



**COTTONWOOD WASTEWATER INTERCEPTOR PHASE C-2,  
WILLIAMSON COUNTY, TEXAS**

December 2019

Final

Texas Historical Commission  
TAC Permit # 8255

**Prepared for:**  
MWM DesignGroup  
305 E. Huntland Drive, Suite 200  
Austin, Texas 78752

**Prepared by:**  
aci consulting  
1001 Mopac Circle  
Austin, Texas 78746

**Authors:**  
Julie Shipp, MS, RPA  
Katie Canavan

aci Project No.: 31-16-139

## Abstract

On January 17 and 30, 2018, archeologists from aci consulting conducted an intensive pedestrian survey prior to construction of the Cottonwood Wastewater Interceptor Phase C-2, in Williamson County, Texas. The original alignment for the proposed Cottonwood Wastewater Interceptor Phase C-2 alignment was 0.26 mile (0.42 kilometer) in length including a 20-foot buffer, totaling 1.26 acres (0.51 hectare). On December 3, 2019, a reroute of the proposed line was also surveyed. This final alignment and final Area of Potential Effect (APE) is 0.94 mile (1.51 kilometers) in length with a 25-foot buffer, totaling 5.7 acres (2.3 hectares).

The investigation was conducted in accordance with Council of Texas Archeologists (CTA) and Texas Historical Commission (THC) and in compliance with Texas Administrative Code (13 TAC 26) under Permit No. 8255. The project is also conducted in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, for any additional compliance for impacts to US Army Corps of Engineers (USACE) regulated waters.

One site, 41WM701, was previously recorded within the APE and was revisited three times during this investigation. The portion of the site within the original APE may contribute to the site's eligibility were the site to be determined eligible for listing on the NRHP. 41WM701 does appear eligible for listing on the National Register of Historic Places (NRHP) and could also potentially be registered as a State Archeological Landmark (SAL). 41WM701 should be avoided. Thus, the third revisit was conducted to delineate the site boundary to the northwest, which was the only portion of the boundary in question and the location for a new alignment. The proposed wastewater line was rerouted in order to avoid site 41WM701, and the new alignment was surveyed with negative results.

The investigation did not result in the location of any new archeological sites, historic structures, or additional historic properties. No further archeological work is recommended within the final APE. Records from this investigation will be curated at the Texas Archeological Research Laboratory. Julie Shipp initially served as Principal Investigator from 2018 to summer of 2019. Joey O'Keefe served as Principal Investigator from summer of 2019 to present.

