

ANTIQUITIES PERMIT APPLICATION FORM ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) Archeological Survey of County Road (CR) 314 from Interstate Highway (IH) – 35 Northbound Frontage Road to East of CR 332

County (ies) Williamson County USGS Quadrangle Name and Number Jarrell (3097-341)

UTM Coordinates (approximate) Zone 14R E 631865-637075 N 3407060-3408930

Location Extending along CR 314, with western terminus near IH-35 to eastern terminus east of CR 332

Federal Involvement Yes No
 Name of Federal Agency _____
 Agency Representatives _____

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) 512-943-1550 Email Address ctyjudge@wilco.org

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

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

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Alexander Menaker, PhD, RPA
 Affiliation Cox/McLain Environmental Consulting, Inc.
 Address 8410 Shoal Creek Blvd; Suite 100
 City/State/Zip Austin, Texas 78757
 Telephone (include area code) 512-338-2223 Email Address alexm@coxmcclain.com

(OVER)

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork December 9, 2021
Requested Permit Duration 5 Years 0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) Intensive Survey with shovel testing (see attached research design)

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility Cox|McLain Environmental Consulting, Inc.
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, Sponsor, and Principal Investigator are responsible for completing the terms of the permit.

Signature _____ Date _____


V. SPONSOR'S CERTIFICATION

I, _____, 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, Alexander Menaker, as Principal Investigator employed by Cox|McLain Environmental Consulting, 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 11/7/2021

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 Issued _____
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.texas.gov



**TEXAS
HISTORICAL
COMMISSION**

The State Agency for Historic Preservation

ARCHEOLOGICAL INTENSIVE SURVEY SCOPE

ARCHEOLOGICAL SURVEY OF COUNTY ROAD 314 FROM INTERSTATE HIGHWAY 35 TO EAST OF COUNTY ROAD 332, WILLIAMSON COUNTY, TEXAS

Project Description

The purpose of the investigation described in this scope of work is to identify cultural resources along County Road (CR) 314, extending approximately 3.66 miles (5.9 kilometers), from the Northbound Frontage Road of Interstate Highway (IH)–35 to approximately 1.19 miles (1.9 kilometers) east of CR 332. The proposed improvements include the expansion of CR 314 with the construction of three lanes for a future five-lane roadway with a proposed right-of-way width of 136 feet (41.5 meters; **Figures 1, 2a, b, and 3a–e**). Cox|McLain Environmental Consulting, Inc. (CMEC) has been subcontracted by Seiler Lankes Group, LLC as part of a project funded by Williamson County.

The existing road is a two-lane roadway with asphalt pavement with varying widths of right-of-way (60 to 70 feet or 18.3 to 21.3 meters). The proposed road improvement project will require the acquisition of additional right-of-way along both sides of the CR 314 roadway, resulting in a new right-of-way width of 136 feet (41.5 meters). In addition to previous road construction and associated buried utilities, other possible existing disturbances to this project area may have resulted from nearby residential and commercial development. Running along CR 314 for 3.66 miles (5.9 kilometers) with a project width of 136 feet, the archeological project area covers approximately 65.44 acres, including 30.72 acres of existing right-of-way and 34.72 acres of proposed right-of-way.

The project is owned and funded by Williamson County, a political subdivision of the State of Texas, rendering the project subject to the Antiquities Code of Texas. Per the provisions of the Antiquities Code of Texas, this investigation will include intensive archeological pedestrian survey augmented with shovel tests for previously unidentified resources. This investigation will evaluate the eligibility of identified resources for listing on the National Register of Historic Places (NRHP) and for designation as State Antiquities Landmarks (SAL) (9 Texas Natural Resources Code [TNRC] 191; 13 Texas Administrative Code [TAC] 26.12). Although there is no known federal nexus at this time, this project will be conducted in accordance with all applicable regulations of Section 106 of the National Historic Preservation Act (NHPA), as amended.

Background Information

Topographically, the project area is situated on a heavily dissected upland of the Trans-Pecos Texas and High Plains ecoregions (Griffith et al. 2004), with an elevation range of 929 feet (283 meters) above mean sea level at the western extent and sloping downwards, albeit undulating, to 807 feet (246 meters) above sea level at the southern termination of the project area. The project area crosses three seasonally flooded and intermittent wetland streambeds. The westernmost stream is identified as Willis Creek, with smaller branches of Willis and Donahoe Creeks crossing the project area to the east (National Wetlands Inventory 2021; United States Geological Survey [USGS] 2021a).

Geologically, the entire project area is uniformly underlain by the Late Cretaceous Austin Chalk Formation, which is composed of predominately chalk interbedded with marlstone (USGS 2021b). According to Natural Resources Conservation Service (NRCS) data, the project area is underlain by the following soils: Austin silty clay on 1 to 3 percent slopes, Houston black clay on 1 to 3 percent slopes, and pockets of Castephen silty clay on 3 to 5 percent slopes and a small presence of Whitewright silty clay loam on 1 to 5 percent slopes. The soils underlying the project area are not characterized by frequent flooding or known to contain buried A horizons and thus exhibit limited potential to contain deeply buried and intact archeological deposits (Soil Survey Staff 2021).

The Texas Historical Commission's (THC) online Archeological Sites Atlas indicates that there are no archeological sites within the project area, and there are no known sites mapped within the 1-kilometer (0.62-mile) study area around the project area (THC 2021).

