TEXAS HISTORICAL COMMISSION

ANTIQUITIES PERMIT APPLICATION FORM
ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) Intensive Archeological Survey for Southeast Loop Segment 2
County (ies) Williamson County
USGS Quadrangle Name and Number Hutto (3097-311), Pflugerville East (3097-244), Taylor (3097-422), and Coupland (3097-133)
UTM Coordinates (approximate) Zone 14 664529mE 3377237m N to 639214mE, 3375348mN
Location South-central Williamson County, between CR 137 and FM 3349
Federal Involvement ☒ Yes ☐ No
Name of Federal Agency U.S. Army Corps of Engineers, Ft. Worth District (anticipated)
Agency Representatives Jimmy Barrera

II. OWNER (OR CONTROLLING AGENCY)

Controlling Agency Williamson County
Representative Bill Gravell, Jr., County Judge
Address 710 South Main Street, Suite 101
City/State/Zip Georgetown, Texas, 78626
Telephone (include area code) 512-943-1550 Email Address ctyjudge@wilco.org

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

Sponsor Same as above
Representative
Address
City/State/Zip
Telephone (include area code) Email Address

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Chris Dayton, PhD, RPA
Affiliation Cox|McLain Environmental Consulting, Inc., now Stantec Consulting Services, Inc.
Address 8711 Burnet Road, Suite C-24
City/State/Zip Austin, Texas 78757
Telephone (include area code) (512) 808-7724 Email Address chris.dayton@stantec.com

(OVER)

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork April 3, 2023
Requested Permit Duration 10 Years 0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) survey with shovel testing and backhoe trenching (see attached)

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility Cox|McLain Environmental Consulting, Inc., now Stantec
Permanent Curatorial Facility Center for Archeological Studies (CAS) at Texas State University

IV. OWNER'S CERTIFICATION

I, Bill Gravell, Jr., County Judge, as legal representative of the Owner, Williamson County, do certify that I have reviewed the plans and research design, and that no investigations will be performed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Owner, Co-owner, and Principal Investigator are responsible for completing the terms of this permit.

Signature Bill Gravell Jr. Bill Gravell (Mar 7, 2023 14:00 CST) Date Mar 7, 2023

V. SPONSOR'S CERTIFICATION

I, Same as above, as legal representative of the Sponsor, _____, do certify that I have reviewed the plans and research design, and that no investigations will be performed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Owner, Sponsor, and Principal Investigator are responsible for completing the terms of the permit.

Signature _____ Date _____

VI. INVESTIGATOR'S CERTIFICATION

I, Chris Dayton, as Principal Investigator employed by Cox|McLain Environmental Consulting, Inc., now Stantec (Investigative Firm), do certify that I will execute this project according to the submitted plans and research design, and will not conduct any work prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Principal Investigator (and the Investigative Firm), as well as the Owner and Sponsor, are responsible for completing the terms of this permit.

Signature _____ Date 10/12/22

Principal Investigator must attach a research design, a copy of the USGS quadrangle showing project boundaries, and any additional pertinent information. Curriculum vitae must be on file with the Division of Antiquities Protection.

FOR OFFICIAL USE ONLY

Reviewer _____ Date Permit Issues _____
Permit Number _____ Permit Expiration Date _____
Type of Permit _____ Date Received for Data Entry _____

Texas Historical Commission
Archeology Division
P.O. Box 12276, Austin, TX 78711-2276
Phone 512/463-6096
www.thc.state.tx.us

