

ANTIQUITIES PERMIT APPLICATION FORM

ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) CR 245 Realignment
County (ies) Williamson
USGS Quadrangle Name and Number 7.5-minute Leander NE, TX (3097-324)
UTM Coordinates Zone 14 E 617796.08 N 3400314.09
Location Northwest Williamson County from FM 2338 to Ronald Reagan Blvd.
Federal Involvement ☒ Yes ☐ No
Name of Federal Agency U.S. Army Corps of Engineers—Fort Worth District
Agency Representative James Barrera

II. OWNER (OR CONTROLLING AGENCY)

Owner 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) 512.943.1150 Email Address _____

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

Sponsor NA
Representative _____
Address _____
City/State/Zip _____
Telephone (include area code) _____ Email Address _____

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Brandon S. Young
Affiliation Hicks & Company
Address 1504 W. 5th Street
City/State/Zip Austin, Texas 78703
Telephone (include area code) 512.478.0858 Email Address byoung@hicksenv.com

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork 8 February 2021
Requested Permit Duration 5 Years 0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) Intensive pedestrian survey augmented with subsurface testing as necessary based on field conditions (see attached scope of work).

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility Hicks & Company
Permanent Curatorial Facility Center for Archaeological Studies-Texas State University

IV. LAND OWNER'S CERTIFICATION

I, Bill Gravell Jr., 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 preformed 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 Bill Gravell Jr. Date February 9, 2021

V. SPONSOR'S CERTIFICATION

I, _____, as legal representative of the Sponsor, _____, 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, Brandon S. Young, as Principal Investigator employed by Hicks & Company (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 BS Young Date 1 February 2021

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 ANTIQUITIES PERMIT SCOPE OF WORK
INTENSIVE ARCHEOLOGICAL SURVEY
OF PROPOSED IMPROVEMENTS TO COUNTY ROAD 245 FROM
FARM-TO-MARKET ROAD 2338 TO RONALD REAGAN BOULEVARD,
WILLIAMSON COUNTY, TEXAS**

At the request of Bridgefarmer & Associates, Inc. (Bridgefarmer) and on behalf of Williamson County, Hicks & Company has prepared a scope of work for archeological investigations for proposed improvements to 1.10 miles of County Road (CR) 245 in northwest Williamson County, Texas. Williamson County is proposing to widen CR 245 between Farm-to-Market (FM) Road 2338 and Ronald Reagan Boulevard (**Appendix A: Figures 1 and 2**). The proposed project will require additional right of way to accommodate an upgraded two-lane design with shoulders and a center turn lane. Currently, the CR 245 right of way varies from 60 to 140 feet (ft) wide and contains a two-lane asphalt road. The planned improvements would result in a typical right of way width of 135 ft throughout the project area to allow the roadway to be reconfigured with two upgraded travel lanes, a center turn lane, and shoulders. Overall, the proposed project area encompasses approximately 19.89 acres; 12.00 acres of existing CR 245 right of way and 7.89 acres of proposed right of way. It is anticipated that vertical impacts will extend to one meter (m) (3.28 ft) below the existing grade for roadway improvements and greater than three m (10.0 ft) for a proposed bridge at the CR 245 crossing of Cowan Creek. Because the project will occur on property owned or controlled by Williamson County, a political subdivision of the State of Texas, the project is subject to the terms and conditions of the Antiquities Code of Texas (ACT). Additionally, the project is subject to Section 106 of the National Historic Preservation Act (NHPA) in compliance with U.S. Army Corps of Engineers (USACE) permitting requirements.