According to the Atlas, no cemeteries are mapped within 150 feet (45.7 meters) of the project area. The nearest known cemetery, Cornhill Cemetery, is located 0.45 miles (0.73 kilometers) north of the project area (THC 2021, see **Figure 2a**).

No previous surveys fall within the project area, with no survey carried out along CR 314. Three previous surveys are mapped outside the study area but within one kilometer, including a 2015 linear water survey conducted by M. Godwin along CR 313 approximately 0.8 kilometers (0.5 miles) north of and parallel to CR 314, as well as, encompassing the intersecting CR 332. Another linear survey, conducted by J. Owens in 2006 along Donahoe Creek, extends to within one kilometer northeast of the study area. A linear survey, with limited information available, was conducted in 1997 along the IH-35 Southbound Frontage Road approximately 75 meters west of the western terminus of the study area (THC 2021).

Historical aerial imagery (from the years 1963, 1981, 1995, 2004, 2008, 2010, 2012, 2014, 2016) and topographic maps (from the years 1893, 1954, 1964, 1974 and 1985) were reviewed to determine how the project area and its surroundings evolved over time (National Environmental Title Research [NETR] 2021; USGS 2021a).

While it is at a coarse scale (1:125,000), the 1893 map does not depict the CR 314 road corridor and no structures are marked within or adjacent to the project area, with sparse development evident in the surrounding region. The current CR 314 roadway corridor is illustrated for the first time on the 1954 Austin topographic map (1:250,000 scale) along with Willis Creek, which crosses the project area. This 1954 map is at a coarse scale and does not depict any specific details regarding the project area. The 1964 Jarrell topographic map (1:24,000 scale) offers the finest resolution of available maps and shows two structures located along the western turn of CR 314 and another three structures south of CR 314 midway along the road. These structures are visible in historic aerials from 1963 corresponding to the location of the structures marked on the 1964 map. In this 1964 map, three Gravel Pits are also labeled to the south of CR 314 in addition to the depiction of the known streamways. At a coarse scale, the subsequent 1974 Austin map (1:250,000 scale) is nearly identical to the 1954 map. The last available topographic map from 1985 (Taylor, 1:100,000 scale), offers similarly sparse details, showing no additional development or properties other than two extant Gravel Pits south along CR 314 near previously marked locations. Aerial photos as recent as 2016 show the continued presence and construction of multiple structures on these properties, and aerial images show little additional development with subsequent development surrounding the project area intensifying after 2004 (NETR 2021; USGS 2021a).

The project area overlaps with the extant CR 314 road corridor while also minimally crossing through undeveloped agricultural fields at the western terminus of the project area. Historical topographic maps and aerial imagery suggest that the project area has low to moderate potential for historic-age sites, with at least two historic properties located just outside the study area. Although the drainages that extend through the project area are minor ephemeral streams, settings such as this portion of Williamson County and Central Texas have a generally low to moderate potential to contain prehistoric-age sites. Thus, archeological survey is warranted before the construction of the proposed road improvement project takes place. Based upon a geomorphic review of the project area, CMEC does not recommend any deep investigations, including mechanical trenching.

Research Design

CMEC will conduct intensive survey of the project area per 7 TAC 26.15 and using the definitions in 13 TAC 26.3. The field methods and strategies comply with the requirements of 13 TAC 26.15 and with guidelines established by the Council of Texas Archeologists (CTA) and the THC in April 2020.

This archeological investigation will include pedestrian survey of all areas within the project area and augmented by excavation of shovel tests throughout the project area. CMEC proposes to excavate shovel tests along two transects, one on each side of CR 314, with shovel tests placed at intervals no greater than 100 meters (164 feet) along each transect. In the case of no findings, CMEC proposes to excavate an estimated total of 110 shovel tests throughout the project area. All shovel tests will be excavated in natural levels or in 20-centimeter-thick (7.9-inch-thick) arbitrary levels (whichever is smaller) to subsoil or 100 centimeters (39.37 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, within the project limits. In areas of heavy disturbances and developments already present and shovel test probes not advisable, project archeologists will comprehensively photograph and document the area. All components of the CTA standards approved in April 2020 will be rigorously followed. Based upon a geomorphic review of the project area, CMEC does not anticipate a need for any deep investigations, including mechanical trenching.

The project has a low probability of encountering human burials; however, if burials or human remains are found, work will stop immediately and the THC and Williamson County will be notified immediately. All requirements of Title 9, Ch. 191 of the TNRC, and Title 13, Part 2 of the TAC will be followed in addition to the Health and Safety Code.

Artifacts identified in shovel tests and surface contexts will be noted, described, photographed, and returned to their original contexts by archeologists who meet or exceed the Secretary of Interior's (SOI) qualifications for professional archeologists. Descriptions will include, at minimum: artifact dimensions, artifact material type(s), artifact functional class (if apparent), Munsell colors, and provenience. All descriptions will be approved in field by the Project Archeologist. Following their description, all artifacts will be photographed from the maximum number of sides available (e.g., 4 for an intact bottle) prior to being returned to their original contexts. Additional in-field analysis will depend on certain artifact classes: for example, a historic-age bottle with embossed markings that are not easily photographable may be sketched or drawn.