**TABLE OF CONTENTS**

1.0 INTRODUCTION ..... 1

2.0 BACKGROUND INFORMATION ..... 4

    2.1 Environmental Setting ..... 4

    2.2 Geology and Soils ..... 4

3.0 REGIONAL HISTORY AND CULTURAL CHRONOLOGY ..... 8

    3.1 Prehistoric Background ..... 8

    3.2 Historic Background ..... 9

4.0 LITERATURE REVIEW ..... 11

5.0 FIELD METHOD ..... 15

6.0 RESULTS OF INVESTIGATION ..... 15

    6.1 Original Survey ..... 15

    6.2 Site 41WM701 Revisit ..... 18

    6.3 Reroute ..... 24

7.0 CONCLUSIONS AND RECOMMENDATIONS ..... 26

8.0 REFERENCES CITED ..... 27

**LIST OF TABLES**

Table 1. Regional Prehistoric Chronology of Central Texas ..... 8

Table 2. Sites within 1 km of the Proposed Project Alignment ..... 13

LIST OF FIGURES

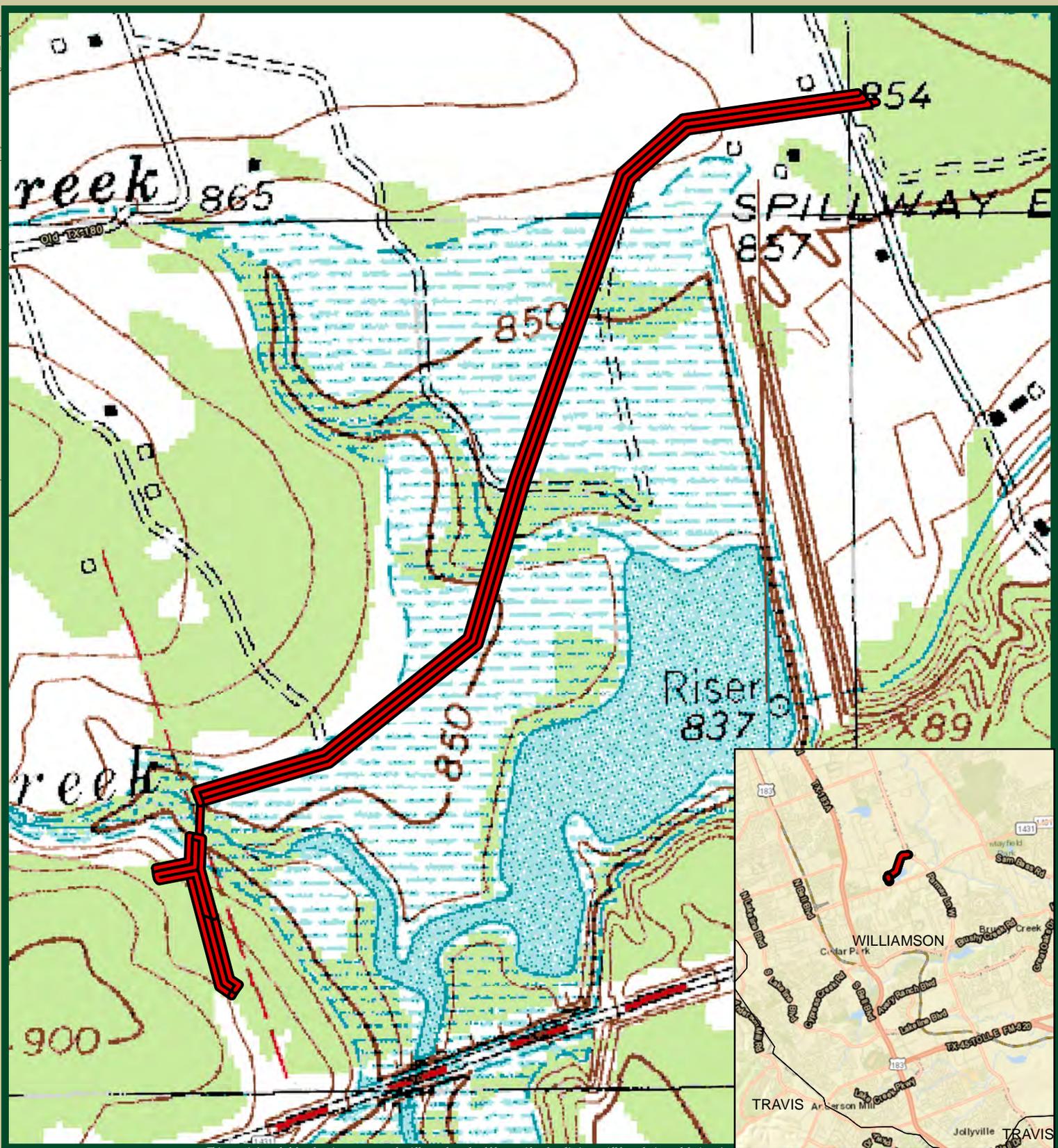
Figure 1. APE on *Leander* USGS 7.5-minute Topographic Quadrangle. ....2  
 Figure 2. APE Area on Aerial Photograph Background. ....3  
 Figure 3. APE Soils.....6  
 Figure 4. Austin Hybrid Potential Archeological Liability Map (HPALM) .....7  
 Figure 5. Archeological Sites and Previous Investigations.....14  
 Figure 6. Shovel Test Locations .....16  
 Figure 7. Alignment north of Post Oak Creek, disturbed area, facing southwest.....17  
 Figure 8. North end of alignment showing residential area, facing west.....17  
 Figure 9. 41WM701 Site Boundary .....20  
 Figure 10. 41WM701 Site Map .....21  
 Figure 11. Photo of shovel test artifacts .....22  
 Figure 12. Photo of shovel test artifacts .....22  
 Figure 13. Photo of recovered dart point.....23  
 Figure 14. Photo of 41WM701 overview, facing northeast .....23  
 Figure 15: Reroute of the proposed water line around site 41WM701, facing northeast. ...25  
 Figure 16: Reroute along the 2-track ranch road. ....25

## 1.0 INTRODUCTION

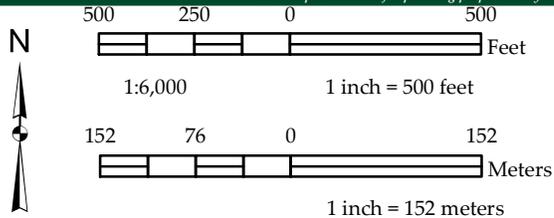
Archeologists from **aci consulting** conducted an intensive pedestrian survey prior to construction of the Cottonwood Wastewater Interceptor Phase C-2, in Williamson County, Texas. The original alignment for the proposed Cottonwood Wastewater Interceptor Phase C-2 alignment was 0.26 mile (0.42 kilometer) in length including a 20-foot buffer, totaling 1.26 acres (0.51 hectare). On December 3, 2019, a reroute of the proposed line was also surveyed. This final alignment and final Area of Potential Effect (APE) is 0.94 mile (1.51 kilometers) in length with a 25-foot buffer, totaling 5.7 acres (2.3 hectares) (Figures 1 and 2).

The investigation was conducted in accordance with Council of Texas Archeologists (CTA) and Texas Historical Commission (THC) and in compliance with Texas Administrative Code (13 TAC 26) under Permit No. 8255. The project is also conducted in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, for any additional compliance for impacts to US Army Corps of Engineers (USACE) regulated waters.

The investigation consisted of an intensive pedestrian survey, shovel testing, site recording, assessment of sites for listing on the national Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL), data analysis, and reporting in accordance with THC and Council of Texas Archaeologists (CTA) standards. One site, 41WM701, was previously recorded within the APE and was revisited three times during this investigation. The portion of the site within the APE may contribute to the site's eligibility were the site to be determined eligible for listing on the NRHP. 41WM701 does appear eligible for listing on the NRHP and could also potentially be registered as a SAL. 41WM701 should be avoided and thus, the third revisit was conducted within the final APE to delineate the site boundary. The site was delineated to the northwest, which was the only portion of the boundary in question. The new alignment was surveyed with negative results.



This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.



 APE





This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.



