

TEXAS HISTORICAL COMMISSION

**ANTIQUITIES PERMIT APPLICATION FORM
ARCHEOLOGY**

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) Liberty Hill Bypass West (Segment 1)
County (ies) Williamson County
USGS Quadrangle Name and Number 25631
UTM Coordinates Zone 14 E 601181 N 3393253
Location Liberty Hill, TX
Federal Involvement ☐ Yes ☒ No
Name of Federal Agency _____
Agency Representative _____

II. OWNER (OR CONTROLLING AGENCY)

Owner Williamson County
Representative Presiding Officer
Address 710 Main Street, Suite 101
City/State/Zip Georgetown, TX 78626
Telephone (include area code) 512.943.1550 Email Address ctyjudge@wilco.org

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

Sponsor Williamson County (see above)
Representative _____
Address _____
City/State/Zip _____
Telephone (include area code) _____ Email Address _____

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Nadya Prociuk
Affiliation HDR Engineering, Inc
Address 4401 West Gate Blvd
City/State/Zip Austin, TX 78745
Telephone (include area code) 512.701.5904 Email Address _____

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork 03/31/2025
Requested Permit Duration 5 Years 0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) See attached scope of work

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility HDR Austin Westgate Office
Permanent Curatorial Facility Center for Archaeological Research

IV. LAND OWNER'S CERTIFICATION

I, Bill Gravell, as legal representative of the Land 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, Sponsor, and Principal Investigator are responsible for completing the terms of the permit.

Signature _____ Date _____

V. SPONSOR'S CERTIFICATION

I, Bill Gravell, as legal representative of the Sponsor, Williamson County, do certify that I have review 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 Sponsor, Owner, and Principal Investigator are responsible for completing the terms of this permit.

Signature _____ Date _____

VI. INVESTIGATOR'S CERTIFICATION

I, Nadya Prociuk, as Principal Investigator employed by
HDR Engineering, Inc. (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 _____

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

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
thc.texas.gov



thc.texas.gov

Scope of Work

Archaeological Survey for the Williamson County Liberty Hill Bypass West Project
Williamson County, Texas

Introduction

Williamson County contracted HDR Engineering, Inc. (HDR) to conduct an intensive archaeological survey in advance of the proposed Liberty Hill Bypass West Project (Project) in Williamson County, Texas (**Figure 1**). The Project would involve the construction of a new roadway south of Liberty Hill from State Highway 29 (SH 29), west of Liberty Hill High School, to Ranch-to-Market 1869 (RM 1869) in Williamson County, Texas. The proposed interim facility would consist of two, 12-foot-wide (ft; 3.6-meter [m]) lanes with 10-ft-wide (3-m) shoulders, turn lanes, and two new intersections at SH 29 and RM 1869. The interim facility would serve as the future eastbound frontage road for the ultimate facility connecting SH 29 and RM 1869. The proposed roadway would consist of two bridges, both crossing South Fork San Gabriel River, and include a future auxiliary lane and sidewalk in addition to the two proposed lanes. The Project Area (PA) is approximately 2.5 miles (mi; 4 kilometers [km]) in length with a proposed right-of-way, typically 300 ft (91 m) wide, for a total area of 178.6 acres (72.27 hectares). The average depth of impact is 8 ft (2.5 m) below ground surface with a maximum depth of 20 ft (6 m) below ground surface at the bridge pier locations.

Because Williamson County is a political subdivision of the state of Texas, this Project falls under the purview of the Texas Natural Resource Code, Title 9, Chapter 191, also known as the Antiquities Code of Texas, and its accompanying Rules of Practice and Procedure (13 Texas Administrative Code [TAC] 26). If federal funds or permits are also used for this Project, coordination under Section 106 of the National Historic Preservation Act (54 United States Code 306108) would also be required.

Based on the following analysis, HDR recommends an intensive archaeological survey of all moderate to high probability areas, excluding the existing right-of-way, for a total survey area of 165 acres (66 hectares; **Figure 2**). The aim of the survey is to determine the presence/absence of archaeological resources in the PA per the Antiquities Code of Texas (13 TAC 26) and evaluate identified resources for their eligibility for inclusion in the National Register of Historic Places (NRHP) or as a designated State Antiquities Landmark (SAL).

Environmental Setting

The Project is in Williamson County, Texas, located on the U.S. Geological Survey (USGS) Liberty Hill topographic quadrangle.

Geology and Soils

The PA is underlain by three geologic units: Upper Glen Rose Limestone, Holocene Alluvium, and Fluvial terrace deposits (Stoeser et al. 2005; **Figure 3**). Upper Glen Rose Limestone comprises Cretaceous limestone, dolomite, and marl. Holocene

Alluvium consists of floodplain deposits comprising clay, silt, sand, and gravel with chert, limestone, and quartzite inclusions throughout. Fluvial terrace deposits consist of terraces along streams comprising Pleistocene gravel, sand, silt, and clay.

Eleven mapped soil units occur in the PA; details are included in **Table 1** and **Figure 4**.