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 a field site (or FS) designation, followed by a consecutively assigned number in order of site discovery (e.g., FS-01, FS-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). CMEC defines an archeological site based on content and extent. When a shovel test yields cultural material, additional shovel tests will be excavated in a cruciform pattern at 5-meter (16.4-foot) intervals around the initial test, until two sterile shovel tests are encountered. A prehistoric site is defined as five or more cultural items (e.g., prehistoric stone tool manufacturing debris of different raw materials, or manufacturing debris in combination with stone tools) or one or more stationary and immovable objects – such as firepits or posthole molds – within a 20-meter (65.6-foot) square; for historic sites, a site is defined as five or more cultural items from at least two material types or artifact classes, or one or more stationary and immovable objects and at least one cultural item within a 20-meter (65.6-foot) square. A site's boundaries are defined within the extent of positive shovel tests and/or surface remains.

Conversely, isolated finds of individual artifacts or small groups of similar non-diagnostic artifacts (for example, fewer than five flakes composed of the same material) not meeting the above site definition criteria will be recorded as an "Isolated Find" and given an Isolated Find number but not assigned a locus number or considered for listing in the NRHP. Likewise, a stationary and unmovable object – such as brick piers, etc. – with no associate cultural materials and not meeting the above definition criteria will be designated a "Locality," and as with Isolates, given a Locality number but not considered for eligibility in the NRHP. The locations of both Isolates and Localities will be recorded. All encountered cultural resources will be treated as potential sites until proven otherwise.

CMEC personnel 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

Any sites discovered will be photographed and recorded on State of Texas Archeological Site Data Forms for subsequent submittal in TexSite format to the Texas Archeological Research Laboratory. All site locations will be plotted using a hand-held Garmin Global Positioning System unit. CMEC will prepare and submit a report on the results of the archeological work suitable for consultation with the THC. The survey will be conducted under a no-collection policy. Hence, the project will not generate any artifacts requiring curation. Following completion of the fieldwork, an analysis of the information recovered and preparation of a report providing discussions of background research, work accomplished, results of field investigations, a list of all sites identified and ownership of lands containing sites, recommendations concerning eligibility for SAL designation and listing in the NRHP (including appropriate evaluation criteria), and recommendations concerning the need for further work with justifications based on 13 TAC 26.16 will be produced. The report will meet the requirements of 13 TAC 26.13–26.18 and the Council of Texas Archeologists' reporting guidelines; it will be submitted for review by the THC. After receipt of any review comments, the report will be modified as necessary, and a final report will be produced; it will be submitted in the quantity and formats required by the project Antiquities permit. Per 13 TAC 26.16, 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, CMEC will make all materials and forms generated by this project available to future researchers through curation at the Center for Archaeological Research (CAS) at Texas State University per 13 TAC 26.16 and 26.17. A curation form filed at both CAS and THC will accompany the collections.

References Cited

Google Earth™ Pro

- 2021 Historic Aerial Imagery viewed through Google Earth. Google. Available at <https://www.google.com/earth/>. Accessed May 24, 2021.

Griffith, G. E., S. A. Bryce, J. M. Omernik, J. A. Comstock, A. C. Rogers, B. Harrison, S. L. Hatch, and D. Bezanson

- 2004 *Ecoregions of Texas*. United States Geological Survey. Available at ftp://ftp.epa.gov/wed/ecoregions/tx/tx_front.pdf. Accessed May 24, 2021.

Nationwide Environmental Title Research (NETR)

- 2021 *Historic Aerials Database*. Nationwide Environmental Title Research. Available at <http://historicaerials.com>. Accessed May 15, 2021.

Soil Survey Staff, United States Department of Agriculture

- 2021 NRCS SSURGO and STATSGO soil data viewed through SoilWeb KMZ interface for Google Earth. Available at <http://casoilresource.lawr.ucdavis.edu/soilweb/>. U.S. Department of Agriculture and California Soil Resource Laboratory, University of California, Davis. Accessed May 15, 2021.

Texas Historical Commission (THC)

2021 *Texas Archeological Sites Atlas*. Texas Archeological Research Laboratory and the Texas Historical Commission. Available at <https://atlas.thc.state.tx.us/>. Accessed May 24, 2021.

U.S. Fish & Wildlife Service National Wetlands Inventory (NWI)

2021 *Wetlands Mapper*. National Wetlands Inventory, U.S. Fish & Wildlife Service. Available at <https://www.fws.gov/wetlands/data/mapper.html>. Accessed May 15, 2021.

U.S. Geological Survey (USGS)

2021a *Historical Topographical Map Explorer*. United States Geological Survey. Available at <http://historicalmaps.arcgis.com/usgs/index.html>. Accessed May 15, 2021.

2021b *Texas Geology Map Viewer*. United States Geological Survey. Available at <http://txpub.usgs.gov/dss/texasgeology/>. Accessed May 15, 2021.