TEXAS HISTORICAL COMMISSION
The State Agency for Historic Preservation

ARCHEOLOGICAL INTENSIVE SURVEY SCOPE

Williamson County Southeast Loop Segment 2
Williamson County, Texas

Project Description

The purpose of the investigation described in this document is to identify archeological resources within the anticipated construction footprint for Segment 2 of the proposed Williamson County Southeast Loop roadway, a new facility located south and east of the City of Hutto in south-central Williamson County, Texas (see **Figures 1, 2a–b,** and **3a–f**). The Southeast Loop corridor begins at State Highway 130 (SH 130, also known as Texas Toll 130 or TX 130) and extends approximately 7 miles (11 kilometers) northeast to SH 79. The proposed roadway will include four main lanes and six frontage road lanes, with additional lanes for turning at intersections as needed. The proposed right-of-way varies from 240 to 460 feet (73.2 to 140.2 meters) in width. Improvements will also take place where the proposed facility intersects with the following existing roadways: CR 137, CR 404, FM 1660, and FM 3349 (note that separate Archeological Background Studies will be submitted to the Texas Department of Transportation [TxDOT] for the intersections with FM 1660 and FM 3349). Bridges and/or overpasses will be constructed at water features that include both Brushy Creek and Cottonwood Creek and their associated floodplains. At this time the team anticipates coordination with the U.S. Army Corps of Engineers (USACE) regarding stream/wetland impacts.

Segment 1, the westernmost 1.8 miles (2.9 kilometers) of the project, was already surveyed by Cox|McLain Environmental Consulting, Inc. (CMEC), now Stantec Consulting Services, Inc. (Stantec), under Texas Antiquities Permit 9235 (Gadus et al. 2021). The present permit request concerns only Segment 2 of the project, a 4.09-mile (6.58-kilometer) portion between County Road (CR) 137 and Farm to Market Road (FM) 3349. The Segment 2 survey will include some parcels already partly surveyed under Texas Antiquities Permit 9235 as well as parcels where right-of-entry had not been available. Although some parcels were subjected to limited pedestrian survey under Permit 9235, no mechanical trenching—a crucial component, given the project setting—could be conducted during the previous work.

The 4.09-mile-long archeological area of potential affects (APE) for Segment 2 covers approximately 226.98 acres. This project would largely be constructed primarily within new right-of-way (207.08 acres), with much smaller portions of existing right-of-way (10.07 acres) and easements (permanent and temporary, construction and drainage included, covering 9.83 acres in total). Land within and adjacent to the project area is currently used for agriculture, with scattered commercial and residential development. Precise impact depths are unknown at this time due to the early stage of the design. A standard roadway depth of approximately 2 feet (0.6 meters) is assumed as the baseline. At streams and existing roadways, the team assumes that deep impacts (beyond 1 meter or 3.28 feet) will likely occur, potentially extending up to 7 meters (roughly 23 feet) below the ground surface.

The project is owned and sponsored by Williamson County, a political subdivision of the State of Texas, rendering the project subject to the Antiquities Code of Texas. Due to anticipated coordination with USACE for Section 404 permitting, the project is also considered subject to Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Standing historic resources will be separately coordinated.

Background Information

The APE ranges in elevation from 608 to 694 feet (approximately 185 to 212 meters) above mean sea level along the 4.09-mile (6.58-kilometer) proposed alignment in south-central Williamson County. The area consists primarily of undeveloped and agricultural lands. The APE crosses three mapped drainages: Brushy Creek, near the west end of the APE; Cottonwood Creek, a tributary to Brushy Creek, near the center of the APE; and an

unnamed tributary to Brushy Creek northeast of Cottonwood Creek. In addition, the northeast terminus of the APE extends into the floodplain of Boggy Creek but does not cross the creek itself.

