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Intensive Archeological Survey Of Santa Rita Elementary School City Of Liberty Hill, Williamson County, Texas

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Intensive Archeological Survey Of Santa Rita Elementary School City Of Liberty Hill, Williamson County, Texas

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Cultural Resources Survey

INTENSIVE ARCHEOLOGICAL SURVEY OF SANTA RITA ELEMENTARY SCHOOL CITY OF LIBERTY HILL, WILLIAMSON COUNTY, TEXAS

April 12, 2018

Final Report – Public Copy

Terracon Project No. 96177774

Antiquities Permit No. 8233

Ann M. Scott, PhD, RPA, Principal Investigator



Prepared for:

Georgetown Independent School District
Georgetown, Texas

Prepared by:

Caitlin Gulihur, MA, RPA and Ann M. Scott, PhD, RPA
Terracon Consultants, Inc.
Austin, Texas

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

ABSTRACT

Georgetown Independent School District has proposed the Santa Rita Elementary School project where school facilities will be constructed on approximately 14.33 acres of land east of Liberty Hill, Williamson County, Texas. Georgetown Independent School District (GISD) retained Terracon Consultants, Inc. to conduct a systematic, intensive pedestrian survey of the approximate 14.33-acre project area. Because GISD, a political subdivision of the State of Texas, sponsored the project, the proposed undertaking is subject to compliance with the Antiquities Code of Texas and oversight from the Texas Historical Commission. In addition, the survey meets the standards for compliance under Section 106 of the National Historic Preservation Act of 1966, as amended, should a US Army Corps of Engineers permit be necessary or federal funding be utilized for the project. The cultural resources survey was carried out in advance of ground disturbance under Texas Antiquities Permit Number 8233, issued to Ann M. Scott, PhD, RPA, Principal Investigator. Fieldwork was carried out by Project Archeologist Caitlin Gulihur, MA, with assistance from field scientist Miranda Reinhard under the supervision of Ann M. Scott. Records from the project will be curated at the Center for Archaeological Studies at Texas State University.

The 14.33-acre project area was considered the Area of Potential Effect (APE). Survey of the APE consisted of systematic pedestrian coverage, including discretionary shovel tests. The work was carried out on December 13, 2017. Seven shovel tests were excavated in areas that had less than 30 percent ground visibility or placed in areas that appeared to be undisturbed. No artifacts were discovered during the excavation of the shovel tests. No artifacts were observed on the ground surface. No sites were recorded or revisited as a result of the survey. Therefore, there are no historic properties present within the project area. It is Terracon's recommendation that there are no historic properties eligible for State Antiquities Landmark designation or National Register of Historic Places inclusion that will be affected by future construction of GISD facilities. In the unlikely event that human remains or artifacts are discovered during construction, those activities should cease in the vicinity of the remains and Terracon, the Texas Historical Commission's Archeology Division, or other proper authorities should be contacted.

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INTENSIVE ARCHEOLOGICAL SURVEY OF SANTA RITA ELEMENTARY SCHOOL, CITY OF LIBERTY HILL, WILLIAMSON COUNTY, TEXAS

Terracon Project No. 96177774

Antiquities Permit No. 8233

April 12, 2018

1.0 INTRODUCTION AND MANAGEMENT SUMMARY

This report presents the findings from an intensive pedestrian survey of approximately 14.33 acres in which Georgetown Independent School District (GISD) has proposed to construct school facilities east of Liberty Hill, Williamson County, Texas (Appendix A, Exhibits 1 and 2). The 14.33-acre survey was performed on behalf of GISD, a political subdivision of the State of Texas. Therefore, the project is under the purview of the Texas Historical Commission (THC) in compliance with the Antiquities Code of Texas. In addition, the survey meets the standards for compliance under Section 106 of the National Historic Preservation Act of 1966, as amended, should a US Army Corps of Engineers permit be necessary or federal funding be utilized for the project. The work described herein was performed under Texas Antiquities Permit Number 8233, issued to Ann M. Scott, PhD, RPA Principal Investigator, and in adherence to Title 13, Chapter 26 of the Texas Administrative Code. The work was carried out on December 13, 2017 by Project Archeologist Caitlin Gulihur, MA with assistance from field scientist Miranda Reinhard under the supervision of Ann M. Scott.