Figures

Figure 1: Project Location (Road Base)

Figure 2a–b: Location of Project Area

Figure 3a–e: Project Area Detail (Aerial Base)

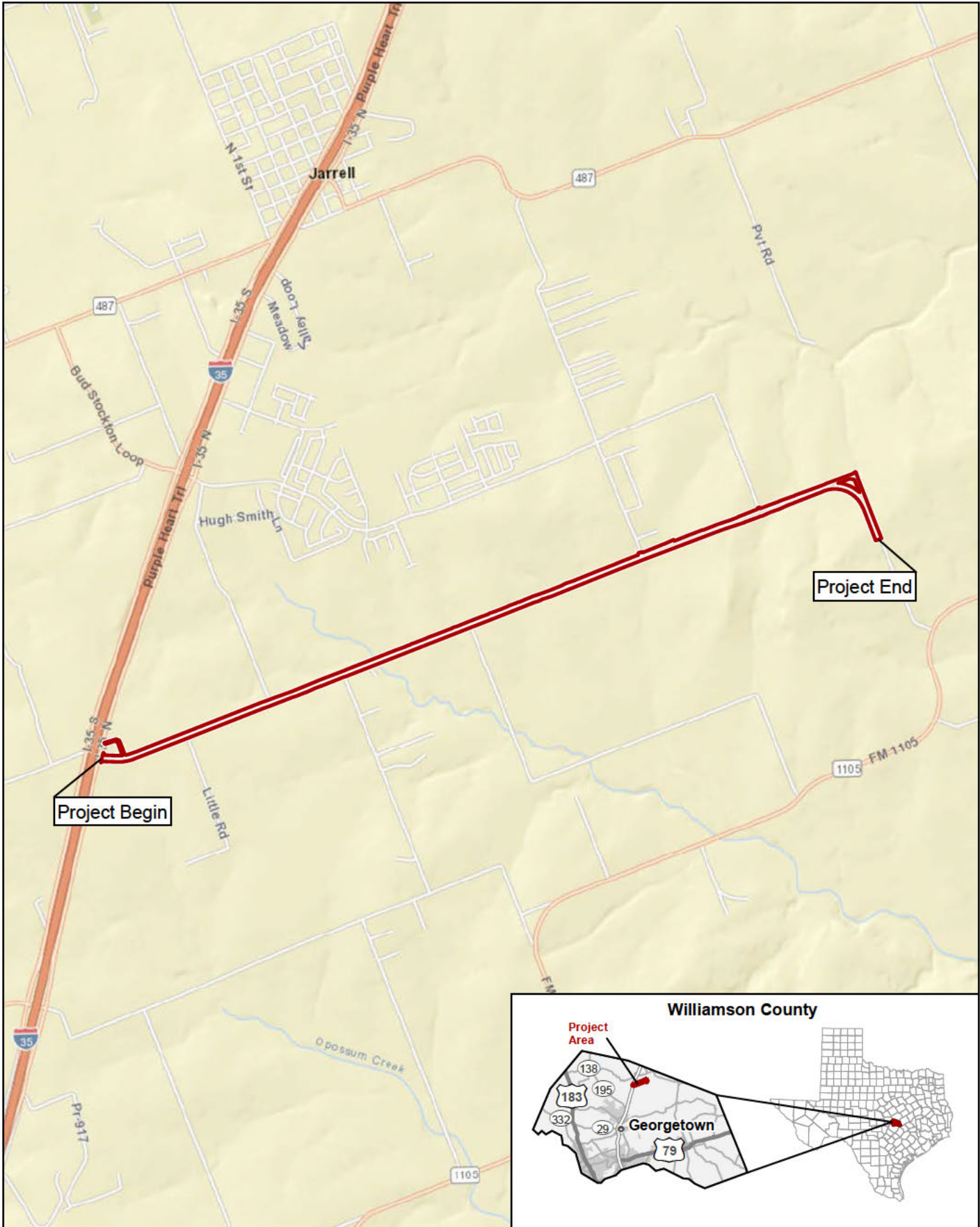


Figure 1.
Project Location (Road Base)
 CR 314 from IH-35 Northbound Frontage Road
 to east of CR 332 for approximately 2.5 miles

 Project Location



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0 3,000 Feet 1 in = 3,000 feet
 0 800 Meters Scale: 1:36,000
 Date: 5/13/2021

Basemap Source: Esri (2021)

