TEXAS HISTORICAL COMMISSION

ANTIQUITIES PERMIT APPLICATION FORM ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) East Wilco Highway Segment 6
County (ies) Williamson
USGS Quadrangle Name and Number Weir (3097-314)
UTM Coordinates Zone 14 E 639589-641645 N 3397393-33906206
Location The proposed project consists of a new roadway located from 1,000 feet (304.8 meters) north of State Highway 29 to County Road 237 for a length of approximately 4.5 miles (7.2 kilometers).
Federal Involvement ☑ Yes ☐ No
Name of Federal Agency U.S. Army Corps of Engineers Fort Worth District
Agency Representative Arlo Mckee

II. OWNER (OR CONTROLLING AGENCY)

Owner Williamson County
Representative Bill Gravell Jr. (County Judge)
Address 710 Main Street, Suite 101
City/State/Zip Georgetown, TX 78226
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 Annie Carter
Affiliation Halff, Inc.
Address 5113 Southwest Parkway, Suite 140
City/State/Zip Austin, TX 78735
Telephone (include area code) 352-634-0229 Email Address acarter@halff.com

(OVER)

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork February 10, 2025
Requested Permit Duration 5 Years 0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) Intensive archeological survey in accordance with the CTA Survey Standards. A detailed scope of work is attached.

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility Halff, Inc.
Permanent Curatorial Facility Center for Archaeological Studies

IV. OWNER'S CERTIFICATION

I, Bill Gravell, 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 Valarie Covey Date Jan 29, 2025

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 Valarie Covey Date Jan 29, 2025

VI. INVESTIGATOR'S CERTIFICATION

I, Annie Carter, as Principal Investigator employed by Halff, 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 Annie Carter Date 1/10/2025

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

TEXAS HISTORICAL COMMISSION
real places telling real stories
thc.texas.gov

January 7, 2025

Rebecca Shelton
Texas Historical Commission
P.O. Box 12275
Austin, Texas 78711-2276

Subject: **Request for Antiquities Permit to Conduct Cultural Resources Investigations for the East Wilco Highway Segment 6 Project, Williamson County, Texas / Halff Project No. 56571.001**

Dear Rebecca Shelton:

This letter is a request for a Texas Antiquities Permit to conduct cultural resources investigations for the East Wilco Highway Segment 6 Project in Williamson County, Texas (project). The project consists of a new roadway located from 1,000 feet (304.8 meters [m]) north of State Highway 29 to County Road 237 for a length of approximately 4.5 miles (7.2 kilometers). The project includes an at grade roadway with bridges spanning Pecan Branch, Farm-to-Market Road 971 and the Georgetown Railroad. The proposed right of way width is generally 350 feet (106.7 m). As the proposed project is being undertaken by Williamson County, a political subdivision of the State of Texas, a Texas Antiquities Permit is required in accordance with the Antiquities Code of Texas (Texas Natural Resources Code, Title 9, Chapter 191) and accompanying Rules of Practice and Procedure (Texas Administrative Code, Title 13, Chapter 26).

If you have any questions, please contact me by phone at 352-634-0229 or email at acarter@halff.com.

Sincerely,
HALFF

Annie Carter

Annie Carter, MS
Principal Investigator
acarter@halff.com
352-634-0229

Scope of Work

Cultural Resources Survey for the East Wilco Highway Segment 6 Project, Williamson County, Texas

U.S. Army Corps of Engineers Project Number SWF-2024-00521

Prepared for

County of Williamson

Prepared by

Halff

Annie Carter, MS, Principal Investigator

AVO 56571
January 10, 2025

Introduction

The County of Williamson (County) contracted with Halff to conduct a cultural resources survey for the proposed East Wilco Highway Segment 6 Project in Williamson County, Texas (**Figure 1**). The proposed project consists of a new roadway located from 1,000 feet (304.8 meters [m]) north of State Highway (SH) 29 to County Road (CR) 237 for a length of approximately 4.5 miles (7.2 kilometers [km]). The proposed project includes an at grade roadway with bridges spanning Pecan Branch, Farm-to-Market Road (FM) 971 and the Georgetown Railroad (**Figure 2**). The proposed right of way (ROW) width is generally 350 feet (106.7 m).

Because the project is being developed by the County, a political sub-entity of the State of Texas, it requires compliance with the Texas Antiquities Code (TAC), through consultation with the Texas Historical Commission (THC) to evaluate potential impacts to archeological and above ground historic resources. In addition, the project requires authorization by U.S. Army Corps of Engineers Fort Worth District (USACE) pursuant to Section 404 of the Clean Water Act, which is a federal action requiring compliance with Section 106 of the National Historic Preservation Act (Section 106).

Halff identified Waters of the United States (WOUS) within the project area that fall under jurisdiction of the USACE. The direct Area of Potential Effects (APE) consists of a 600-foot (182.9-m) buffer of the WOUS jurisdictional areas as shown in **Figure 3**. An indirect APE was established from a 600-foot (182.9-m) buffer of the APE to account for visual effects to above ground historic resources. Typical proposed construction depths for the at grade roadway are less than 2 feet (ca. 60 centimeters [cm]), with deeper impacts (i.e., greater than 3 feet [ca. 1 m]) for the proposed bridge structures.

The TAC Project Area (PA) comprises the full 4.5-mile (7.2-km) long, 350-foot (106.7-m) wide and 251.7-acre project limits. The APE is limited to the 600-foot buffered WOUS permit areas, comprising a 59.94-acre and 1.24-mile (2.0-km) long portion of the PA (see **Figure 3**). The PA and APE are collectively referred to hereafter as the PA unless denoted otherwise. This scope of work summarizes the results of the desktop research performed for the proposed project and outlines the methodology developed for a cultural resources survey of the PA in compliance with Section 106 and the TAC.

Environmental Setting

The project is mapped within the Brazos River drainage basin (TWDB 2024) and the Northern Blackland Prairies ecoregion of Texas (Griffith et al. 2007:61-63). The general physiography of the Northern Blackland Prairies consists of irregular plains that are lightly to moderately dissected, low to moderate gradient streams and an elevation range of 300 to 1050 feet above sea level. The Northern Blackland Prairies stretches over 300 miles from North Central to Central Texas, generally coincides with a belt of Upper Cretaceous chalks, marls, limestones and shales, and a coincidence of soils, vegetation, land cover, and geologic patterns (Griffith et al. 2007:61).

According to the Weir, Texas Topographic Quadrangle map and recent aerial photography (see **Figures 2 and 3**), the local topography is gently rolling with elevations ranging from 650 to 750 above mean sea level. The majority of the PA and surrounding area is comprised of rural and agricultural land. The PA crosses two named streams, consisting of Pecan Branch and Big Horn Branch, both of which are tributaries of the San Gabriel River, which is mapped some 0.6-mile (1 km) to the south.

Soils and Geology

A review of the Natural Resource Conservation Service Web Soil Survey (NRCS 2024) revealed that the PA is composed of thirteen soil units, which are described below in **Table 1** and mapped in **Figure 4**. According to the Geologic Atlas of Texas (USGS 2024a), the local geology is composed of three geologic units, which are listed and described below in **Table 2** and mapped in **Figure 5**. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map data, the portion of the PA that crosses Pecan Branch is within a flood zone (see **Figure 4**).

Table 1: Soil Map Unit Descriptions and Frequencies (NRCS 2024).