 APE



Cottonwood Creek WW Interceptor Phase C2  
 Figure 2: APE on Aerial Photograph Background

## 2.0 BACKGROUND INFORMATION

### 2.1 Environmental Setting

The APE is located in central Texas along the eastern edge of the Edwards Plateau in the Balcones Canyonlands. The Balcones Canyonlands are approximately 1000 feet higher in elevation than the Gulf Coastal Plain to the east. Erosion along the edge of the Edwards Plateau has resulted in steep, stair-step topography characterized by canyons, sinkholes, and karsts. The Balcones Canyonlands are relatively well watered in comparison to the larger Edwards Plateau and the Blackland Prairie to the east (Wermund 1995). The project area is within the “Live Oak-Ashe Juniper Woods” and “Oak-Mesquite-Juniper Parks/Woods” designations, as noted on the Texas Parks and Wildlife “Vegetation Types of Texas” map (McMahan et al. 1984). “Woods” is described as woody plants mostly nine to thirty feet tall where a midstory is usually lacking. “Parks” is described as woody plants of nine feet in height or taller growing as clusters or scattered individuals within continuous grass.

### 2.2 Geology and Soils

The APE lies within one geologic unit (Collins 1998):

- *Comanche Peak Formation (Kc)*

The Comanche Peak formation is the lower strata of the Edwards aquifer strata. It consists of limestone and marl and thickens regionally northward from approximately 40 to 70 ft.

Three soil series are mapped within the proposed APE (NRCS 2019) (Figure 3):

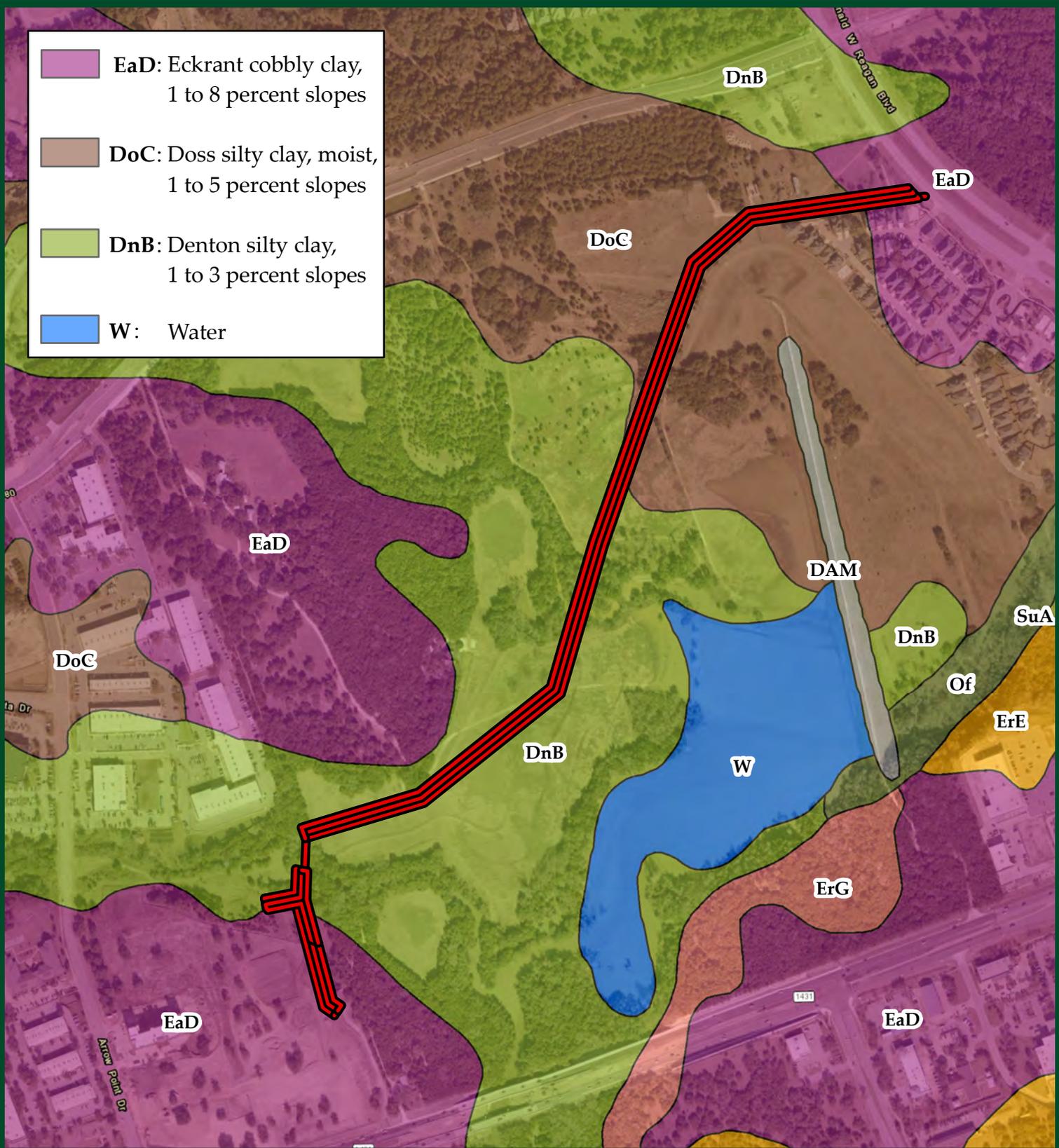
- *Eckrant cobbly clay, 1 to 8 percent slopes (EaD)* - Eckrant series consists of well drained, moderately slowly permeable soils that are very shallow to shallow over indurated limestone bedrock. These nearly level to very steep soils formed in residuum derived from limestone and occur on summits, shoulders, and backslopes of ridges on dissected plateaus.
- *Doss silty clay, moist, 1 to 5 percent slopes (DoC)* - The Doss series consists of shallow to weakly cemented limestone, well drained, moderately slow

permeable soils that formed in calcareous loamy and clayey residuum derived from marls and limestone. These very gently to moderately sloping soils occur on hill slopes on dissected plateaus.

