Appendix F – Section 106 Historic and Cultural Resources Evaluation Report and Texas Historic Commission (THC) Concurrence Letter

FINAL 8.6.2025

Section 106 Assessment and Texas Historic Commission (THC) State Historic Preservation Officer (SHPO) Coordination

for the

Runway 18L/36R Rehabilitation Project

at

Dallas Fort Worth International Airport

From: noreply@thc.state.tx.us <noreply@thc.state.tx.us>
Sent: Friday, September 12, 2025 2:24 PM
To: Marie Oehlerking <MOehlerking@komatsu-inc.com>; reviews@thc.state.tx.us
Subject: DFW Airport Runway 18L/36R Rehabilitation Project

TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: Project Review under Section 106 of the National Historic Preservation Act
THC Tracking #202513582
Date: 09/12/2025
DFW Airport Runway 18L/36R Rehabilitation Project
2400 Aviation Drive
Dallas,TX 75261

Description: DFW Airport will be replacing the existing Runway 18L/36R in its exact location with new pavement requirements for contemporary aircraft safety.

Dear Marie Oehlerking:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act.

The review staff, led by Justin Kockritz and Danielle Julien, has completed its review and has made the following determinations based on the information submitted for review:

Above-Ground Resources

- THC/SHPO concurs with information provided.
- No adverse effects on historic properties.

Archeology Comments

- No historic properties affected. However, if cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.
- THC/SHPO concurs with information provided.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: justin.kockritz@thc.texas.gov, danielle.julien@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,

for Joseph Bell, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

August 06, 2025

Joseph Bell
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276

RE: Initiation of Section 106 Consultation for DFW Airport Runway 18L/36R Rehabilitation

Dear Mr. Bell:

On behalf of the Dallas Fort Worth International Airport (DFW) and the Federal Aviation Administration (FAA), Komatsu Architecture is initiating consultation with the State Historic Preservation Office (SHPO) for the proposed Runway 18L/36R Rehabilitation project at DFW International Airport property. The DFW International Airport is seeking approval from the FAA to modify their Airport Layout Plan (ALP) to reflect the permanent alterations. Additionally, DFW International Airport may seek federal funding for the proposed Runway 18L/36R Rehabilitation project. Since the ALP modification and receipt of federal funding are considered federal actions, the FAA will review the undertaking in accordance with the National Environmental Policy Act of 1969 (NEPA). In addition, coordination with the SHPO, represented by the Texas Historical Commission (THC), is necessary in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations, 36 CFR Part 800, which requires that federal agencies consider the effects of their undertakings on historic properties. The purpose of this report is to evaluate the proposed project and assess its potential impact on any historic resources.

1. PROJECT OVERVIEW

The Runway 18L/36R Rehabilitation project is located directly west of Terminals B and D buildings, and the North and South Express parking lot. Refer to Image 1 for a location map of the project site.

Runway 18L/36R was originally constructed in 1974 and was 11,386 feet in total length. In 2002, the runway was extended to the north by 2,015 feet to reach its current length of 13,401 feet. The Runway is 200 feet wide with 25-foot-wide asphalt shoulders.

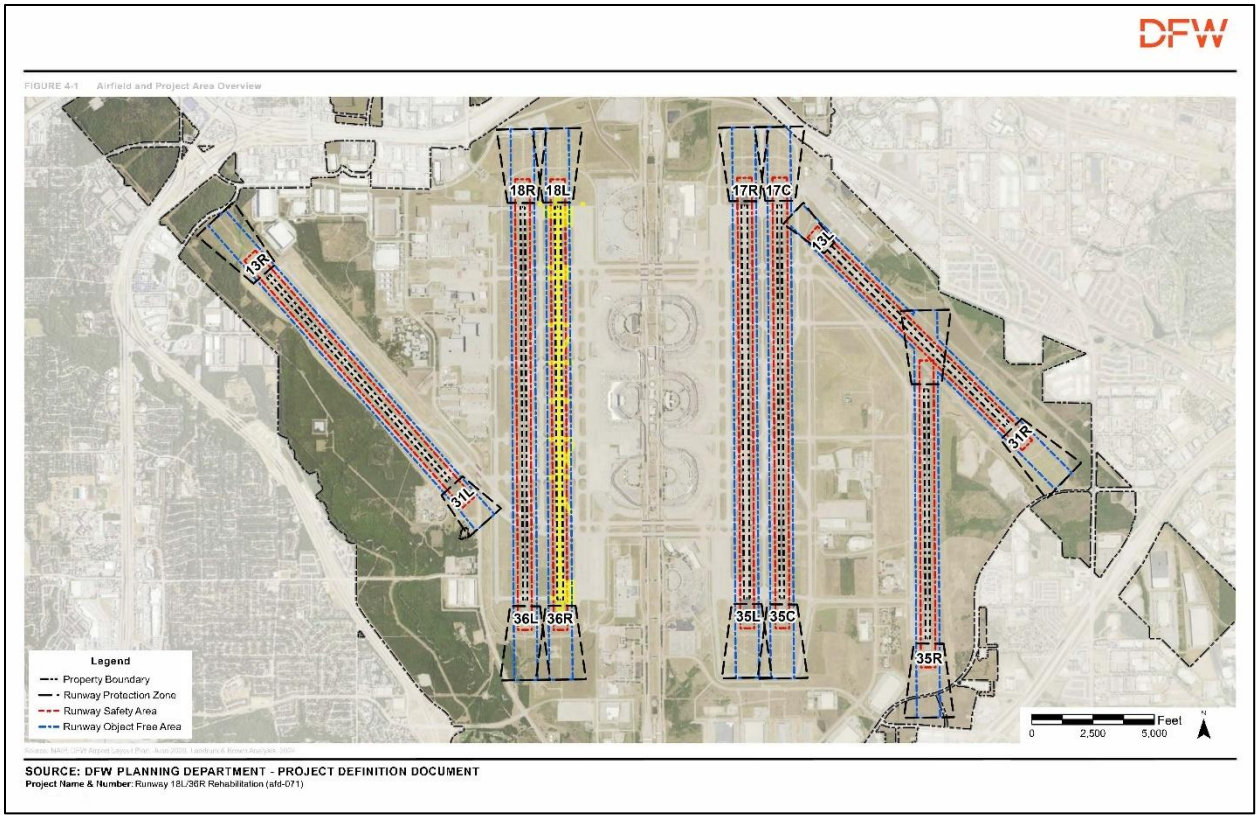


Image 1. Airfield and Project Area Overview

Source: Runway 18L/36R Rehabilitation Project Definition Document, January 2025, DFW Airport

Runway 18L/36R is next in the comprehensive runway rehabilitation program currently underway at DFW. In the most recent pavement condition index (PCI) report conducted in 2019, the condition of the keel section received a “fair” score of 66 and was one point shy of a major rehabilitation recommendation. The intent of the runway rehabilitation is to preserve and extend the functional life of the runway, enhance the future functional performance, reduce operational impact, reduce capital investment, and provide for future maintenance / improvements without critical operations impact. Rehabilitation of Runway 18L/36R will reinstate the asset to good condition and reduce the number of unplanned runway closures and maintenance costs. This project will also present an opportunity to bring runway and taxiway conditions up to current standards. Additionally, this project will improve many other assets near the runway. The asphalt overlay will provide a reliable operational surface and standard maintenance cycle that aligns with the previous three recently completed runway rehabilitation projects.

The Runway 18L/36R Rehabilitation project includes the following scope of work:

- Runway 18L/36R pavement rehabilitation including:

    - Select Portland Cement Concrete (PCC) panel replacement on 150-feet of the 200-foot existing width
    - Reducing the width of the runway from 200 feet wide to 150 feet wide
    - Construction of a Hot Mix Asphalt (HMA) overlay across the full runway width
    - Full-depth reconstruction of shoulder pavements to meet FAA Advisory Circular (AC) 150/5300-13B (Change 1) requirement of 35 feet including the underdrain system.
        - While all 25 feet of existing shoulders will be demolished, only 10 feet of shoulders will be reconstructed to meet the 35-foot requirement, as the additional 25 feet of shoulder pavement will be provided by the remaining runway pavement once the width is reduced.
    - Full-depth reconstruction or rehabilitation of the Runway 18L and 36R blast pads to full FAA Airplane Design Group (ADG) VI runway design standards
- Airfield sign and electrical improvements including:
    - Touchdown Zone (TDZ), centerline, and edge light LED upgrades
        - The only remaining incandescent lights on the runway are the TDZ lights and the Land and Hold Short Operations (LAHSO) lights. However, the existing LED lights will likely require upgrades to the latest controllers.
    - Manholes replaced with junction can plazas
    - Replacement of in-pavement can lights including taxiways
    - Non-standard signs with pig tails
    - Temperature sensors
    - Electrical box relocation (ADG-VI obstruction)
    - Removal of old electrical infrastructure in the Southwest Holdpad (SWHP)
- Utility improvements including:
    - Relocation and repair of the runway drainage system, as necessary
    - Inlet repairs and relocation out of Runway Safety Area (RSA)
- Northwest Holdpad (NWHP) Rehabilitation and Taxiway Design Group (TDG) 6 Fillet Modifications
- SWHP TDG 6 Fillet Modifications
- TDG 6 fillet modifications and select panel replacement of all taxiways and high-speed taxiway exits within the Runway 18L/36R Object Free Area (OFA)
- Existing taxiway pavement demolition of Taxiway WK between Taxiways E and F
- Existing taxiway pavement demolition of Taxiway G8 between Taxiways E and F
- Existing taxiway pavement demolition of Taxiway WL between Taxiways E and F
- Existing taxiway pavement demolition of Taxiway F4 between Runway 18L/36R and Taxiway F
- Taxiway WF pavement rehabilitation south of taxiway centerline (foam repairs)

- Northwest end-around taxiway (NW EAT) pavement construction north of Runway 18L within RSA
- Runway 36R run-up area partial demolition
- No-taxi island installation in the following locations:
    - East of Runway 18L threshold between Taxiway WF and Taxiway WG
    - East of Runway 18L threshold between Taxiway WG and Taxiway WH
    - West of Runway 18L threshold between Taxiway WF and Taxiway WG
    - East of Runway 36R threshold between Taxiway WP and Taxiway WQ
    - East of Runway 36R threshold between Taxiway WQ and Taxiway WR
    - East of Runway 18L/36R between Taxiway Y and Taxiway Z
- Final site-area grading, topsoil, seed/sod, and other erosion controls, as necessary. Limits of grading, topsoil, sodding needs to encompass areas beyond the inlets/drains to mitigate infield problem areas.
- Temporary lighting, signage, and pavement markings installation, as necessary, to support temporary taxiway routing during various phases of construction
- Removal and replacement of obsolete runway signage and markings, as necessary
- Any additional work that may be required to progress the project, which may include temporary facilities, temporary fencing and gates, temporary roadways, etc.

2. AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) has been defined by Komatsu Architecture in the map found in Image 2 on the following page. An enlarged version of the map is provided in **Attachment A and Attachment B** for the archaeological resources desktop evaluation. The Direct APE is applied to the proposed project area boundary and approximately 150 feet outside of the immediate project footprint (see **Attachment C** for select Design Drawing Sheets). The Indirect APE is applied to approximately 500 feet surrounding the project areas to include all visual and physical elements within the proximity of the project.

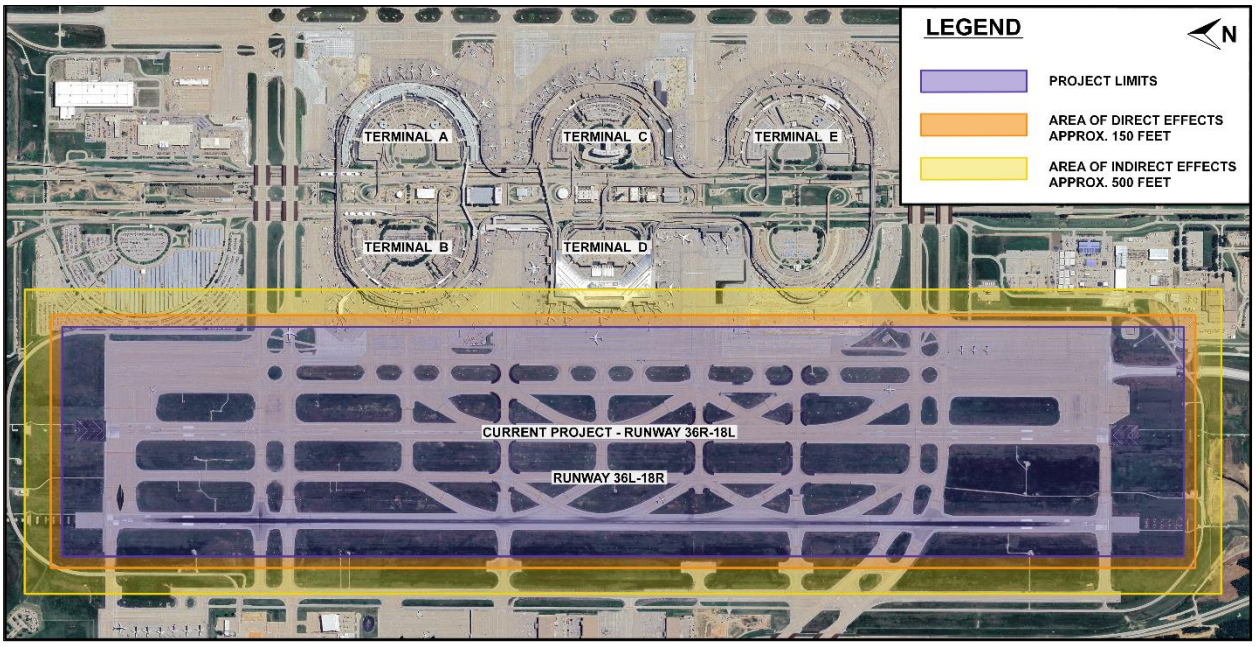


Image 2. Area of Potential Effects Map

3. IDENTIFICATION OF HISTORIC PROPERTIES

In the Direct APE, above ground resources include low-lying, pavement resources including runways, taxiways, aprons, and ramps. In the Indirect APE, above ground resources include Terminals B and D, North and South Express Parking, and a portion of the southern campus. The sections below highlight the history and evolution of each of these resources. Although the indirect APE includes structures that are of historic-age (i.e., 50-years old), none of these historic-age resources qualify for listing on the National Register of Historic Places (NRHP) and are, therefore, not historic properties.

3.1. Direct APE - Runways, Taxiways, Aprons, Ramps

DFW Airport's original runway configuration was a new innovation for airport planning in that it located the terminal structures between parallel runways rather than a side-loaded terminal that had been the planning model since commercial aviation began. The central spine is formed by DFW's primary vehicle roadways designated as International Parkway. In 2019, DFW conducted a preliminary and informal study which included the following runway descriptive histories excerpts:

3.1.1. Runways

The original runway on the West Air Side (18L/36R) is parallel to International Parkway (Spine) and bisects the central terminal area. The East Air Side runway (17R/35L) is identical in orientation to the West Air Side runway. The third crosswind runway (13L/31R) is set at a diagonal across the North end and intersecting the parallel runway. The original runways were

150 feet in width, with an ultimate width of 200 feet, and paved shoulders of 50 feet in width. The two parallel runways were originally 11,400 feet in length and the third was 9,000 feet in length. The runways were constructed of concrete pavement. The East runway 17R/35L was extended north in 1995 and 18L/36R on the West was extended north in 2002 (Google Inc. 2018; NETR 2018).

By 1990, three additional runways were added, including additional parallel inboard runways on the East (17C/35C) and West (18R/36L) and a 45-degree angle from the bottom (south) of the western parallel runways (13R/31L) (NETR 2018). Runway 18R/36L on the west side was extended north in 2003 and 17C/35C was extended north in 2006 (Google Inc. 2018). The final runway was completed in 1996 and is located on east side of the central terminal area and parallel to International Parkway. The runway is currently designated as 17L/35R. Current runways are concrete with asphalt paved shoulders.

3.1.2. Taxiways

The DFW taxiways connect the runways to the aprons, hangars, and parking areas. The taxiways are labeled with letters A and B at the southern end of the runways and crossing International Parkway. Taxiways Y and Z are located north of the terminals and cross International Parkway, as well. The taxiways are constructed of concrete with asphalt paved shoulders. Original taxiways were 100 feet in width with 25-foot-wide shoulders that ran parallel to the north-south runways. Each of the North-South runways have two full-length (11,400 feet) taxiways. The crosswind runway (13L/31R) has a parallel taxiway as well. These are original to the Air Side Plan of 1974. Additional connector loops, hardstand areas, and diagonal taxiways have been added, or expansions have been made to accommodate larger aircraft continuously since 1974.

3.1.3. Aprons to Ramps

The aprons surround the terminals and provide the aircraft parking areas at the gates for loading and unloading of passengers. The aprons originally had hardstand areas for pull-off parking to accommodate aircraft waiting to access the gate positions. The original aprons were constructed of concrete. The apron areas extended approximately 420 feet from the terminal face. The design and layout of the aprons and terminal buildings were to minimize delay and allow for dual taxiway capability." [1]

Although Runway 18L/36R was originally constructed as a primary component of DFW Airport, it has been modified and changed over the years to accommodate contemporary aircraft requirements. The Runway does not rise to the level of historical significance under any of the NRHP criteria; Criterion A: Events, Criterion B: Person of Significance, Criterion C: Design /

Construction, or Criterion D: Information Potential. The major changes to the width and length of the runways also diminish their integrity of design. Therefore, Runway 18/36R and its associated air side components is not eligible for the NRHP and is not a historic property.

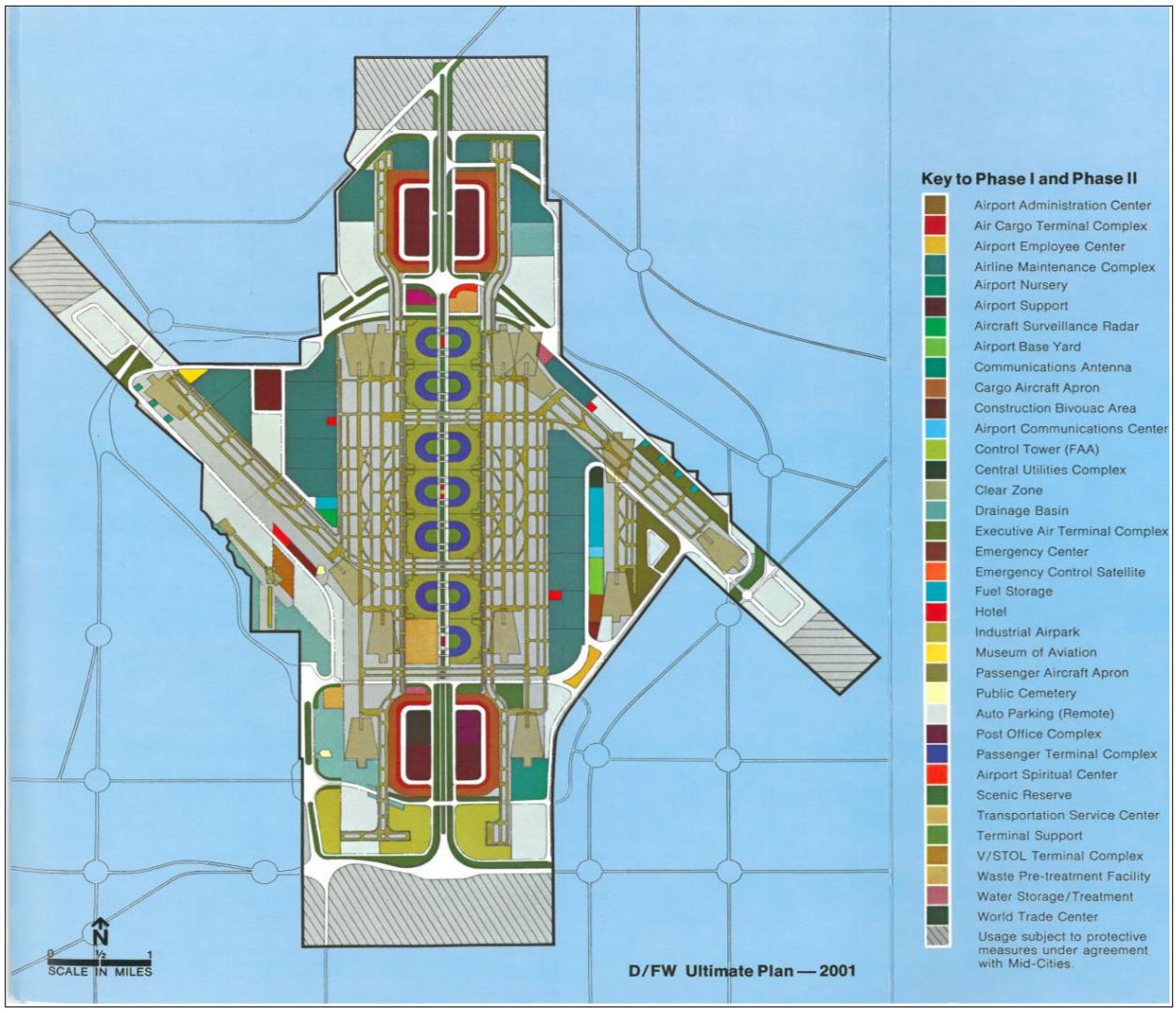


Image 3. DFW 1975 Ultimate Plan for 2001 by Tibbits Abbott McCarthy Stratton (TAMS) Terminal B and D

3.2. Indirect APE

In the Indirect APE includes Terminals B and D, North and South Express Parking, and a portion of the southern campus. The subsections below highlight the history and evolution of each of these resources.