Map Unit Symbol	Map Unit Name	General Characteristics	Potential for Buried Holocene-age Deposits if Undisturbed	Acres / %
AsB	Austin silty clay, 1 to 3 percent slopes	Landform: ridges Surface texture: silty clay Parent material: residuum weathered from chalk	No	68.1 acres / 27.0%
AwD3	Austin-Whitewright complex, 2 to 6 percent slopes, eroded	Landform: ridges Surface texture: silty clay Parent material calcareous clayey residuum weathered from chalk	No	14.1 acres / 5.6%
BrA	Branyon clay, 0 to 1 percent slopes	Landform: stream terraces Surface texture: clay Parent material: calcareous clayey alluvium derived from mudstone of Pleistocene age	No	23.6 acres / 9.4%
BrkB	Branyon-Krum complex, 1 to 3 percent slopes	Landform: stream terraces Surface texture: clay Parent material: calcareous clayey alluvium derived from Pleistocene-age mudstone	No	9.4 acres / 3.7%
CaB	Castephen silty clay, 1 to 3 percent slopes	Landform: ridges Surface texture: silty clay Parent material: calcareous loamy residuum weathered from chalk	No	31.4 acres / 12.5%
CaC	Castephen silty clay, 3 to 5 percent slopes	Landform: ridges Surface texture: silty clay Parent material: residuum weathered from Austin Chalk formation	No	3.6 acres / 1.4%
EyB	Eddy very gravelly clay loam, 0 to 3 percent slopes	Landform: ridges Surface texture: very gravelly clay loam Parent material: residuum weathered from chalk	No	3.3 acres / 1.4%

Map Unit Symbol	Map Unit Name	General Characteristics	Potential for Buried Holocene-age Deposits if Undisturbed	Acres / %
EyD	Eddy very gravelly clay loam, 3 to 8 percent slopes	Landform: ridges Surface texture: very gravelly clay loam Parent material: calcareous loamy residuum weathered from chalk	No	5.9 acres / 2.4%
HoB	Houston black clay, 1 to 3 percent slopes	Landform: ridges Surface texture: clay Parent material: clayey residuum weathered from calcareous mudstone of upper Cretaceous age	No	73.5 acres / 29.2%
HoC2	Houston black clay, 3 to 5 percent slopes, moderately eroded	Landform: ridges Surface texture: clay Parent material: clayey residuum weathered from calcareous mudstone of the upper Cretaceous age	No	7.5 acres / 3.0%
KrA	Krum silty clay, 0 to 1 percent slopes	Landform: stream terraces Surface texture: silty clay Parent material: clayey alluvium of Pleistocene age derived from mixed sources	No	1.8 acres / 0.7%
QuF	Queeny-Surev complex, 5 to 15 percent slopes	Landform: paleoterraces Surface texture: clay loam Parent material: clayey alluvium derived from mudstone over gravelly alluvium derived from limestone	No	0.4 acre / 0.1%
WhC	White-Wright silty clay loam, 1 to 5 percent slopes	Landform: ridges Surface texture: silty clay loam Parent material: residuum weathered from Austin Chalk formation	No	9.1 acres / 3.6%
Totals				251.7 acres / 100%

Table 2: Geologic Map Unit Descriptions and Frequencies (USGS 2024a).

Map Unit Symbol	Map Unit Name	Period / Epoch	Potential for Buried Holocene-age Deposits	Acres / %
Kau	Austin Chalk	Cretaceous / Gulfian	No	237.2 acres / 94.3%
Knt	Navarro and Taylor Groups undivided	Cretaceous / Gulfian	No	2.2 acres / 0.8%
Qt	Fluvatile terrace deposits	Quaternary / Pleistocene	No	12.3 acres / 4.9%
Totals				251.7 acres / 100%

Potential Archeological Liability Map Data

The Texas Department of Transportation (TxDOT) Potential Archeological Liability Map (PALM) for the Austin District was reviewed to evaluate the potential for shallow and deeply buried archeological deposits with integrity. In general, the PALM data point to a moderate to low potential for such deposits as evidenced by the common occurrences of Map Units 5 and 1. A breakdown of the local PALM data is below in **Table 3** and a map showing the Map Unit distribution is provided in **Figure 6**.

Table 3: PALM Unit Descriptions and Frequencies.

Map Unit	Map Unit Description	Acres / %
0	Negligible potential	0.6-acre/ 0.2%
1	Low potential	99.6 acres / 39.6%
2	Low shallow potential, moderate deep potential	0.3-acre / 0.1%
4	Moderate shallow potential, low deep potential	5.3 acres / 2.1%
5	Moderate potential	128.6 acres / 51.1%
8	High shallow potential, moderate deep potential	6.7 acres / 2.7%
9	High potential	10.6 acres / 4.2%
Total		251.7 acres / 100%

Cultural Setting

Archeological Sites Atlas Review

A review of the Texas Archeological Sites Atlas maintained by the THC and Texas Archeological Research Laboratory (Atlas) was conducted on November 5, 2024. The Atlas review revealed that the PA contains no previously recorded archeological sites, cemeteries, or properties eligible for listing on the National Register of Historic Places (NRHP) or State Antiquities Landmark (SAL) designation. Six cultural resources are documented within a 1-km (0.6-mile) radius, consisting of five cemeteries and one historical marker

(**Table 4**). In addition, the Atlas review revealed that the PA has not been surveyed for cultural resources. A map showing the cultural resources sites documented in the Atlas search area is provided in **Figure 7**.

Table 4: Atlas Data (THC 2024).

Resource ID	Resource Type	Atlas Record Summary	Eligibility / Designation	Distance from Project	Year(s) Recorded
WM-C234	Cemetery	Whitley-Lunsford Cemetery; late 19th century; nine known graves	Historic Texas Cemetery	160 m	2023
WM-C166	Cemetery	Jonah Cemetery	None	416 m	N/A
WM-C165	Cemetery	Whitley-Yoes Cemetery; late 19th Century; four known graves	Historic Texas Cemetery	550 m	2023
Infor not available	Cemetery	Yoes Cemetery	None	501 m	N/A
WM-C198	Vicinity Cemetery	Steams Family Cemetery	None	1.4 km	N/A
9309	Historical Marker	Site of Neusser	None	720 m	1992

Historical Map Review

A summary of the historical topographic quadrangle maps (USGS 2024b) and aerial photographs (NETR 2024) reviewed for the project are summarized below in **Table 5**.

Table 5: Historical Map Review Summary.

Map Name and Year	Historic Structures/features mapped in the PA and/or indirect APE	General land use depicted
USGS1982 Weir, Texas Topographic Quadrangle (**Figure 8**)	One structure is depicted in the PA near the southern terminus and a cluster of one building and three outbuildings are mapped in the indirect APE near the north-central portion of the PA.	Rural and agricultural
Aerial photography from 1941 (**Figure 9**)	Two or three structures are visible in the PA near the southern terminus. The cluster of buildings mapped in the indirect APE near the north-central portion of the PA are depicted.	Rural and agricultural
Aerial photography from 1953 (**Figure 10**)	Same as the 1941 aerial photograph. The 1953 aerial better depicts the structures shown on the 1941 aerial photographs.	Rural and agricultural

Subsequent land use in the PA and adjacent properties includes the construction of county roads starting in the 1990's. However, the majority of the PA has retained its historic rural setting. The historic-age structures mapped within the PA and indirect APE on the historical maps (see **Table 5**) are visible on modern aerial photographs. As such, there is a high potential for historic resources in these areas. Additionally, the perceived lack of significant land development in the PA over time indicates there is potential for intact archeological materials. However, agricultural activities such as plowing and grading have likely displaced any archeological materials located on the surface or shallow-buried. The local soil, geologic, PALM and historic land use information support a recommendation for an intensive archeological survey consisting of pedestrian reconnaissance and shovel testing.