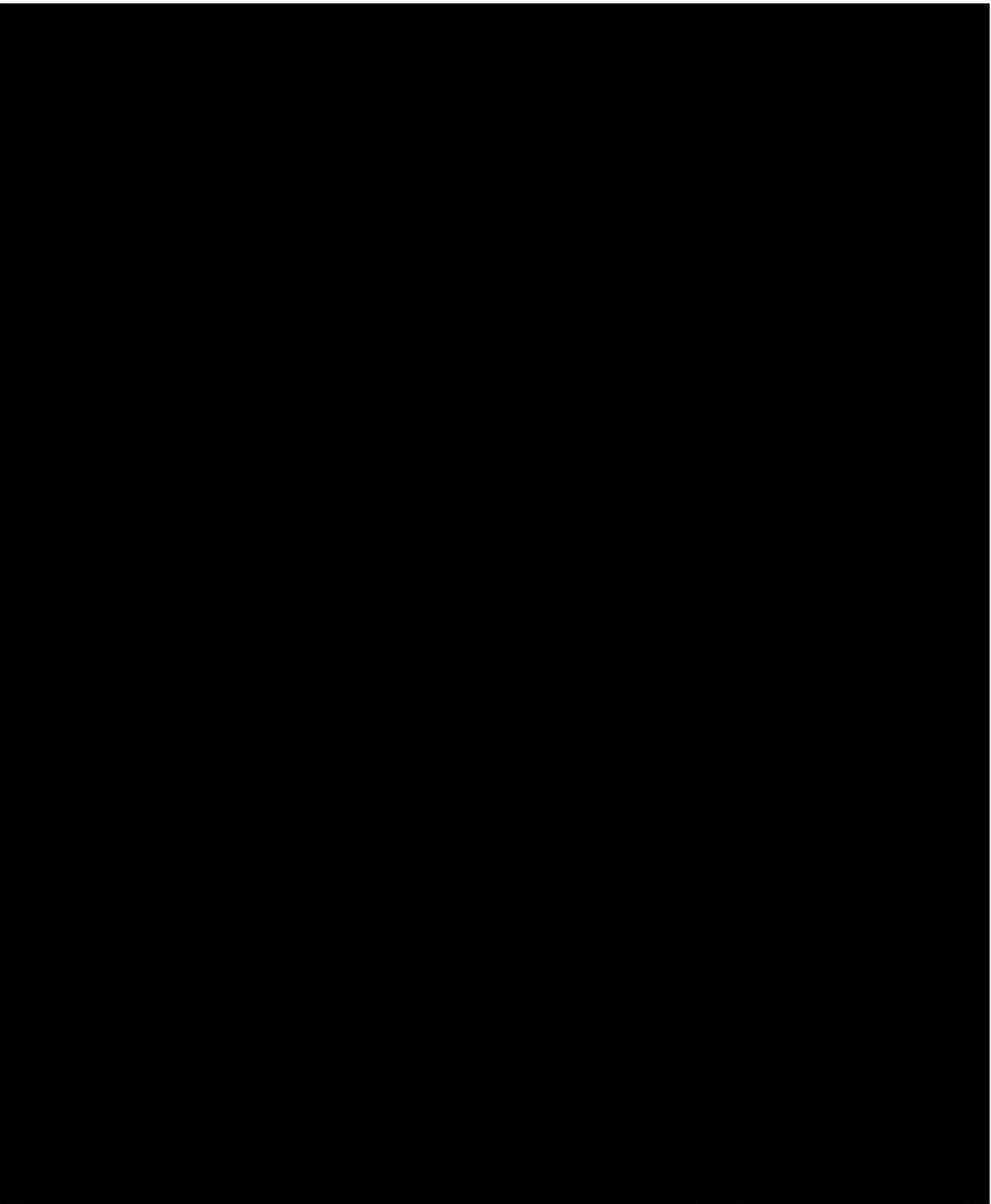


Figure 2a.

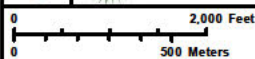
Location of Project Area

CR 314 from IH-35 Northbound Frontage Road
to east of CR 332 for approximately 2.5 miles

Data Sources: THC (2021),
TARL (2020), NHD (2020)
Topographic Source: USGS (2021)
USGS 7.5' Quadrangles: Cobbs Cavern, Jarrell



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1 in = 2,000 feet
Scale: 1:24,000
Date: 6/1/2021