ENVIRONMENTAL SETTING

Geology

The project area overlies three distinct geologic formations: Quaternary Alluvium (Qal), Comanche Peak Limestone (Kc), and Edwards Limestone (Ked) (**Figure 3**). Quaternary Alluvium consists of recent (Holocene) gravel, sand, clay, and silt deposited on active floodplains and adjacent terraces along entrenched streams (USGS 2020). Given its age and alluvial origins, Quaternary Alluvium has a good potential to contain intact buried archeological deposits warranting State Antiquities Landmark (SAL) designation. Comanche Peak Limestone consists of hard limestone and clayey limestone interbedded with shale and sandstone (USGS 2020). Edwards Limestone consists of limestone, dolostone, and chert (USGS 2020). Both the Comanche Peak and Edwards Limestone formations are Early Cretaceous in age and have little to no potential to contain intact buried cultural materials, as they predate the known human occupation of Texas.

Soils

According to data from the U.S. Department of Agriculture's (USDA's) Natural Resources Conservation Service (NRCS) Web Soil Survey for Williamson County, Texas, the proposed project area contains five soils: Denton silty clay, 1 to 3 percent slopes; Doss silty clay, moist, 1 to 5 percent slopes; Eckrant stony clay, 0 to 3 percent slopes; Fairlie clay, 0 to 1 percent slopes; and Georgetown clay loam, 0 to 2 percent slopes (see **Figure 3**).

Denton silty clay, 1 to 3 percent slopes, developed from slope alluvium and is found on the toe slopes of hills and ridges, with a typical profile exhibiting silty clay from ground surface to a depth of approximately one m overlying gravelly silty clay and bedrock. Although a marginal upland soil, due to its alluvial origins, it has some potential to contain intact buried archeological materials (USDA 2020).

Doss silty clay, moist, 1 to 5 percent slopes developed in place from residuum weathered from limestone and is found on upland hill slopes, with a typical profile exhibiting silty clay from ground surface to a depth of approximately 40 centimeters (cm) below ground surface overlying limestone bedrock. Based on this soil's in situ development, it has little to no potential to contain intact buried archeological materials (USDA 2020).

Eckrant stony clay, 0 to 3 percent slopes (which accounts for approximately 70 percent of the project area), developed in place from residuum weathered from limestone and is found on upland ridges, with a typical profile exhibiting stony clay and extremely stony clay from ground surface to a depth of 30 cm below ground surface overlying limestone bedrock. Given the in situ development of this soil, it has little to no potential to contain intact buried archeological materials (USDA 2020).

Fairlie clay, 0 to 1 percent slopes, developed in place from residuum weathered from chalk and is found on upland ridges, with a typical profile exhibiting clay from ground surface to a depth of 120 cm below ground surface overlying bedrock. Given the in situ development of this soil, it has little to no potential to contain intact buried archeological materials (USDA 2020).

Georgetown clay loam, 0 to 2 percent slopes, developed in place from residuum weathered from limestone and is found on upland ridges, with a typical profile exhibiting clay loam from ground surface to a depth of approximately 20 cm below ground surface overlying cobbly clay to a depth of 100 cm; beneath the cobbly clay is bedrock. Given the in situ development of this soil, it has little to no potential to contain intact buried archeological materials (USDA 2020).

PREVIOUS INVESTIGATIONS AND KNOWN ARCHEOLOGICAL SITES

According to the Texas Historical Commission's (THC's) online Texas Archeological Sites Atlas (Atlas) accessed on January 29, 2021, there are four previous survey areas and six previously recorded archeological sites (**Table 1**) within a 1,000-m radius of the project area (**Figure 4**). Two of the previous survey investigations were conducted on behalf of Williamson County in 2007 for the then-proposed Ronald Reagan Boulevard (Atlas 20201). Those investigations resulted in the recording of four archeological sites (41WM1118, 41WM1121, 41WM1122, and 41WM1124) (see **Table 1**) within 1,000 m of the project area on the north side of Ronald Reagan Boulevard at the northern terminus of the project area (see **Figure 4**). Based on their location north of Ronald Reagan Boulevard, these site areas would not

be impacted by the planned CR 245 improvements. Two additional previously recorded sites (41WM684 and 41WM1151) are located within a 1,000 m south and west, respectively, of the project area. Site 41WM684 was recorded by an avocational archeologist and 41WM1151 was recorded during a survey of FM 2338 on behalf of Williamson County (Atlas 2021). Given the distance of these sites from the project area, they would not be impacted by the proposed project (see **Table 1**).