3.2.1. Terminals B and D

The Terminal buildings were evaluated under a separate assessment report, "Terminal C and Terminals A, B, E Cultural Resources Evaluation", which is included as **Attachment D.** The

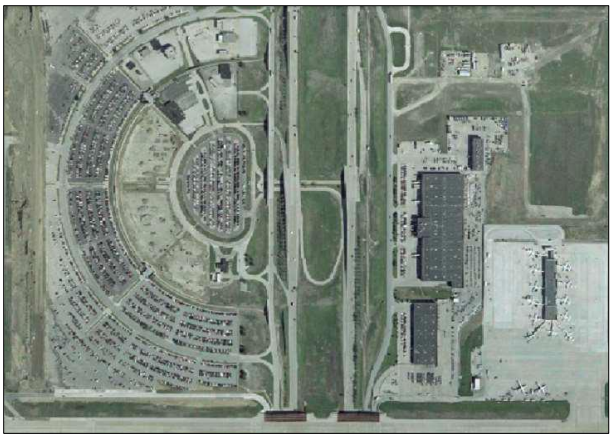
Terminals Evaluation found that the buildings had potential significance under National Register Criterion A for History, due to their association with the original planning concept of the Airport as a whole and its impact on transportation in the Dallas-Fort Worth Metroplex. However, the buildings individually lack architectural integrity, as the original design has been drastically changed and modified over the last 50 years. The Terminals were found to be "Not Eligible" for listing on the NRHP, under National Register Criteria B, C, or D.

Although portions of Terminals B and D fall within the Indirect APE boundary of the proposed Project, the Runway 18L/36R project boundary is approximately 150 feet away from the Terminal buildings and their associated Aprons, which means the physical construction activities would not have direct impacts to the structures. From the Terminal buildings, the replacement pavement will be visually similar to the existing configuration and will not change the appearance of the Terminals' setting once construction work is completed. Therefore, the Runway 18L/36R project does not have the potential to have adverse effects on historic properties.

Image 4 (left). Example of Terminal building design in January 1974.
Image 5 (right). Example of Terminal building design today post 2016.

3.2.2. Express North Parking

Remote parking, now North Express Parking, was developed and opened in 1975 occupying original spine node designation 1W. This facility served travelers entering from the North Entrance and was convenient to Terminal 2W and 2E, now B and A respectively. Today, the parking area still consists primarily of paved surface parking. The pavement has been replaced, additional parking spaces have been added, and in a portion of the lot contemporary shade structures have been installed. Although Express North Parking is of historic age and maintains its original location and use, the parking lot is not significant in its own right under the National Register criteria and is, therefore, not a historic property.



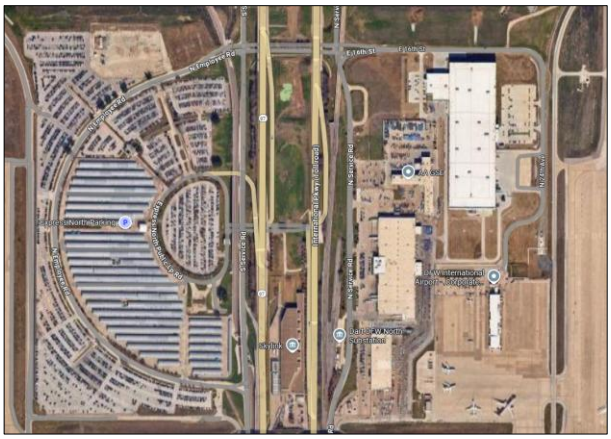


Image 6 (left). Express North Parking configuration 2015, then American Eagle Terminal far right.
Image 7(Right). Current aerial view of Express North Parking.

3.2.3. Express South Parking

Originally designated as Short Term Overflow Parking in 1974, the Express South Parking lot was constructed in node 4W. This node mimicked the half circle terminal buildings through the shape of the pavement for the surface parking. Above ground structures were minimal. Since that time, above ground structures have been added within this node including the Express South Parking Structure, constructed in the early 1980s, and Sky Link elevated rail system, constructed in 2005. Neither of these resources are of historic age and are, therefore, not eligible for the NRHP. The Express South Parking node was explored in a previous Section 106 Assessment. For additional information, refer "**Attachment E**. Terminal E & F Section 106 Assessment" report. Concurrence for this report was received on September 11, 2023; the THC concurrence-letter is included in **Attachment E**.

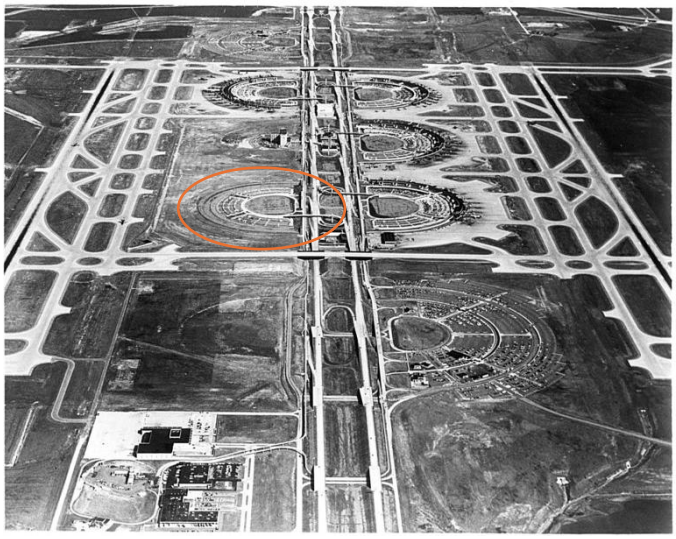


Image 8. Circa 1975 view of 4W Short Term Overflow Parking, circled in orange, and 4E Terminal (Delta and Continental); and 5E (right foreground) with both Remote Employee Parking and Rental Car facilities

Image 9 (left). Current Aerial view of Express South Parking, Image 10 (right). Current view of Express South Parking structure

3.2.4. Above Ground Resources Between S. Service Road and SW Construction Road

The southern edge of the Indirect APE boundary touches several above ground structures at the southern portion of the airport. These structures from left to right include temporary buildings in the Environmental Affairs Division parking lot, new facilities under construction, and the former U.S. Post Office building. Of these, only the Post Office building is of historic age, as it was constructed in 1973.

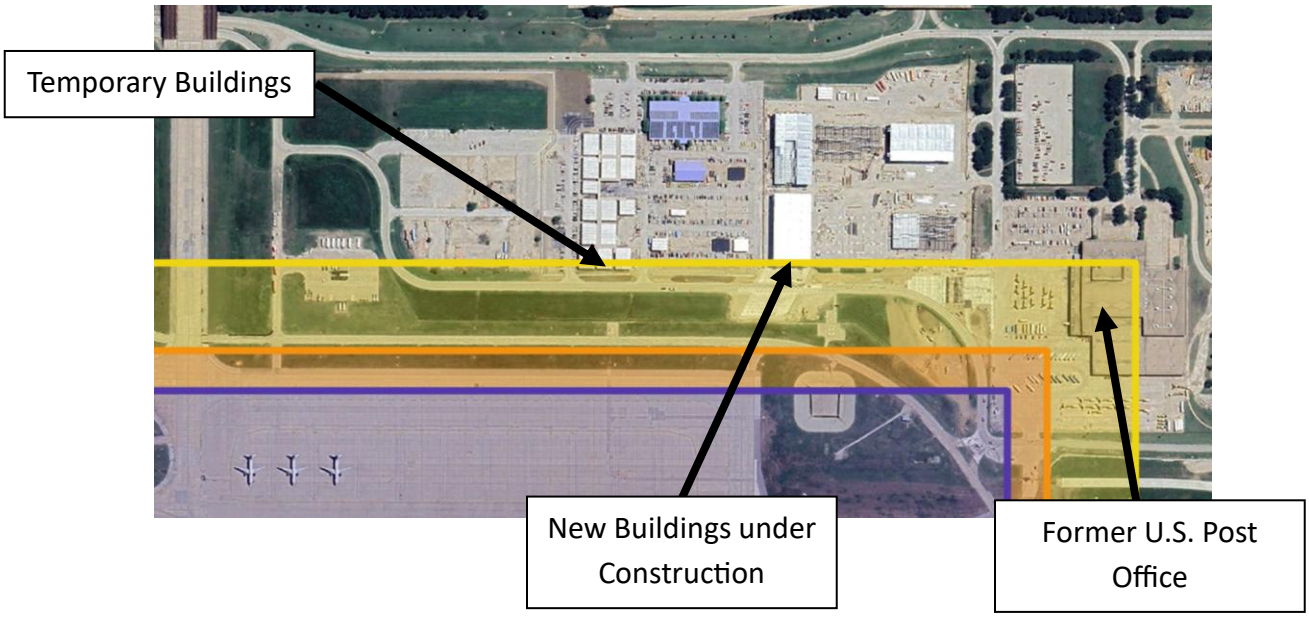


Image 11. Close up of above ground resources in south campus area within the Indirect APE.

The first portion of the Post Office facility was completed in 1973 as one of the early support facilities to serve the US Mail Air Service and Airport Ground operation needs. A straightforward processing building using the Airport's precast construction vocabulary, the building is unremarkable in its design. Over the years, several additions were made to the building. Today,

the building no longer functions as a Post Office. It is currently used for various storage needs as the new facilities were placed with other air cargo operations. The recommendation is that this historic-age facility does not meet significance in architectural design or construction methods criteria and is deemed “Not Eligible” for listing on the NRHP.

4. DETERMINATION OF FINDINGS

Based on the results of this evaluation, research, and past investigations, Komatsu Architecture finds that:

- There are no historic resources within the direct APE.
- Terminal B, located within the Indirect APE is potentially eligible for listing on the NRHP, under Criterion A,
- The Old Post office is not eligible for listing on the NRHP,
- The Express North Parking is not eligible for listing on the NRHP,
- The Express South Parking is not eligible for listing on the NRHP.

The areas of disturbance associated with the proposed runway rehabilitation project are more than 150 feet away from Terminal B and its associated apron. Therefore, the proposed Runway 18L/36R Rehabilitation project has ***No Adverse Effects*** on historic properties within both the Direct and Indirect Area of Potential Effects. Pursuant to 36 CFR 800.4(d)(1), Komatsu Architecture, as DFW Airport’s consultant and representative, and on behalf of the FAA, requests the SHPO’s concurrence on the consultant and agency’s findings. Thank you in advance for your consideration.