Methodology

The results of the background research were referenced in the development of the survey methodology to ensure that a sufficient level of field investigation is conducted to identify all archeological and above ground historic resources in the PA. The intensive archeological survey will conform to the Council of Texas Archeologists (CTA) Survey Standards for Texas and be performed by Halff Principal Investigator, Annie Carter and Staff Archaeologist, Joshua Cutler who meet the U.S. Secretary of the Interior (SOI) Professional Qualification Standards for Archaeology and Historic Preservation and professional qualification requirements for Principal Investigator. In addition, an architectural assessment of effects evaluation of historic structures will be performed by SOI-qualified Architectural Historian, Kathryn St. Clair. Components of the survey may include pedestrian reconnaissance, shovel testing, field notes, site documentation, artifact inventories, evaluations of above-ground historic-age structures, and digital photography. All exposed surfaces will be examined for evidence of cultural materials. The excavation of shovel tests will be done on a judgmental basis and conducted where the PA exhibits potential to contain buried and undisturbed cultural materials. Mechanical trenching is not a component of the archeological survey given the overall low-moderate potential for deeply buried archeological materials based on the local soil, geologic, PALM and historic land use data.

Archeological Survey

The CTA Survey Standards for the proposed 4.5-mile (7.2-km) long and 350-foot (ca. 100-m) wide PA require a minimum of 144 shovel tests placed along two transects and at an interval no greater than 100 m (ca. 300 feet). Shovel tests are excavated in settings that have potential for buried archeological materials, except on slopes greater than 20 percent or in settings with evidence of significant ground disturbance. Shovel tests are at least 30 cm (ca. 1 foot) in diameter and excavated to the lesser of 80 cm (ca. 2.6 feet) below the surface or base of Holocene-age deposits. All excavated soil matrices are screened through 0.25-inch (0.64-cm) hardware cloth or hand-sorted if clay and moisture content require. The location of each shovel test is documented using a Global Positioning System (GPS) capable of sub-meter accuracy. Soil/sediment depth and composition, and the presence/absence of cultural materials are recorded on standardized forms for each shovel test, which is backfilled upon completion. If previous ground disturbance precludes the excavation of shovel tests, GPS data points are recorded at each location along with photographs and descriptions of the disturbance. Shovel test intervals are adjusted as needed to avoid disturbed areas while adhering to the shovel test schedule to the extent possible. All photograph locations are mapped using GPS capable of sub-meter accuracy.

Archeological Site Recording Procedures

An archeological site will be defined as containing cultural materials or features that are at least 50 years in age or older and meeting at least one of the following criteria:

1. a single cultural feature observed on or below the surface,
2. three or more surface artifacts within a 15-m (ca. 50-foot) radius, and
3. two or more positive shovel tests located within 30 m (ca. 100 feet) of each other.

Archeological site boundaries are delineated based on the distribution of artifacts and features on the surface or within positive shovel tests. A minimum of six shovel tests are excavated to define site boundaries at 15-m (ca. 50-foot) intervals or less until two negative shovel tests in each direction or landform/project limits are reached. Additional and strategically placed shovel tests are excavated as needed to adequately sample site deposits. If shovel tests and other field observations indicate a negligible potential for buried

archeological materials, site boundaries are delineated based on the surface distribution of artifacts and/or features.

The survey will employ a non-collection strategy, meaning all artifacts observed in the PA are documented in the field and left where they were found. However, certain diagnostic materials may be collected to evaluate site chronology, function and NRHP/SAL eligibility potential. All encountered sites are documented on standardized forms with boundaries and significant feature/artifact localities mapped in the field with a GPS capable of sub-meter accuracy. The site data collected in the field are sufficient for a preliminary evaluation of NRHP/SAL eligibility potential. Electronic TexSite forms are completed for each documented site and submitted to the Texas Archeological Research Laboratory with site boundary shapefiles for permanent trinomial assignment.

Historic Architectural Assessment

SOI-qualified architectural historian, Kathryn St. Clair will conduct database searches of the Atlas and the TxDOT Historic Resources Aggregator to identify previously documented and listed historic properties/districts in the PA and APE (direct and indirect). The architectural historian will conduct fieldwork to identify, document, and evaluate all resources within the PA/APE that are 50 years old or older. A report will be prepared to document the methodology, documented resources, NRHP eligibility recommendations, and a recommendation regarding whether the proposed project would adversely affect NRHP-listed or -eligible properties/districts. The report will include descriptions of each documented resource, relevant mapping, photography, and other supporting materials. The architectural assessment will be completed at the reconnaissance level and the results incorporated into a single cultural resources report that includes the findings and recommendations resulting from the archeological survey.

Survey Report

Halff will prepare and submit a draft report that summarizes the findings of the archeological survey and historic architectural assessment. The report will conform to the CTA Reporting Standards and provide recommendations regarding any additional cultural resources work requirements with appropriate justifications. Following a period of County review, the draft report will be submitted to the THC and USACE for concurrent review. After addressing any agency comments, Halff will submit a final report to the County and furnish the THC with one final report copy containing the plotted locations of any sites recorded and one copy that excludes the site location data.

Curation

Pursuant to 13 TAC 26.17, and after acceptance of the final report by the THC, the administrative and field records, photographs, survey report and any collected artifacts will be prepared for permanent curation at the Center for Archaeological Studies located at Texas State University in San Marcos, Texas.

References

Griffith, Glenn, Sandy Bryce, James Omernik and Anne Rogers
2007 Ecoregions of Texas. Texas Commission on Environmental Quality.

Nationwide Environmental Title Research (NETR)
2024 Historic Aerials. Electronic document, https://www.historicaerials.com/viewer, accessed November 5, 2024.

Natural Resource Conservation Service (NRCS)
2024 Web Soil Survey. Electronic document, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm, accessed Novemeber 5, 2024.

Texas Historical Commission (THC)
2024 Texas Archeological Sites Atlas. Electronic document, https://atlas.thc.state.tx.us/ accessed November 5, 2024.

Texas Water Development Board (TWDB)
2024 River Basins. Electronic document, https://www.twdb.texas.gov/surfacewater/rivers/river_basins/index.asp, accessed November 5, 2024.

U.S. Geological Survey (USGS)
2024a Geologic Atlas of Texas Viewer. Electronic document, https://txpub.usgs.gov/txgeology/, accessed November 5, 2024.
2024b TopoView. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#4/40.01/-100.06, accessed November 5, 2024.