Surface geology within the APE consists of the following, presented from southwest to northeast: Cretaceous-age Austin Chalk, Holocene-age Alluvium and Terrace deposits, Cretaceous-age Navarro and Taylor Groups, and Pleistocene-age High gravel deposits (United States Geological Survey [USGS] 2021a). Austin Chalk consists of interbeds and partings of calcareous clay, thin-bedded marl with interbeds of massive chalk, hard lime mudstone and soft chalk. Terrace deposits and Alluvium contain sand, silt, clay, and gravel in various proportions, with gravel more predominant in older, higher terrace deposits. Clasts are mostly limestone, chert, quartz, and various igneous and metamorphic rocks from the Llano region and Edwards Plateau. The undivided Navarro and Taylor Groups consist of mostly silty calcareous clay with sandstone beds and concretionary masses, underlain by fine-grained quartz sand with concretions in discontinuous beds and marine megafossils. High gravel deposits are commonly composed of an upper silty clay unit that is good for crop production and a lower coarse unit that yields some water; these deposits often contain caliche-cemented cobbles of chert as large as 12.7 centimeters (5 inches) in size, pebbles of variegated quartzite, limestone, chert, and quartz (USGS 2021b).

According to Natural Resources Conservation Service (NRCS) data, the following soil series are mapped within the APE and are listed alphabetically below (Soil Survey Staff 2021):

- Altoga silty clay loam on 5 to 8 percent slopes;
- Austin silty clay on 1 to 3 percent slopes;
- Austin-Whitewright complex on 2 to 6 percent slopes, eroded;
- Branyon clay on 0 to 1 and 1 to 3 percent slopes;
- Branyon-Krum complex on 1 to 3 percent slopes;
- Krum silty clay on 1 to 3 percent slopes;
- Krum-Branyon complex on 0 to 1 percent slopes;
- Oakalla silty clay loam on 0 to 2 percent slopes, occasionally flooded or frequently flooded;
- Sunev loam on 2 to 5 percent slopes; and
- Tinn clay on 0 to 1 percent slopes (Soil Survey Staff 2021).

About 70 percent of the APE contains soils with Branyon and Krum components, including Branyon clay on 0 to 1 and 1 to 3 percent slopes, Krum silty clay on 1 to 3 percent slopes, and Krum-Branyon/Branyon-Krum complexes on 0 to 1 and 1 to 3 percent slopes. These soils form the broad relatively flat plain between Brushy and Boggy Creeks. Branyon and Krum soils are very deep, moderately well drained, and very slowly permeable soils that formed in calcareous clayey alluvium derived from mudstone of Pleistocene age (Soil Survey Staff 2021). Within these soil complexes patches of Altoga silty clay loam, 5 to 8 percent slopes and Sunev loam on 2 to 5 percent slopes occur marking terrace remnants. Oakalla silty clay loam 0 to 2 percent slopes and Tinn clay 0 to 1 percent slopes occur along the active channels. Austin silty clay on 1 to 3 percent slopes and the Austin-Whitewright complex on 2 to 6 percent slopes are found on the dissected upland at the west end of the corridor.

A review of the Hybrid Potential Archeological Liability Map (HPALM), an archeological predictive modeling tool developed by the Texas Department of Transportation (TxDOT), was conducted to help focus field efforts (see **Figures 3a–f**). The HPALM analysis reveals that approximately 61.12 percent of the APE falls within Map Units 2, 4, 5, 8, and 9 (Abbott and Pletka 2016; **Table 1**). These map units are considered to have at least moderate potential to contain archeological resources, whether shallow or deep. The remaining 38.88 percent of the APE falls within Map Units 0 or 1, which are considered to have a negligible to low potential to contain archeological resources at any depth.

Table 1: HPALM Map Units (Values) by Acreage			
Map Unit	**Description of Potential**	**Acreage**	**Percentage**
0	Negligible Potential at any depth	0.89	0.39%
1	Low Potential at any depth	87.35	38.48%
2	Low Shallow Potential, Moderate Deep Potential	0.03	0.00%
3	Low Shallow Potential, High Deep Potential	0.00	0.00%
4	Moderate Shallow Potential, Low Deep Potential	12.91	5.69%
5	Moderate Potential at any depth	61.80	27.23%
6	Moderate Shallow Potential, High Deep Potential	0.00	0.00%
7	High Shallow Potential, Low Deep Potential	0.00	0.00%
8	High Shallow Potential, Moderate Deep Potential	9.41	4.15%
9	High Potential at any depth	54.58	24.05%
	Total	**226.98**	**100.00%**

A 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 archeological sites, Official Texas Historical Markers (OTHMs), properties or districts listed on the National Register of Historic Places (NRHP), State Antiquities Landmarks (SALs), cemeteries, and previous archeological investigations undertaken within 1 kilometer (0.62 miles) of the APE.