Sincerely,

Karl Komatsu, President
Komatsu Architecture

5. ATTACHMENTS

A. Map of APE
B. Archaeological Resources Desktop Analysis for the Runway 18L/36R Rehabilitation Project and associated Project Support Locations
C. Proposed Runway 18L/36R Rehabilitation Project 50% Drawings
    I. Volume 1 – Existing Conditions, Construction Phasing
    II. Volume 2 – Erosion Control, Demolition Plan, Civil Geometry, Jointing, Pavement Markings and Signage
D. Terminal C and Terminals A, B, E Cultural Resources Evaluation
E. Terminal E and Proposed Terminal F Development Section 106 Evaluation

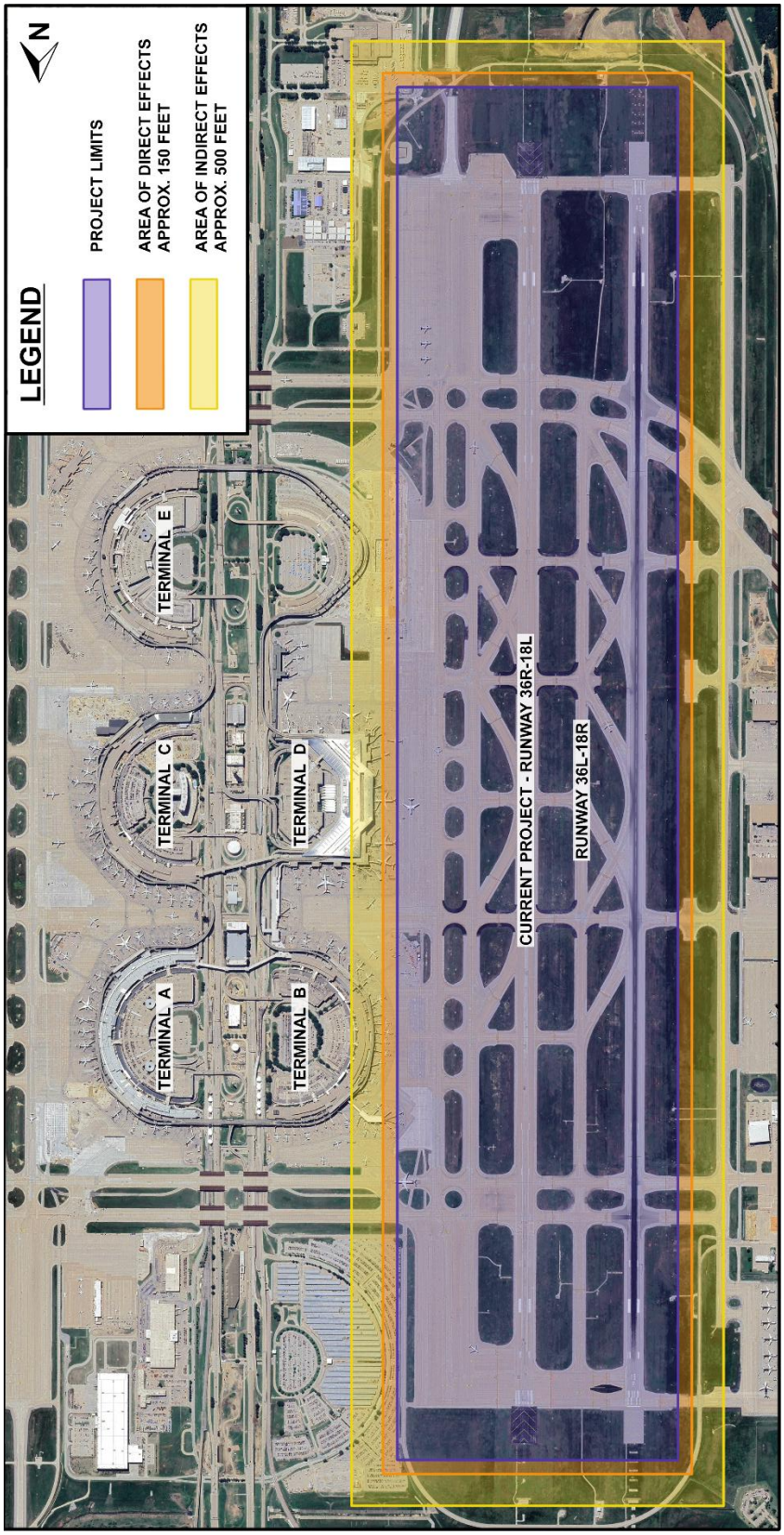
6. REFERENCES

AtkinsRealis. “Runway 18L-36R Rehabilitation Volume 1-5 50% Drawings.” April 2025.

DFW Airport Planning Department. “Runway 18L/36R Rehabilitation Project Definition Document.” January 2025.

Attachment A: Map of APE

Attachment A. Area of Potential Effects Map



Attachment B: Runway 18L/36R Rehabilitation Project Archaeological Resources Desktop Evaluation

28 July 2025

Ms. Esther Chitsinde
HDR Engineering, INC.
17111 Preston Rd., Suite 300
Dallas, Texas 75284

RE: Cultural Resources Desktop Analysis for the Dallas-Fort Worth International Airport Runway 18L/36R Rehabilitation Project, DFW International Airport, Tarrant County, Texas

INTRODUCTION

Integrated Environmental Solutions, LLC (IES) has been contracted by HDR, Inc., on behalf of the Dallas-Fort Worth International Airport (DFW), to conduct the cultural resources review and agency coordination for the proposed DFW Runway 18L/36R Rehabilitation Project. The proposed project area, or Area of Potential Effects (APE), encompasses 55.97 acres (ac) on DFW property in Tarrant County (**Attachment A, Figure 1**). Approval from the Federal Aviation Administration (FAA) will be required to modify the Airport Layout Plan (ALP) to reflect the permanent alterations on DFW property. Since the ALP is considered a federal action, the project will require compliance with the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) Section 106. Additionally, as DFW is a political subdivision of the State of Texas, the project will be subject to the provisions of the Antiquities Code of Texas (ACT).

PERTINENT REGULATIONS

Antiquities Code of Texas

As DFW is considered a political subdivision of the State of Texas under Section 52, Article III, or Section 59, Article XVI, of the Texas Constitution, DFW is required to comply with the ACT. The ACT, as outlined in the Texas Administrative Code (TAC) Title 13 Part II and the Texas Natural Resource Code (TNRC) Title 9 Chapter 191, requires that political subdivisions notify the Texas Historical Commission (THC) at least 30 days prior to any project that may affect potential or designated archeological sites. While advance project review by the THC is required for undertakings with more than 5 ac or 5,000 cubic yards of ground disturbance, the THC can still request project information and/or an archeological survey in advance of more minor ground disturbances since all publicly sponsored projects must comply with the ACT. If the activity occurs inside a designated historic district, affects a recorded archeological site, or requires on-site investigations, the project will need to be reviewed by the THC, regardless of project size.

National Historic Preservation Act Section 106

The NHPA (54 U.S. Code [USC] 306101), specifically Section 106 (54 USC 306108), requires the State Historic Preservation Officer (SHPO), represented by the THC, to administer and coordinate historic preservation activities, and to review and comment on all actions licensed by the federal government that will affect properties listed in the National Register of Historic Places (NRHP), or eligibility for such listing. Per 36 Code of Federal Regulations (CFR) Part 800, the federal agency responsible for overseeing the action must make a reasonable and good-faith effort to identify cultural resources. Federal actions include, but are not limited to, construction, rehabilitation, repair projects, demolition, licenses, permits, loans, loan guarantees, grants, and federal property transfers. Approval will be required from the FAA to modify the ALP that will reflect the permanent alterations to DFW property. Since this is considered a federal action, the project will consequently require compliance with the NEPA and NHPA Section 106.

AREA OF POTENTIAL EFFECTS

The APE for the project encompasses approximately 55.97 ac, split across four separate staging areas. Although designs for the proposed project are still in the early stages of development, current plans call for construction of two concrete batch plants and an asphalt batch plant, with each component having two location options among the four proposed staging areas. Two proposed staging areas are in the southern half of the airport, one at the southeast corner of S Airfield Road and SW Construction Road, and one directly north of W 31st Street. The other two areas are in the northern half of the airport between N Airfield Drive and N Emergency Road. Ground disturbances associated with the proposed project may include clearing, grading, and installation of utilities. Subsurface impacts for this project will likely be minimal as most construction will occur at or above grade or within a few feet of the current ground surface. Limited deeper disturbances associated with utilities could exceed 10 ft in depth.

METHODOLOGY

Background Research

During the background review, a variety of literature and online sources were referenced to determine if potential archeological resources were located within the APE. These sources included: U.S. Geological Survey (USGS) topographic maps; the *Soil Survey of Tarrant County, Texas*; the Geologic Atlas of Texas (Dallas Sheet); the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) digital soil databases for Tarrant county; the 1936 State Highway Maps of Tarrant County; the Texas Historic Overlay georeferenced map database; the Texas Department of Transportation (TxDOT) Potential Archeological Liability Map (PALM); and both past and current aerial photographs of the proposed APE. Additionally, a file search of the Texas Archeological Site Atlas (TASA) and Texas Historical Sites Atlas (THSA) was performed for the proposed location and surrounding areas. This review was performed by Staff Archeologist Jacob Flynn on 22 July 2025.

The TxDOT PALM examines "the character and classification of the soils and assesses the shallow and deep geoarcheological potential or the likelihood that soil could contain buried cultural materials in reasonable context (i.e., historic/recent disturbances, landscape setting, and soils data) for each soil series" (Abbott 2011:161). The TxDOT PALM model identifies where sites are likely to be preserved in a reasonable context versus indicating where sites are likely to exist (Abbott 2001:154, 2011:179). "The resolution of the PALM is appropriate to the scale of landform mapping (1:24,000)" (Abbott 2011:175). Any analysis of the data beyond the scale of mapping can result in a misunderstanding of the detail of mapping (Abbott 2011). Due to the more detailed evaluation required to accurately evaluate cultural resources potential for field methodology development (typically 1:7,000 or less), the cultural resources potential evaluation presented in this document includes an assessment of the PALM results at a more detailed level to determine if the project area has retained a reasonable degree of contextual integrity, as assumed by the PALM model. A reasonable context is evaluated through a review of historical and modern aerial photographs to evaluate the level of previous ground disturbance that has transpired within a given area.

BACKGROUND REVIEW

Topography, Geology, and Soils

The Grapevine 7.5-minute USGS topographic quadrangle map illustrates that the APE is situated on a north-south-oriented upland ridge (**Attachment A, Figure 2**). Elevations within the APE range from 547 to 611 feet (ft; 167 to 186 meters [m]) above modern sea level (amsl).