Table 1. Mapped Soil Units in the PA

Map Unit Symbol	Soil Name	Landform	Depth of A Horizon (cmbs)
BkE	Brackett gravelly clay loam, 3 to 12 percent slopes	Backslopes of ridges	15
BkrG	Brackett-Rock outcrop; Real complex, 8 to 30 percent slopes	Summits, shoulders, and backslopes of ridges	33
DoC	Doss silty clay, moist, 1 to 5 percent slopes	Very gently to moderately sloping hill slopes	20
DnB	Denton silty clay, 1 to 3 percent slopes	Ridges	33
DnC	Denton silty clay, 3 to 5 percent slopes	Ridges	33
EaD	Eckrant cobbly clay, 1 to 8 percent slopes	Summit, shoulders, and backslopes of ridges	30
FaB	Fairlie clay, 1 to 2 percent slopes	Ridges/footslope	30
GsB	Georgetown stony clay loam, 1 to 3 percent slopes	Summits and shoulders of broad ridges	18
OIA	Oakalla soils, 0 to 1 percent slopes, channeled, frequently flooded	Flood plains on perennial streams	58
OaA	Oakalla silty clay loam, 0 to 2 percent slopes, occasionally flooded	Flood plains on perennial streams	97
SvB	Sunev silty clay loam, 1 to 3 percent slopes	Stream terraces and footslopes of valleys and ridges	30

Note: cmbs = centimeters below surface

The Brackett series consists of well-drained soils formed in residuum weathered from Cretaceous limestone mainly from the Glen Rose formation. These nearly level to very steep soils are located on backslopes of ridges on dissected plateaus of the Edwards Plateau with slopes ranging from 1 to 60 percent (Soil Survey Staff 2025).

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 with slopes ranging from 1 to 8 percent (Soil Survey Staff 2025).

The Denton series consist of deep, well-drained, slowly permeable soils that formed in clayey materials over residuum weathered from lower Cretaceous limestone bedrock. These nearly level or gently sloping soils are on backslopes and footslopes of ridges. Slopes range from 0 to 5 percent (Soil Survey Staff 2025).

The Eckrant series consists of soils that are shallow to indurated limestone bedrock. These well-drained soils formed in residuum derived from Ordovician and Cambrian limestone. These nearly level to moderately steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus. Slopes range from 1 to 20 percent slopes (Soil Survey Staff 2025).

The Fairlie series consists of deep, moderately well-drained, very slowly permeable soils. These soils are on nearly level to gently sloping uplands. The slope is typically 1 to 3 percent but ranges from 0 to 5 percent (Soil Survey Staff 2025).

The Georgetown series consists of moderately deep, well-drained, very slowly permeable soils that have formed over indurated Cretaceous limestone. These soils occur on nearly level to very gently sloping dissected plateaus with slopes ranging from 0 to 3 percent (Soil Survey Staff 2025).

The Oakalla series consists of soils that are very deep. These well-drained soils formed in loamy alluvium derived from Cretaceous limestone and are on nearly level to gently sloping floodplains on perennial streams in river valleys. They are subject to flooding by overflow from streams for short periods after heavy rains. Slopes are 0 to 2 percent (Soil Survey Staff 2025).

The Sunev series consists of very deep, well-drained soils that formed in loamy alluvium. These soils are on nearly level to moderately steep stream terraces or footslopes of valleys and ridges. Slope ranges from 0 to 15 percent (Soil Survey Staff 2025).

Hydrology

The PA is located in the Lower South Fork San Gabriel River subwatershed of the South Fork San Gabriel River watershed (USGS 2025). The Project is adjacent to and crosses South Fork San Gabriel River, a historically reliable water source.

Potential Archeological Liability Maps Review

The Texas Department of Transportation's (TxDOT) Potential Archeological Liability Maps (PALMs) are probability models that identify the potential for deposits of preserved cultural materials in the PA (**Figure 5**). The majority of the PA is in an area containing moderate potential for preserved buried archaeological deposits, with the areas surrounding South Fork San Gabriel River containing high potential (TxDOT 2025).

Background Research

A desktop review was conducted for the Project PA. The Texas Historical Commission's (THC) Archaeological Sites Atlas (Atlas; THC 2025) was accessed for information regarding previous cultural resource surveys and known cultural resources. Additionally,

historical maps and aerial imagery were consulted to determine whether historic-age structures may have been present in the PA.

Site File Search

The Atlas was consulted to identify known cultural resources and previous cultural resource surveys that have been conducted within 1 mi (1.6 km) of the PA (**Figure 6**). The Atlas review indicated that within the 1-mi (1.6-km) search area, six cultural resource surveys have been conducted, and five archaeological sites, four Official Texas Historical Markers (OTHM), five Recorded Texas Historic Landmarks (RTHL), one NRHP-listed property, and two cemeteries have been recorded (THC 2025). No National Historic Trails, Texas Freedom Colonies, historic highways, or NRHP districts have been recorded within the 1-mi (1.6-km) search radius (**Figure 6**).

Six cultural resource surveys have been recorded within 1 mi (1.6 km) of the PA, none of which intersect the PA. Details for all six cultural resource surveys are listed in **Table 2**.