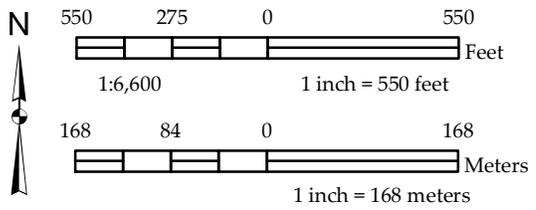
- *Denton silty clay, 1 to 3 percent slopes (DnB)* - The Denton series consist of deep, well drained, slowly permeable soils that formed in clayey materials over residuum weathered from limestone bedrock of lower Cretaceous age. These nearly level or gently sloping soils are on backslopes and footslopes of ridges.

The majority of the soils within the APE have been previously determined to have a low probability to contain archeological sites according to the Potential Archeological Liability Maps (PALM) model created by TxDOT ENV for highway projects in the Austin District (Figure 4) (Abbott and Pletka 2014). However, two small areas are mapped as “high potential” to contain archeological sites. Furthermore, the soils generally have a low to low-moderate probability to contain archeological sites (Abbott 2013).

-  **EaD:** Eckrant cobbly clay, 1 to 8 percent slopes
-  **DoC:** Doss silty clay, moist, 1 to 5 percent slopes
-  **DnB:** Denton silty clay, 1 to 3 percent slopes
-  **W:** Water

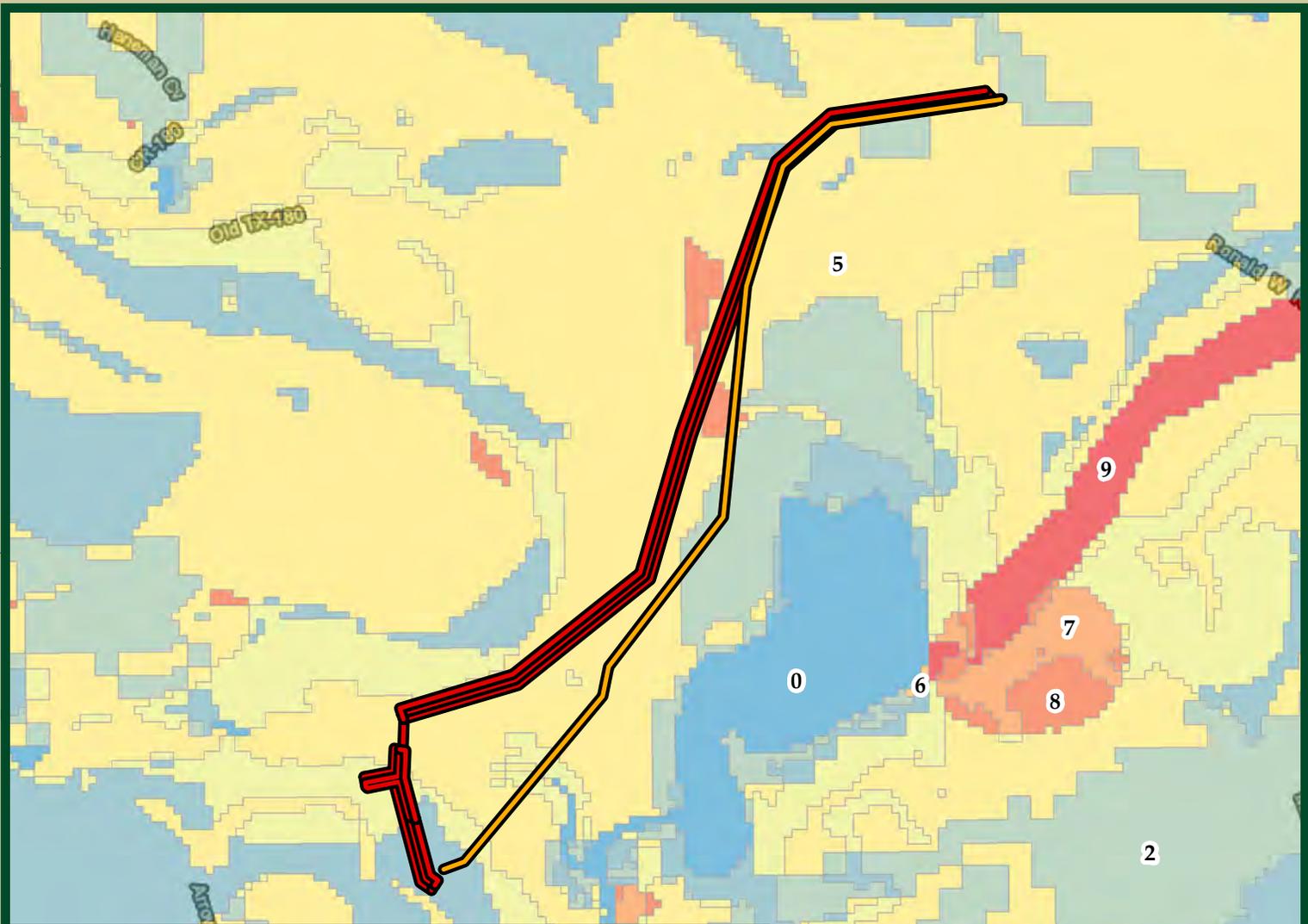


This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.



