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Intensive Archeological Survey for Proposed East Pecan Street Widening, City of Pflugerville, Travis County, Texas

Haley Rush

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INTENSIVE ARCHEOLOGICAL SURVEY FOR PROPOSED EAST PECAN STREET WIDENING, CITY OF PFLUGERVILLE, TRAVIS COUNTY, TEXAS

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For
The City of Pflugerville
100 East Main Street
Pflugerville, TX 78691

Under
Texas Antiquities Permit 7150

Cox|McLain Environmental Consulting, Inc. Archeological Report 091
(CMEC-AR-091)

COX | McLAIN
Environmental Consulting

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Management Summary

In January 2015, an intensive archeological survey was completed in order to inventory and evaluate archeological resources within the footprint of proposed improvements to East Pecan Street in Pflugerville, Travis County, Texas. The proposed project would provide base repairs and include widening a portion of East Pecan Street. The portion of the project area that includes the widening extends from State Highway (SH) 130 to Weiss Lane; base repairs would include a concrete underlay that would extend east of Weiss Lane toward the intersection of Cameron Lane. The maintenance activities associated with the concrete underlay east of Weiss Lane would occur entirely within the existing footprint of East Pecan Street. As no improvements would occur outside of existing right-of-way west of Weiss Lane, the limits of the archeological area of potential effects (APE) were defined from Weiss Lane to SH 130. The APE is approximately 0.4 miles or 0.64 kilometers long and is between 115 to 155 feet or 35 to 47 meters wide. The APE covers an area of approximately 2.8 hectares or 7 acres, 2.4 acres of which is proposed right-of-way. The depth of impact will generally extend to a depth of two feet or less, although impacts could be deeper at drain and utility locations. The work was carried out for the City of Pflugerville under Texas Antiquities Permit 7150 by Haley Rush (Principal Investigator) and Walt Meitzen of Cox|McLain Environmental Consulting, Inc. (CMEC), a subcontractor to Cobb Fendley.

Nearly the entire APE was disturbed, primarily by the construction of the existing two-lane roadway, utility installations, and agricultural activities. All of the parcels adjacent to the existing roadway are either currently used for agricultural activities or have been in the past. The ground surface visibility varied across the project area. It was nearly 100 percent in two of the fields, as one field had been recently planted and the other had been plowed in the recent past. The other fields had ground surface visibility ranging from 30 to 70 percent and were not planted with crops, but aerial photographing and field observations confirmed these fields had been plowed and/or terraced in the past.

Shovel tests (n=3) were excavated in areas that had lower visibility. Two shovel tests were excavated in fallow fields and revealed dense clay with limestone cobbles and gravels. The remaining shovel test was excavated in a vegetated area between the existing roadway and a field. Numerous subsurface utilities were located in the vicinity of this shovel test and the profile confirmed that the area was very disturbed.

Two isolated flakes were observed in the APE, one (Isolated Find [IF] 1) in an actively utilized agricultural field and one (IF 2) in a field that had been plowed in the recent past. IF 2 was observed in a field with abundant chert cobbles and gravels on the surface; excluding Isolated Find 2, none of the other cobbles or gravels exhibited definitive flaking or use wear due to cultural processes.

Records for this project will be curated at the Center for Archeological Resrouces (CAS) at Texas State University; records include notes, forms, and photographs, per TAC 26.16 and 26.17. The Texas Historical Commission (THC) concurred with the findings and recommendations of this report on May 5, 2015 (see Appendix A).

INTENSIVE ARCHEOLOGICAL SURVEY FOR PROPOSED WIDENING OF EAST PECAN STREET, CITY OF PFLUGERVILLE, TRAVIS COUNTY, TEXAS

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1.0 Introduction

Overview of the Project

The City of Pflugerville proposes improvements to East Pecan Street, which includes widening the segment between State Highway (SH) 130 and Weiss Lane in north-central Travis County, Texas (**Figure 1**). The archeological area of potential effects (APE) is approximately 0.4 miles or 0.64 kilometers long and is between 115 to 155 feet or 35 to 47 meters wide and covers an area of approximately 2.8 hectares or 7 acres, 2.4 acres of which is proposed right-of-way. The depth of impact will generally extend to two feet or less, although impacts could be deeper at drain and utility locations. East of Weiss Lane base repairs are planned, which will occur entirely within existing right-of-way.

The project is being undertaken and funded by the City of Pflugerville, a political subdivision of the State of Texas, rendering the project subject to the Antiquities Code of Texas. No federal nexus is known. The work was carried out for the City under Texas Antiquities Permit 7150 by Haley Rush (Principal Investigator) and Walt Meitzen of Cox|McLain Environmental Consulting, Inc. (CMEC), a subcontractor to Cobb Fendley.