The APE lies within the environmental interface, known as an ecotone, between the Northern Blackland Prairie and Eastern Cross Timbers ecoregions (McGowen et al. 1987). Variation among each ecoregion is a direct result of the underlying geology and overlying soils and sediments (Diggs et al. 1999). The natural divide between these two ecoregions is east of Big Bear Creek, which extends from the northwest to the southeast through the western portion of the DFW property. The Northern Blackland Prairie is distinguished from surrounding regions by gently rolling hills and fine-textured, black clayey soils and prairie vegetation (Griffith et al. 2007). Vertisols dominate the Blackland Prairie ecoregion and consist of high clay content soils with significant shrink and swell potential (Ressel 1981). Historical vegetation included little bluestem, big bluestem, yellow Indiangrass, and tall dropseed. The Eastern Cross Timbers region contains numerous hills that were once heavily wooded with oak, walnut, blackjack, and hickory trees that grow in deep sandy soil (Hill 1901). However, due to urban expansion, agricultural development, and other modern activities, the natural vegetation has become highly fragmented (Griffith et al. 2007). The APE is underlain by the Cretaceous-age Eagle Ford Formation (Kef), which is comprised of shale, sandstone, and limestone (McGowen et al. 1987; USGS 2025; **Attachment A, Figure 3**).

As shown by the *Soil Survey of Tarrant County, Texas*, there are five soil map units within the APE (Ressel 1981; **Table** 1; **Attachment A, Figure 4**). The entire APE contains soils typically found within an upland setting in the Northern Blackland Prairie. Soil data was viewed from the USDA NRCS Web Soil Survey (USDA 2025).

Texas Archeological Sites Atlas Review

A file search within the TASA and the THSA electronic databases, maintained by the THC and the Texas Archeological Research Laboratory (TARL), identified that there are no previously recorded archeological sites, National Register properties, historical markers, or cemeteries located within the proposed APE (TASA 2025; THSA 2025). The TASA database indicated that twenty archeological surveys have been previously conducted within 1 mi of the APE (**Table 2; Attachment A, Figures 5** and **6**). In addition, TASA records identified 13 previously recorded archeological sites located within 1 mi of the APE (**Table 3**). These sites were primarily associated with historic-age farmsteads that dotted the landscape before airport development in the late 1960s/early 1970s. Other sites within a mile pertained to prehistoric campsites and quarries, which consisted of debitage and lithic scatters. The TASA and THSA databases indicated the Crowley Survey Burial Site was once located northwest of the APE along Minters Chapel Road (TASA 2025; THSA 2025). Records from the Tarrant County TexGenWeb Project site indicate that the burial site no longer exists (Tarrant County TexGenWeb 2005).

Table 1: Soil Map Units Located Within the APE

Soil Map Unit Description	Percentage of the APE
FhC - Ferris-Heiden complex, 2 to 5 percent slopes: This component is described as clay located on ridges. Typical Bk subsoil horizon depth is 8 to 24 in (20 to 61 cm). The depth to a root restrictive layer or bedrock is 48 to 65 in (122 to 165 cm). The natural drainage class is well drained.	5.6
HeB - Heiden clay, 1 to 3 percent slopes: This component is described as clay located along upland ridges. Typical Bkss subsoil horizon depth is 18 to 58 inches (in; 46 to 147 centimeters [cm]). The depth to densic material is 40 to 65 in (102 to 165 cm). The natural drainage class is well drained.	14.4
HoB - Houston Black clay, 1 to 3 percent slopes: This component is described as clay located along upland ridges. Typical Bw subsoil horizon depth is 8 to 24 inches (in; 20 to 61 centimeters [cm]). The depth to a root restrictive layer or bedrock is more than 80 in (203 cm). The natural drainage class is moderately well drained.	42.0
HuB - Houston Black-Urban land complex, 1 to 4 percent slopes: This component is described as clay located on ridges. Typical Bw subsoil horizon depth is 8 to 24 in (20 to 61 cm). The depth to a root restrictive layer or bedrock is more than 80 in (203 cm). The natural drainage class is moderately well drained.	12.0
URB - Urban land, 0 to 16 percent slopes	26.0

Table 2: Previously Conducted Archeological Surveys within 1 Mile of the APE

Agency	ACT Permit No.	Firm/Institution	Date	Survey Type	Location (Approximate)
FAA	5773	Hicks & Company	2010	Area	Along SW edge of APE
DFW Airport, FAA	4491	AR Consultants, Inc.	2008	Area	0.01 mi SW
DFW Airport	8352	Integrated Environmental Solutions, LLC	2018	Area	0.02 mi NW
DFW Airport	7373	Integrated Environmental Solutions, LLC	2015	Area	0.03 mi SW
DFW Airport	7650	Integrated Environmental Solutions, LLC	2016	Area	0.06 mi W
DFW Airport	9162	Integrated Environmental Solutions, LLC	2019	Area	0.06 mi W
DFW Airport	7126	Integrated Environmental Solutions LLC	2015	Area	0.09 mi S
TxDOT	3561	GMI, Inc.	2004	Area	0.11 mi SW
FTA, Tarrant County	4775	URS	2013	Area	0.12 mi NE
EPA	n/a	n.d.	1979	Linear	0.29 mi W
Alan Plummer Associates, Inc.	7119	AR Consultants, Inc.	2015	Area	0.38 mi W
DFW Airport	9161	Integrated Environmental Solutions, LLC	2020	Area	0.39 mi NW
Texas Department of Transportation	3243	Prewitt and Associates	2004	Area	0.43 mi W
DART	7996	AmaTerra Environmental, Inc.	2017	Area	0.56 mi N
FHWA	n/a	n.d.	1991	Linear	0.72 mi NW
DFW Airport	6835	Integrated Environmental Solutions, LLC	2014	Area	0.74 mi NW
TxDOT	7257	URS Corporation	2015	Area	0.82 mi S
EPA, TDWR	7373	n.d.	1982	Linear	0.85 mi west
Fort Worth Transportation Authority	7643	Jacobs Engineering	2016	Area	0.87 mi N
DFW Airport	8777	Integrated Environmental Solutions, LLC	2019	Area	0.91 mi W

Table 3: Previously Recorded Archeological Sites within 1 Mile of the APE

Site Trinomial	Time Period	Site Type	Site Size	Depth Extent	Cultural Materials	Topographic Setting	Location
41TR16	Prehistoric	Open campsite	200 x 500 m	n.d.	Debitage, burned rock	Terrace and Floodplain	0.51 mi SW
41TR17	Prehistoric	Lithic scatter	150 x 400 m	n.d.	Debitage	Terrace and Floodplain	0.23 mi W
41TR18	Prehistoric / Historic	Quarry / Historic Graffiti	120 x 340 m	n.d.	Debitage	Terrace	0.45 mi NW
41TR19	Prehistoric / Historic	Open Campsite / Homestead	400 x 75 m	n.d.	Debitage and burned rock, collapsed cistern, brick, trash scatter	Terrace	0.97 mi NW
41TR63	Prehistoric	Quarry	210 x 110 m	n.d.	Debitage	Interfluvial Upland	0.71 mi W
41TR87	Historic	Homestead	200 x 130 m	Surface	Concrete foundations, structural debris, cookware, bottle glass, wagon, folding chair, metal drums	Upland	0.65 mi NW
41TR214	Historic	Homestead	40 x 160 ft	0-25 cmbs	Concrete foundations, well house, water storage tanks, glass, bottles, structural debris	Upland	0.49 mi NW
41TR218	Historic	Historic scatter	30 x 50 m	0-25 cmbs	Automotive parts, glass, bone, metal hardware	Upland	0.77 mi NW
41TR273	Historic	Farmstead	230 x 230 ft	0-20 cmbs	Historic bottles and structural debris	Upland	0.35 mi S
41TR274	Prehistoric / Historic	Lithic scatter with historic component	165 x 175 m	0-20 cmbs	Flakes and early-stage bifaces, debitage, historic trash midden	Upland	0.59 mi S
41TR275	Historic	Farmstead	230 x 230 ft	0-20 cmbs	Historic bottles and cans, structural debris, bicycle	Upland	0.5 mi S
41TR295	Historic	Historic debris scatter	60 x 50 ft	Surface	Structural debris e.g., concrete fragments, metal siding, barbed wire	Upland	0.55 mi W
41TR312	Historic	Farmstead	75 x77 m	0-30 cmbs	Water trough, windmill base, structural debris, bottle glass, bone	Upland	0.19 mi N

Disturbance Analysis

During the background review, it was determined that ground-disturbing activities have transpired within the APE related to past land use and airport construction. Prior to DFW construction in the early 1970s, the APE was primarily used for agricultural and ranching purposes as early as 1942 and presumably since the late nineteenth and early twentieth centuries. In the 1970s, major roads near the APE were constructed following large-scale grading of the airport grounds. Since initial construction of the airport, all portions of the APE have been impacted by various construction projects. More recently, the southeastern APE portion off S Service Road was developed into an office building complex and storage area beginning in the 1990s. Between 2018 and 2020, a concrete batch station and staging area were developed in the northwestern portion of the APE south of N. Airfield Drive.

Cultural Resource Potential

Prehistoric Resources

Data presented within the PALM for Tarrant County indicates the APE features a low to negligible potential for shallow or deeply buried archeological materials within areas that have retained a reasonable contextual setting. Similar conclusions were reported by AR Consultants, Inc. (ARC) in 2007 and 2008. ARC conducted intensive pedestrian surveys of 1,210 ac on the DFW property under Texas Antiquities Permit Number 4491 and published their results in the report *An Archaeological Survey for Chesapeake Energy Corporation at DFW International Airport, Dallas and Tarrant Counties, Texas* (Shelton et al. 2008). Through this study, three environmental zones were identified within DFW property that contain varying amounts of cultural resources probability (**Figure 6**). The current APE will have ground disturbances within Zone 1.

Zone 1 comprises the Blackland Prairie Uplands ecoregion, which consists of mostly level clay or clay loam soils over limestone bedrock. Water permeates very slowly to the water table, causing surface run-off and high shrink and swell potential. This setting has a low biotic diversity and is dominated by short grasses. Due to the limited resources available within the area, it has a low probability of containing prehistoric sites (Shelton et al. 2008).

Based on topographic setting and extensive ground disturbance, it was determined that the APE contains a low potential for encountering prehistoric resources.

Historic-Period Resources

Historic-period resources within North Central Texas are primarily related to farmsteads, houses, and associated outbuildings and structures that date from the mid-19th to the mid-20th centuries. Typically, these types of resources are located along old roadways, but can be located along railroads, streams, and open pastures. Although determining the presence of the earliest buildings and structures is problematic, maps depicting these features are available post-1895.