 APE

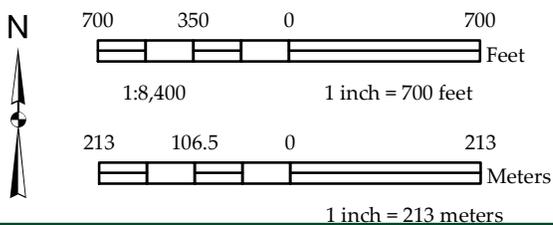




### HPALM Legend

- 0 = Negligible Potential
- 1 = Low Potential
- 2 = Low Shallow Potential, Moderate Potential at Depth (>1m)
- 3 = Low Shallow Potential, High Potential at Depth
- 4 = Moderate Shallow Potential, Low Potential at Depth
- 5 = Moderate Potential
- 6 = Moderate Shallow Potential, High Potential at Depth
- 7 = High Shallow Potential, Low Potential at Depth (>1m)
- 8 = High Shallow Potential, Moderate Potential at Depth
- 9 = High Potential

This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.



 APE

 Original Alignment



### 3.0 REGIONAL HISTORY AND CULTURAL CHRONOLOGY

#### 3.1 Prehistoric Background

The APE falls within the Central Texas archeological region (Collins 1995). Prehistoric archeological sites in Central Texas represent continuous human occupation starting around 11,500 years ago. Michael B. Collins (1995) authored a synthesis of Central Texas archeology in which he divides the prehistory of Central Texas into three periods: (1) the Paleoindian, (2) the Archaic, and (3) the Late Prehistoric. Each of these is further divided into subperiods, such as early and late. Dates are presented as Before Present or BP in Table 1.

**Table 1. Regional Prehistoric Chronology of Central Texas**

<i>Period</i>	<i>Date Range</i>
Paleoindian	11,500-8,800 BP
Archaic	8,800-1,200 BP
Early	8,800-6,000 BP
Middle	6,000-4,000 BP
Late	4,000-1,200 BP
Late Prehistoric	1,200-500 BP
Historic	500 BP +

The Paleoindian period dates between approximately 11,500 and 8,800 BP (Collins 1995:381-3). The Early Paleoindian in Central Texas is part of a larger, regional cultural horizon, the Clovis horizon. Clovis sites record a general hunter-gatherer lifeway based upon a wide variety of fauna including large herbivores as well as smaller animals. Evidence of plant resources is less common, but it is presumed that local flora was also important to subsistence. In contrast, later Folsom sites indicate a greater reliance upon big game hunting. The Late Paleoindian seems transitional between the Paleoindian and Archaic in that burned rock features are present, but they are not as large or ubiquitous as those associated with the Archaic. Other artifacts, features, and faunal remains seem more similar to those found later in the Archaic.

Archaic (Collins 1995:383-385) sites in Central Texas are most often associated with the use of heated rock in hearths, ovens, middens, and scatters. The period as a whole is defined by the intensified use of local resources and diversity of material culture in comparison to the Paleoindian period. The climate ranged

from mesic (relatively moist) in the Early Archaic and the later part of the Late Archaic to xeric (relatively dry) during the Middle Archaic and beginning of the Late Archaic. Subsistence during mesic times is centered on the live-oak savanna, while a shift in emphasis toward xerophytes may have occurred during xeric intervals.

The Late Prehistoric saw the migration of several new linguistic groups, primarily from the Great Plains, into the region. The introduction of ceramics into the archeological record takes place in the region during this time as well. The movement of Europeans inland from the coast and north from Mexico ended the prehistoric era.

### **3.2 Historic Background**

Historic exploration and settlement of the Williamson County area began in the late seventeenth and early eighteenth centuries when Spanish explorers traveled through the region searching for better routes to the missions in East Texas. Captain Alonso De León followed the Camino Real from San Antonio to Bastrop several times during the 1680s, and, at least once, he traveled on the Camino de Arriba, which crossed Brushy Creek and the San Gabriel River. In 1716, Louis Juchereau de St. Denis, a French explorer, and Captain Domingo Ramon, a Spanish explorer, led an expedition through the area and camped on the banks of Brushy Creek and the San Gabriel River. They named them Arroyo do las Benditas Ánimas and Rio de San Xavier, respectively. In 1721, the Marques de Aguayo led a large group of soldiers, livestock, and provisions through present-day Williamson County to replenish supplies at the eastern missions. In the mid-eighteenth century, the San Xavier missions were established along the San Gabriel River, just east of the Williamson/Milam County line. By 1753 drought and disease made the missions uninhabitable, and Spanish influence in the area declined (Odintz 2002).

Anglo-American influence in the area began with a series of land grants from the Mexican government in the late eighteenth and early nineteenth centuries. In 1835 continual attacks by local Indians prompted Captain John J. Tumlinson and his company of Texas Rangers to construct a fort and Indian lookout near the headwaters of Brushy Creek in southwestern Williamson County. Tumlinson

Fort, as it was called, was abandoned in 1836 when General Santa Ana invaded Texas (Odintz 2002).