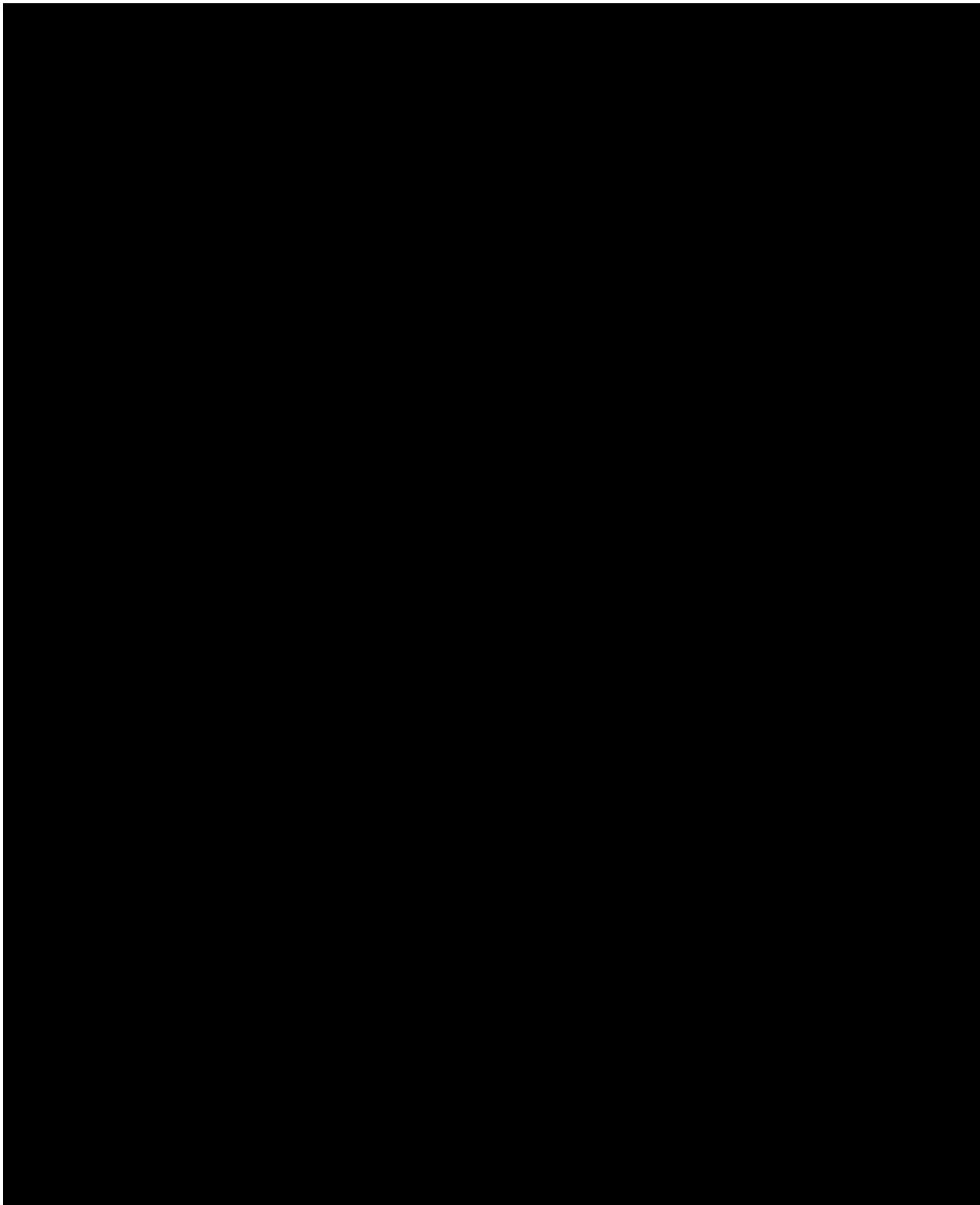


Figure 2b.

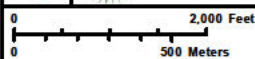
Location of Project Area

CR 314 from IH-35 Northbound Frontage Road
to east of CR 332 for approximately 2.5 miles

Data Sources: THC (2021),
TARL (2020), NHD (2020)
Topographic Source: USGS (2021)
USGS 7.5' Quadrangles: Cobbs Cavern, Jarrell



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1 in = 2,000 feet
Scale: 1:24,000
Date: 6/1/2021

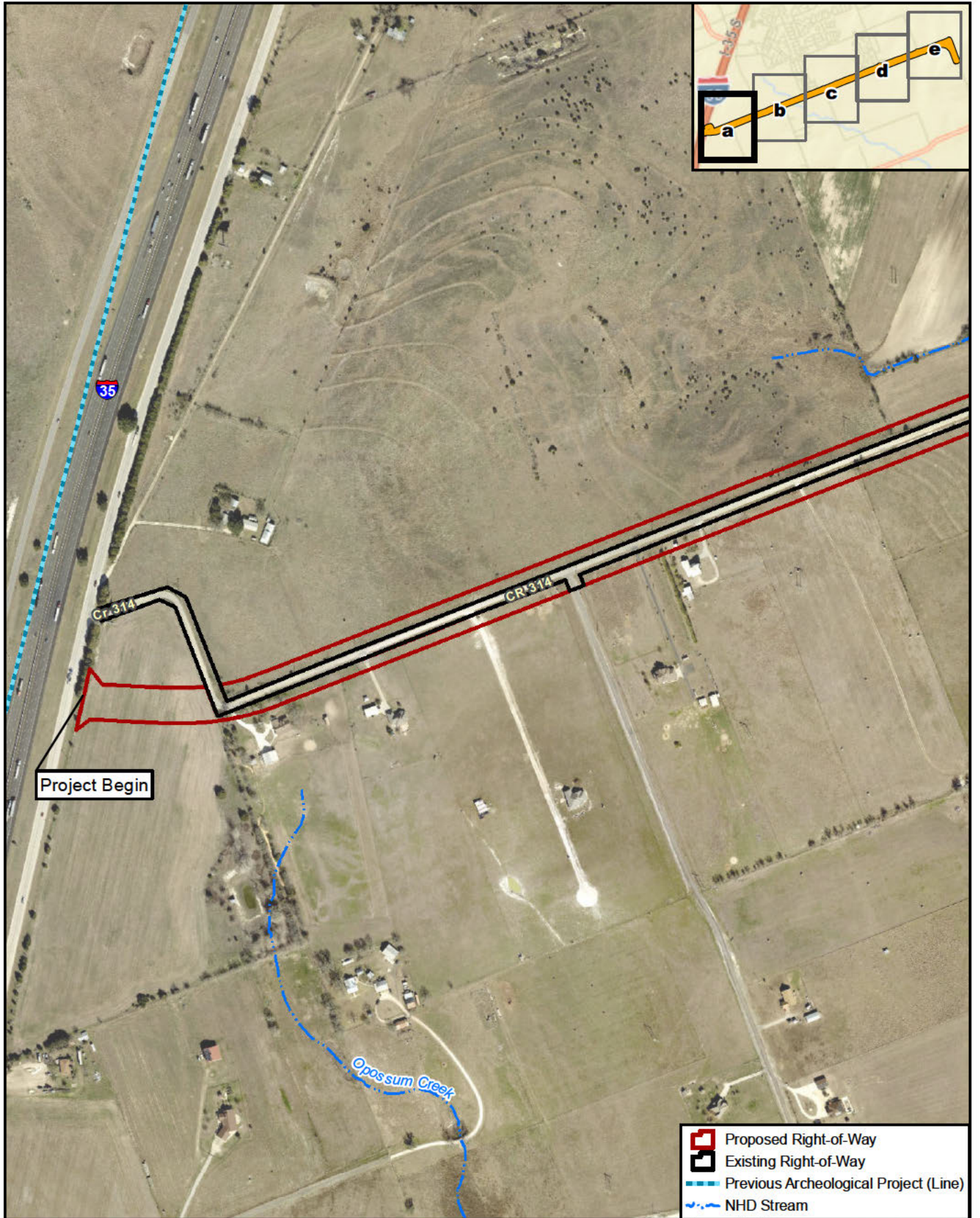






Figure 3a.
Project Area Detail (Aerial Base)
 CR 314 from IH-35 Northbound Frontage Road
 to east of CR 332 for approximately 2.5 miles