Historical maps and aerial photographs indicate that the APE was used for agricultural activities until the 1970s, when DFW airport was constructed. No buildings or structures were identified within the APE on historical maps or aerial imagery. Sam Street's 1895 Map of Tarrant County indicates farmsteads within the vicinity of both the southeastern and southwestern APE; however, only one adjacent to the southwestern APE can be seen in historic aerial imagery from 1956. This farmstead was demolished between 1968 and 1970, and water tanks were constructed in its place by 1972. Based on this background research and identified past disturbances, there is a low potential for encountering historic-age archeological resources within the APE.

CONCLUSIONS

Based on the results of this desktop analysis and previous IES investigations, the proposed project area has been exposed to previous ground disturbance and contains a low potential for containing either prehistoric or historic-age archeological resources. For these reasons, IES recommends that this project be allowed to proceed without the need for additional cultural resource investigations. However, if any cultural resources are encountered during construction, the operators should immediately stop construction activities in the area of the inadvertent discovery. The project cultural resources consultant should then be contacted to initiate further consultation with the FAA/THC prior to resuming construction activities.

If you have questions, please contact me by telephone at (972) 562-7672 or via email at kstone@intenvsol.com.

Sincerely,

Integrated Environmental Solutions, LLC

Kevin Stone, MA, RPA
Vice President – Cultural Resources Director

IES Reference Number: 04.165.013

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Attachment A
Figures

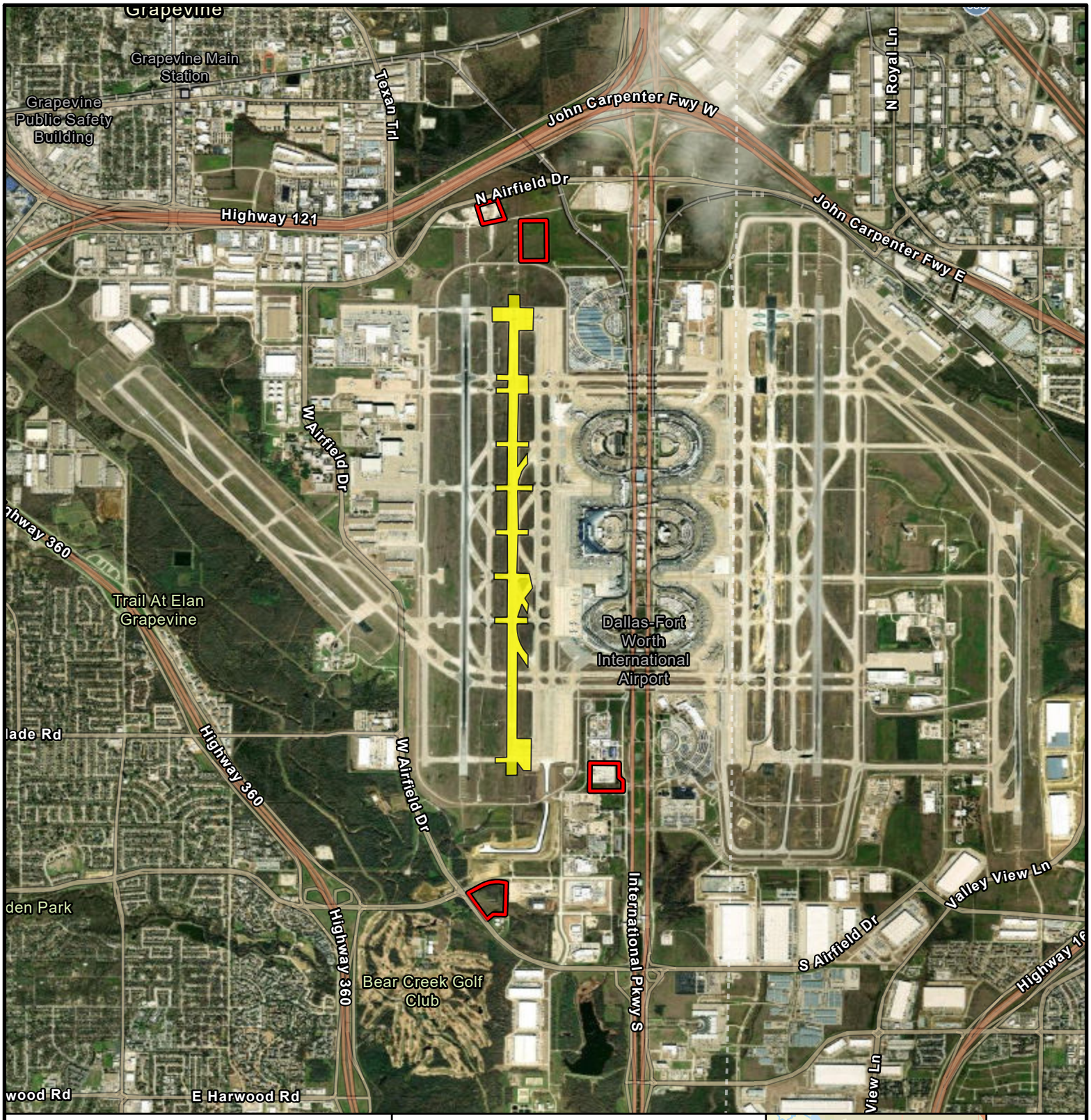

Figure 1
General Location

Area of Potential Effects
Runway 18L/36R

County: Tarrant
State: Texas
Date map created: 7/29/2025
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI Streetmap
IES Project Ref: 04.165.013

N

0 0.75 1.5 mi
0 1.2 2.4 km

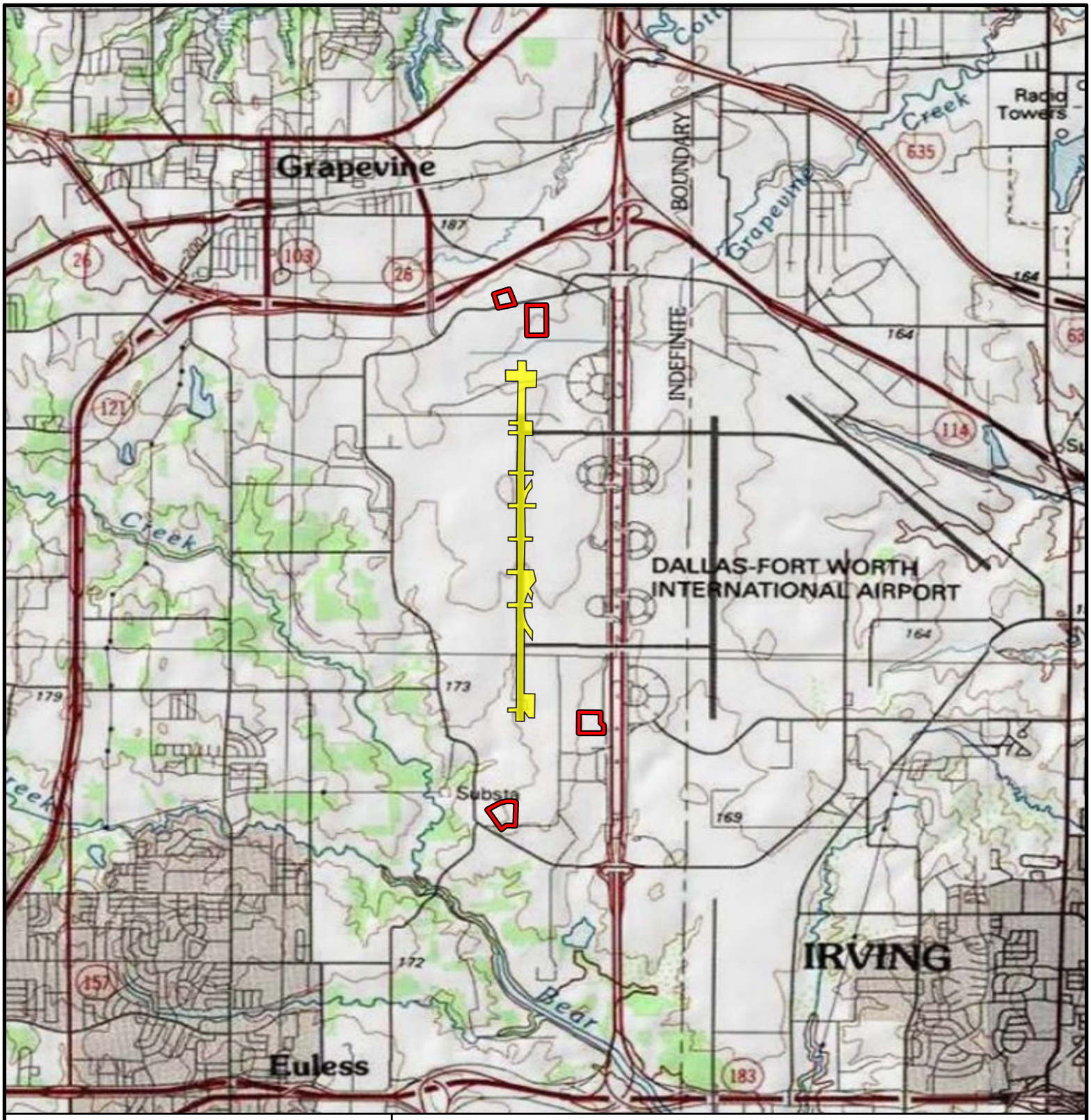

Figure 2
Topographic Setting

Area of Potential Effects
Runway 18L/36R

County: Tarrant
State: Texas
Date map created: 7/29/2025
Source: (c) USGS Topographic Map
7.5' Quadrangle
Euless, Grapevine
IES Project Ref: 04.165.013