Abiding by standards set forth by the Council of Texas Archaeologists (CTA) for short reports, this negative findings report includes introduction and management summary, defining the area of potential effects, methods, results, and recommendations. The report was authored by Caitlin Gulihur, Project Archeologist, and Ann M. Scott, Principal Investigator.

2.0 DEFINING THE AREA OF POTENTIAL EFFECTS

The project area, which is the same as the area of potential effect (APE), is approximately 14.33 acres. The project area is located east of Ronald Reagan Boulevard, east of Liberty Hill, Texas (See Appendix A, Exhibits 1 and 2). The proposed project consists of the construction of an elementary school and associated facilities. As exact design plans for facilities and potential impacts to the property are unknown at this time, the entire 14.33-acre tract is considered the APE.

3.0 RESEARCH AND SURVEY METHODS

The methods described below were employed to identify and characterize cultural resources present within the APE to the extent practicable. Desktop review focused on identifying previously known cultural materials and understanding the site setting, while fieldwork was used to both search for unknown cultural resources and gather more information based on the desktop review.

3.1 Desktop Review

Prior to fieldwork, and as part of the Antiquities Code of Texas permit application, background research and a literature search was conducted. This effort included desktop review of mapped geology and soils, search for previously recorded sites and investigations, a review of historic designations such as Registered Texas Historic Landmarks (RTHLs), State Antiquities Landmarks (SALs), National Register of Historic Places (NRHP), and historical markers, and an examination of historic maps and aerials for evidence that the APE may have exhibited buildings or other features that may be considered historic (at least 50 years old).

3.2 Intensive Pedestrian Survey

In order to examine the 14.33-acre APE for previously unknown cultural resources, an intensive pedestrian survey was conducted. The ground surface in the APE was systematically inspected by the project archeologist walking parallel transects spaced not more than 30 meters apart, for 100 percent coverage. The survey was augmented by shovel testing and seven shovel tests were excavated within the APE.

As a general method, shovel tests are excavated to varying depths that target Holocene-aged soils. Sediment was excavated in arbitrary 20-cm levels to depth and passed through ¼-inch hardware mesh. Characteristics and contents of shovel tests are recorded with photographs, forms and notes, and a hand-held global positioning system (GPS) unit; upon completion of excavation and documentation, the unit holes and artifacts, if present, are backfilled. Cultural materials encountered through the course of shovel test excavations are described and returned to their approximate origin. Archeological sites, if encountered, would be recorded with the Texas Archeological Research Laboratory and be assessed for eligibility for inclusion in the NRHP or designation as a SAL as appropriate. This survey has a “no-collection” policy; therefore, diagnostic artifacts (if encountered) would be documented in the field and not collected. Records will be temporarily housed in Terracon’s office in Austin and will be permanently curated by the Center for Archaeological Studies (CAS) at Texas State University upon completion of the project.

3.3 National Register of Historic Places and State Antiquities Landmark Criteria

For a historic resource to be deemed eligible for inclusion in the National Register of Historic Places (NRHP), the resource must be at least 50 years old and must possess significance and integrity. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity

of location design, setting, materials, workmanship, feeling, and association and:

- a. That are associated with the events that have made a significant contribution to the broad patterns of our history; or
- b. That are associated with the lives of persons significant in our past; or
- c. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. That have yielded, or may likely to yield, information important in our prehistory or history (36 CFR 60.4).

Additionally, the State of Texas affords important cultural resources a level of protection beyond that of NRHP status if the resource meets the criteria for listing as a SAL. SAL criteria are divided into four categories based on the type of resource: archaeological site, shipwreck, cache and collection, and historic structure. The criteria for archaeological sites are:

- 1) The site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;
- 2) The site's archeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation interest of the site;
- 3) The site possesses unique or rare attributes concerning Texas prehistory and/or history;
- 4) The study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge; and
- 5) There is a high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to ensure maximum legal protection, or alternatively, further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected (Title 13, Rule 26.10).

4.0 RESULTS

4.1 Desktop Review

Results of the Desktop Review are detailed below.