According to Atlas survey coverage data (**Figures 2a–2b**; THC 2021), the following previous surveys were conducted adjacent to or intersecting the current APE:

- a 2019-2020 partial survey by CMEC (not yet shown in the Atlas);
- a 1983 areal survey with an incomplete Atlas entry;
- a 2006 linear/areal survey conducted by HDR for Federal Housing Administration;
- a 2011 linear/areal survey conducted by Horizon Environmental Services for TxDOT (intersects the APE);
- a 2015 linear/areal survey conducted by and for TxDOT for the FM 1660 roadway (intersects the APE).
- a 2007 areal survey conducted by PBS&J for the U.S. Department of Education,
- a 2009 linear/areal survey conducted by and for Lower Colorado River Authority;
- a 2018 areal survey and testing project conducted by CMEC for the City of Hutto's Pollard Park.
- a 2019 areal survey conducted by Integrated Environmental Solutions for the City of Hutto, Glenwood Interceptor Central Wastewater Treatment Plant Lift Station and South Wastewater Treatment Plant (THC 2021).

Two archeological sites, 41WM1422 and 41WM1424, intersect the APE were identified under the previous CMEC survey under Permit 9235. Furthermore, site 41WM1177 is mapped as immediately adjacent to the APE. All three sites are shaded in the table below. In all, 14 archeological sites, 4 cemeteries, and 1 historical marker have been recorded within 1 kilometer of the APE (see **Table 2** and **Figures 2a–b**).

Table 2: Resources within the 1-Kilometer Buffer Area Surrounding the APE

Resource Designation	Trinomial and/or Name	Description / Additional Information	Eligibility Determination
Archeological Site	41WM472	Prehistoric lithic scatter of unknown age; contains debitage; listed as "very disturbed by past construction"	Undetermined
Archeological Site	41WM961	Prehistoric open campsite of unknown age; contains a small burned rock midden, dart points, drills, manos, flakes, blades, scrapers, and conch shell pendants; disturbed by pot hunters.	Undetermined
Archeological Site	41WM962	Middle Archaic open campsite; contains burned rock, flakes, snail and mussel shells, blades, dart point fragments; listed as disturbed by agricultural pursuits and erosion.	Undetermined
Archeological Site	41WM966	Incomplete Atlas entry.	Unknown/ Undetermined
Archeological Site	41WM1177	Early 20th-century farmstead containing house ruins, an old barn, two wells, and an associated artifact scatter.	Ineligible
Archeological Site	41WM1178	Early 20th-century farmhand house site containing a standing house structure, well, and trash scatter.	Ineligible
Archeological Site	41WM1179	Early 20th-century farmhand house site containing a collapsed house structure and trash scatter.	Ineligible
Archeological Site	41WM1225	Historic-age trash dump and possible former house site; contains brick, glass, stoneware, whiteware, and metal artifacts; listed as "extremely disturbed".	Ineligible
Archeological Site	41WM1226	Late 19th- and early 20th-century historic trash scatter and probable house site; contains brick, glass, transferware, whiteware, muleshoes, and other metal artifacts; listed as "heavily disturbed".	Ineligible
Archeological Site	41WM1388	Prehistoric-age lithic scatter and occupation site of unknown age; contains secondary chert flakes, cores, tested cobbles, burned rock, and one chert tool (possible knife).	Undetermined
Archeological Site	41WM1422	Late 19th- and early 20th-century farmstead marked by a surface scatter of bottle glass and whiteware. The remains of brick well and well house are also present.	Undetermined