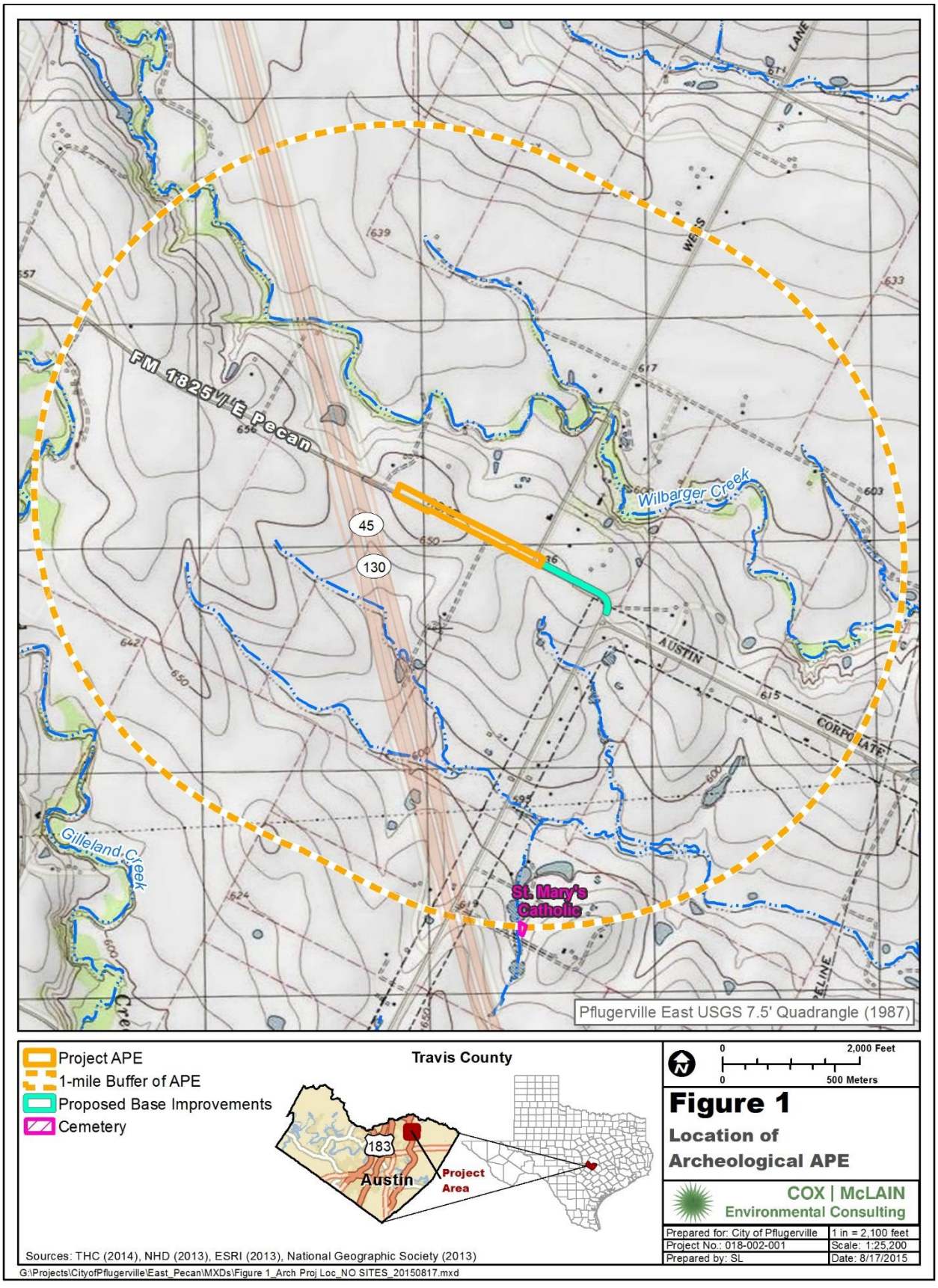
Methodological and Logistical Considerations

CMEC personnel performed the fieldwork for this project in January 2015. The weather was cold and wet, but no major logistical difficulties were encountered. Shovel test units were placed judgmentally within the APE based on observed disturbance levels and guidelines established by the Council of Texas Archeologists (CTA) and approved by the Texas Historical Commission (THC). The methods employed during this study and relevant constraints are discussed further in Chapters Three and Four.

Per the approved scope of Texas Antiquities Permit 7150, a no-collection policy was in effect during the investigation as the areas of proposed right-of-way fell on private land.

Structure of the Report

Following this introduction, Chapter Two presents environmental parameters, a brief cultural context, and a summary of previous archeological research near the APE; Chapter Three discusses research goals, relevant methods, and the underlying regulatory considerations; Chapter Four presents the results of the survey and summarizes the implications of the investigations; and references are in Chapter Five.


FM 1825 W E Pecan
Wilbarger Creek
Gilleland Creek
St. Mary's Catholic
AUSTIN
45
130
183
Pflugerville East USGS 7.5' Quadrangle (1987)
Project APE
1-mile Buffer of APE
Proposed Base Improvements
Cemetery
Travis County
Austin
Project Area
0
2,000 Feet
0
500 Meters
Figure 1
Location of Archeological APE
COX | McLAIN
Environmental Consulting
Prepared for: City of Pflugerville
1 in = 2,100 feet
Project No.: 018-002-001
Scale: 1:25,200
Prepared by: SL
Date: 8/17/2015
Sources: THC (2014), NHD (2013), ESRI (2013), National Geographic Society (2013)
G:\Projects\CityofPflugerville\East_Pecan\MXDs\Figure 1_Arch Proj Loc_NO SITES_20150817.mxd

2.0 Environmental and Cultural Context

Topography, Geology, Soils, and Land Use

The APE is located at approximate elevations of 194-202 m (637-654 ft) above mean sea level on stable uplands above Wilbarger Creek and drainages to Wilbarger Creek (see **Figure 1**). The project area is currently surrounded by undeveloped land used for agricultural purposes, but is located near SH 130 and future development is expected. The APE is geologically underlain by Cretaceous-age Navarro Group, Marlbrook Marl, Pecan Gap Chalk, and Ozan Formation (BEG 1981). According to Natural Resources Conservation Service (NRCS) data, soils within the APE are clay-rich and deep to very deep (NRCS 2014). Nearly the entire APE is mapped as Houston Black clay on 1 to 3 percent slopes excluding the easternmost edge of the APE, which is mapped as moderately eroded Heiden clay on 3 to 5 percent slopes.