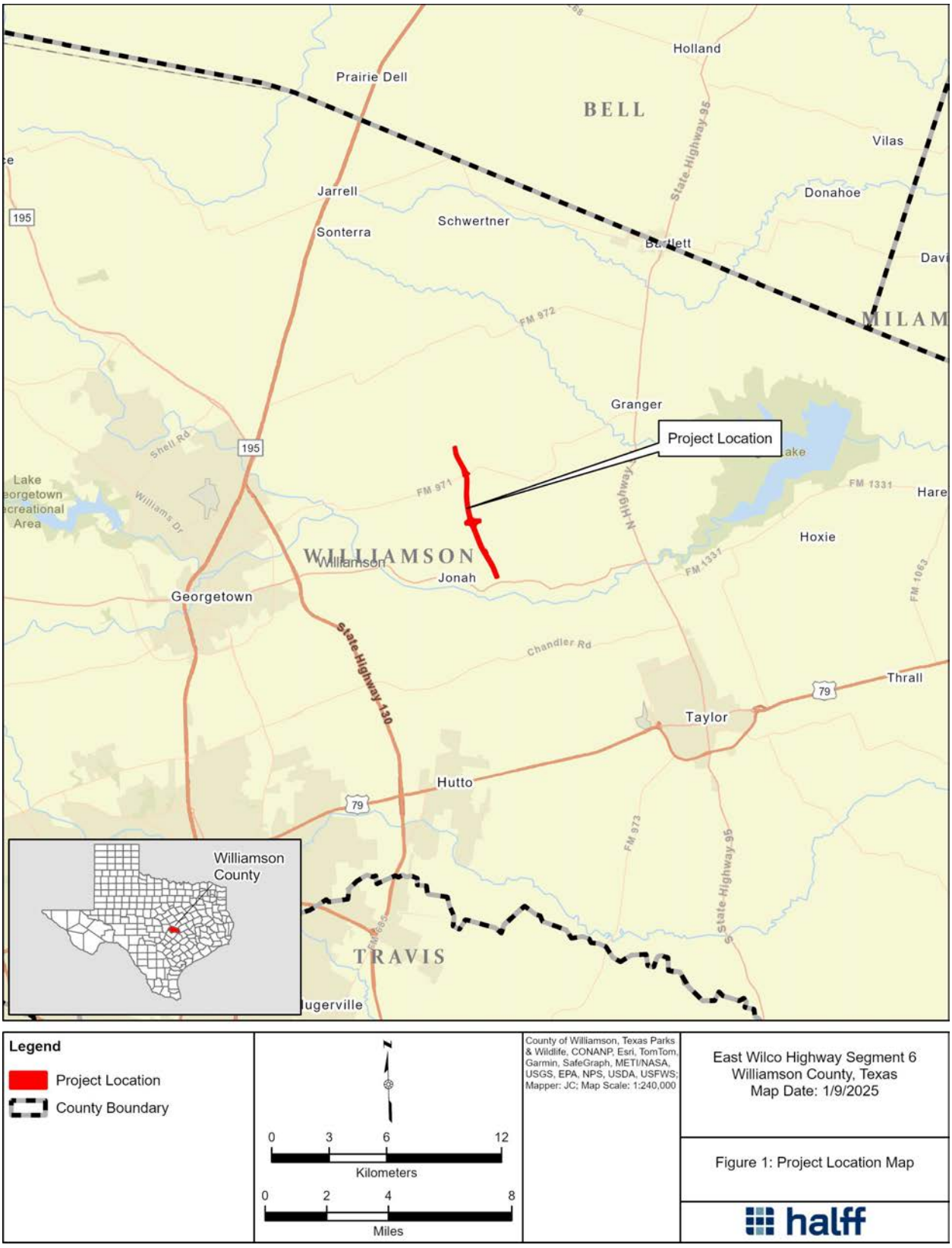

Figure 1: Project Location Map.

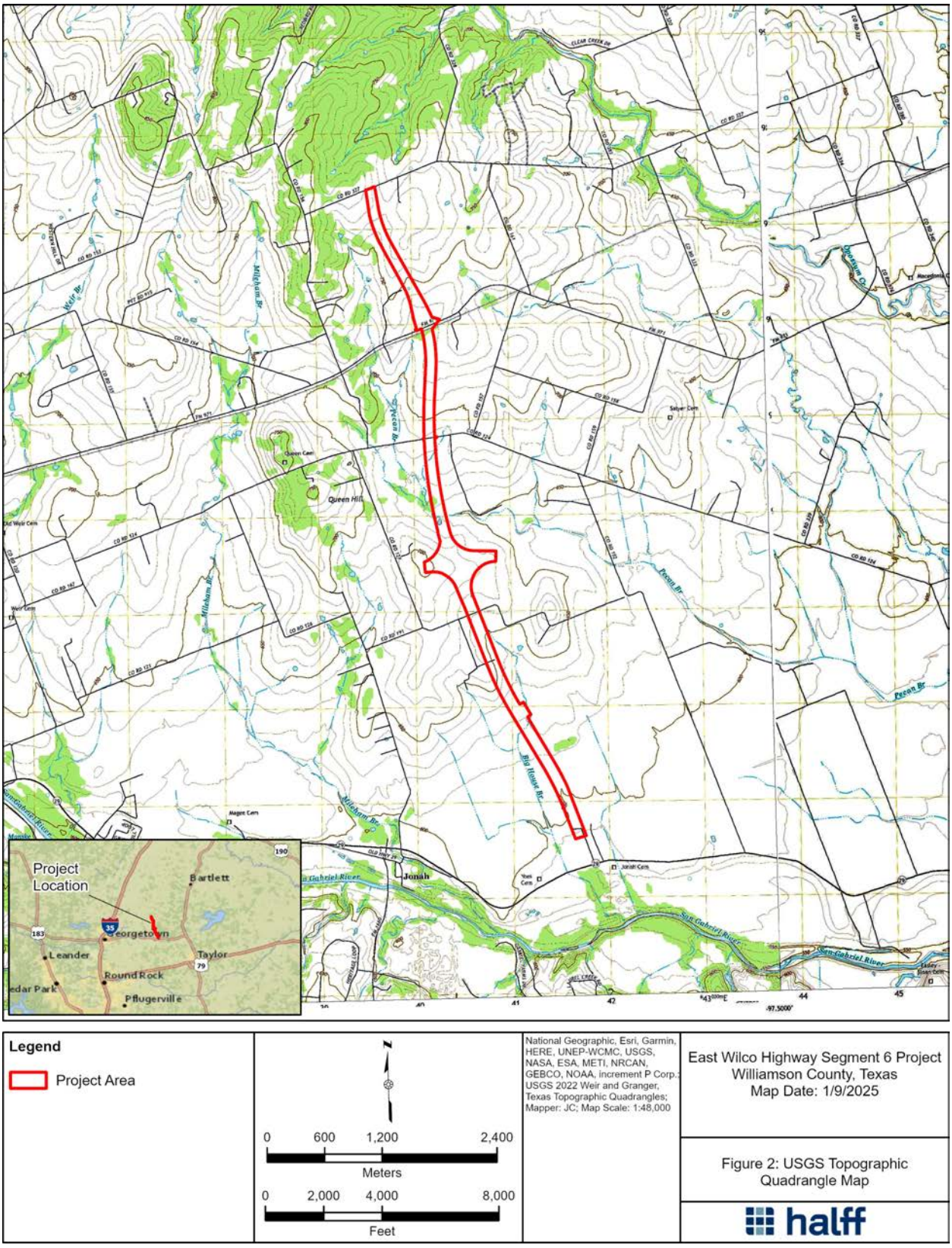

Figure 2: USGS Topographic Quadrangle Map.

