl w/gr	open field	none
GW12	N			-		No dig	drainage	none
GW13	N	3603064	690133	0-25	10YR 3/2	Cl w/gr	open field	none
GW14	N	3603063	690228	0-40	10YR 3/2	clay	open field	none
GW15	N	3603298	690139	0-30	10YR 4/3	clay	open field	none
SP02	N	3602890	690182	0-10	10YR 3/2	topsoil	grassland	none
				10-25	10YR 3/2	Cl	-	
SP03	N	3602898	690290	0-25	10YR 3/2	Cl to Bdrk	grassland	none
SP04	N	3602891	690386	0-10	10YR 3/2	Clay to Bdrk	grassland	none
SP05	N	3602904	690484	0-25	10YR 3/2	Clay to Bdrk	grassland	none
SP06	N	3602902	690592	0-25	10YR 3/2	Clay to Bdrk	grassland	none
SP07	N	3602902	690700	0-5	10YR 3/2	Clay to Bdrk	grassland	none
BM04	N	3604364	690601	0-25	10YR 3/2	CI GR	Shallow caliche	none
DB01	N	3602962	690175	0-30	10YR 3/4	Sa Cl	open field, tall grass	none
DB02	N	3602932	690285	0-20	10YR 3/5	Sa Cl	in trees in field	none
				20-25		bedrock		

Shovel Test	Positive/ Negative	Northing	Easting	Depth	Color	Texture	Disturbances	Cultural Material
DB03	N	3602918	690387	0-5	10YR 3/5	wood	in trees in field	none
						debris		
				5-35		Sa Cl		
				35-40		bedrock		
DB04	N	3602944	690491	0-30	10YR 5/5	Sa CL Lo	in trees in field	none
				30-31		bedrock		
DB05	N	3602942	690598	0-20	10YR 3/4	Sa Cl	open field	none
				20-25		bedrock		
DB06	N	3602936	690708	0-15	10YR 3/4	Cl to Bdrk	bedrock at surface	none

Appendix B: Backhoe Trench Table

Backh	Backhoe Trench #1						
Zone	Depth - Range in cm	Soil Color	Soil Description				
1	0-40 cm	10 YR 2/1	Clay, roots and rootlets				
2	40-60 cm	10 YR 3/2	Clay				
3	60+ cm	n/a	Smooth bedrock				
Backh	oe Trench #2						
Zone	Depth - Range in cm	Soil Color	Soil Description				
1	0-25 cm	10 YR 3/2	Clay with degraded bedrock and				
	0 20 011	10 11(0) 2	roots				
2	25+ cm	n/a	Bedrock				

Appendix C: Survey Status Table

Parcel ID	CAD Account #, Property ID	Survey Status	Disturbances	Recommendation	County
0	6.51218E+16	Survey Completed	Undisturbed	No Further Work	Dallas
3	6.51218E+16	No Access	Undisturbed	Survey Recommended	Dallas
4	160197100A03R0000	No Access	Surface bedrock	No Further Work	Dallas
6	6.51218E+16	No Access	Utilities and terraforming	No Further Work	Dallas
7	6.51218E+16	No Access	Utilities and terraforming	No Further Work	Dallas
11	6.51218E+16	Survey Completed	Undisturbed	No Further Work	Dallas
12	6.51218E+16	Survey Completed	Water tower construction and utilities	No Further Work	Dallas
13	6.51218E+16	No Access	Driveway and terraforming	No Further Work	Dallas
18	6.51218E+16	Survey Completed	Utilities	No Further Work	Dallas
21	160197100A1AR0000	No Access	Utilities	No Further Work	Dallas
23	6.51218E+16	Survey Completed	Undisturbed	No Further Work	Dallas
32	6.51218E+16	Survey Completed	Undisturbed	No Further Work	Dallas
33	6.51218E+16	No Access	Undisturbed	Survey Recommended	Dallas
34	6.51218E+16	Survey Completed	Undisturbed	No Further Work	Dallas
40	160197100A02R0000	No Access	Surface bedrock	No Further Work	Dallas
42	6.50677E+16	Survey Completed	Undisturbed	No Further Work	Dallas
103	6.51218E+16	Survey Completed	Driveway covering APE	No Further Work	Dallas
104	6.51218E+16	No Access	Surface bedrock	No Further Work	Dallas
226	185914	No Access	Undisturbed	Survey Recommended	Ellis
227	185920	No Access	Clearcutting	Survey Recommended	Ellis
235	192300	Survey Completed	Utility lines	No Further Work	Ellis
236	192302	Survey Completed	Undisturbed	No Further Work	Ellis
237	192303	Survey Completed	Undisturbed	No Further Work	Ellis
238	192308	No Access	Parking lot covering APE	No Further Work	Ellis
284	242895	No Access	Undisturbed	Survey Recommended	Ellis
286	249370	No Access	Undisturbed	Survey Recommended	Ellis

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



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