Archeological Chronology for Central Texas

The APE lies within the Central Texas archeological region, which is based—like most spatial constructs used to classify past cultural groups—on a combination of archeological patterns and geologic, geographic, climatic, pedologic, and other environmental factors (Perttula 2004). Here the region is understood to include the eastern half of the Edwards Plateau, the Llano Uplift, and the portion of the Blackland Prairie that borders the Balcones Escarpment (Black 1989; Collins 2004; Prewitt 1981). As with all archeological regions, which are interpretive devices, the applicability of these boundaries may vary across periods.

Central Texas is generally considered to have a high probability for prehistoric archeological sites and materials, due in large part to the suitability of native Edwards Plateau chert—typically found as large cobbles within limestone beds—for toolmaking. The region contains thousands of chert quarrying and tool-production sites, some hundreds of acres in size (THC 2014). In addition to a rich expression of chipped stone toolmaking, the region is characterized by the near ubiquity of burned rock middens (Black 1989; Collins 2004).

Creating a chronology for Central Texas has long been the primary focus of archeology in the region and has been largely based on linking projectile point types to dated materials, with considerable variability in the quality of the absolute dates used. Examples of chronologies, revisions to chronologies, and critiques of chronologies include Carpenter and Houk 2012; Collins 2004; Johnson 1987; Prewitt 1981; Prewitt 1985; and Suhm 1960.

Following the development of chronologies based on projectile points and their associations with often unreliably dated materials, contemporary studies (from the 1990s to the present) have attempted to gather more controlled and suitable samples for precise and accurate radiocarbon dating (Collins 2004; Lohse et al. 2014). Precise chronologies are of particular importance when attempting to document periods of rapid change or punctuated cultural adaptations.

Despite the distinctiveness of Central Texas burned rock middens and lithic technology, the archeological chronology typically used in the region is broadly similar to that used in the rest of Texas, and indeed throughout North America, with the first well-established human occupations occurring in the Paleoindian Period approximately 11,500 radiocarbon years before present (BP), or approximately 13,000 calendar years ago (**Table 1**).

Table 1: Archeological Chronology for Central Texas*

Period	Years Before Present (BP)**
Paleoindian	11,500 – 8,800
Early	11,500 – 10,000
Late	10,000 – 8,800
Archaic	8,800 – 1,200
Early	8,800 – 6,000
Middle	6,000 – 4,000
Late	4,000 – 1,200
Late Prehistoric	1,200 – 400
Early (Austin Phase)	1,200 – 800
Late (Toyah Phase)	800 – 400
Historic	400 – 50

* After Collins 2004: 113, Figure 3.9a.
** Based on uncalibrated radiocarbon dates, typically used in earlier archeological chronology building in Texas (see Perttula 2004:14, Note 1).

Paleoindian artifacts and sites are common in Central Texas. The association of Paleoindian artifacts (i.e., Folsom and Clovis points) with mammoth remains led to the characterization of these people as big game hunters (Collins 2004). However, that notion is rapidly changing to a more nuanced view that Paleoindian people were more generalized hunter-gatherers with specialized technology at their disposal to allow for the hunting of big game.

The bulk of the prehistoric record is contained within a long Archaic Period, with recently proposed Archaic sub-periods given in **Table 2**. The Archaic is differentiated from the Paleoindian Period by increased hunting and gathering of locally available resources, diversity of material culture, and the widespread use of heated rocks for cooking, creating the classic Central Texas burned rock midden (Black 1989; Black 1998; Collins 2004; Prewitt 1981).

Recently, Lohse et al. (2014) have assessed and reinterpreted radiocarbon assays from numerous Central Texas sites in order to refine the Archaic. Lohse and colleagues used 85 radiocarbon dates associated with 16 selected point types from 28 sites, 27 of which are located along the Balcones Escarpment. The most represented of the 16 point types included are Calf Creek, Early Triangular, Pedernales, Ensor, Darl, and Scallorn. Broadly, portions of the revised chronology agree with the chronology presented in **Table 1** (albeit with slightly more precision). There are a few notable exceptions apparent in **Table 2**, which shows Lohse and colleagues' proposed revision of sub-periods within the Archaic, and discussed in the text below.

Table 2: Revised Archaic Chronology for Central Texas*

Archaic Sub-Period	Years Before Present (BP)**
Calf Creek (Terminal Early Archaic)	5955 – 5815
Middle Archaic	5800 – 4200/4100
Late Archaic 1	4200/4100 – 3100
Late Archaic 2	3100 – 2150
Late Archaic 3	2150 – 1270
Late Archaic 4 (Terminal Late Archaic or Austin Phase)	1270 – 650

* After Lohse, Black, and Cholak 2014
** Based on calibrated radiocarbon dates from wood charcoal and treated bison remains; only assays that are reliably associated with projectile point were used

The most notable difference is the division of the Late Archaic Phase into four parts, the latter of which corresponds roughly to the earliest part of the Late Prehistoric Period (i.e., the Austin Phase). Lohse et al. (2014) propose this new term because the cultural expressions of this period are more similar to earlier expressions than later ones.