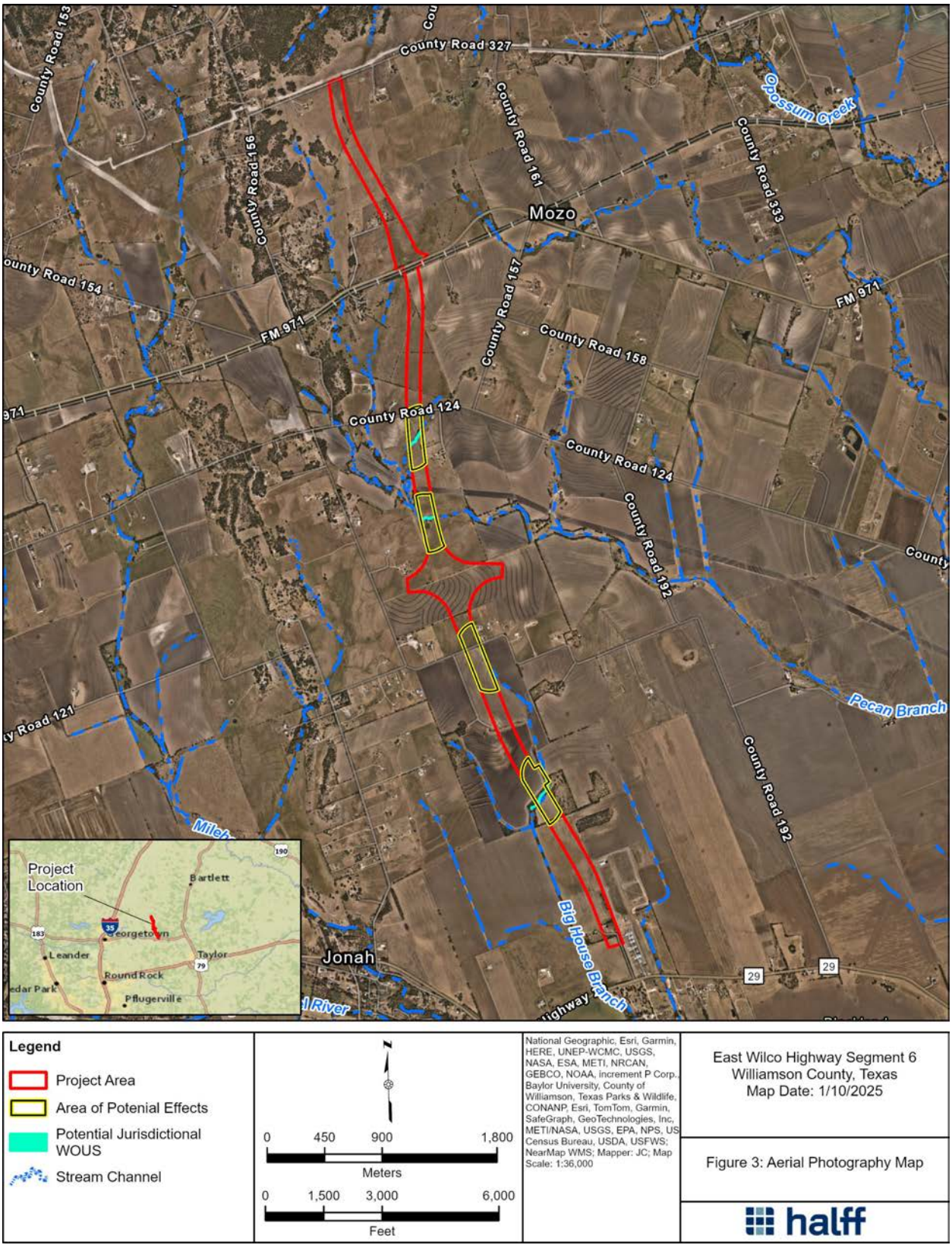

Figure 3: Aerial Photography Map.

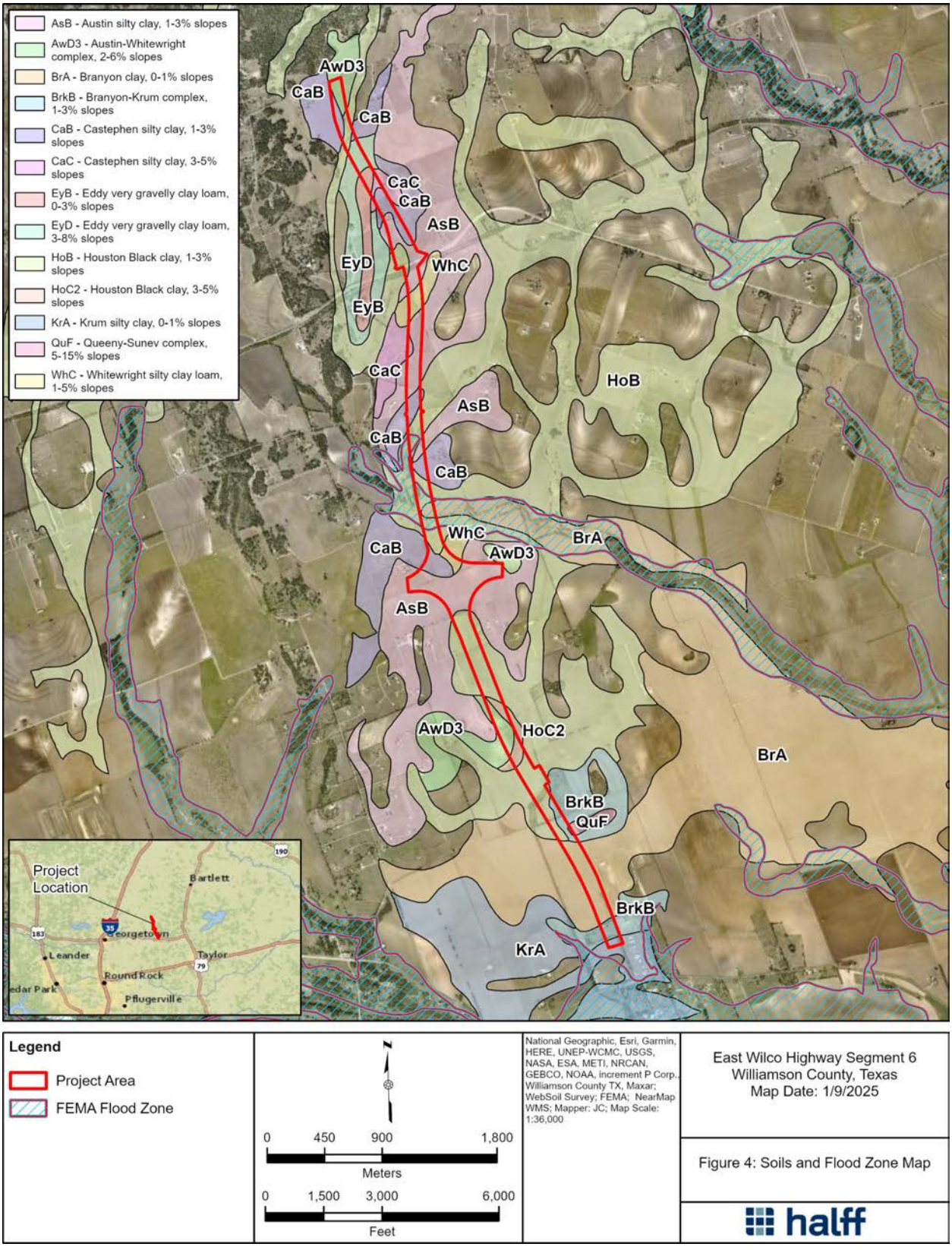

Figure 4: Soils and Flood Zone Map.