Table 2. Previous Cultural Resource Surveys Conducted Within 1 mi (1.6 km) of the PA

TAC Permit	Sponsor	Report Title	Contractor	Year	Comments
—	USDA-RD	—	Cedar Valley Environmental Services	2002	Atlas Number 8400010526
—	MA Partners, LLC	<i>An Intensive Cultural Resources Survey of FEMA Jurisdictional Areas within Sections 11A and 11B of the Ranch at Brushy Creek Property in Williamson County, Texas</i>	Horizon Environmental Services, Inc.	2016	Atlas Number 8500081016
—	TxDOT	<i>Butler Farms Offsite Cultural Resources Survey Williamson County, Texas</i>	Burns & McDonnell Engineering Company, Inc.	2021	Atlas Number 8100022534
7793	Williamson County	<i>Cultural Resources Survey for the River Ranch County Park Phase I Project, Williamson County, Texas</i>	ACI Consulting	2018	Atlas Number 8500080256
8916	Williamson County	<i>Intensive Archeological Survey of County Road 200, From 400 Feet North of State Highway 29 to 100 Feet South of County Road 201, Williamson County, Texas</i>	Blanton & Associates, Inc.	2019	Atlas Number 8500081710

TAC Permit	Sponsor	Report Title	Contractor	Year	Comments
30101	Liberty Hill ISD	<i>Archaeological Survey of 93.92 Acres for the Liberty Hill Independent School District, Williamson County, Texas</i>	Tejas Archeology	2021	Atlas Number 8500082168

Notes: “—” denotes no information available in the Atlas; USDA-RD = United States Agricultural Department Rural Development

None of the five archaeological sites located within the 1-mi (1.6-km) search radius intersect the PA (**Figure 6**). All five sites have been determined ineligible for inclusion in the NRHP. Details for all five archaeological sites located within 1 mi (1.6 km) of the PA are listed in **Table 3** (THC 2025).

Table 3. Previously Recorded Archaeological Sites Located Within 1 mi (1.6 km) of the PA

Trinomial	Affiliation	Features/Function	NRHP Eligibility	Approximate Distance from PA
41WM1356	Post-contact	Homestead	Ineligible	0.81 mi (1.30 km) southeast
41WM1357	Post-contact	Dry stacked stone walls	Ineligible	0.86 mi (1.38 km) southeast
41WM1442	Precontact	Lithic scatter	Ineligible	0.76 mi (1.23 km) northwest
41WM1443	Precontact	Lithic scatter	Ineligible	0.56 mi (0.90 km) west
41WM1444	Precontact	Lithic scatter with probable Ensor Dart Point (Transitional Archaic)	Ineligible	0.50 mi (0.80 km) northwest

The nine OTHMs, five of which are recorded RTHLs, are located between 0.40 mi (0.65 km) and 0.70 mi (1.13 km) of the PA. Details for all nine historical markers are listed in **Table 4** (THC 2025).

Table 4. Historical Markers Located Within 1 mi (1.6 km) of the PA

Marker Number	Name	Location	Year Erected	Designation	Approximate Distance from PA
9038	Bryson Stage Coach Stop	On SH 29. About 1 mile west of Liberty Hill just before Liberty Hill cemetery	1981	RTHL	0.70 mi (1.13 km) north
9290	Liberty Hill Cemetery	At the intersection of SH 29 and County Road 277	—	OTHM	0.52 mi (0.83 km) east

Marker Number	Name	Location	Year Erected	Designation	Approximate Distance from PA
9291	Liberty Hill Masonic Hall	At the intersection of West Myrtle Lane and Farm to Market 332 (FM 332)	1976	RTHL	0.40 mi (0.65 km) east
9292	Liberty Hill Methodist Church	101 Church Street, Liberty Hill, TX, 78642	1962	RTHL	0.59 mi (0.95 km) east
9295	John G. Matthews	Private property along SH 29	—	OTHM	0.52 mi (0.83 km) east
9343	William O. Spencer	Private property along SH 29	1994	OTHM	0.52 mi (0.83 km) north
12998	Stubblefield Building	At the intersection of East Myrtle Lane and FM 332	1976	RTHL	0.40 mi (0.65 km) east
14171	Hall Ranch Home	At the intersection of East Myrtle Lane and FM 332	1962	RTHL	0.40 mi (0.65 km) east
13922	First Baptist Church of Liberty Hill	15611 W. SH 29, Liberty Hill, TX, 78642	1974	OTHM	0.40 mi (0.65 km) east

Notes: “—” denotes no information available in the Atlas.

There are two cemeteries within 1 mi (1.6 km) of the APE (**Figure 6**; **Table 5**). Due to their distance from the APE, the cemeteries will not be impacted by construction activities. Details for both cemeteries are listed in **Table 5** (THC 2025).

Table 5. Cemeteries Located Within 1 mi (1.6 km) of the APE

Cemetery ID	Name	Location	Approximate Distance from the APE
WM-C046	Liberty Hill	16101 SH 29, Liberty Hill, TX, 78642	0.45 mi (0.73 km) east
WM-C052	Smith Family	South of SH 29, just east of the intersection of County Road 214	0.96 mi (1.55 km) northeast

One NRHP-listed property is located approximately 0.70 mi (1.13 km) north of the PA on the north side of SH 29, approximately 4.5 miles west of State Highway 183 (SH 183) (**Figure 6**). The property is named Bryson Stage Coach Stop and was listed in 1978 under criteria A and C for significant historic events and architecture in the time period 1850 to 1874 (THC 2025). Due to its distance from the PA, this property will not be affected by the proposed Project.