-  Proposed Right-of-Way
-  Existing Right-of-Way
-  Previous Archeological Project (Line)
-  NHD Stream

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Data Sources: TARL (2020),
 THC (2021), NHD (2020)
 Aerial Source: Williamson County (2019)



0 500 Feet 1 in = 500 feet
 0 150 Meters Scale: 1:6,000
 Date: 7/12/2021






Figure 3b.
Project Area Detail (Aerial Base)
 CR 314 from IH-35 Northbound Frontage Road
 to east of CR 332 for approximately 2.5 miles

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Data Sources: TARL (2020),
 THC (2021), NHD (2020)
 Aerial Source: Williamson County (2019)

 Proposed Right-of-Way
 Existing Right-of-Way
 NHD Stream

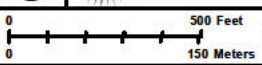
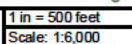
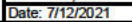


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 Scale: 1:6,000
 Date: 7/12/2021



Figure 3c.
Project Area Detail (Aerial Base)
 CR 314 from IH-35 Northbound Frontage Road
 to east of CR 332 for approximately 2.5 miles

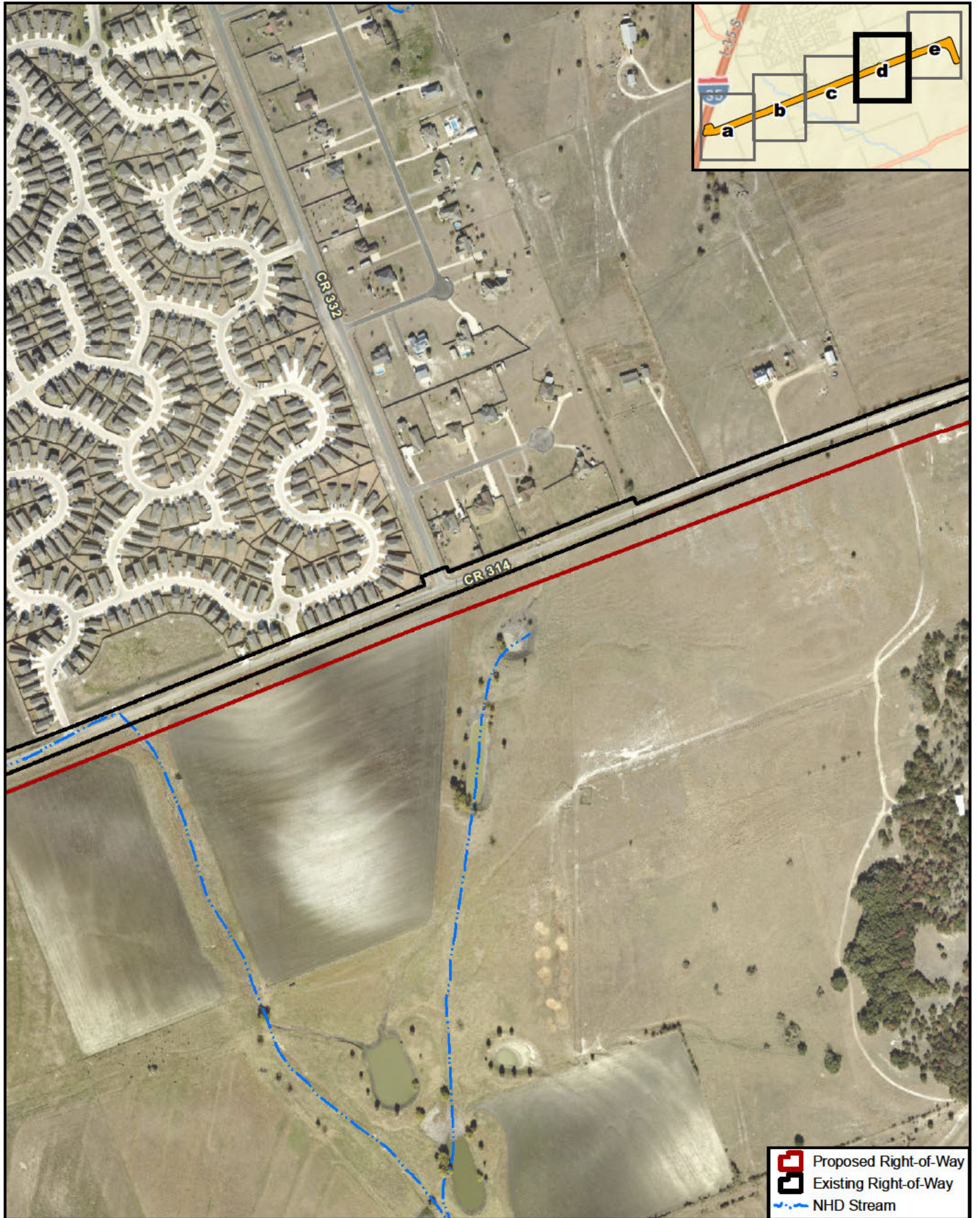
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Data Sources: TARL (2020),
 THC (2021), NHD (2020)
 Aerial Source: Williamson County (2019)