Table 2: Resources within the 1-Kilometer Buffer Area Surrounding the APE			
Resource Designation	**Trinomial and/or Name**	**Description / Additional Information**	**Eligibility Determination**
Archeological Site	41WM1423	Prehistoric-age lithic scatter and occupation site of unknown age; contains chert flakes, tested pebbles and cores.	Undetermined
Archeological Site	41WM1424	Prehistoric-age lithic scatter and occupation site of unknown age; contains a biface fragment, chert flakes and burned rock.	Undetermined
Archeological Site	41WM1445	Early to mid-20th-century house site.	Undetermined
Cemetery	Louise Friedericke Pundt Gravesite	Grave of Louise Friedericke Pundt; dates to 1892; the USGS topographic map indicates multiple graves at this location, but only one marked grave was observed.	Unknown/ Undetermined
Historical Marker, Cemetery	Shiloh-McCutcheon Cemetery	Also known as the Old Shiloh Cemetery. Historic cemetery that is still in use today; 186 listed graves dating as far back as 1853; "Shiloh-McCutcheon Cemetery" Texas Historical Marker (placed in 1999) is located at the cemetery entrance.	Eligible per coordination by CMEC historians
Cemetery	Shiloh Cemetery	Also known as the Shilo Cemetery. Historic cemetery with 127 listed graves dating as far back as 1896.	Unknown/ Undetermined
Cemetery	St. Mary's Cemetery	Also known as the Santa Maria or Old Mexican Cemetery. Historic cemetery that is still in use today; 132 listed graves dating as far back as 1834.	Unknown/ Undetermined
Data Sources: (THC 2021, Tipton 2021)			

A review of available historic aerial photographs and topographic maps on the Nationwide Environmental Title Research (NETR) website was undertaken to determine how the corridor has been utilized over time (NETR 2021). The earliest topographic maps reviewed include Georgetown, Austin, and Taylor, Texas (1885-1896,1:125,000); the maps show limited development around the project area, with just a few structures shown near the Williamson-Travis County line to the west of the APE's western terminus. The International and Great Northern Railroad is shown north of the corridor in the railroad alignment that would become US 79. The Round Rock topographic map (1926, 1:62,500) shows some additional sparse residential development south of the APE, and even sparser residential development north of the APE, with an overall density roughly comparable to the current dispersed settlement pattern. Topographic map coverage for the area is sparse between 1910 and the 1940s, and no maps showing the APE's condition are available within this timeframe. The next available map, Austin, Texas (1:250,000) from 1954, shows only a slight increase in residential development, and the US 79 roadway is shown along the railroad alignment north of the APE. The Hutto quadrangle (1982, 24,000) and a 1985 1:100,000 Taylor map show most of the roadways near the APE. Development is concentrated along FM 1660, which follows Cottonwood Creek north to the City of Hutto. County Road 137, the western boundary of the current APE, is not yet shown crossing Brushy Creek. Finally, these 1980s maps show a north-south pipeline crossing both Brushy and Cottonwood Creeks near the center of the APE and two gravel pits along FM 3349 near Boggy Creek, which marks the northeast terminus of the APE.

Known and perceived disturbances within the APE include those associated with agricultural processes such as clearing, plowing, and terracing; roadway construction and maintenance; installation of overhead and underground utilities; gravel mining; clear cutting of vegetation; and residential and commercial development practices. These impacts were observed during an initial environmental constraints and land use field visit and during previous archeological survey work in the area.

Research Design

Stantec archeological personnel will conduct a pedestrian survey of the previously unsurveyed sections of the APE supplemented by deep trenching throughout Segment 2. This work will be completed per Category 7 (Intensive Survey) under 13 TAC 26.15 and using the definitions in 13 TAC 26.5. Field methods and strategies will comply with the requirements of 13 TAC 26.10-26.18 and with guidelines established by the Council of Texas Archeologists (CTA) and approved by the THC in Spring 2020.