During the Late Prehistoric Period (or Terminal Late Archaic to Lohse et al. 2014), hunting and gathering continue, but during the latter portion of the Late Prehistoric, a distinct shift in material culture occurs. The new assemblage has been dubbed Toyah (Arnn 2012; Kenmostu and Boyd 2012b). Documented changes in material culture include Perdiz arrow points, beveled bifacial knives, unifacial scrapers, pottery (the first time ceramics appear in Central Texas), and bison remains. The change in lithic technology at this time and the presence of bison remains at many archeological sites suggest that the material culture change was brought about by the appearance (or increased presence, or perhaps merely increased utilization) of bison, possibly indicating a focus on this one particularly high-ranked resource. However, this notion of Toyah as specialized bison hunters and the change in material culture being tied to the presence of bison in Central Texas has been called into question. There is much archeological evidence demonstrating that although bison remains are present at numerous Toyah sites, there is still use of other technologies (i.e., hot-rock cooking) and other resources (e.g., deer, small mammal, plants, and seeds). This suggests Toyah people continued to exploit the rich environment of Central Texas, while adapting their technology to take advantage of a resource available in greater density that the preceding Early Late Prehistoric Period (Arnn 2012, Black 1989; Dering 2008, Kenmostu and Boyd 2012b; Rush 2013).

Regardless of the specific chronological divisions used, it is interesting to note that Central Texas is one of the few regions in North America where a large-scale shift from hunting and gathering to horticulture or agriculture never occurred (Collins 1998). It is thought that this is due to the availability of sufficient resources to support a substantial population. Central and South Texas form the southernmost extent of the Great Plains, which at times supported large herds of bison (Foster 2012; Kenmotsu and Boyd 2012a; Mauldin 2012). In addition, the Blackland Prairie supported many other large mammals, including deer and antelope. Reconstructing bison presence/absence has been a popular area of

archeofaunal research in Central Texas (see Baugh 1986, Dillehay 1974, and Lynott 1979 for examples). However, Mauldin et al. (2012) and Prewitt (2012) have hypothesized more recently that bison were nearly always present in Central Texas and simply had periods of greater and lesser density in localized environments. In any case, the environment in Central Texas would have supported numerous high-ranked animal resources in addition to small animals and edible plants.

Historic Context

Europeans first crossed the region that is now Travis County in the late 17th century, but did not begin to settle the area until the 1830s (Smyrl 2015). Although Henry Pfluger, Pflugerville's namesake, brought his family to the area from Germany in 1849, he did not settle in the Pflugerville area until 1853 when he moved five miles east of town (City of Pflugerville 2015). The town of Pflugerville was officially founded in 1860; the town was named by William Bohls, who was also a German immigrant, in honor of Henry Pfluger. By the mid-1890s, the town had a population of 250. In 1904 the arrival of the Missouri-Kansas-Texas railroad spurred rapid growth and the population more than doubled.

Previous Investigations, Previously Identified Resources, and Historical Background

A data search of the Texas Archeological Sites Atlas (Atlas) maintained by the THC and the Texas Archeological Research Laboratory (TARL) was conducted in order to identify any previously recorded cemeteries, historical markers, National Register of Historic Places (NRHP) properties or districts, State Antiquities Landmarks (SALs), archeological sites, and previous surveys in the APE or within one mile or 1.61 km, the standard buffer zone for such searches (THC 2014).

According to archeological survey coverage data available on the Atlas, one survey crosses the APE and one is immediately adjacent and may cross into the APE (THC 214). The center of the APE has been crossed by a 2003 linear survey performed for the City of Pflugerville by Blanton and Associates and the western half of the APE is paralleled on the north side by a 2001 survey for the Texas Department of Transportation (TxDOT) and Texas Turnpike Authority (TTA) by PBS&J (now Atkins). The PBS&J survey is mapped as a narrow linear survey that primarily follows the SH 130 corridor (roughly north-south), but also covered major intersections along the highway. This survey is presumed to be at least as wide as the footprint of the existing roadways and intersections rather than the narrow linear figure on the Atlas. In addition, there have been multiple other surveys, both small and large within the one-mile buffer zone that surrounds the APE. These surveys include:

- A survey for Northeast Metro Park for Texas Parks and Wildlife (TPWD), performed in 1998 by Hicks and Company
- A survey along Pflugerville Road for Travis County by Antiquities Planning & Consulting (APC) performed in 2003
- A survey for a Lower Colorado River Authority (LCRA) substation east of the project area performed in 2006 by LCRA; a small linear survey near the substation performed by LCRA in 2001 (presumed to be for a transmission line)
- An 85-mile long survey for a transmission line corridor performed between 2008 and 2009 by LCRA
- A survey for a renewable energy park, just west of SH 130, for the City of Pflugerville and the U.S. Army Corp of Engineers (USACE), performed in 2011 by TRC Environmental Corporation (TRC)

There are no previously recorded cultural resources within the APE; there are however, five archeological sites (41TV1969-41TV1971, 41TV1973, and 41TV2338) and one cemetery within the one-mile buffer surrounding the APE (see **Figure 1**).