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0 50 Feet 1 in = 500 feet
 0 150 Meters Scale: 1:6,000
 Date: 7/12/2021

-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NHD Stream



 Proposed Right-of-Way
 Existing Right-of-Way
 NHD Stream



  **COX | McLAIN**
 Environmental Consulting
 0 50 Feet 1 in = 500 feet
 0 150 Meters Scale: 1:6,000
 Date: 7/12/2021

Figure 3d.
Project Area Detail (Aerial Base)
 CR 314 from IH-35 Northbound Frontage Road
 to east of CR 332 for approximately 2.5 miles

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Data Sources: TARL (2020),
 THC (2021), NHD (2020)
 Aerial Source: Williamson County (2019)

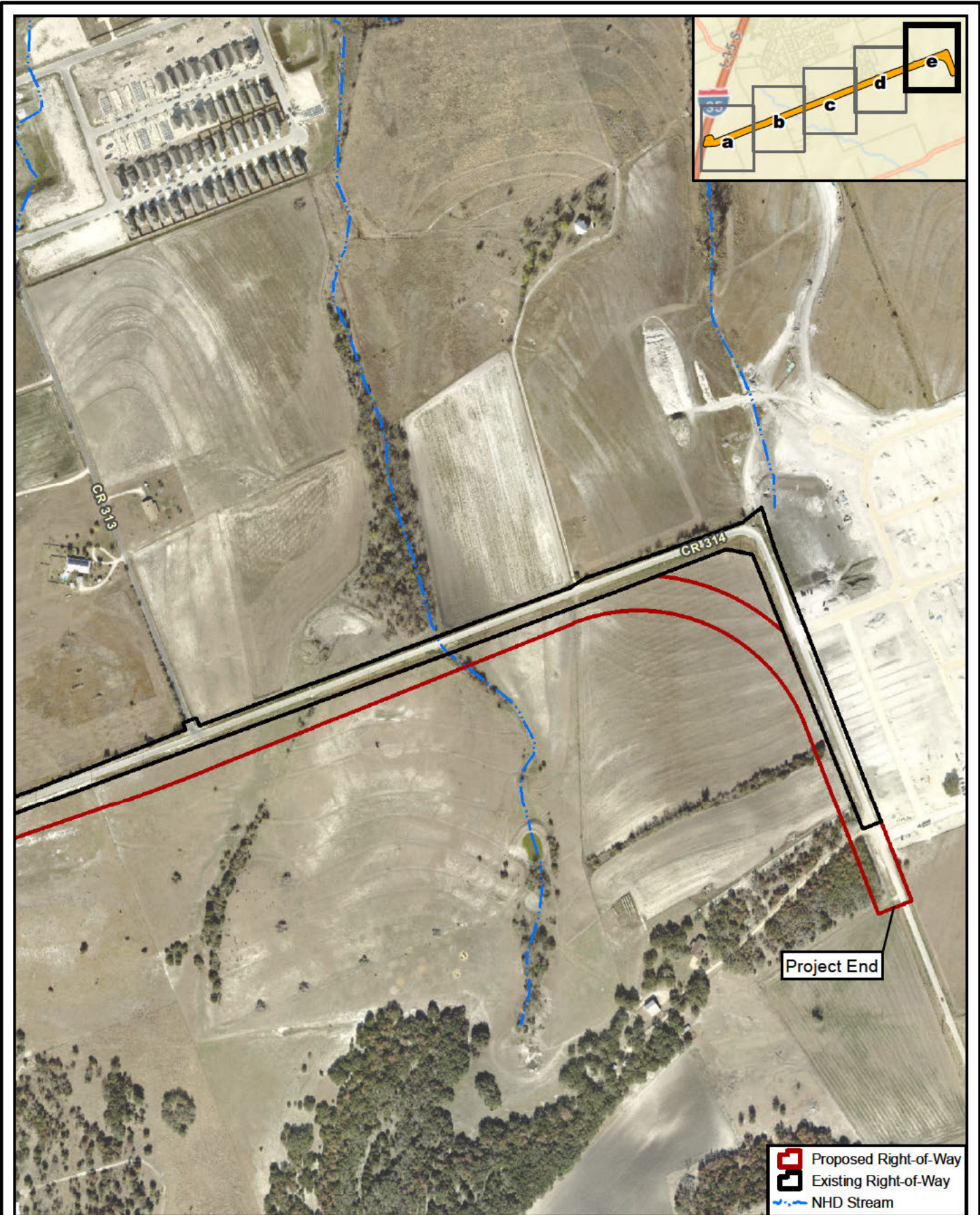





Figure 3e.
Project Area Detail (Aerial Base)

CR 314 from IH-35 Northbound Frontage Road
 to east of CR 332 for approximately 2.5 miles

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Data Sources: TARL (2020),
 THC (2021), NHD (2020)
 Aerial Source: Williamson County (2019)



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 Proposed Right-of-Way
 Existing Right-of-Way
 NHD Stream

0 500 Feet 1 in = 500 feet
 0 150 Meters Scale: 1:6,000 Date: 7/12/2021