Following the defeat of General Santa Ana at the Battle of San Jacinto, several veterans of the battle settled in Williamson County. In 1838 Dr. Thomas Kenney and his family built a fort on Brushy Creek, in what is now eastern Williamson County. Kenney's Fort became the first civilian settlement in Williamson County. However, Indian attacks were a frequent problem, and numerous settlers, including Kenney, were killed by Indians. By 1846 the Indian threat had waned and settlement in the region increased. In 1848 the Texas legislature established Williamson County, naming it after Robert Williamson, a Milam County Judge and state senator (Odintz 2002).

By 1850, the county had a population of 1,379 whites and 155 slaves. Most of the population was located in the eastern part of the county on Brushy Creek and the San Gabriel (Odintz 2002), but a few families were living in the western half. During the 1850s and 1860s, towns, lumber mills, and tanneries sprang up around the county. Although urbanization and industrialization increased somewhat, the bulk of the county remained rural and agricultural. The majority of the families lived on subsistence farms in log houses and raised corn. During the 1850s and early 1860s, the slave population increased and the agricultural patterns within the county became more diverse. Wheat and corn were the predominant crops in the Blackland prairies, and cattle and sheep ranching was widespread throughout the county. Cotton was introduced in the 1850s, but it was not a significant cash crop (Odintz 2002).

The economy of Williamson County slumped during the Civil War but picked up again in the 1870s with the growth of the cattle and sheep industry and the expansion of cotton farming. The cattle industry was sustained by the Chisholm trail, which was established in 1864 and passed close to Round Rock. Many cattle drives passed through or originated in Williamson County. The 1870s and 1880s were also marked by the arrival of railroads to Williamson County (Odintz 2002).

By the early twentieth century, cotton farming had surpassed the cattle industry in importance. With the dramatic growth in cotton farming, a shift in farm tenancy developed. As late as 1880, 77 percent of the farms were still worked by

owners. By 1890 43 percent of the farms were worked by owners, and by 1930 only 29 percent of the farms were worked by owners. The tenancy rates continued to drop during the Great Depression (Odintz 2002).

The cotton industry suffered economically during the 1920s from the effects of soil depletion, falling prices brought on by overproduction, and the boll weevil infestation. The Great Depression of the 1930s worsened the economic situation and encouraged farmers to shift away from cotton to livestock. Cotton production was reduced by nearly half, while sorghum and wheat became important crops. Along with cattle and sheep, poultry farming intensified (Odintz 2002).

Significant population and economic changes occurred in the 1960s, 1970s, and 1980s. The construction and expansion of roads throughout the undeveloped areas of Williamson County meant urban populations now had easier access to the Hill Country and vice versa. The consolidation of rural schools also meant children could now attend schools outside of their rural communities. For example, during the 1910s and 1920s, Rock House School was one of the largest schools in Williamson County. In 1903, the school boasted a population of 96 students and 2 teachers. The school was consolidated with Liberty Hill School in 1947, and by the 1990s, Rock House had become a dispersed agricultural community (Odintz 2002).

Suburbanization of the portions of the county bordering Austin caused the population of Williamson County to boom in the 1970s and 1980s. In 1970, the population of Williamson County was 37,305. By 1982, the population had grown to over 85,700. A pattern of absentee ownership and of non-agricultural use of the land also intensified following World War II. Austin, Georgetown, and Liberty Hill grew rapidly (Odintz 2002).

#### **4.0 LITERATURE REVIEW**

A literature review of the THC Archeological and Historic Sites databases (the Atlas), historic maps, and records from the Texas Archeological Research Laboratory (TARL) revealed that one mapped archeological site crossed the original alignment, detailed below. The site was surveyed to confirm the

boundary and if it would be disturbed by the final APE. Furthermore, an additional seven previously recorded sites are located within one kilometer of the APE (Table 2) (Figure 5).

One linear survey crosses the northern terminus of the APE. The survey was conducted in 2002 by Archaeological and Cultural Sciences Group for the expansion project of Parmer Lane. Two linear surveys cross near the southern terminus of the APE. One survey was conducted in 1999 with no further available information. The second survey was conducted in 2012 by aci consulting for the City of Cedar Park for the Oak Creek Wastewater Line. None of the surveys cover a substantial part of the APE.

According to the Atlas (2018), the original alignment crossed through the Winfield Site (41WM701). The site is a large prehistoric campsite, approximately 15 acres in size. The archeological features recorded thus far at the site consist of three large burned rock middens and a human burial. The site is potentially eligible for listing on the National Register of Historic Places (NRHP) and could also potentially be registered as a State Archeological Landmark (SAL). The site should be avoided or tested for its eligibility on the NHRP. The site is located on the terrace at the confluence of Cottonwood and Post Oak Creeks.

Site 41WM233, a buried burned rock midden, is located south of the APE (Atlas 2019).

Site 41WM945 is west of the APE. The site is a multi-component site comprised of a prehistoric lithic scatter and an historic artifact scatter. The site is not eligible for listing on the NRHP (Atlas 2019).

The APE is located approximately 0.97 mile (1.56 kilometers) west of the Wilson-Leonard site (41WM235), which is outside the 1-kilometer buffer. The site is a Paleoindian, multi-component site that is listed as a SAL (Atlas 2019). There are numerous other previously recorded sites in the area that are situated densely along the creeks and at rock outcrops.