The pedestrian survey will cover all areas of proposed new right-of-way and include excavation of shovel tests in areas where local conditions (soil, slope, etc.) and roadway, utility, and developmental disturbances allow. The bulk of the APE consists of proposed new right-of-way extending across agricultural and undeveloped lands that were partially surveyed by Stantec (formerly CMEC) under Permit 9235 in the Spring of 2020. At that time, pedestrian survey was completed for 2.33 miles (3.75 kilometers) or approximately 66 percent of the APE. The remaining 34 percent yet to be surveyed consists primarily of areas of moderate to high potential for both shallow and deep archeological sites.

All shovel tests will be excavated in natural levels to subsoil or 60 centimeters (24 inches), whichever is encountered first. Excavated matrix will be screened through 0.635-centimeter (0.25-inch) hardware cloth as allowed by moisture and clay content, which may require that the removed sediment be crumbled/sorted by hand, trowel, and/or shovel point. Deposits will be described using conventional texture classifications and Munsell color designations. Radial shovel tests will be placed at 5-meter (16-foot) intervals around each shovel test containing cultural material until two negative units have been established in each cardinal direction, as allowed by project limits, observed disturbance, and other constraints. Deviations from THC and CTA standards will be explicitly justified.

In addition, Stantec will conduct backhoe trenching where HPALM, topography, and soil data indicate potential for intact, deeply buried deposits, and where field observations indicate such excavations are feasible and safe. The team expects to perform such trenching (as allowed by access restrictions) within the portions of the APE nearest to and between Brushy Creek and Cottonwood Creek, on the south side of Boggy Creek, as well as the areas mapped within HPALM map units with moderate to high potential to contain deeply buried archeological deposits (See **Table 1**, HPALM map units 5, 8, and 9, as well as **Figures 3a-f**). The actual placement and extent of trenches may be affected by factors such as property access, vegetation, soil moisture content and other conditions, and safety factors. Trenches will be at a minimum 4 meters (13 feet) in length and be no greater than 1.5 meters (5 feet) deep without shoring or stepping as per OSHA regulations. Stepping will be implemented if the sediments encountered are greater than 1.5 meters (5 feet) deep.

Trenches will be cut with a flat-bladed bucket at least 61 centimeters (24 inches) wide and excavated in shallow increments; sediment will then be placed in piles to be observed and documented by professional archeologists. Regular samples will be pulled from the backdirt pile for screening through 0.635-centimeter (0.25-inch) hardware cloth or crumbled/sorted by hand, trowel, and/or shovel point, depending on moisture and clay content. Trench side walls will be scraped and analyzed by professional archeologists; profiles will be photographed and described using conventional texture, consistency, and color designations. Following the recordation of each unit, trenches will be backfilled and compacted.

Trenching will also take place at 41WM1424, recorded within the APE near Cottonwood Creek during the previous survey under Permit 9235 (**Figure 2a**). This site was earlier defined as a surface scatter of prehistoric

lithic artifacts in a plowed field. At that time, archeologists felt the site could include deeper components, but permission for backhoe trenching was not available. Prehistoric site 41WM1423, recorded approximately 1,000 feet (300 meters) south of 41WM1424, was also thought to have a possible deep expression. However, 41WM1423 is located within an alternative alignment abandoned by the County following the initial survey; therefore, no further work will be conducted at 41WM1423 for the present project.

The previous investigation under Permit 9235 also identified Site 41WM1422 at the northeastern edge of the APE (**Figure 2b**). The site is a late 19th- and early 20th-century farmstead with its apparent primary components located north of the APE for this project; therefore, no additional work is proposed during the present follow-up survey.

The team also previously inspected and shovel-tested the portion of the west side of 41WM1177 (located on the south side of FM 1660) to determine if the site boundary extended into the original APE. It did not extend into the original APE, nor does it extend into the present revised APE. Therefore, no further work at 41WM1177 is proposed for the present investigation.