Historical Map Review

A review of historical topographic maps and aerial imagery indicates that, in general, the PA is situated in an area that has been agricultural land since the earliest available documentation in the 1890s. The PA intersects two private roads of historic age as well as SH 29 and RM 1869. However, no buildings or structures are visible in the PA on historic period maps or aerials (Nationwide Environmental Title Research Online [NETR] Online 2025; USGS 2025).

Summary

The PA crosses the South Fork San Gabriel River, a historically reliable water source and is situated among stream terraces and alluvial floodplains near the river, landforms that may have been conducive to human habitation in the past.

The Atlas search revealed that six cultural resource surveys were conducted within the 1-mi (1.6-km) search radius. However, none of the PA has been previously surveyed. Five archaeological sites, four OTHMs, five RTHLs, one NRHP-listed property, and two cemeteries have been recorded within the 1-mi (1.6-km) search radius. No National Historic Trails, Texas Freedom Colonies, historic highways, or NRHP districts have been recorded within the 1-mi (1.6-km) search radius. According to PALM data, the majority of the PA is in an area containing moderate potential for preserved buried archaeological deposits, with the areas surrounding South Fork San Gabriel River containing high potential.

Proposed Methodology

This section details proposed research and survey methodology for the Project.

Proposed Research Methods

In addition to the review of the Atlas, the USGS Texas Geology Map Viewer, and the Web Soil Survey, desktop research also included a review of documents, historic maps, and aerial imagery available from the Texas General Land Office, NETR Online, and USGS.

Proposed Survey Methods – Archaeology

HDR will conduct an intensive archaeological survey consisting of systematic shovel testing of all moderate to high probability areas, excluding the existing right-of-way, for a total survey area of 165 acres (66 hectares). Deep testing through mechanical trenching will be performed in areas where the PA crosses the South Fork San Gabriel River.

Shovel Testing

According to the Council of Texas Archeologists standards for intensive surveys, linear surveys require at least one transect for every 30 m of width and at least one shovel test (ST) is required per 100 linear m of each transect. Because the PA is approximately 2.5 mi (4 km) in length with a width varying from 360 ft (110 m) to 1,090 ft (330 m), at least 230 STs will be excavated in ideal conditions. Areas with slope greater than 20 percent

will be visually inspected and photographed but not shovel tested. Disturbed areas will be verified with at least one ST. Additionally, all slope disturbance of otherwise untestable areas of the PA will be photo-documented.

Each ST will be approximately 12 inches (in; 30 centimeters [cm]) in diameter and will be excavated in 8-in (20-cm) arbitrary levels to a depth of 32 in (80 cm) below surface or until sterile subsoil or bedrock is encountered. The soil removed from the STs will be screened through 0.25 in (0.635 cm) mesh.

Soil descriptions will follow the guidelines and terminology established by the National Soil Survey Center (Schoeneberger et al. 2012). Soil colors will be recorded using a Munsell Soil Color Chart. All excavated STs will be recorded on forms that note depth, soil matrix descriptions, and cultural materials recovered. Digital photographs will be used to document the survey conditions, disturbances, and any cultural features observed. Details of each photograph will be recorded on standardized forms. All ST locations will be recorded using a submeter Global Navigation Satellite System (GNSS) unit paired with a mobile phone running ESRI Field Maps software.

Mechanical Trenching

Trenching will follow the Council of Texas Archeologist's standards for deep testing. Four trenches will be dug, one on either side of the two South Fork San Gabriel River crossing areas (**Figure 2**). Prior to excavation, HDR will coordinate with utility locating services and exclude areas for sampling that contain existing utilities. Trenching will be conducted by a mini-excavator fitted with a 2-ft-wide (60-cm) smooth-bladed bucket and will be excavated by slowly peeling back thin layers of soil while monitoring for cultural materials. The trench will be a minimum of 3 ft (1 m) wide and at least 13 ft (4 m) long. The depth of the trench will be determined by the following limitations: the maximum depth of the Project's vertical impacts (20 ft [6 m]); bedrock; deposits that predate the Holocene; or deposits that represent facies beneath which archaeological potential is minimal, such as thick gravel channels. A 5-gallon bucket soil sample from every third excavator bucketload will be screened for cultural materials. If entry to the trench is required for documentation purposes, the trench will be benched according to Occupational Safety and Health Administration standards.

The trench location will be recorded using a submeter GNSS unit paired with a mobile phone running ESRI Field Maps software. Upon completion of mechanical trenching, HDR will clean, profile, and photograph at least one wall. Soil descriptions will follow the guidelines and terminology established by the National Soil Survey Center (Schoeneberger et al. 2012). Soil colors will be recorded using a Munsell Soil Color Chart.

Site Designation

If any new archaeological sites are located, photographs and notes will be taken to identify the deposits, and a site form recording location information, vegetative cover, contextual integrity, estimated temporal period, and artifactual material noted will be completed for each site. All site forms will be submitted to the Texas Archeological Research Laboratory for official recordation, and site trinomials will be obtained for all sites discovered prior to Project completion.

THC differentiates between archaeological sites and isolated finds, and sites are evaluated and recommended eligible or ineligible for inclusion in the NRHP. Isolated finds are ineligible for inclusion in the NRHP because they do not meet the requirements to be designated as a site. HDR standards for defining archaeological sites and isolated finds involve the temporal period and number of artifacts or features present in an area of pre-determined size. A precontact site designation is applied when five or more precontact artifacts, or one or more features, are present within a 215-square-ft (20-square-m) area. A post-contact site designation is applied when 10 or more artifacts of 2 or more artifacts classes, or 1 or more features, are present within a 215-square-ft (20-square-m) area. Isolated finds are defined as the presence of 4 precontact artifacts or fewer, fewer than 10 post-contact artifacts, or post-contact artifacts from only 1 artifact class within a 215-square-ft (20-square-m) area.