Site 41TV1969 is a historic and prehistoric artifact scatter (THC 2014). Site 41TV1970 is a historic artifact scatter. Site 41TV1971 was recorded as the remains of a historic-age house, a possible shed, and trash dump. The site was determined ineligible within the right-of-way for which it was surveyed, but the centroid is mapped within the existing corridor of SH 130; the major components of the site are therefore presumed destroyed. Site 41TV1973 was recorded as the remains of a historic-age house. Sites 41TV1969-41TV1971 were all recorded by PBS&J for the SH 130 survey sponsored by TxDOT and TTA (THC 2014). Site 41TV2338 is a sparse prehistoric lithic scatter on an eroded upland terrace of Wilbarger Creek recorded during the 2006 LCRA survey (Prikryl et al. 2010; THC 2014). All five sites within the buffer have been determined ineligible (THC 2014).

St. Mary's Catholic Cemetery (WM-C077) is located at the southern edge of the one-mile buffer. The cemetery may be incorrectly mapped on the Atlas as it is depicted in Travis County, but the descriptions and the cemetery number place it in Williamson County (THC 2014). The cemetery description states that the cemetery is located on Old Thorndale Road in Taylor, which is over 15 miles away from the project area. In Taylor, at the location described on the Atlas entry, is a large cemetery labeled as St. Mary's Catholic Cemetery with cemetery number WM-C210 (Tipton 2014; THC 2014). The descriptions for both cemeteries are similar, notably both state the cemetery has 1,000 graves, although they have differing cemetery numbers.

It is unknown if the mapped location is incorrect and the cemetery depicted on **Figure 1** is actually meant to refer to the St. Mary's Catholic Cemetery in Taylor (or possibly to the nearer Santa Maria Cemetery or St. Mary's Baptist Cemetery in Pflugerville) or if the identification information is incorrectly linked and there is another cemetery at this location. Historic aerials and topographic maps did not reveal any obvious indications that a cemetery was present at the location mapped on the Atlas. Further, the location of the cemetery as mapped according to Atlas data is adjacent to a stock pond that appears to be inundated during various years (NETR 2014).

Historic aerials and topographic maps covering the APE were also reviewed to determine if any historic occupations may have occurred within the APE. There was a historic-age complex (depicted on a 1954 aerial photograph and a 1956 topographic map) near the current intersection of East Pecan Street with SH 130 (NETR 2014). More recent aerials indicate these structures are gone and it is likely this complex was removed when SH 130 was constructed. Other historic-age buildings and complexes are depicted along parcels adjacent to the project area, but are well outside the APE.

3.0 Research Goals and Methods

Purpose of the Research

The present study was carried out to accomplish three major goals:

1. To identify all historic and prehistoric archeological resources located within the APE defined in Chapter One;

2. To perform a preliminary evaluation of the identified resources' potential for inclusion in the NRHP and/or for designation as a SAL (typically performed concurrently); and

3. To make recommendations about the need for further research concerning the identified resources based on the preliminary NRHP/SAL evaluation and with guidance on methodology and ethics from the THC and CTA.

The Antiquities Code of Texas

Because the project is currently owned and funded by the City of Pflugerville, a political subdivision of the State of Texas, the project is subject to the Antiquities Code of Texas (9 TNRC 191), which requires consideration of effects on properties designated as—or eligible to be designated as—SALs, which are defined as:

> ...sites, objects, buildings, structures and historic shipwrecks, and locations of historical, archeological, educational, or scientific interest including, but not limited to, prehistoric American Indian or aboriginal campsites, dwellings, and habitation sites, aboriginal paintings, petroglyphs, and other marks or carvings on rock or elsewhere which pertain to early American Indian or other archeological sites of every character, treasure imbedded in the earth, sunken or abandoned ships and wrecks of the sea or any part of their contents, maps, records, documents, books, artifacts, and implements of culture in any way related to the inhabitants, prehistory, history, government, or culture in, on, or under any of the lands of the State of Texas, including the tidelands, submerged land, and the bed of the sea within the jurisdiction of the State of Texas. (13 TAC 26.2)

Guidelines for the evaluation of cultural resources as SALs and/or for listing on the NRHP, which is also explicitly referenced at the state level, are detailed in 13 TAC 26. An archeological site identified on lands owned or controlled by the State of Texas may be of sufficient significance to allow designation as a SAL if at least one of the following criteria applies:

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 interests 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;