The project has a low probability of encountering human burials; however, if burials are found, Williamson County and the THC will be notified, and all requirements of 8 Texas Health and Safety Code (THSC) 711 will be followed.

The majority of the APE is located privately owned land anticipated for acquisition. Artifacts identified in shovel tests and surface contexts will be noted, described, photographed, and returned to their original contexts, except in the case of extraordinary diagnostic artifacts. At this time, landowner permission is being coordinated by Williamson County's consultant team and access is available to approximately 40 percent of the APE. As noted above, some of these properties have seen pedestrian survey and shovel testing under a previous permit, but additional access is needed for deep trenching, especially along Brushy and Cottonwood Creeks. If access to a given parcel is not available at the time survey fieldwork is undertaken, a reasonable and good-faith effort will be made to document inaccessible areas from accessible areas for the purposes of the present permit.

Any site recorded during the investigation will be identified by a temporary marker placed on the site. The marker will have an identifying number in the form of the initials of the Stantec employee who recorded the site, followed by a consecutively assigned number that will indicate the order in which the sites were discovered (e.g., XX-01, XX-02, etc.). This number is a temporary field number to be superseded by a formal site trinomial obtained following the completion of fieldwork (see below). Site designations will be applied only to features (whether surface or subsurface) that appear to represent occupation or activity areas and/or to clusters of artifacts (whether surface or subsurface) with the minimum threshold of two contiguous positive shovel test units.

The team will keep a complete record of field notes with observations including (but not limited to) identified sites, cultural materials, location markers, contextual integrity, estimated time periods of occupations, vegetation, topography, hydrology, land use, soil exposures, general conditions at the time of the survey, and field techniques employed. The field notes will be supplemented by digital photographs.

Reporting and Curation

Relevant field observations for any new sites discovered or previously recorded sites revisited during these investigations will be transferred to TexSite forms and submitted to TARL for official recording and integration into the trinomial system. An analysis of recorded materials and site characteristics will be performed, and the results will be presented in a clear and concise manner. These data will be used to formulate a preliminary evaluation of the NRHP and/or SAL eligibility of each site, as well as a recommendation for further work or no further work, supported by explicit justifications. Data, sites recorded, and NRHP/SAL eligibility assessments will be presented in a standard draft survey report to be submitted to the County, the THC, and USACE for review and comment. Comments on the draft report will be incorporated into a final version to be submitted (with the number and format of copies to be determined based on client preferences) to the County, the THC, and USACE.

The final permit closure submittal will include a transmittal letter, abstract form, project area shapefile, tagged PDF files of the report in both restricted (with site locations) and public (without site locations) versions, as applicable.

Upon completion of the fieldwork and reporting, Stantec will make all materials and forms generated by this project available to future researchers through curation at the Center for Archaeological Studies (CAS) at Texas State University in San Marcos, Texas per 13 TAC 26.16 and 26.17. A curation form filed at both CAS and THC will accompany the collections.

References

Abbott, J. T., and S. Pletka

2016 Hybrid Potential Archeological Liability Map for the Texas Department of Transportation Austin District. Available at http://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/toolkit/archeological-map.html. Accessed October 6, 2021.

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Tipton, J.

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2021b *Historical Map Viewer*. United States Geological Survey. Available at http://historicalmaps.arcgis.com/usgs/index.html. Accessed October 6, 2021.