**Table 2. Sites within 1 km of the Proposed Project Alignment**

Site	Site Type	Eligibility	Recommendation	Depth of Cultural Materials	Report
41WM145	Prehistoric midden	Ineligible within ROW	None	1 m	Barnes and Scott (2013)
41WM233	Prehistoric midden	Unknown	None	Surface	Unknown
41WM234	Prehistoric midden	Eligible (2008)	Further excavation	70 cm	Stots et al (2007) Brownlow (2001)
41WM701	Prehistoric burial and middens	Unknown	Further excavation	2 m	Unknown
41WM945	Prehistoric scatter Historic scatter	Ineligible	None	Surface	Unknown
41WM1031	Prehistoric scatter Historic chimney	Ineligible	None	12 cm	Unknown
41WM1163	Prehistoric scatter	Ineligible within ROW	None	Surface	Unknown
41WM1182	Prehistoric scatter	Ineligible	Archival research	Surface	Unknown

## 5.0 FIELD METHOD

An intensive pedestrian survey was conducted along the entire final APE and of the original alignment. The original survey included 31 shovel tests at least 30 centimeters (cm) in diameter, in 10 cm levels, and the soil was screened through ¼-inch (0.63-centimeter) hardware cloth (Figure 6). Shovel tests were recorded on logs and the locations of the tests were recorded on a GPS unit. Six of the shovel tests were positive for cultural material within the site boundary of 41WM701. The first revisit of site 41WM701 consisted of a survey of the site, photography, and a revisit site form which was completed and submitted to TARL, along with shape files. The second revisit surveyed the final rerouted APE of the proposed wastewater line and an additional eight shovel tests were excavated, for a total of 39 shovel tests along both alignments.

## 6.0 RESULTS OF INVESTIGATION

### 6.1 Original Survey

The original survey and shovel testing of the original alignment was conducted on January 17 and 30, 2018, under pleasant conditions over two days, under a clear sky, with a light breeze. An intensive survey was conducted within the entire original 1.26 acres (0.51 hectare) APE. The survey began at the southern portion of the alignment located approximately 575 feet north of FM 1431. The alignment crossed Cottonwood Creek approximately 569 feet north of where the alignment begins. Northeast of the Cottonwood crossing is a terraced field which contains 41WM701. Northeast of the site, shovel tests were conducted until the alignment crossed Post Oak Creek (see Figure 6). North of Post Oak Creek, the area was heavily disturbed from farming and agricultural activities (Figure 7). The northern end of the alignment at the Barnard Lane and Ronald Reagan Boulevard intersection was heavily disturbed from residential activities (Figure 8).



**Figure 7. Alignment north of Post Oak Creek, disturbed area, facing southwest**



**Figure 8. North end of alignment showing residential area, facing west**

## 6.2 Site 41WM701 Revisit

41WM701 was revisited three times in order to delineate the extent of the site within the original alignment and the final APE. 41WM701 was originally recorded in 1985 as a large prehistoric campsite, approximately 15 acres in size, consisting of three rock middens and a human burial. At that time, the landowner discovered skeletal remains after potholing activities disturbed the area and the landowner sought protection for the site.

The original site boundary of state record provided by the Atlas (2018) was mapped approximately 160 meters northwest of the Cottonwood Creek in contrast to the location noted on the site form as sitting on a terrace between Post Oak and Cottonwood Creeks adjacent to a retention pond. Upon field investigations and conversations with the current landowner, it was determined that the original Atlas (2018) site boundary was mapped incorrectly. The site begins along Cottonwood Creek and extends north approximately 200 meters northwest of the creek. The width of the site is approximately 120 meters southwest to northeast (Figure 9). The original alignment was approximately 130 meters north of the creek. The final alignment is approximately 230 meters north of the creek.

During the first revisit on January 17, 2018, shovel testing was conducted to determine presence of cultural materials and to delineate the boundary of 41WM701. Originally, eleven shovel tests were excavated, four of which contained prehistoric cultural materials (Figures 11 and 12). A pedestrian survey of the area also resulted in the location of prehistoric cultural material, including a possible Gary dart point (Figure 13). A pedestrian survey was also conducted in the southern portion of the new proposed boundary to determine presence or absence of the reported middens and burials. Rock middens were located within the treeline as recorded on the original 1985 site form and as reported by the current landowner. A site map reflecting the location of the shovel tests, general location of the middens and burials, and new proposed site boundary of 41WM701 can be seen in Figure 10.

The second revisit on January 30, 2018, was extended to the northwest to delineate the site boundary, outside of the APE, as this portion of the boundary

was unknown, and this was the possible direction of a new route of the waste water line. Permission was granted by the landowner to do so. Nine additional shovel tests were dug across the field to the north. The site boundary was extended approximately 50 meters to the north, due to three additional positive shovel tests. No surface artifacts were observed in the field north of the original alignment during the visit. Overview of 41WM701 can be seen in Figure 14.

A site revisit form with updated site boundary was submitted to TARL with the recommendation the site boundary be remapped and moved south.



**Figure 11. Photo of shovel test artifacts**



**Figure 12. Photo of shovel test artifacts**



**Figure 13. Photo of recovered dart point**



**Figure 14. Photo of 41WM701 overview, facing northeast**

The nature of the site within the original alignment was assessed for its contribution to the site as a whole, and for its eligibility for listing on the NRHP

or as a SAL. aci consulting proposed the portion of the site within the original alignment may contribute to the site's eligibility were the site to be determined eligible for listing on the NRHP. There are portions of the site with intact soil and with artifacts to a depth of approximately 40 centimeters. 41WM701 is eligible for listing on the NRHP and could also potentially be registered as a SAL.