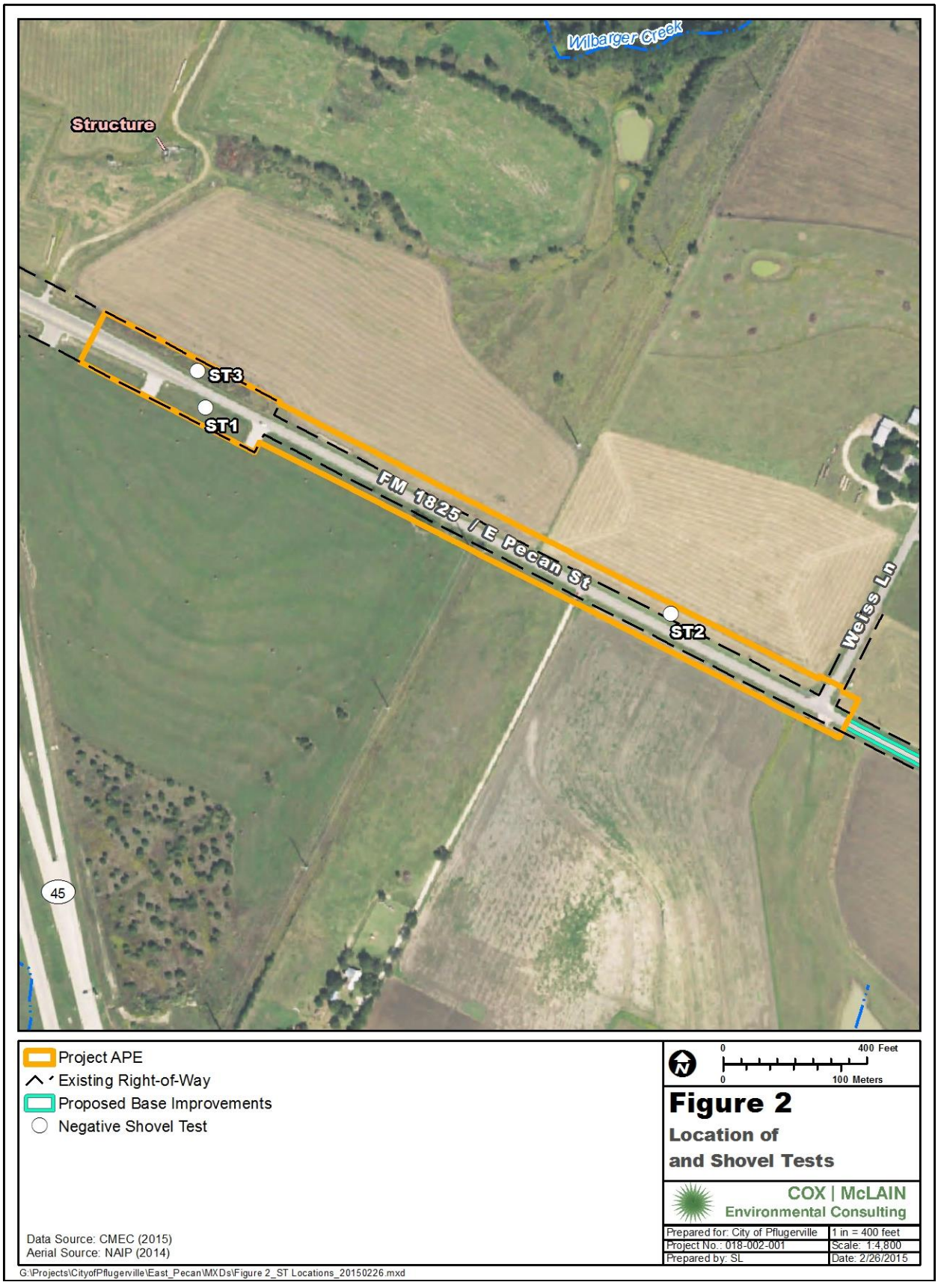
5. the high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to insure [sic] maximum legal protection, or alternatively further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected (13 TAC 26.10).

For archeological resources, the state-level process requires securing and maintaining a valid Texas Antiquities Permit from the THC, the lead state agency for Antiquities Code compliance, throughout all stages of investigation, analysis, and reporting.

Survey Methods and Protocols

With the goals and guidelines above in mind, CMEC personnel conducted an intensive survey in January 2015, per category 6 under 13 TAC 26.15 and using the definitions in 13 TAC 26.3, searching for previously identified and unidentified archeological sites. Field methods complied with the coverage requirements of 13 TAC 26.15, as elaborated by the THC and CTA.

Shovel tests were excavated in natural levels to major color/texture changes or restrictive features, as allowed by compaction and hardness of the deposits. Excavated matrix was screened through 0.635-cm (0.25-in) hardware cloth as allowed by moisture and clay content, which often required that the removed sediment be crumbled/sorted by hand, trowel, and/or shovel point. Deposits were described using conventional texture classifications and Munsell color designations, and all observations were recorded on standard CMEC shovel test forms. The testing protocol detailed in the approved scope for Texas Antiquities Permit 7150 called for radial shovel tests to be placed at 5-m (16-ft) intervals around each shovel test positive for cultural material until two negative units were established in each cardinal direction. As detailed in the next chapter, none of the excavated shovel tests were positive and the ground surface within the project area had visibility of 30 percent or greater, which is the threshold for requirement of excavation of shovel tests. The three excavated shovel tests were negative for cultural materials. Notes, forms, and photographic records will be curated at TARL along per TAC 26.16 and 26.17.


Wilbarger Creek
Structure
ST3
ST1
FM 1825 / E Pecan St
ST2
Weiss Ln
45
Project APE
Existing Right-of-Way
Proposed Base Improvements
Negative Shovel Test
0
400 Feet
0
100 Meters
Figure 2
Location of
and Shovel Tests
COX | McLAIN
Environmental Consulting
Data Source: CMEC (2015)
Aerial Source: NAIP (2014)
Prepared for: City of Pflugerville
1 in = 400 feet
Project No.: 018-002-001
Scale: 1:4,800
Prepared by: SL
Date: 2/26/2015
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4.0 Results and Recommendations

Field Observations

In January 2015, CMEC personnel conducted an intensive survey of the 2.8-hectar or 7-acre APE (see **Figure 2**). The APE is located on uplands above Wilbarger Creek and drainages to Wilbarger Creek and is surrounded by undeveloped agricultural lands (**Figures 3** and **4**). The project area has been impacted by the construction of the existing East Pecan roadway (**Figure 5**) as well as surrounding utilities (**Figure 6**) and artificial drainages (**Figure 7**).