There are no recorded cemeteries within 1,000 m of the project area (see **Figure 4**).

Table 1. Previously Recorded Archeological Sites within 1,000 meters of the Project Area				
Site Number	Site Type	Distance from Project Area (m)	Eligibility Status	Comments
41WM684	Prehistoric lithic scatter	555	Unknown	Site destroyed by residential subdivision construction
41WM1118	Prehistoric lithic scatter	767	Not eligible within Ronald Reagan Boulevard right of way	Surface site only, no subsurface component
41WM1121	Prehistoric lithic scatter	280	Not eligible within Ronald Reagan Boulevard right of way	Surface site only, no subsurface component
41WM1122	Prehistoric camp and historic-age debris scatter	388	Not eligible within Ronald Reagan Boulevard right of way	Surface site only, no subsurface component
41WM1124	Historic-age farmstead	90	Not eligible within Ronald Reagan Boulevard right of way	Surface site only, no subsurface component
41WM1151	Historic-age building	716	Ineligible	Collapsed building

METHODOLOGY

Hicks & Company proposes to conduct an intensive 100 percent non-collection, pedestrian survey of the 12.00 acres of proposed right of way, as the 7.89 acres of existing right of way have been sufficiently disturbed by roadway construction, and surface and subsurface utilities that they have little to no potential to contain intact archeological historic properties eligible for the National Register of Historic Places (NRHP) or sites warranting SAL designation. Survey investigations will be augmented with subsurface testing (i.e., shovel testing and backhoe trenching) as necessary based on field conditions. The survey will be of sufficient intensity to determine the nature, extent, and potential significance of archeological resources located within the project area. The survey will meet minimum archeological survey standards established by the THC and Council of Texas Archeologists (CTA) with all exceptions thoroughly documented.

Survey efforts will consist of two archeologists systematically walking the 12.00 acres of proposed right of way examining the ground surface and erosional profiles for archeological materials and cultural features; survey transect widths will not exceed 30 m. Subsurface investigations will involve the hand excavation of shovel tests and/or mechanical backhoe trenching to identify potential buried archeological

materials. Subsurface tests will be systematically excavated across the project area based on the minimum CTA survey standards. Shovel tests will be approximately 30 cm (12 inches) on a side and extend to a maximum depth of three ft (one m) below ground surface, unless bedrock or soil characteristics preclude excavations to that depth. All soil removed from shovel tests will be screened through ¼-inch hardware cloth for artifact recovery. Locations of all shovel tests will be plotted using a handheld sub-meter accurate Trimble Global Positioning System (GPS) receiver, and each test will be recorded on a standard Hicks & Company shovel test form.

Should shovel testing at Cowan Creek suggest there is a potential for deeply buried archeological materials, subsurface investigations at the creek will be augmented with mechanical trenching. Trenches will be approximately one m (three ft) wide by five m (15 ft) long and extend to a maximum depth of 1.4 m (4.5 ft) below ground surface, unless impacts below that depth are anticipated. If proposed impacts extend deeper than 1.4 m (4.5 ft), archeologists will not enter the trenches, as per Occupational Safety and Health Administration (OSHA) rules for trench safety, unless the trenches are widened and stepped to prevent collapse. Archeologists will record and monitor deeper excavations from adjacent locations. Minimally, trenching will be monitored by two archeologists: one monitoring excavation and one monitoring the backdirt pile. A five-gallon sample of fill from every third backhoe bucket of soil will be screened through ¼-inch hardware cloth for artifact recovery. Locations of all backhoe trenches will be plotted using a handheld GPS.