4.1.1 Mapped Geology and Soils

The bedrock geology of the project area is identified Edwards and Comanche Peak limestones, undivided (Phanerozoic | Mesozoic | Cretaceous-Early periods) (Kec), consisting of limestone and dolostone with abundant chert nodules (Barnes 1992). Two soils are mapped within the APE (Appendix A, Exhibit 3) (USDA NRCS 2017; Werchan and Coker 1983). Fairlie clay, 0 to 1 percent slopes (FaA) and Fairlie clay, 1 to 2 percent slopes (FaB) are deep (54 inches to bedrock), moderately well drained soils that occur on ridges.

4.1.2 Previous Investigations, Recorded Sites, and Designations

Review of the Texas Archeological Sites Atlas (Atlas) and THC geospatial data using a 0.5-mile search buffer shows that none of the proposed project area has likely been previously surveyed. No archeological sites or other cultural resources have been recorded in the project APE. Two previously recorded archeological sites are located within the 0.5-mile buffer. Site 41WM173 and site 41WM183 are recorded as prehistoric lithic scatters.

No previously designated RTHLs, SALs, or NRHP listed or District properties are present within the 0.5-mile search area.

4.1.3 Historic Imagery and Maps

Historic-period topographic maps dating back over 50 years cover the project area. Several years were examined including 1960, 1980, and 1991. No historic structures were observed within the APE. Historic aerials were also reviewed, the earliest of which was dated 1962. Others were dated 1996, 2004, 2008, 2010, and 2012. No historic structures were observed within the APE.

4.2 Intensive Pedestrian Survey

The intensive pedestrian survey of the APE resulted in thorough coverage of the parcel at 20 to 30 m transect intervals and the excavation of seven shovel tests (Appendix A, Exhibit 4). The APE was located east of Ronald Reagan Boulevard and was flat in topography. The APE was covered in short, local grasses and oak trees; overall ground surface visibility was poor, generally less than 10 percent (Appendix B, Photo 1). The northern and eastern portions of the project area were covered in local grasses with oak tree vegetation. These portions of the project area appeared to have been partially cleared of woodland vegetation (Appendix B, Photo 2). The southwestern portion of the project area consisted of a former agricultural field. The field was covered in short local grasses (Appendix B, Photo 3). It is likely that the majority of the project area has been previously disturbed, between tree clearing and agricultural activities. Seven shovel tests were placed in areas that appeared mostly undisturbed and had less than 30 percent visibility (Appendix B, Photo 4) (see Appendix C for shovel test log). No cultural materials were observed during shovel testing or on the ground surface during the course of the survey.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Terracon archaeologists conducted an intensive pedestrian survey of an approximate 14.33-acre APE in advance of the construction of Santa Rita Elementary School facilities by Georgetown Independent School District in Liberty Hill, Williamson County, Texas. The project area was systematically surveyed and seven shovel tests were placed within the APE. No archeological sites were recorded.

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Santa Rita Elementary School ■ Liberty Hill, Williamson County, Texas

April 12, 2018 ■ Terracon Project No. 96177774



It is Terracon's opinion that there are no historic properties in the APE eligible for listing on the NRHP or designation as a SAL. Therefore, Terracon recommends that the project be allowed to proceed as future construction of facilities will not affect historic properties. In the unlikely event that human remains or intact cultural resources are discovered during construction, those activities should cease in the vicinity of the discovery and Terracon, the Texas Historical Commission's Archeology Division, or other proper authorities should be contacted.

6.0 REFERENCES CITED

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Werchan, Leroy E. and John L. Coker