N

0 1 2 mi
0 1.6 3.2 km

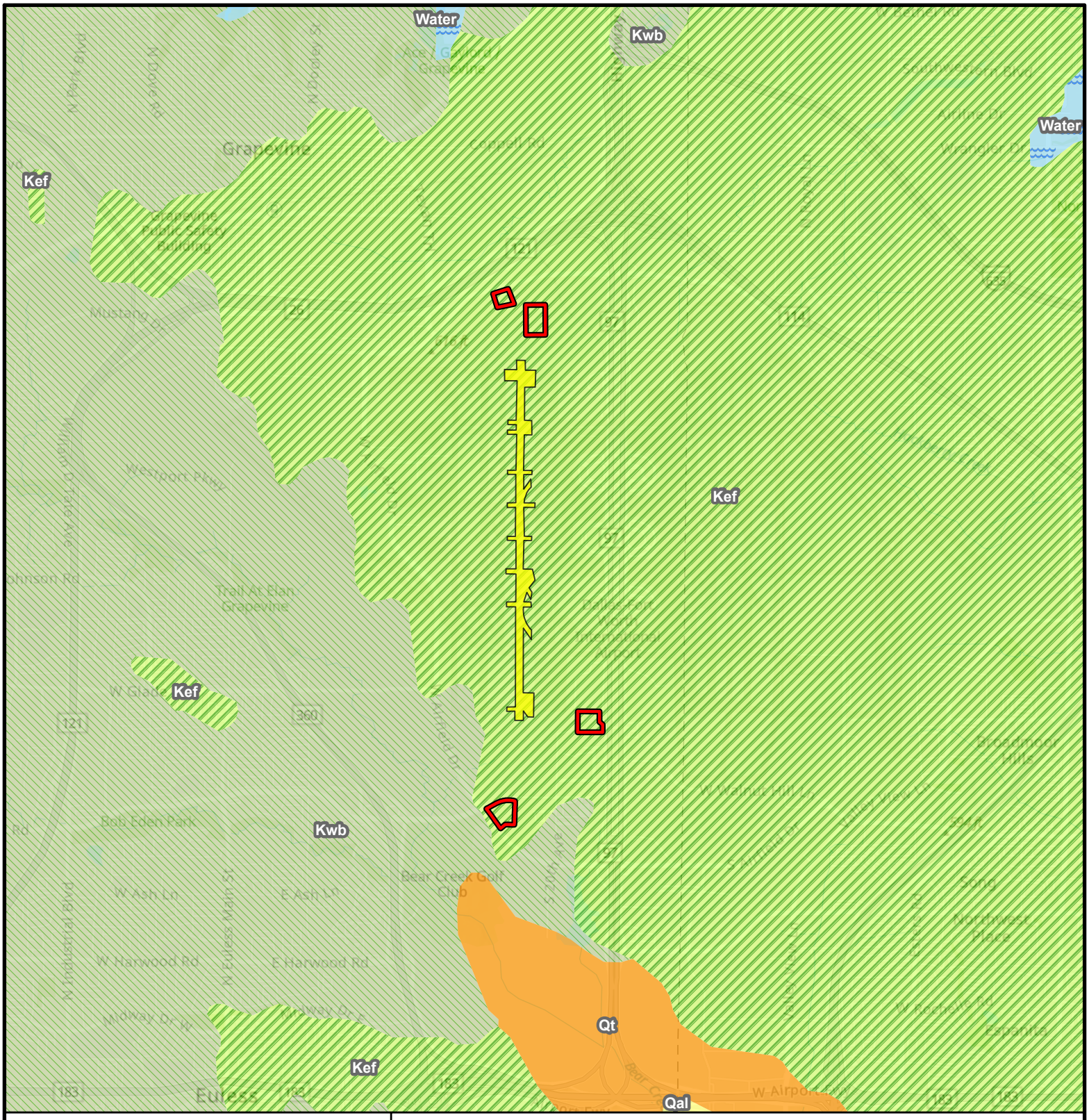

Figure 3
Geologic Setting

County: Tarrant
State: Texas
Date map created: 7/29/2025
Source: (c) TNRIS Geologic Atlas of Texas; Dallas Sheet
IES Project Ref: 04.165.013

N

0 1 2 mi
0 1.6 3.2 km

Area of Potential Effects
Runway 18L/36R

Geologic Unit

Kef - Eagle Ford Formation
Kwb - Woodbine Formation
Qal - Alluvium
Qt - Terrace deposits
Wa - water

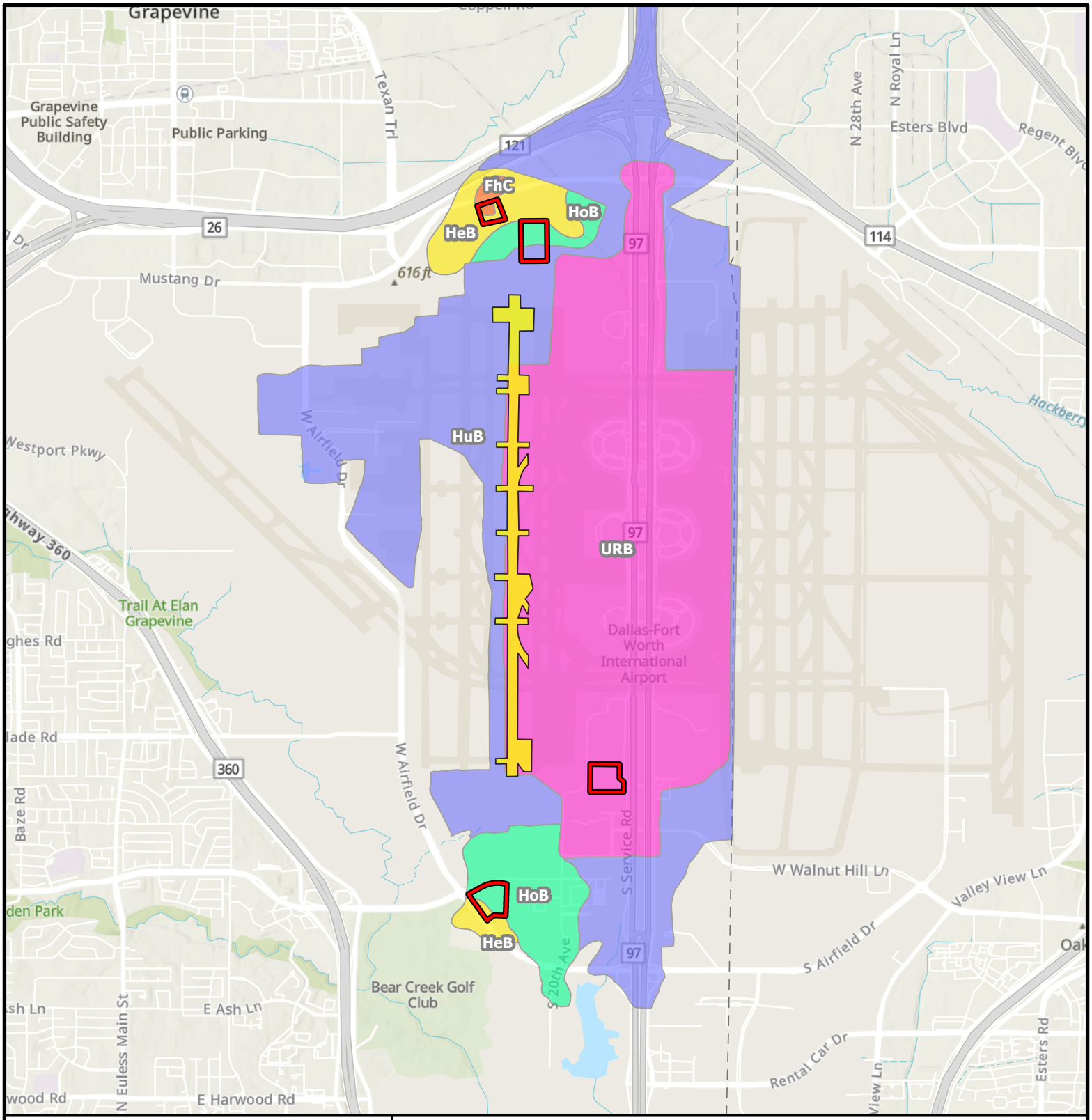

Figure 4
Soils within and Adjacent to the APE

County: Tarrant
State: Texas
Date map created: 7/29/2025
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI
USDA NRCS Digital Soils Database
IES Project Ref: 04.165.013

N

0 0.75 1.5 mi
0 1.2 2.4 km

Area of Potential Effects
Runway 18L/36R
Soil Map Unit (see Table 1)
FhC
HeB
HoB
HuB
URB

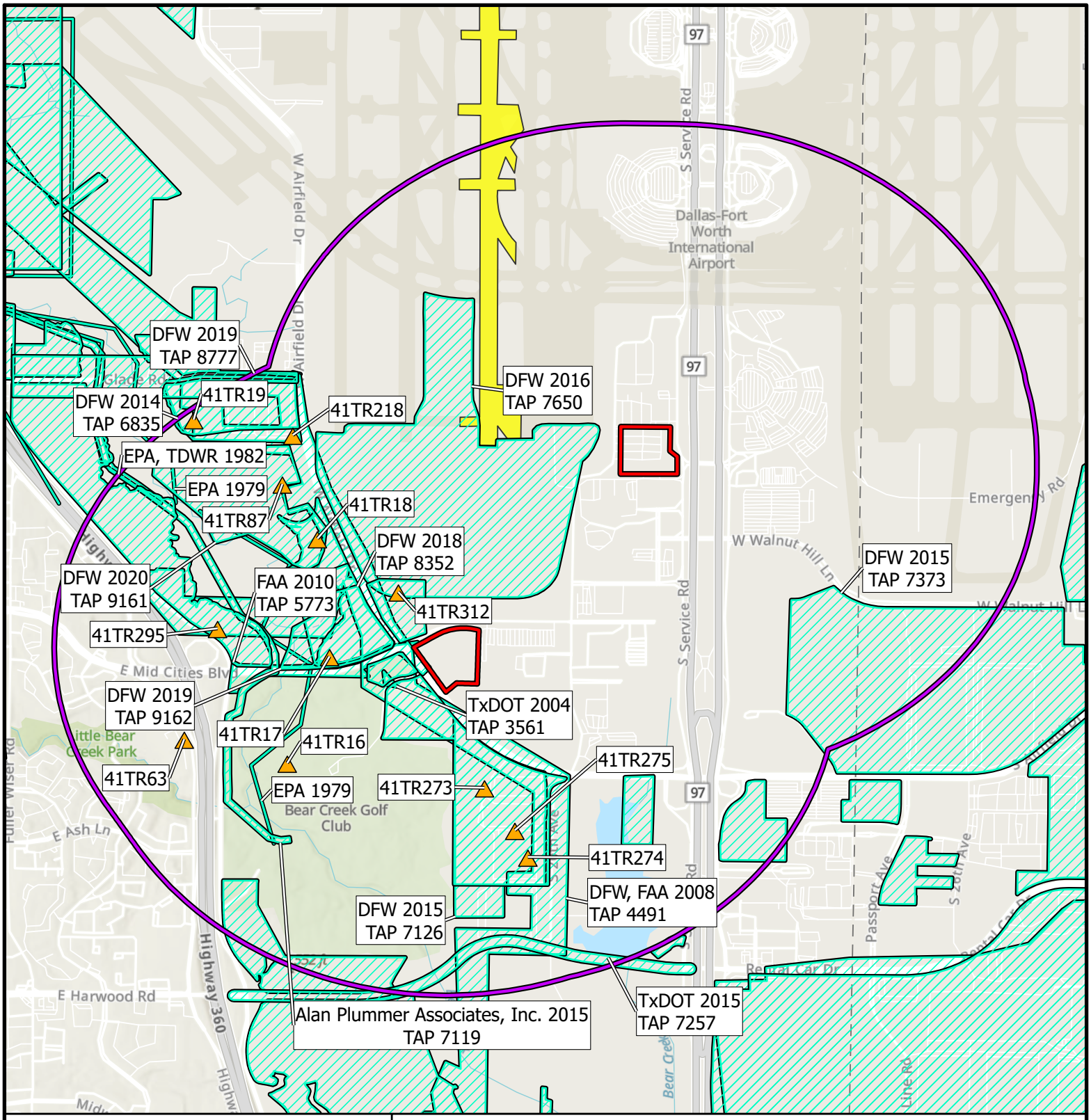

Figure 5
Previous Investigations within 1 Mile of the APE

County: Tarrant
State: Texas
Date map created: 7/29/2025
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI
TASA
IES Project Ref: 04.165.013