Should investigations identify archeological materials, archeological sites will be documented to the extent possible within the limits of the project area. Sites will be assessed for significance so that recommendations can be made for proper management, such as avoidance or additional work. Hicks & Company will complete a Texas Archeological Site Data Form, a detailed plan map of the site will be produced, and its location will be plotted on United States Geological Survey (USGS) 7.5-minute topographic quadrangle maps and relevant project maps. In addition, if potential historic buildings and/or standing structures are located within or immediately adjacent to the project area, those areas will be shovel tested as if an archeological site. Buildings and structures will also be documented and photographed for review by Hicks & Company's architectural historian and included in the report of investigations.

Potential historic buildings and/or standing structures located within or immediately adjacent to the project alignment will be shovel tested in the same manner as an archeological site. The building and structures will also be documented and photographed for review by Hicks & Company's architectural historian and included in the report of investigations.

REPORTING

Following completion of the monitoring and survey investigations, Hicks & Company will analyze field data to produce a report of the investigations. The results of the investigation will be compiled into a professional report as required under Chapter 26.24 of the THC's Rules of Practice and Procedure. In addition, the report will follow the CTA's reporting guidelines. Analysis of field data will include mapping, the production of appropriate site forms for all documented sites, and the assessment of field notes. Once this is complete, Hicks & Company will prepare a draft report of the results of the investigations for review by Bridgefarmer and Williamson County. The report will briefly document

previous investigations; a background cultural history of the area (as appropriate); the project's environmental settings; the methodology used in the investigations; the general nature, condition, and extent of archeological resources encountered during the survey; recommendations regarding the need for further work; and the potential significance of the cultural resources in regards to future development and eligibility for designation as an SAL. Following review of the draft report by Bridgefarmer and Williamson County, all appropriate edits will be addressed, and a revised draft will be submitted to the THC for review (30-day review period). After receiving concurrence from the THC, copies of the final report will be produced and submitted to Bridgefarmer, Williamson County, and the THC. The THC will receive one unbound copy of the final report and a CD with a tagged PDF of the report. Two bound copies will be provided to the Texas Archeological Research Laboratory, and another nine bound copies will be distributed to university-based libraries and/or research facilities around the state in compliance with 13 TAC 26.24. Finally, a completed Abstracts in Texas Contract Archeology Form will accompany the final report submission to the THC and will also be submitted online.

CURATION

Upon completion of the project, field notes, paperwork, and photographs generated as a result of the investigations will be curated at the Center for Archaeological Studies at Texas State University, as per their standards and guidelines. The proposed investigations would utilize a non-collection strategy, so no artifact curation will be necessary unless temporal diagnostics or rare/unusual artifacts are discovered.

REFERENCES CITED

Texas Archeological Sites Atlas.

2021 Texas Historical Commission (THC). Available at <https://atlas.thc.texas.gov/>. Accessed January 29, 2021.

United States Department of Agriculture Natural Resource Conservation Service (USDA NRCS)

2020 Williamson County, Texas Web Soil Survey. Available at <https://soilseries.sc.egov.usda.gov/osdname.asp>. Accessed December 10, 2020.

United States Geological Survey (USGS)