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Cultural Resources Services

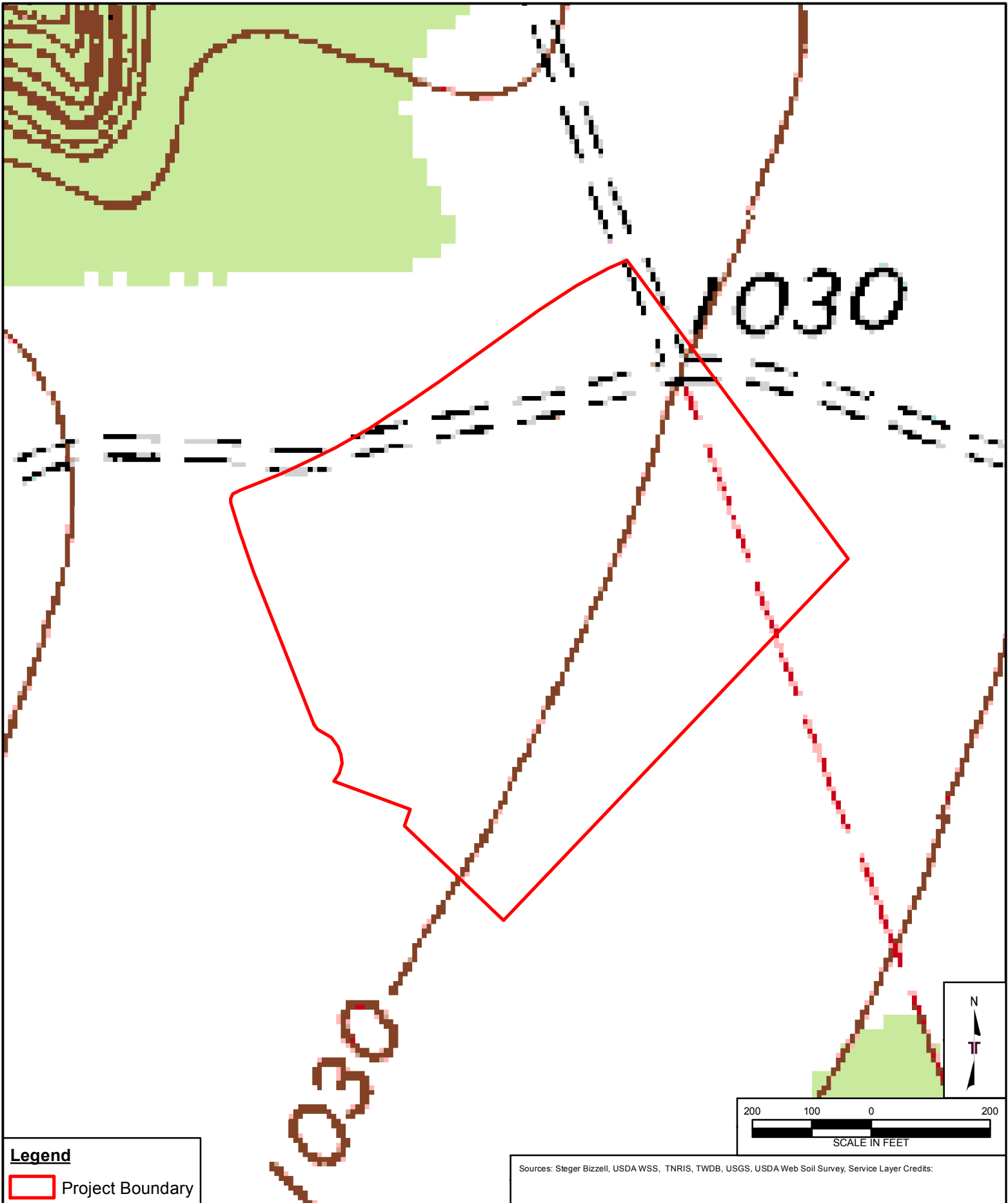
Santa Rita Elementary School ■ Liberty Hill, Williamson County, Texas

April 12, 2018 ■ Terracon Project No. 96177774



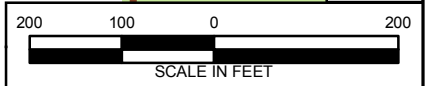
APPENDIX A

Exhibit Maps



Legend

Project Boundary



Sources: Steger Bizzell, USDA WSS, TNRS, TWDB, USGS, USDA Web Soil Survey, Service Layer Credits:

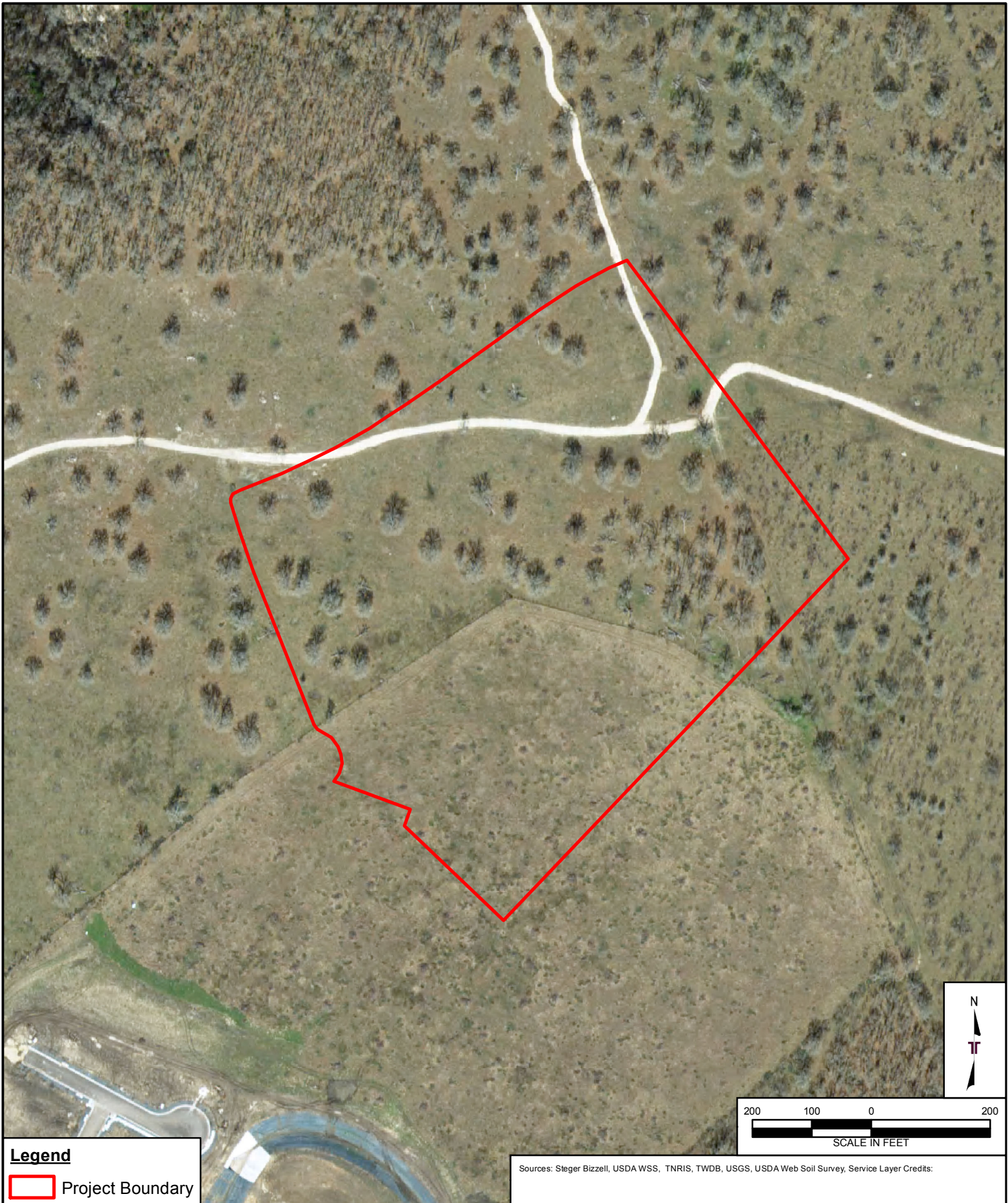
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Drawn By:	Terracon
Checked By:	CG
Approved By:	AS

Project No.	96177774
Scale:	AS SHOWN
File No.:	96177774
Date:	Nov 8, 2017

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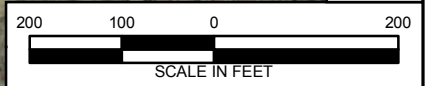
1995 Topographic Map: Leander NE
 Santa Rita Elementary School
 Tierra Rosa Boulevard
 Liberty Hill, Williamson County, TX