List of Figures

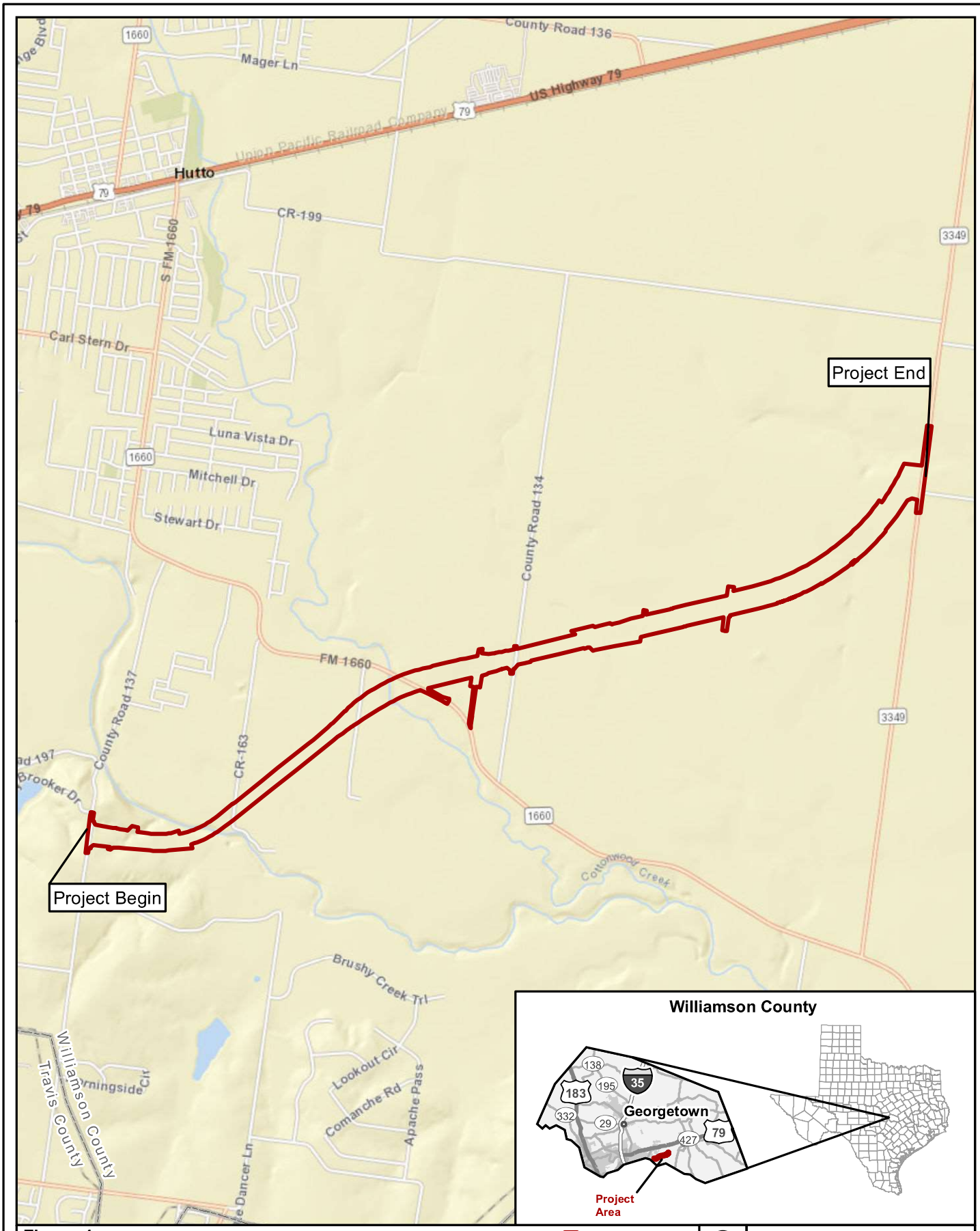

Figure 1.
Project Location (Road Base)

Project Location

Basemap Source: Esri (2022)

COX | McLAIN Environmental Consulting now Stantec

0 3,000 Feet
0 800 Meters

1 in = 3,000 feet
Scale: 1:36,000
Date: 10/10/2022

Southeast Loop Segment 2 Phase I

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Figure 2 Redacted

Figure 3 Redacted