2020 Texas Geology. Available at <https://tx.usgs.gov/texasgeology/.asp>. Accessed December 10, 2020

APPENDIX A

FIGURES

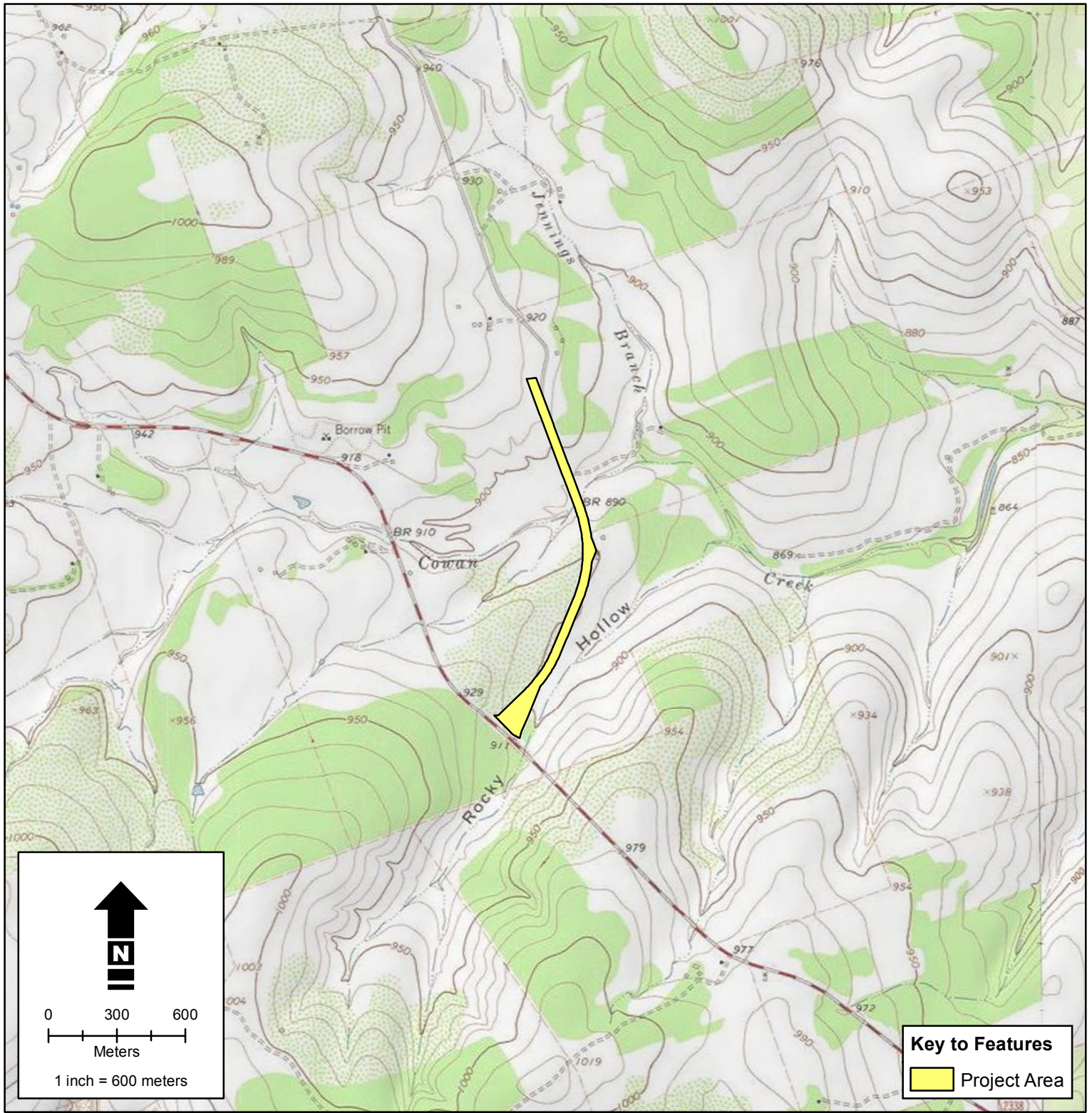


Figure 1

Project Location

CR 245
Williamson County, Texas

Source: USGS 7.5-minute Topographic Quadrangle:
Leander NE (USGS # 30097F7), TX