N

0 0.5 1 mi
0 0.8 1.6 km

- Area of Potential Effects
- Area of Potential Effects - 1 Mile Buffer
- Runway 18L/36R
- Previous Archeological Survey - Area
- Previous Archeological Survey - Line
- Previously Recorded Archeological Site

NOT FOR PUBLIC DISTRIBUTION
Map contains archeological site location information

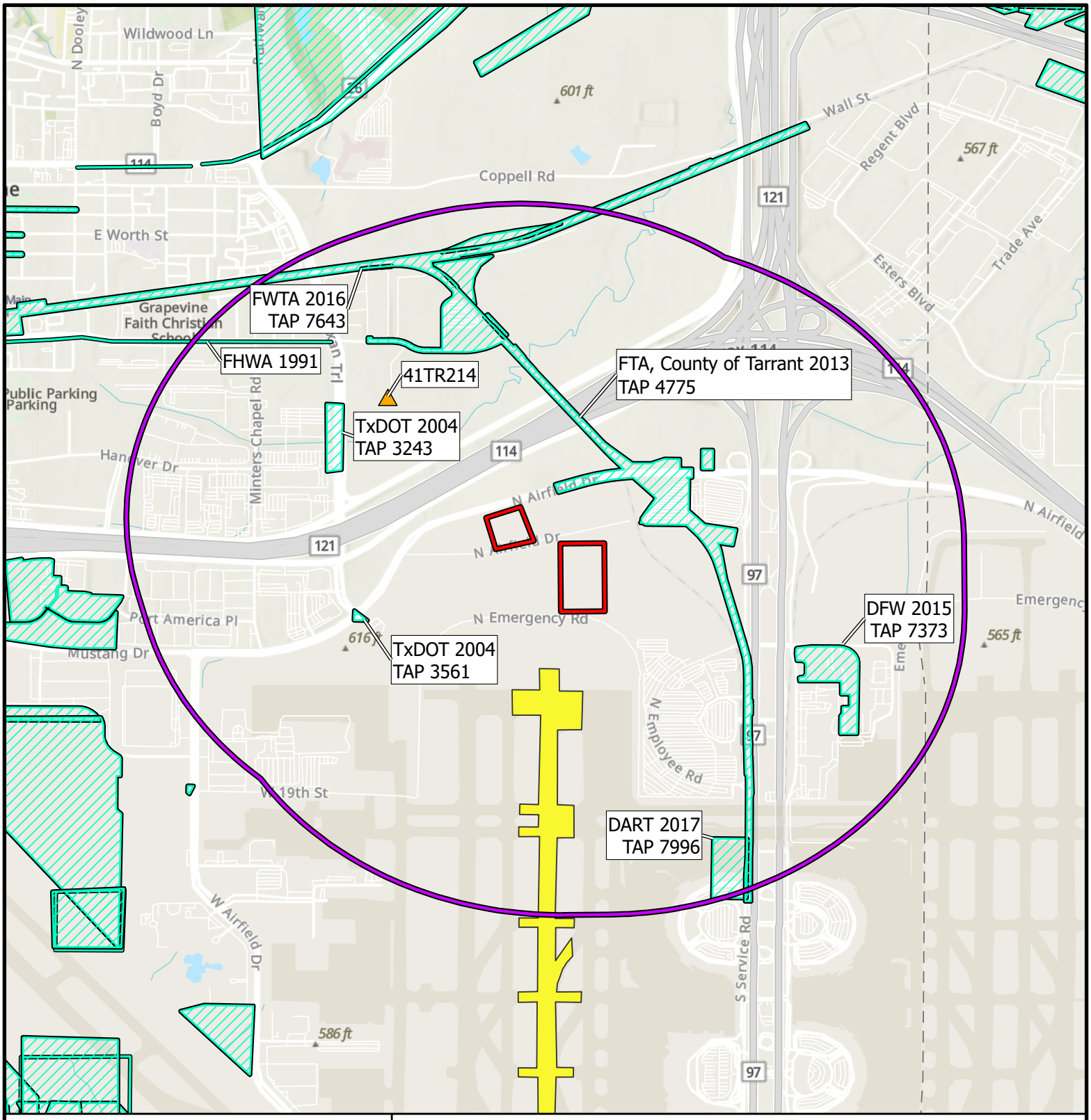

Figure 6
Previous Investigations within 1 Mile of the APE

County: Tarrant
State: Texas
Date map created: 7/29/2025
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI
TASA
IES Project Ref: 04.165.013

N

0 0.5 1 mi
0 0.8 1.6 km

- Area of Potential Effects
- Area of Potential Effects - 1 Mile Buffer
- Runway 18L/36R
- Previous Archeological Survey - Area
- Previous Archeological Survey - Line
- Previously Recorded Archeological Site

NOT FOR PUBLIC DISTRIBUTION
Map contains archeological site location information

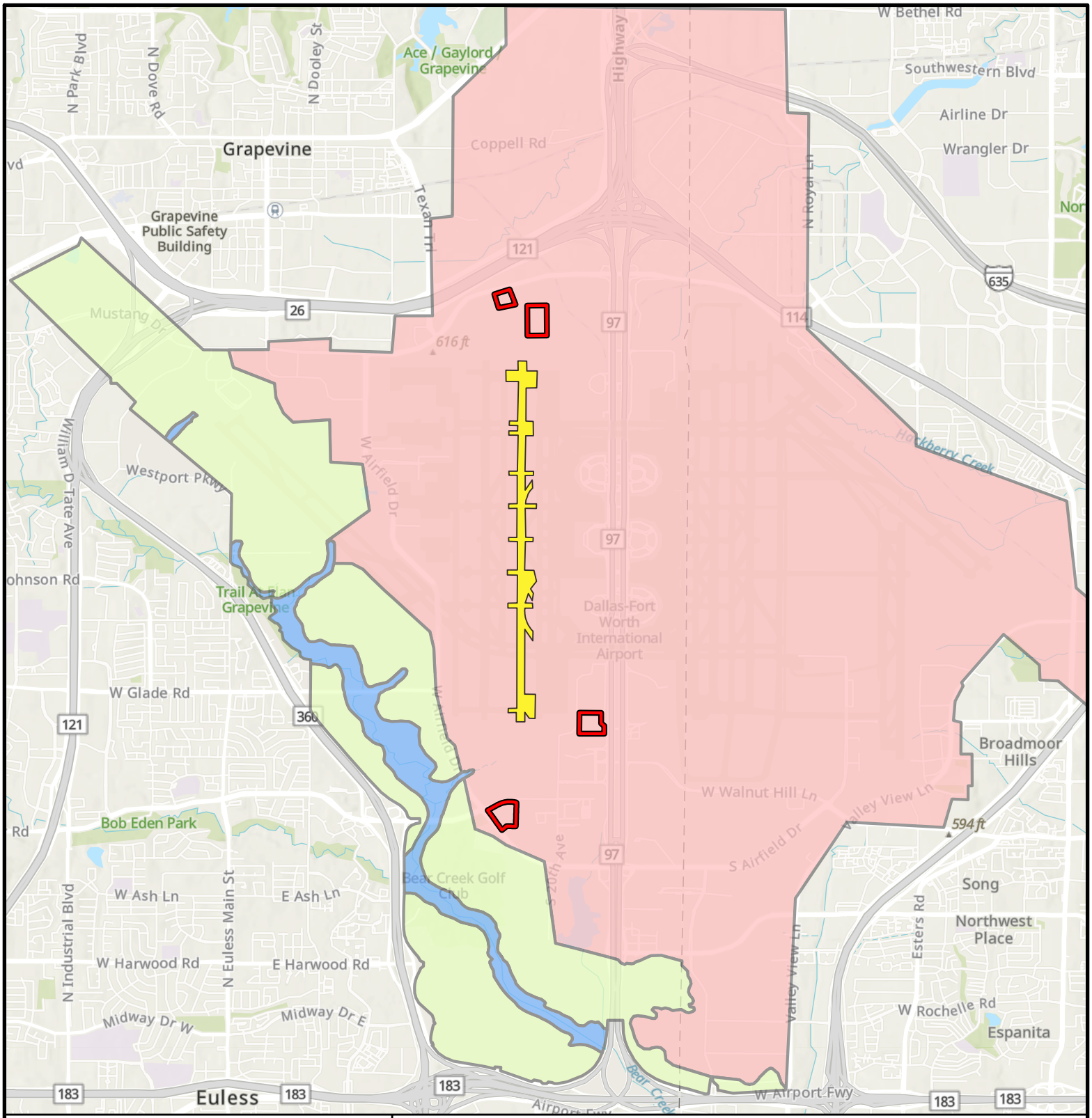

Figure 7
Archeological Environmental Zones Map

County: Tarrant
State: Texas
Date map created: 7/29/2025
Source: (c) USGS Topographic Map
7.5' Quadrangle
Euless, Grapevine
IES Project Ref: 04.165.013

N

0 1 2 mi
0 1.6 3.2 km

Area of Potential Effects
Runway 18L/36R

Archeological Environmental Zone
ZONE 1 - Blackland Prairies Uplands
ZONE 2 - Eastern Cross Timbers
ZONE 3 - Bear Creek Floodplain

Attachment C – Proposed Runway 18L/36R Rehabilitation Project 50% Drawings will be available upon request. Please contact DFW Airport Environmental Affairs Department Environmental Planning & Development Program Manager via email at publiccomment@dfwairport.com or via phone at (972)-973-5560.

I. Volume 1 – Existing Conditions, Construction Phasing
II. Volume 2 – Erosion Control, Demolition Plan, Civil Geometry, Jointing, Pavement Markings and Signage

Attachment D – Terminal C and Terminals A, B, E Cultural Resources Evaluation will be available upon request. Please contact DFW Airport Environmental Affairs Department Environmental Planning & Development Program Manager via email at publiccomment@dfwairport.com or via phone at (972)-973-5560.

Attachment E – Terminal C and Proposed Terminal F Development Section 106 Evaluation will be available upon request. Please contact DFW Airport Environmental Affairs Department Environmental Planning & Development Program Manager via email at publiccomment@dfwairport.com or via phone at (972)-973-5560.