EXHIBIT
1



Legend

Project Boundary



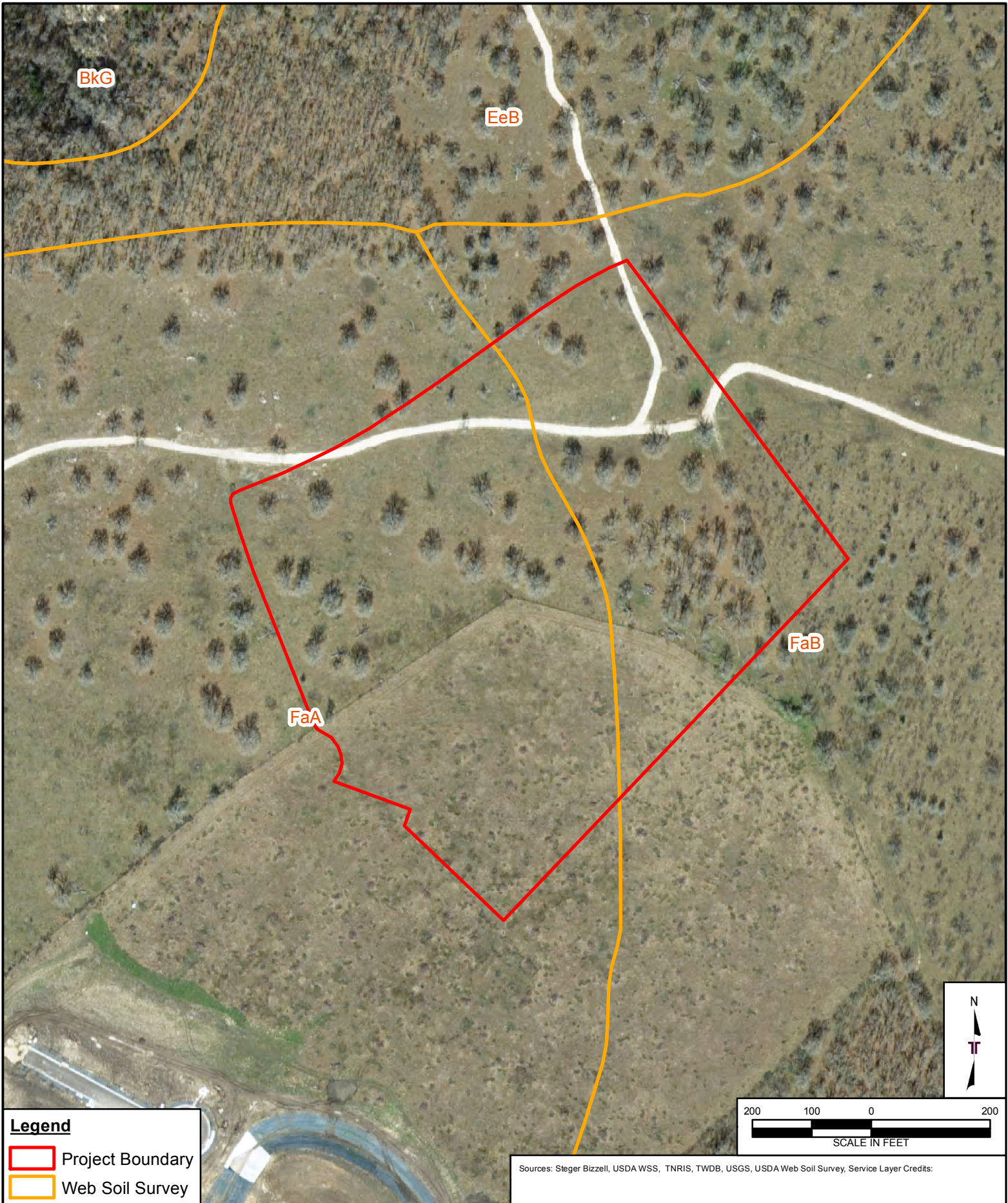
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Project Mngr:	AS	Project No.	96177774
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Checked By:	CG	File No.:	96177774
Approved By:	AS	Date:	Nov 8, 2017

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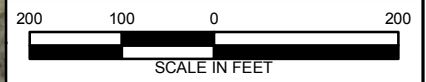
2015 Aerial Photograph
 Santa Rita Elementary School
 Tierra Rosa Boulevard
 Liberty Hill, Williamson County, TX