Figure 3. View east of existing roadway from near shovel test 1 showing open agricultural fields. Outer edge of APE is just right of the cleared drainage area adjacent to roadway.

Figure 4. View west-northwest of agricultural fields on northside of APE; note cobbles on surface and still visible linear pattern of past plowing episodes.

Figure 5. View north of built-up, existing roadway; photo taken from southern edge of APE.

Figure 6. View southeast of multiple utilities and disturbances in vegetated area near intersection of SH 130 and East Pecan Street. Shovel test 3 excavated just off screen at right.

Figure 7. View north-northwest of the typical drainages along existing roadway. APE extends just south (left) of the property line at edge of photo. Note exposed groundsurface on berm at fenceline.

The ground surface visibility varied across the project area. It was nearly 100 percent in two of the fields, as one field had been recently planted and the other had been plowed in the recent past (see **Figure 4; Figure 8**). The other fields had ground surface visibility ranging from 30 to 70 percent and were not planted with crops, but aerial photographing and field observations confirmed these fields had been plowed and/or terraced in the past (see **Figure 2; Figure 9**).

Although the project area was determined to be disturbed and had ground visibility of 30 percent (or more), which is the threshold for the requirement of the excavation of shovel tests, three shovel tests were excavated (see **Figure 2**). The shovel tests were all excavated to a depth of 40 centimeters below surface (cmbs). Shovel tests 1 and 2 revealed 10YR3/1 (very dark gray) clay over 10YR 4/1 (dark gray) clay with limestone gravels throughout (**Figure 10**). Shovel test 3 was excavated in a vegetated area near the intersection of East Pecan Street and SH 130. Numerous subsurface disturbances from utilities were noted in this vicinity, but due to the dense vegetation, a shovel test was warranted. Shovel test 3 revealed shallow (0 to 5 cmbs) 10YR 4/1 (dark gray) clay over a loose, clay rich layer that was 10YR 6/4 (light yellowish brown) in color, had numerous gravels and cobbles. The loose nature of the deposits along with the color was further evidence for the large amount of subsurface disturbances in this area (**Figure 11**).

All of the shovel tests were negative for cultural material. The only artifacts noted in the project area were two isolated lithic flakes (Isolated Finds [IF]) found on the surfaces of two fields (**Figures 12** and **13**). One flake was found in a planted field with nearly 100 percent ground surface visibility; no other flakes were observed (see **Figure 8, Figure 12**). The other flake (IF 2) was near other cobbles and gravels, none of which appeared to be culturally modified (**Figures 13** and **14**).

Figure 8. Plan view of ground surface in actively plowed field on south side of existing roadway. Photo taken near where IF 1 was observed.

Figure 9. View south-southeast of field that appears to have been plowed in the past based on aerial photographs and parallel linear pattern present in the vegetation.

Figure 10. Plan view of shovel test 1, showing typical clay-rich deposits in the APE. Note limestone gravels.

Figure 11. Plan view of shovel test 3, showing evidence of subsurface disturbances.

Figure 12. Flake observed on surface; note platform and bulb, which suggests it was modified intentionally.

Figure 13. Flake observed on surface; flake scars are suggestive of intentional cultural modification.

Figure 14. Large gravel observed on surface, with flake scars likely due to plowing.

Located approximately 120 meters or 390 feet north of shovel test 3 a small wooden structure was observed (**Figure 15**). A cluster of buildings is noted here on the 1956 topographic map, as mentioned in Chapter 2 (NETR 2014). The structure is outside of the APE and the nearest shovel test to the structure (shovel test 3) revealed disturbances with no historic-age artifacts noted either in the shovel test or on the ground surface.

Figure 15. View north from near shovel test 3 toward small wooden structure outside of APE. Structure is located at center of frame.

Recommendations

Two isolated lithic flakes were observed on the surfaces of two different agricultural field; past agricultural activities (eg. plowing) has likely transferred and/or moved those materials from their original context. This is further evidenced by other gravels and cobbles observed near one of the flakes that exhibited evidence of impacts by plowing rather than intentional human manipulation. As no other cultural materials were noted in the area, neither flake was diagnostic, and both flakes were determined to have poor context, these materials were not recorded as an archeological site.

One small historic-age structure was noted outside of the APE, but on a parcel adjacent to the APE. However, no historic materials were observed within the project area and the portion of the APE nearest the structure has already been severely impacted by numerous utility lines.

As no evidence was found of preserved deposits with a high degree of integrity; associations with distinctive architectural and material culture styles; rare materials and assemblages; the potential to yield data important to the study of preservation techniques and the past in general; or potential attractiveness to relic hunters (3 TAC 26.10), no further work is recommended near either lithic flake or within the APE under the Antiquities Code.

Notes, forms, and photographic records will be curated at CAS per TAC 26.16 and 26.17.