Artifacts were located on the surface, and to a depth of approximately 40 centimeters below surface. It was recommended that the site be avoided, including the ground surface, as a diagnostic artifact was recovered from the surface during the survey, and additional surface data may remain.

### **6.3 Reroute**

After the first and second revisit of 41WM701, the proposed waterline was routed around the boundary of site 41WM701 subsequent to the delineation of the site and the recommendation that the site be avoided. The final survey and shovel testing of the rerouted final APE was conducted on December 3, 2019, under pleasant conditions. The entire 5.7 acres (2.3 hectares) APE was pedestrian surveyed, augmented by shovel testing, with a focus on the northern boundary of 41WM701.

The rerouted APE begins near the lift station north of FM 1431 and continues north for approximately 670 feet until it crosses Cottonwood Creek. The APE then heads east for approximately 508 feet following a private drive. As the APE nears the terraced field containing 41WM701, it turns northeast to avoid the site for approximately 1,022 feet until it crosses Post Oak Creek. From here, the APE continues in a northeast direction across an agricultural field for 975 feet until it rejoins with the original alignment and continues towards the northern terminus at Ronal Reagan Boulevard. The final APE transects the field approximately 80 meters northwest of the new 41WM701 site boundary (Figure 15). Between Cottonwood Creek and Post Oak Creek, much of the alignment follows a private two-track road which consists of exposed bedrock and is driven daily (Figure 16) The road will be used as an access road during construction.

The survey of the reroute did not result in the location of any additional cultural resources and thus confirmed the northern boundary of 41WM701, which will be avoided by the final APE.



**Figure 15: Reroute of the proposed water line around site 41WM701, facing northeast.**



**Figure 16: Reroute along the 2-track ranch road.**

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

On January 17 and 30 2018, archeologists from **aci consulting** conducted an intensive pedestrian survey prior to construction of the Cottonwood Wastewater Interceptor Phase C-2, in Williamson County, Texas. The original alignment for the proposed Cottonwood Wastewater Interceptor Phase C-2 alignment was 0.26 mile (0.42 kilometer) in length including a 20-foot buffer, totaling 1.26 acres (0.51 hectare). On December 3, 2019, a reroute of the proposed line was also surveyed. This final alignment and final Area of Potential Effect (APE) is 0.94 mile (1.51 kilometers) in length with a 25-foot buffer, totaling 5.7 acres (2.3 hectares) (see Figures 1 and 2).

One site, 41WM701, was previously recorded within the original alignment and was revisited three times during this investigation. The portion of the site within the original alignment may contribute to the site's eligibility were the site to be determined eligible for listing on the NRHP. 41WM701 does appear eligible for listing on the National Register of Historic Places (NRHP) and could also potentially be registered as a State Archeological Landmark (SAL). 41WM701 should be avoided and thus the third revisit was conducted to delineate the site boundary to the northwest, which was the only portion of the boundary in question, along the final APE. The proposed wastewater line was rerouted in order to avoid site 41WM701, and the new alignment was surveyed with negative results.

The investigation did not result in the location of any new archeological sites, historic structures, or additional historic properties. Based on these results, no further archeological work is recommended within the current APE. It should be noted that no level of survey intensity can be guaranteed to locate all cultural features within a project area. Therefore, should previously-unrecorded cultural resources including human remains be discovered during the course of construction for this project, the City of Cedar Park or MWM DesignGroup will contact the Texas Historical Commission or other professional archeologist of the inadvertent discoveries.

## 8.0 REFERENCES CITED

Abbott, James T.

2013 *Automated Archeological Integrity Modeling in Texas: A Pilot Study*. Texas Department of Transportation, Environmental Affairs Division, Austin, Texas.

Abbott, James and Scott Pletka

2014 Data Release: The Austin District HPALM Model. Texas Department of Transportation, Environmental Affairs Division, Austin.

Atlas

2018 Texas Archeological Sites Atlas. Texas Historic Commission, Austin. Available Online at <https://atlas.thc.state.tx.us>. Accessed 1/12/2018.

Atlas

2019 Texas Archeological Sites Atlas. Texas Historic Commission, Austin. Available Online at <https://atlas.thc.state.tx.us>. Accessed 12/9/2019.

Collins, Michael B.

1995 *Forty Years of Archeology in Central Texas*. Bulletin of the Texas Archeological Society, Volume 66.

Collins, E.W.

1998. Geologic Map of the Leander Quadrangle, Texas. Bureau of Economic Geology. Austin, TX.

McMahan, C.A., R.G. Frye, and K.L. Brown.

1984 *The Vegetation Types of Texas*. Texas Parks and Wildlife. Austin, Texas.

Natural Resources Conservation Service (NRCS)

2019 Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Travis County, TX. Available online at <http://soildatamart.nrcs.usda.gov>. Accessed 12/2/2019.

Odintz, Mark

2002 *Handbook of Texas Online*, s.v. "Williamson County." Available online at [http://www.tsha.utexas.edu/handbook/online/articles/WW/hcw11\\_print.html](http://www.tsha.utexas.edu/handbook/online/articles/WW/hcw11_print.html). Accessed 12/2/2019.

U.S. Geological Survey (USGS)

2019 *Texas Geology Map Viewer*. Available online at <http://txpub.usgs.gov/dss/texasgeology>. Accessed 12/2/2019.

Wermund, E.G.

1995 *Physiographic Map of Texas*. Bureau of Economic Geography. University of Texas, Austin.