EXHIBIT
 2



Legend

- Project Boundary
- Web Soil Survey



Sources: Steger Bizzell, USDA WSS, TNRIS, TWDB, USGS, USDA Web Soil Survey, Service Layer Credits:

Project Mngr:	AS
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USDA Web Soil Survey
 Santa Rita Elementary School
 Tierra Rosa Boulevard
 Liberty Hill, Williamson County, TX

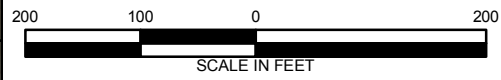
EXHIBIT
 3



Legend

Project Boundary

Negative Shovel Tests



Sources: Steger Bizzell, USDA WSS, TNRRIS, TWDB, USGS, USDA Web Soil Survey, Service Layer Credits:

Project Mngr:	AS
Drawn By:	Terracon
Checked By:	CG
Approved By:	AS

Project No.	96177774
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Results Map

Santa Rita Elementary School
 Tierra Rosa Boulevard
 Liberty Hill, Williamson County, TX

EXHIBIT
4

Cultural Resources Services

Santa Rita Elementary School ■ Liberty Hill, Williamson County, Texas

April 12, 2018 ■ Terracon Project No. 96177774



APPENDIX B

Photographs

Cultural Resources Services

Santa Rita Elementary School ■ Liberty Hill, Williamson County, Texas

Terracon Project No. 96177774 ■ Photos taken December 13, 2017



Photo 1. Northwestern portion of project area. Note poor ground surface visibility. View to the south.



Photo 2. Northeastern portion of project area. Note two-track road and brush pile. View to the southeast.

Responsive ■ Resourceful ■ Reliable

Cultural Resources Services

Santa Rita Elementary School ■ Liberty Hill, Williamson County, Texas

Terracon Project No. 96177774 ■ Photos taken December 13, 2017



Photo 3. Southwest portion of project area, former agricultural field. View to the east.



Photo 4. Shovel Test 01.

Responsive ■ Resourceful ■ Reliable

Cultural Resources Services

Santa Rita Elementary School ■ Liberty Hill, Williamson County, Texas

April 12, 2018 ■ Terracon Project No. 96177774



APPENDIX C

Shovel Test Log

Cultural Resources Services (Shovel Test Log)

Santa Rita Elementary School ■ Liberty Hill, Williamson County, Texas

Shovel Tests from December 13, 2017 ■ Terracon Project No. 96177774



ST ID #	Depth cmbs	+/-	Ground cover	Munsell & Color	Texture	% Gravels	Comments
01	0-45	-	95%	10YR 2/1 Black	Loamy clay	15-20%	Some calcium carbonates with depth. Large amount of non-cultural chert gravels. Terminated due to gravels and compactness of clay.
02	0-40	-	98%	10YR 2/1 Black	Loamy clay	10-15%	Some calcium carbonates with depth. Large amount of non-cultural chert gravels. Very compact starting around 35cmbs. Terminated due to compactness.
03	0-35	-	90%	10YR 3/1 Very dark grey	Loamy clay	10-15%	Some calcium carbonates with depth. Large amount of non-cultural chert gravels. Very compact starting around 25cmbs. Terminated due to compactness.
04	0-30	-	98%	10YR 3/1 Very dark grey	Loamy clay	10-15%	Few calcium carbonates. Large non-cultural chert gravels. Gradual transition to lower layer.
04	30-40	-	-	10YR 4/2 Dark greyish brown	Loamy clay	10-15%	Some upper color remains as mottles. Non-cultural chert gravels. Terminated due to gravel lens.
05	0-30	-	95%	10YR 3/1 Very dark grey	Loamy clay	10-15%	Calcium carbonates increase with depth. Non-cultural chert gravels. Terminated due to very compact clay starting around 20cmbs.
06	0-45	-	95%	10YR 3/1 Very dark grey	Loamy clay	5-10%	Non-cultural chert gravels. Clay more compact with depth. Terminated due to compact nature of soil.
07	0-40	-	98%	10YR 2/1 Black	Loamy clay	10-15%	Non-cultural chert gravels. Some calcium carbonates. Terminated due to very compact nature of soil.