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Appendix A – Field Forms and Regulatory Correspondence

RECEIVED
APR 07 2015

COX | McLAIN
Environmental Consulting

TRANSMITTAL MEMO	To: Tiffany Osburn– THC
	CC: Julie Hastings and Travis McCoy – Cobb Fendley
Cox|McLain Environmental Consulting, Inc. 6010 Balcones Drive, Suite 210 Austin, TX 78731 www.coxmclain.com (512) 338-2223	From: Haley Rush– Cox|McLain
	Date: April 7, 2015
	RE: Draft Report Submittal: *Intensive Archeological Survey for Proposed East Pecan Street Widening, City of Pflugerville, Travis County, Texas.* ***TAC Permit No. 7150***

Dear Ms. Osburn,

Please find enclosed one (1) unbound copy of the draft report *Intensive Archeological Survey for Proposed East Pecan Street Widening, City of Pflugerville, Travis County, Texas (CMEC-AR-091).* The work was carried out under Antiquities Permit Number 7150. No federal nexus was known.

The project area is approximately 0.4 miles or 0.64 kilometers long and is between 115 to 155 feet or 35 to 47 meters wide and covers an area of approximately 2.8 hectares or 7 acres, 2.4 acres of which is proposed right-of-way. The project area has already been impacted by the construction of the existing two-lane roadway, utility installations, and agricultural activities along the existing roadway.

The only materials of interest were two isolated flakes observed in agricultural fields; one in an actively plowed field and the other in a fallow agricultural field. No other materials were noted near one of the flakes, while numerous unmodified chert cobbles and gravels were noted near the other. Although ground surface visibility was higher than 30 percent across most of the APE, and was up to 100 percent in agricultural fields, three shovel tests were excavated to examine the below surface deposits. All three shovel tests were negative for cultural material.

No further study is recommended prior to the construction of the proposed roadway.

Please do not hesitate to call or email if you have any questions or comments.

Sincerely,

Haley E. Rush, MA, RPA
haleyr@coxmclain.com
(512) 338-2223

ANTIQUITIES CODE OF TEXAS REVIEW
NO SIGNIFICANT SITES
PROJECT MAY PROCEED
by
for Mark Wolfe
Executive Director, THC
Date 5/5/15
Track#

SH 130

log structure?

ST3

ST1

FM 1825

Weiss Ln

temporary field

45

cobble fording

ST2

East Pecan St

built up pump line

planted field

East Pecan Street

100 200 Feet

60 Meters

N

Cox|McLain Environmental Consulting, Inc.

Project No.

Project Name: Camera Type: Client

Field Photo Log

Permanent Photo No.	County	Camera	Shot #	Description	Dir. Facing	Photographer	Date
			1	example of soil - note gravels	plan	HR	1.21.15
			2	ST 1	"		
			3	from near ST 1 toward SH 130	W		
			4	" " "	W		
			5	East Pecan - APE pinches in	E		
			—	note stake, culvert/drainage	—		
			—	& T-lines	—		
			6	built up roadway - shovel near edge of APE	N		
			7	showing drainage / APE edge	E		
			8	built up old driveway / cobbles	W		
			9	pile of cobbles near fence	SW		
			10	showing edge of APE - built up	W		
			11	roadway & disturbances	W		
			12	GSV at built up prop line	plan		
			13	GSV in plantal field along prop line	"		
			14 & 15	condom & Wrapper			
			16	bioturbations			
			17	condom & fiberglass w/scale			
			18-23	possible flake - chert w/ rounded edges			
			24	GSV near possible flake			
			25	toward Weiss Lane & ST 2	E		
			26	GSV in field adjacent to ST 2	plan		
			27	" "	E		
			28	" "	W		
			29	Cobble - chert	plan		
			30				
			31				
			32	possible artifact			
			33	" "			
			34	view of multiple utilities in vegetation	SE		
			35	ST 3	plan		
			36	soil	plan		

Cox|McLain Environmental Consulting, Inc.

Date: 1.21.15
Excavator(s): HERush
Project:
Project No:
Client

Archaeological Survey Shovel Test Unit Log					
Site No.	**ST Number**	**Depth**	**Soil Description (Munsell and texture)**	**Contents (inclusions)**	**Reason for Termination (Circle One)**
—	ST1	0-10	Clay 10YR3/1 (vry drk gray)	gravels many-dense no obvious modification	~~Compact Soil / Root / Subsoil / Permit Depth / Other~~
		10-40	Clay 10YR4/1 (drk gy)	gravels many; few dense cobbles	Compact Soil / Root / Subsoil / Permit Depth / Other — Soil compact / CaCO3 gravels appearing
	ST2	"	"	"	Compact Soil / Root / Subsoil / Permit Depth / Other
		"	"	"	Compact Soil / Root / Subsoil / Permit Depth / Other
	ST3	0-5	clay 10YR4/1 (drk gy)	gravels	Compact Soil / Root / Subsoil / Permit Depth / Other — disturbed - CaCO3 near surface
		5-40	clay w/ CaCO3	gravels & cobbles	Compact Soil / Root / Subsoil / Permit Depth / Other — ST in veged abd area w/ numerous utilities
					Compact Soil / Root / Subsoil / Permit Depth / Other
					Compact Soil / Root / Subsoil / Permit Depth / Other
					Compact Soil / Root / Subsoil / Permit Depth / Other
					Compact Soil / Root / Subsoil / Permit Depth / Other
					Compact Soil / Root / Subsoil / Permit Depth / Other
					Compact Soil / Root / Subsoil / Permit Depth / Other
					Compact Soil / Root / Subsoil / Permit Depth / Other

GSV 50% terraced field near SH 130

GSV 30% hay field @ Weiss Lane