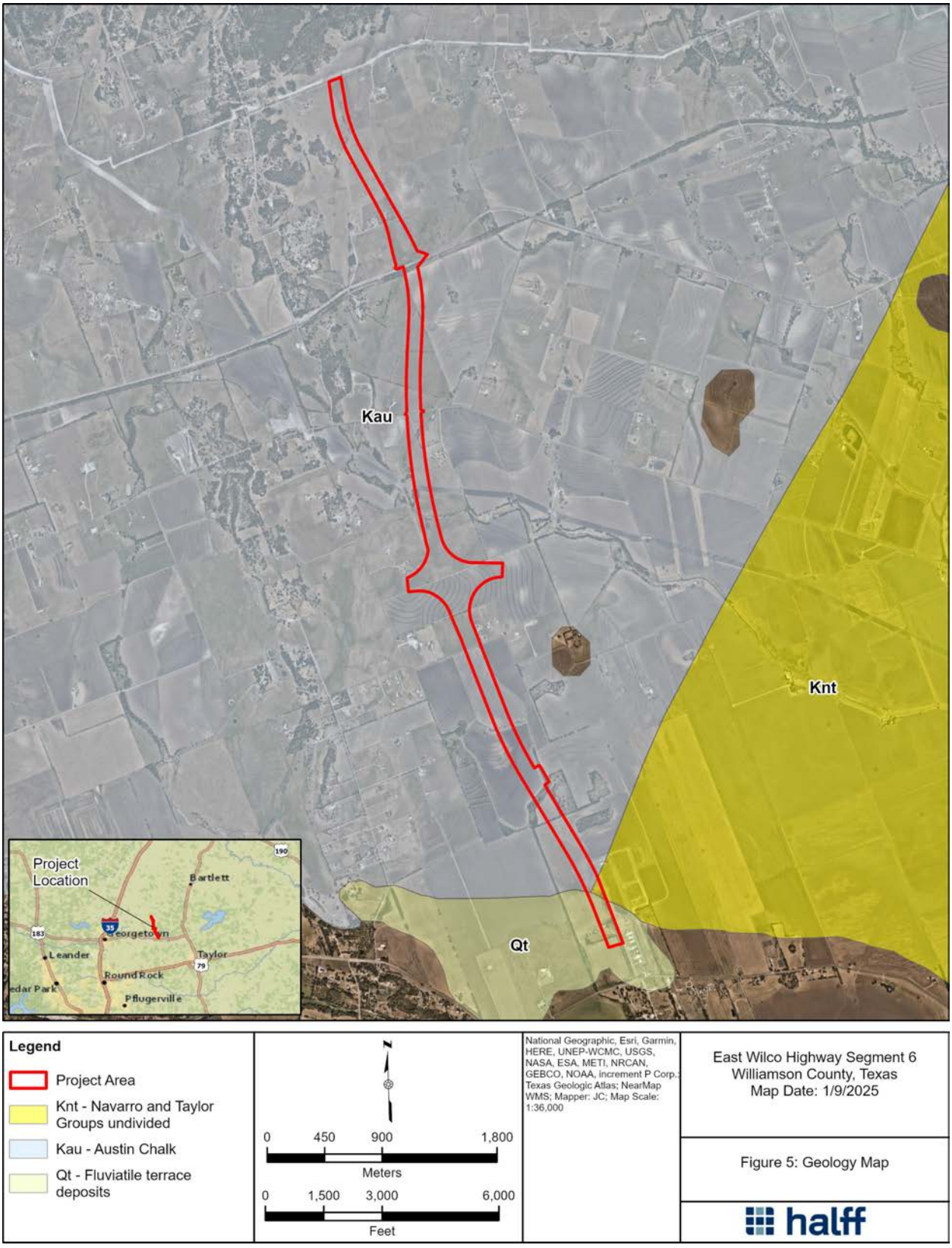

Figure 5: Geology Map.

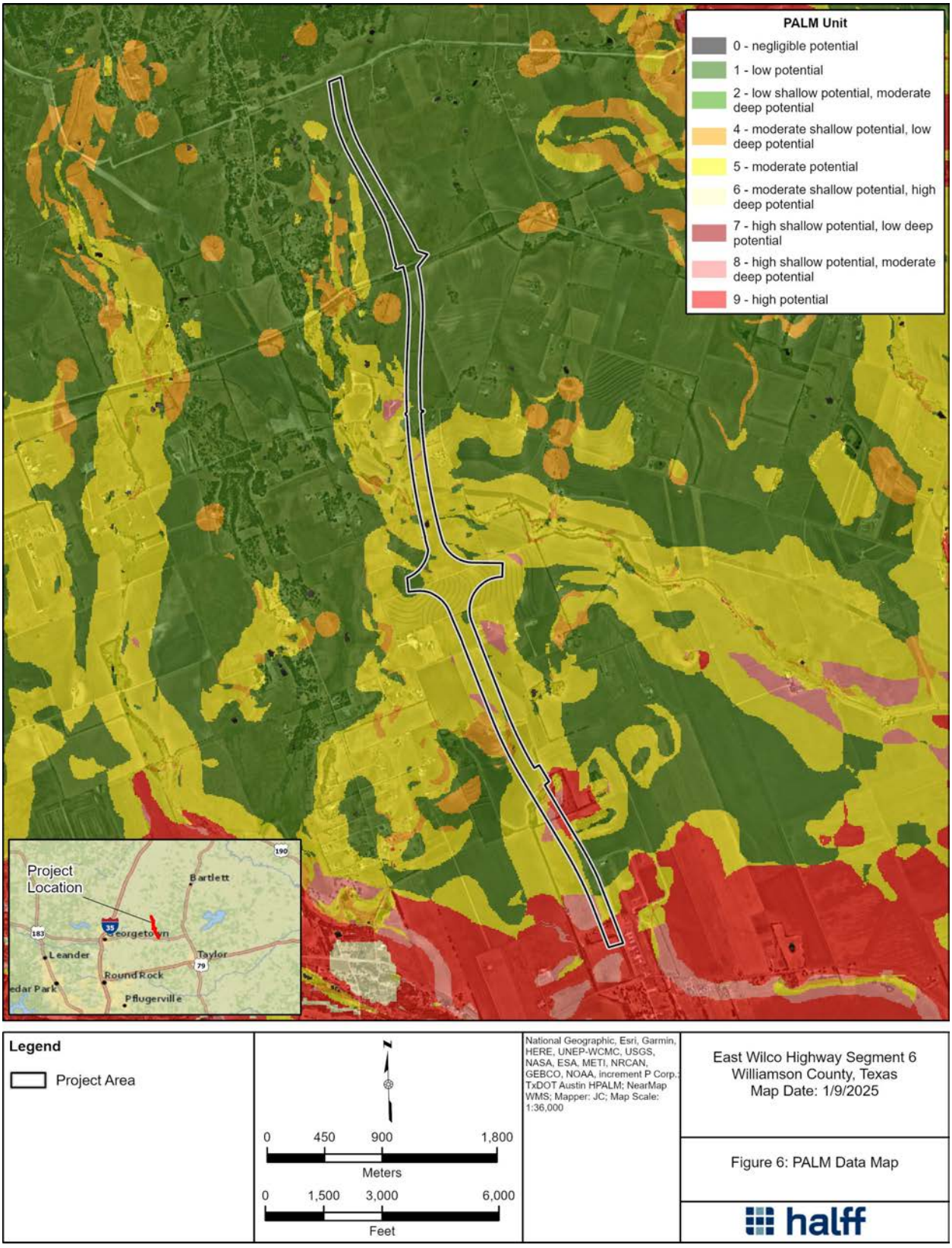

Figure 6: PALM Data Map.