The presence of surficial materials and STs yielding cultural materials will define site boundaries. Where possible, all radial STs will be excavated at 49 ft (15 m) intervals until two sterile units are encountered in all cardinal directions. STs will be placed inside site boundaries to adequately sample the site's deposits.

As part of the site identification and documentation, sites will be recorded on an HDR Site Form, which records a variety of data, including location, setting, and artifactual materials recovered. All sites will be recorded using an iPhone running ArcGIS Online software paired with a GNSS receiver and photo-documented. After it is completed, the form will be submitted to the Texas Archeological Research Laboratory for official trinomial designation. All records and materials generated by this Project will be permanently curated at the Center for Archaeological Research at the University of Texas at San Antonio.

Each site located will be identified by a temporary identifying number in the form of "HDR XX." This number is a temporary field number only; formal site trinomials will be obtained after fieldwork is complete. The Project archaeologist will maintain the field notes concerning sites, which will document survey conditions, vegetative cover, and initial interpretations of the cultural properties.

Artifact collection of both post-contact and precontact materials will involve only temporally diagnostic artifacts. Precontact material includes all ceramics, projectile points, and finished tools. Post-contact artifacts include ceramics with decoration, rims, or other formal diagnostic attributes; decorated or embossed glass; and pieces with maker's marks or indications of manufacturing technology. All sides of diagnostic artifacts will be photographed with scales. Additional samples may be collected from artifacts on the surface that may aid in determining the site age, including undecorated earthenware, stoneware, window glass, colored glass, and nails.

Artifacts not collected will be recorded and analyzed in the field, and a representative sample will be photographed with scales. Quantities or estimates of materials will be recorded for all sites and the locations of artifact concentrations plotted on site maps. In-field analysis will include determining appropriate regional, temporal, and stylistic elements.

A complete digital photographic record will be kept and used to document identified cultural remains, the general topography and condition of the area at the time of the survey, and the field techniques and methodology employed by the surveyors. Photographs of all cultural features and other representative natural features of interest will be captured for each site recorded. All archaeological sites will be photographed from all cardinal directions with the most consistent lighting that site conditions will allow. All photographs will be documented on a photo log detailing the date, location, direction, and description of the photograph.

Reporting Requirements

The data analysis for the Project will describe all cultural materials collected during the archaeological survey and describe and evaluate all recorded cultural resource sites. Official state trinomials will be obtained for all new sites recorded. Artifacts will be analyzed, either in the field or in the lab, and will be clearly described with an effort to identify materials and date artifacts. This data will be used, in conjunction with the appropriate criteria, to evaluate any identified sites for inclusion in the NRHP, designation as a SAL, or both. If such a recommendation cannot be determined, the data will be used to formulate a recommendation regarding the need for further testing to determine eligibility.

A final report presenting the results of the architectural and archaeological surveys will be prepared in compliance with the guidelines published by the Council of Texas Archeologists, THC, and Secretary of the Interior. This report will include chapters that describe the following:

- Conditions of the survey
- Environmental and geological setting of the Project area
- Precontact and post-contact cultural contexts of the Project area, including previous research in the area
- Survey methodology
- Results of the survey, including a list of all sites identified
- Current and previous ownership of the land on which the sites are located
- Each site's NRHP and/or SAL eligibility
- HDR's recommendations per 13 TAC 26.5(35) and 13 TAC 26.20(1)

Upon completion of the fieldwork and reporting, all artifacts, field forms, photographs, and results will be curated at the Center for Archaeological Research at the University of Texas at San Antonio.

References

Nationwide Environmental Title Research Online (NETR Online)

- 2025 Historic Aerials Viewer. Web database available at: <https://www.historicaerials.com/viewer>. Accessed January 9, 2025.

Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and Soil Survey Staff

- 2012 *Field Book for Describing and Sampling Soils*. Version 3.0. Lincoln: Natural Resources Conservation Services, National Soil Survey Center.

Soil Survey Staff

- 2025 Web Soil Survey. Natural Resources Conservation Service, U.S. Department of Agriculture. Web database available at: <http://websoilsurvey.sc.egov.usda.gov/>. Accessed January 9, 2025.

Stoeser, Douglas B., Nancy Shock, Gregory N. Green, Gayle M. Dumonceaux, and William D. Heran

- 2005 Geologic Map Database of Texas. Data Series 170, U.S. Geological Survey. doi:10.3133/ds170.

Texas Department of Transportation (TxDOT)

- 2025 Potential Archeological Liability Maps. Web document. <https://www.txdot.gov/business/resources/environmental/compliance-toolkits/archeological-sites-cemeteries/archeological-maps.html>. Accessed January 9, 2025.

Texas Historical Commission (THC)

- 2025 Texas Historic Sites Atlas. Web database available at: <http://atlas.thc.texas.gov>. Accessed January 9, 2025.