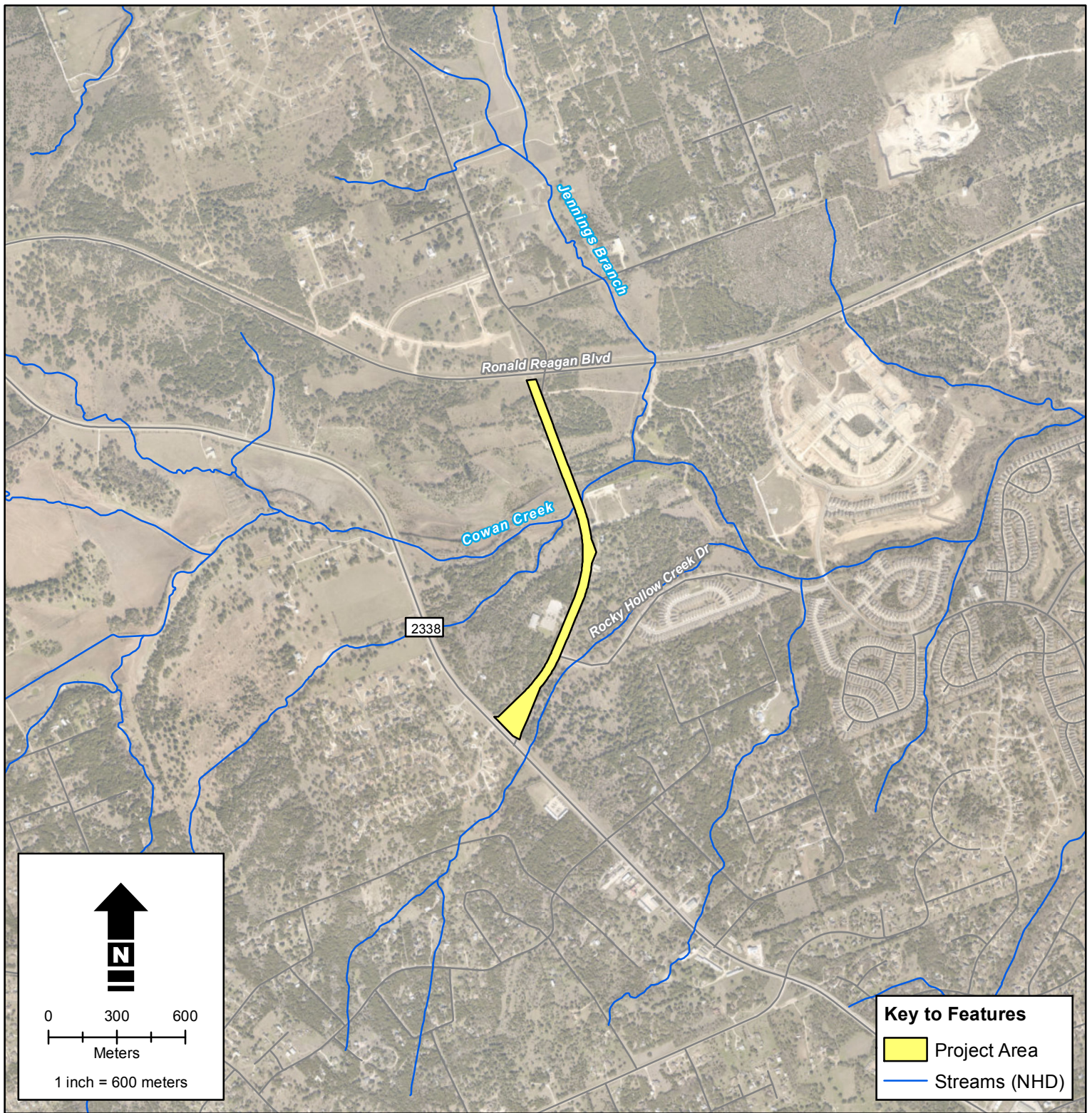


Figure 2

Project Location
CR 245
Williamson County, Texas

Source: Williamson County Orthos 12/15/2019





Figure 4
Previous Investigations and
Known Archeological Sites
Within 1,000 Meters of the Project Area
CR 245
Williamson County, Texas

Source: Williamson County Orthos 12/15/2019