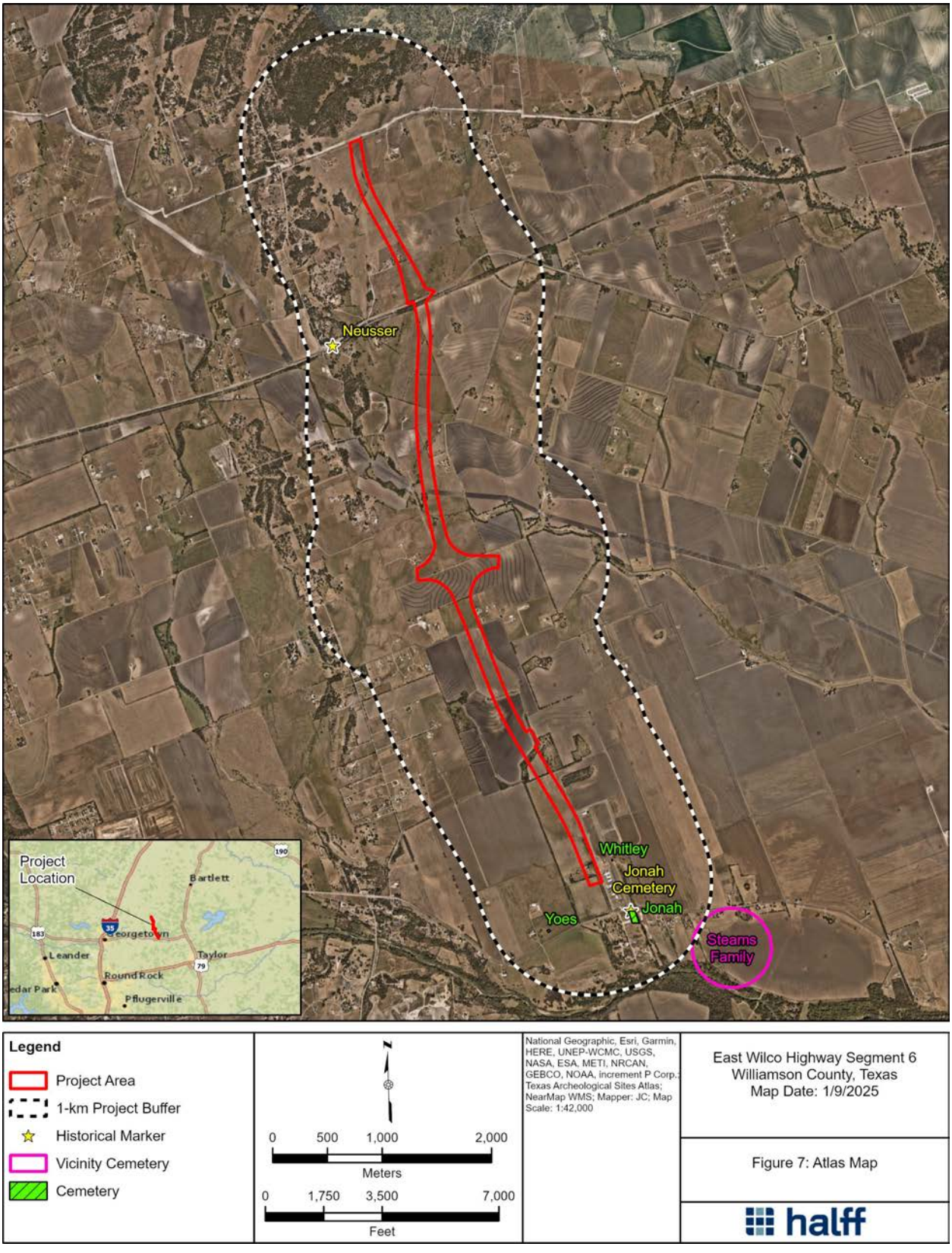

Figure 7: Atlas Map.

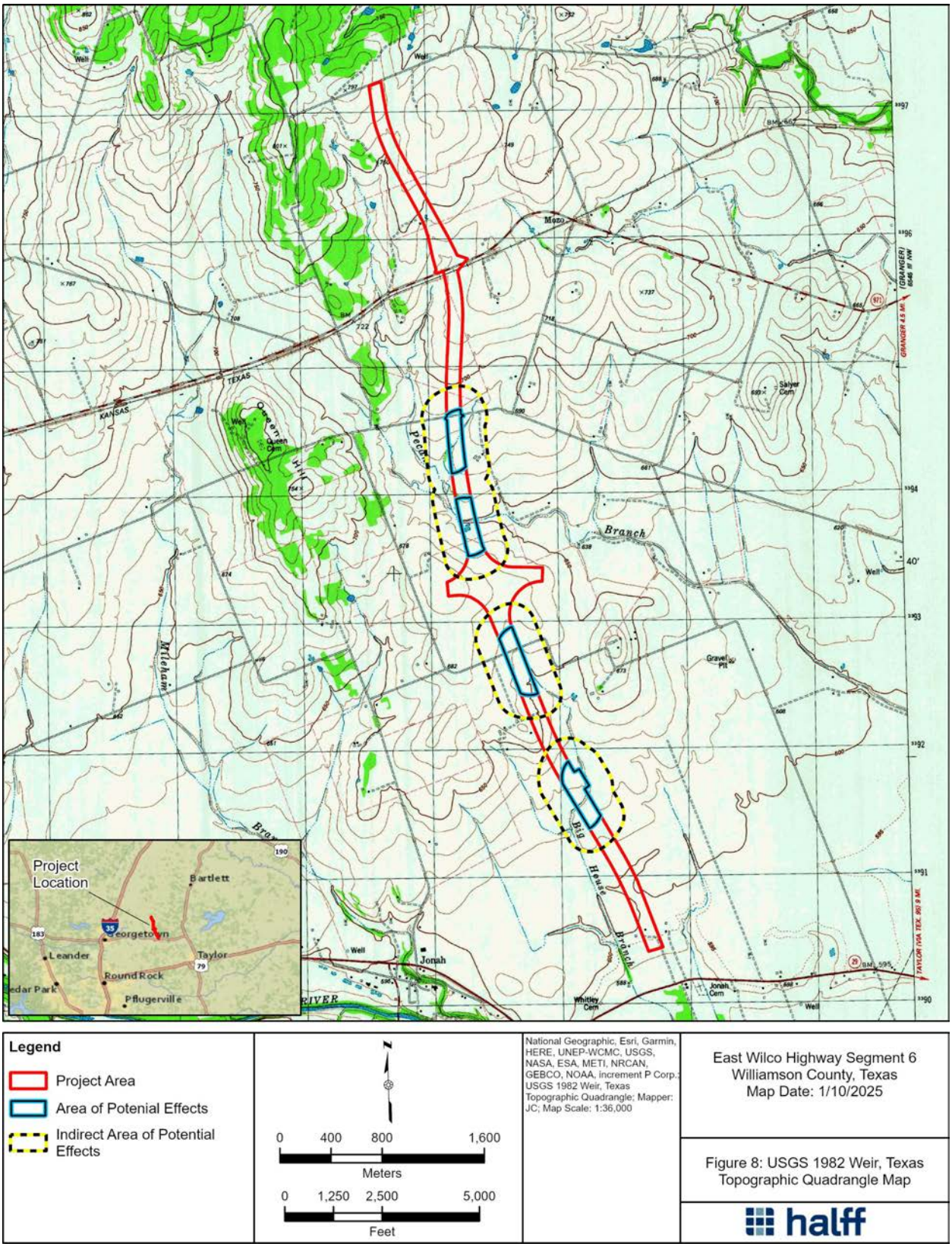

Figure 8: USGS 1982 Weir, Texas Topographic Quadrangle Map.