U.S. Geological Survey (USGS)

- 2025 USGS National Map Viewer. Electronic database available at: <https://apps.nationalmap.gov/viewer/>. Accessed January 9, 2025.

Figure 1. General Project Location and PA

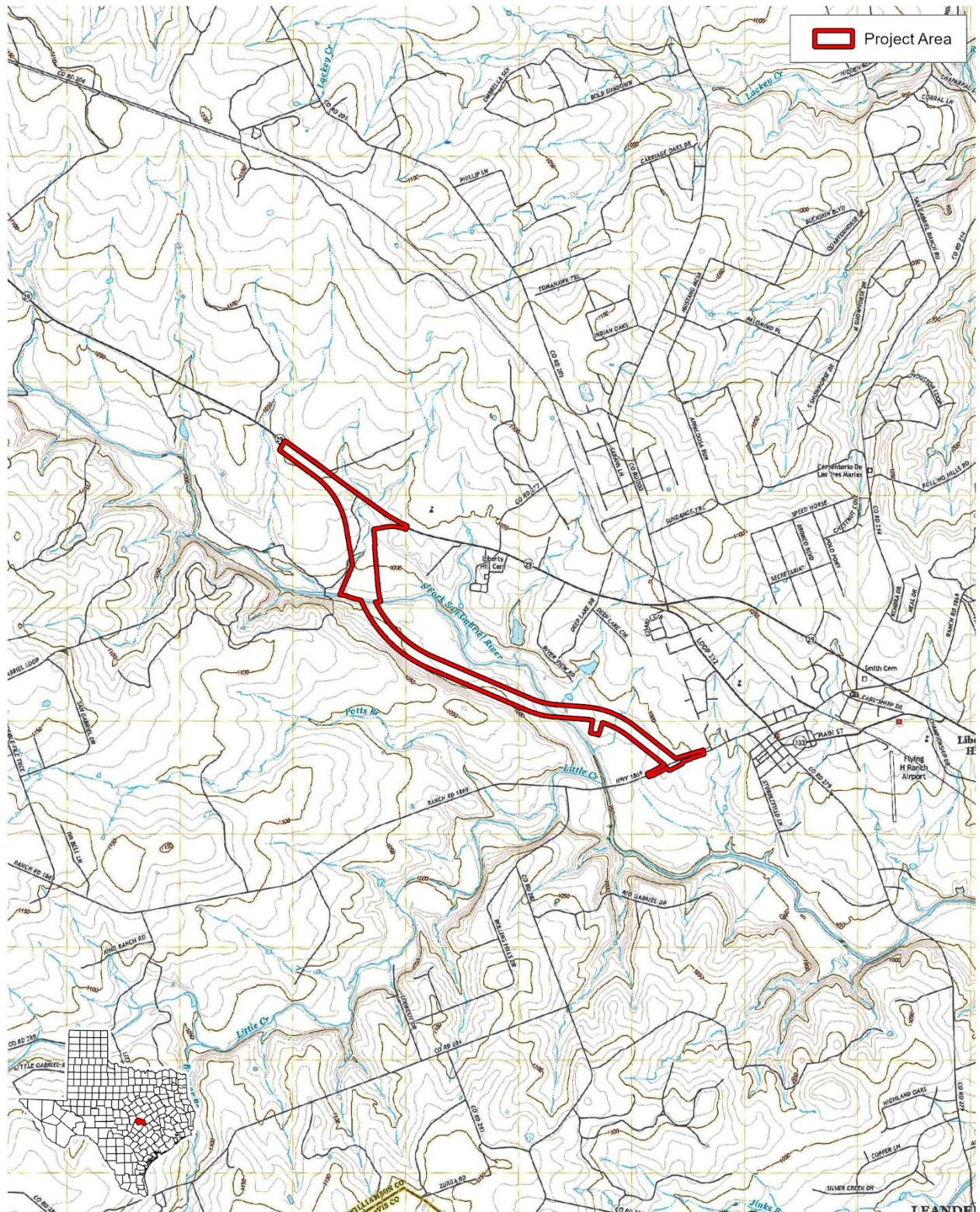


Figure 2. Proposed Survey Locations

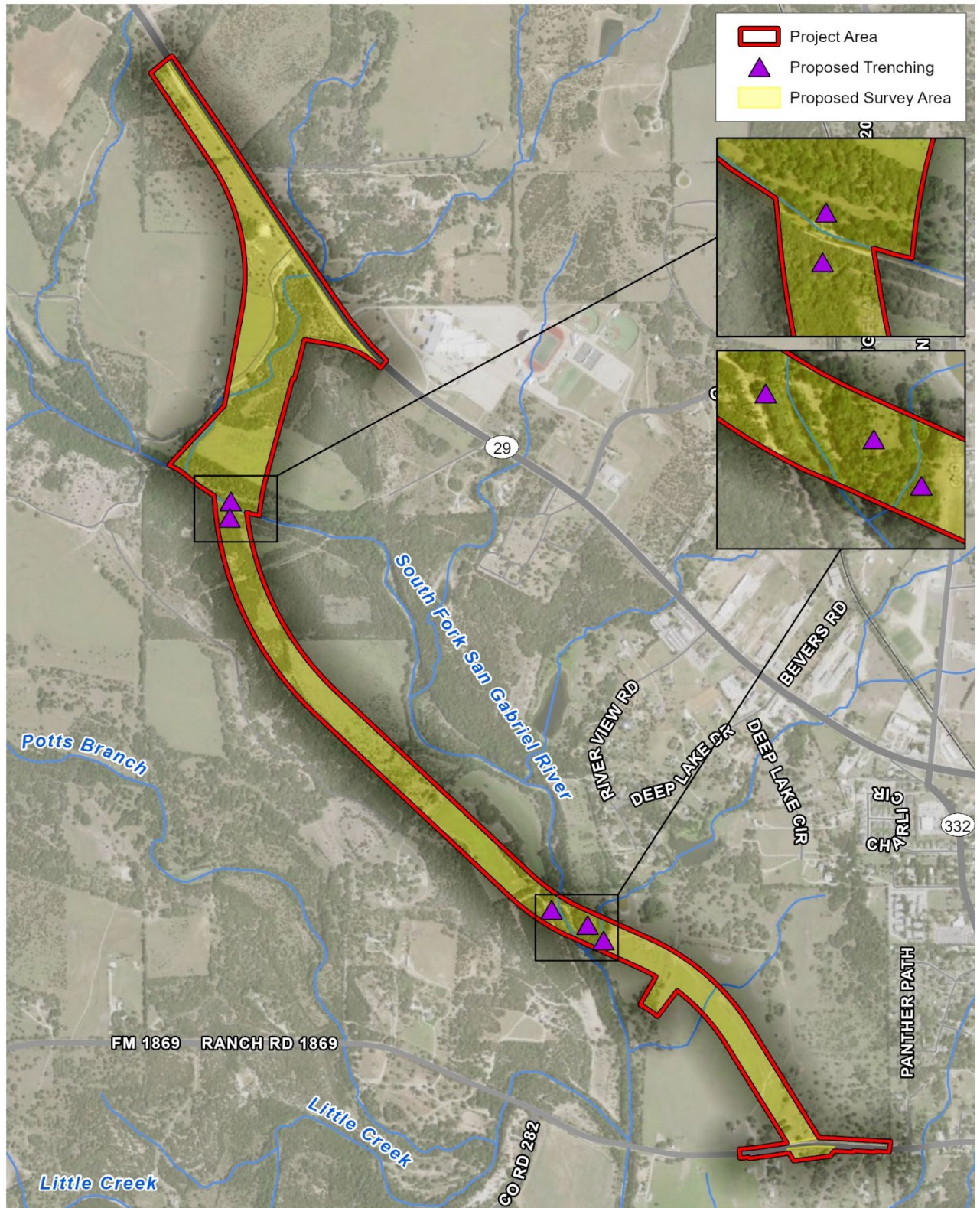


Figure 3. Site-Specific Geology

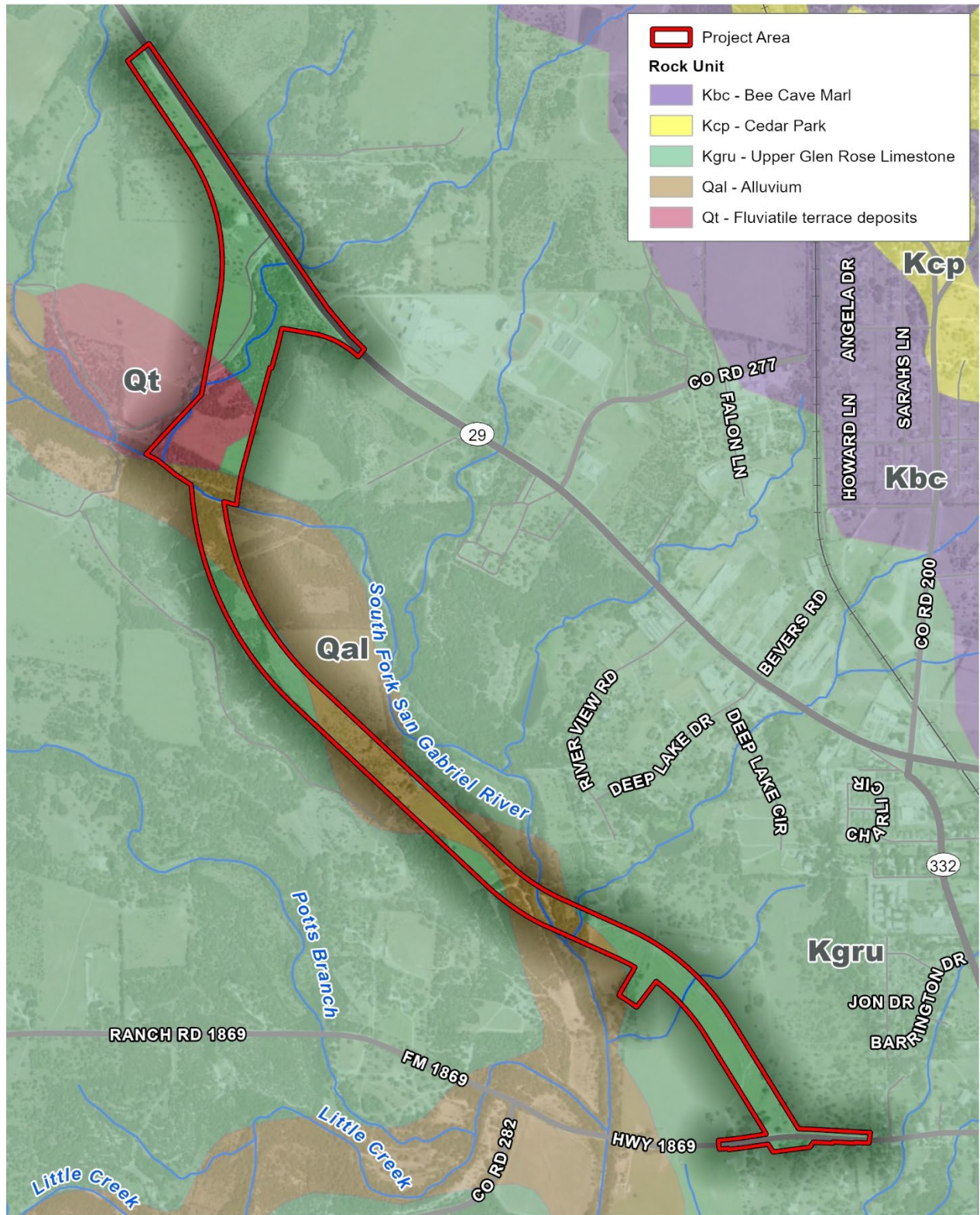


Figure 5. TxDOT (2025) Potential Archeological Liability Map

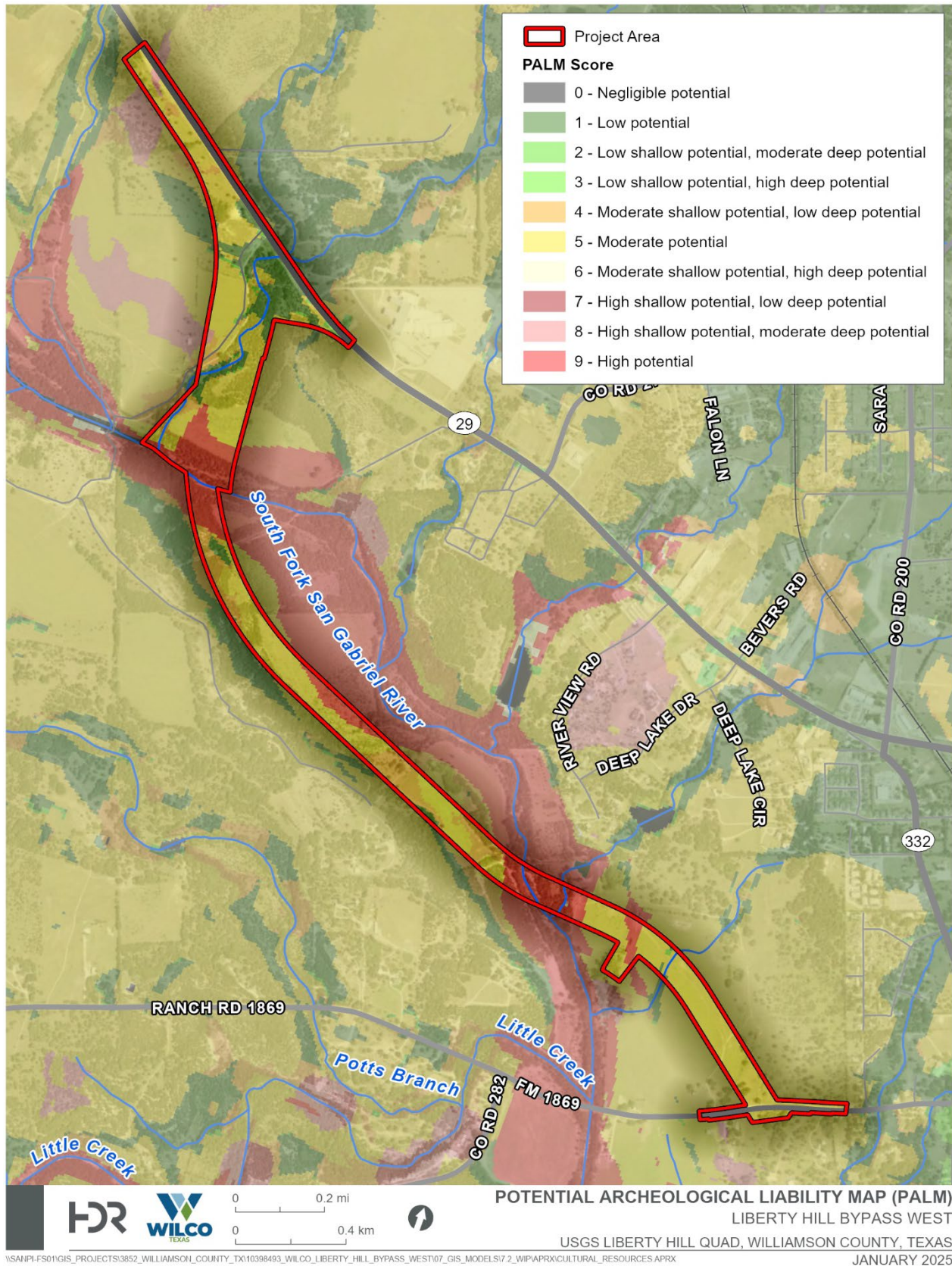


Figure 6. Previously Recorded Cultural Resources Within 1 mi (1.6 km) of the PA