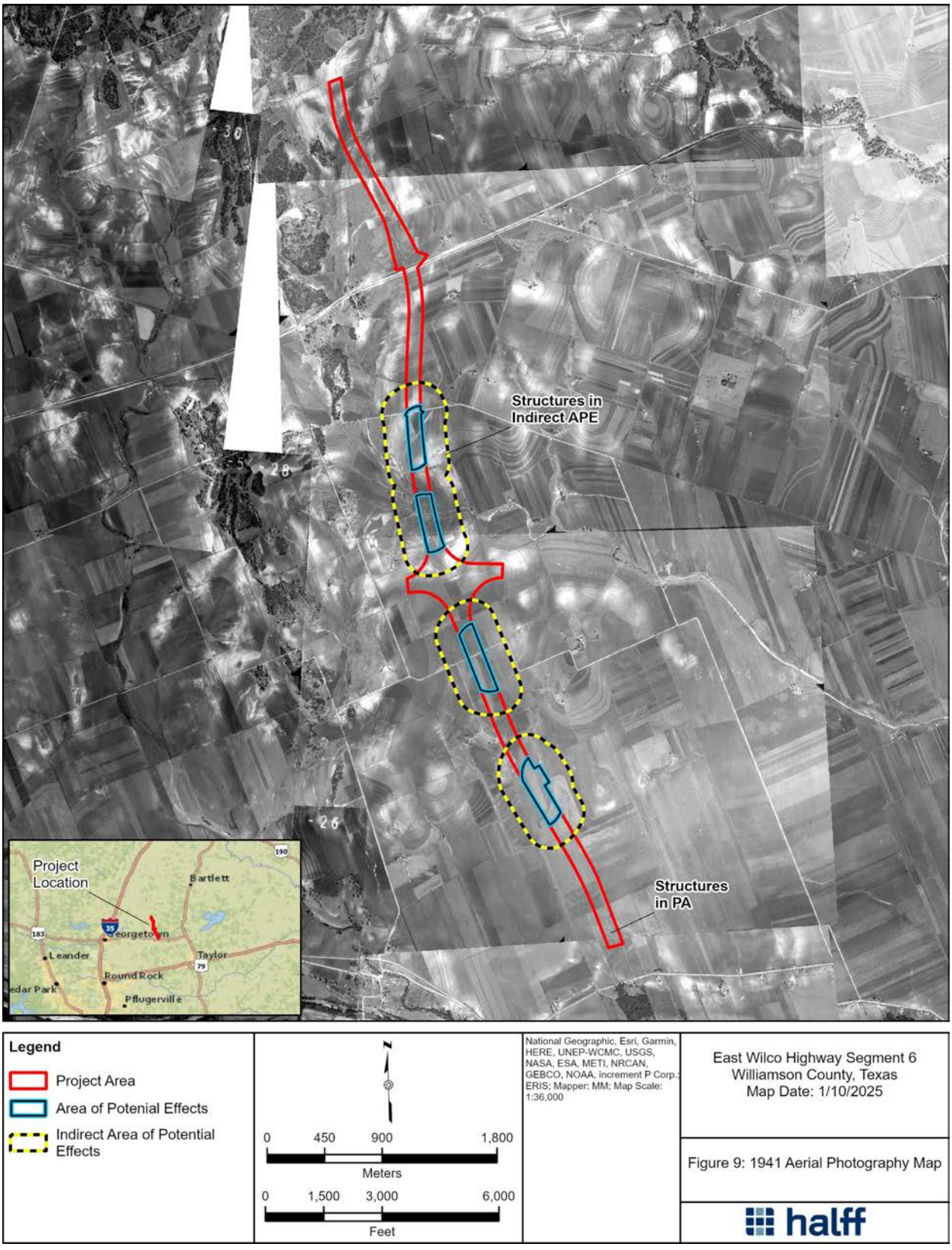

Figure 9: 1941 Aerial Photography Map.

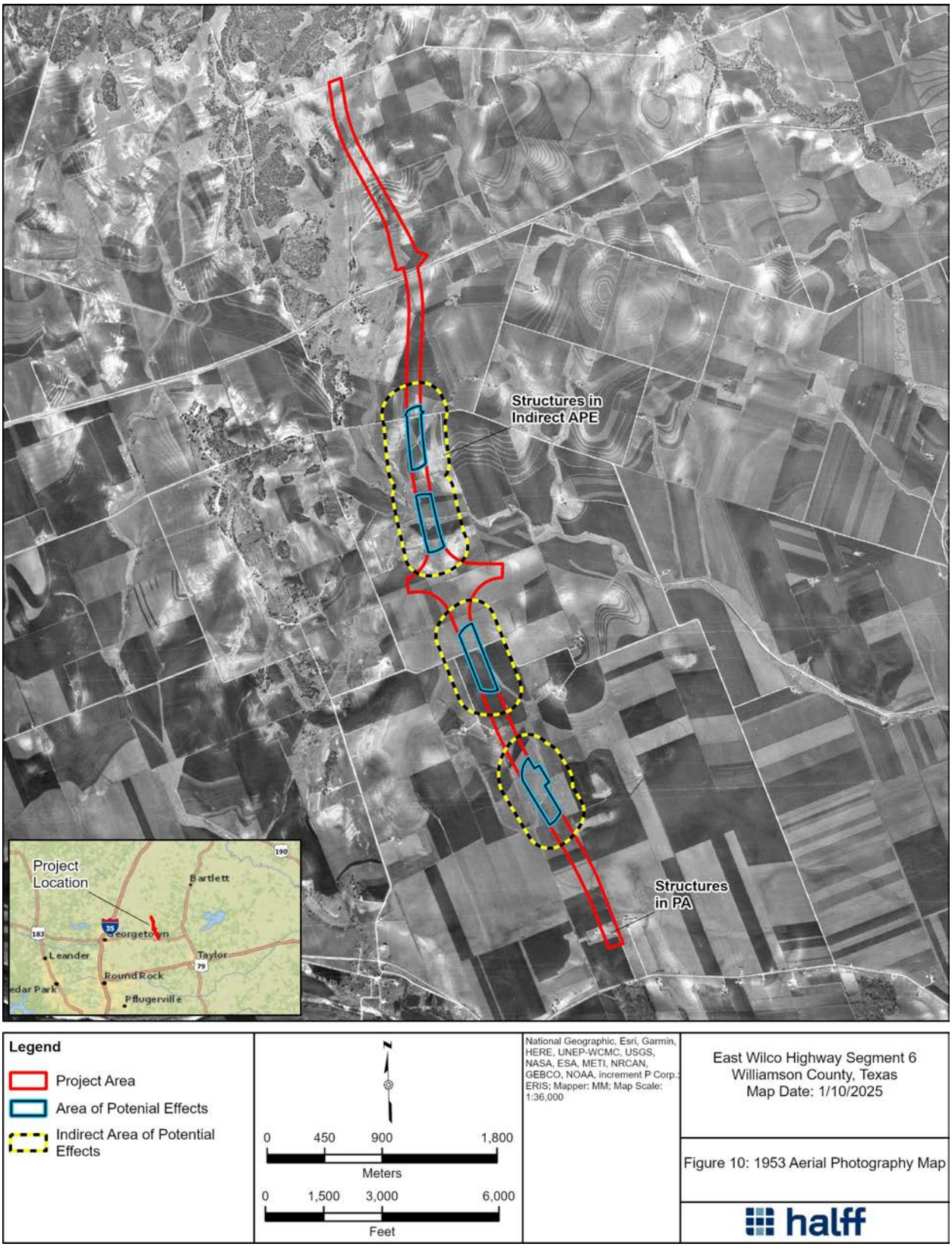

Figure 10: 1953 Aerial Photography Map.