



Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas

THC Tracking #202016827

DFW DPS Demo Project

2400 Aviation Drive

Dallas, TX

Dear Integrated Environmental Solutions, LLC:

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 Bill Martin and Justin Kockritz, 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 historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

Archeology Comments

- This draft report is acceptable. Please submit a final report: one restricted version with any site location information (if applicable), and one public version with all site location information redacted. To facilitate review and make project information and final reports available through the Texas Archeological Sites Atlas, we appreciate submitting abstracts online at <http://xapps.thc.state.tx.us/Abstract> and e-mailing survey area shapefiles to archeological_projects@thc.texas.gov if this has not already occurred. Please note that these steps are required for projects conducted under a Texas Antiquities Permit.

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: bill.martin@thc.texas.gov, justin.kockritz@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,

A handwritten signature in black ink, appearing to be 'Mark Wolfe', written in a cursive style.

for Mark Wolfe, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

CULTURAL RESOURCES REPORT



CULTURAL RESOURCES REPORT FOR THE DEMOLITION OF THREE DEPARTMENT OF
PUBLIC SAFETY (DPS) STATIONS AND TWO FUTURE CONSTRUCTION SITES,
DALLAS FORT WORTH INTERNATIONAL AIRPORT,
DALLAS AND TARRANT COUNTIES, TEXAS

Prepared for:
Texas Historical Commission

On Behalf of:
Dallas Fort Worth International Airport



July 2020

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**CULTURAL RESOURCES REPORT FOR THE DEMOLITION OF
THREE DEPARTMENT OF PUBLIC SAFETY (DPS) STATIONS AND
TWO FUTURE CONSTRUCTION SITES,
DALLAS FORT WORTH INTERNATIONAL AIRPORT,
DALLAS AND TARRANT COUNTIES, TEXAS**

by

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Cultural Resources Report
July 2020

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CHAPTER 1: INTRODUCTION

1.1 Project Description

Integrated Environmental Solutions, LLC (IES) has been contracted by Dallas/Fort Worth International Airport (DFW) to provide coordination with the Texas Historical Commission (THC) on behalf of the DFW and Federal Aviation Administration (FAA) for the proposed demolition of three Department of Safety (DPS) Stations and two proposed construction sites. Based on the highly developed setting of the Area of Potential Effects (APE), it was determined that coordination for archeological resources could be accomplished through a no-survey desktop analysis. Although the DFW was not of historic-age at the time of this study (50 years in age or older), an architectural resources reconnaissance survey was conducted as part of the DFW's and FAA's due diligence approach to cultural resources, and the Section 106 process, to evaluate the above ground resources 45 years or older for NRHP eligibility. The proposed project area or APE has been divided into five discrete APE areas (Areas A through E) surrounding each DPS Station proposed for demolition and the two sites proposed for future construction (**Figure 1.1**). These APE areas were located at:

- Area A – DPS Station 2
- Area B – DPS Station 3
- Area C – DPS Station 4
- Area D – Fumigation Building
- Area E – Eastern Air Traffic Control (ATC) Tower

DFW is presently seeking approval from the FAA to modify the Airport Layout Plan (ALP) to reflect permanent improvements and is performing the necessary environmental review to support the ALP modification. Since the ALP modification is a federal action, the FAA will review the proposed demolition activities in accordance with the National Environmental Policy Act of 1969 (NEPA) and the National Historic Preservation Act of 1966 (NHPA). In addition, DFW is a political subdivision of the state of Texas. Thus, coordination with the State Historic Preservation Officer (SHPO), represented by the THC, is necessary to comply with the Antiquities Code of Texas (ACT). Therefore, on behalf of the DFW and FAA, IES is requesting a review of the project to determine THC recommendations to proceed.

1.2 Reporting Conventions

Standards for archeological methods require that measurements be recorded in metric units. For this reason, while general distances and engineering specifications are described in imperial units (e.g., inch [in], foot [ft], mile [mi], acre [ac]) within this report, archeological measurements and observations are listed in metric units (e.g., centimeter [cm], meter [m], kilometer [km], hectare [ha]), unless historic-period artifact or architectural elements are more appropriately recorded in imperial units.

1.3 Pertinent Regulations

1.3.1 Section 106 of the National Historical Preservation Act (NHPA)

The NHPA (54 U.S. Code [USC] 300101), specifically Section 106 of the NHPA (54 USC 306108) requires the 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 have an effect on properties listed in the NRHP, or eligible 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.

1.3.2 Antiquities Code of Texas (ACT)

As the DFW is a political subdivision of the State of Texas, it is required to comply with the ACT. The ACT was passed in 1969 and requires state agencies and political subdivisions of the state (i.e., cities, counties, river authorities, municipal utility districts, school districts, etc.) to notify the THC of ground-disturbing activities on public land that have the potential to impact archeological sites. While advance project review and coordination with the THC is required only for undertakings with more than 5 ac or 5,000 cubic yards of ground disturbance, the THC can request project information and/or an archeological survey in advance of ground disturbances for projects that are categorically exempt from the “Notice Required” provision (Section 191.0525) since the project must still comply with the ACT. However, 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. Area of Potential Effects

1.3.3 Direct APE

The direct APE for the project encompasses approximately 19 ac. The direct APE is comprised of discrete APE’s surrounding three DPS Stations and two future construction sites referred to Areas A through E within this report. These are located along W 19th Street (Area A), N Airfield Drive (Area B), W 27th Street (Area C), W Airfield-Braniff Drive (Area D), and E 23rd Street (Area E). The APE boundaries were determined through consultation with the DFW staff and FAA (**Figure 1.1**). Although final project designs for the APE were not available at the time of the report, preliminary plans call for the demolition and replacement of the three DPS Stations and proposed future construction on two vacant sites. Depths of impacts associated with the proposed project will generally be within several feet of the current ground surface.

1.3.4 Indirect APE

Since the project will require compliance with Section 106 of the NHPA, an assessment of indirect effects is required. At this time, there is no proposed elevation for future construction. However, indirect effects were evaluated within 150 ft of the direct APE. Construction of the DFW began in 1969 with the first aircraft landing on the property on 13 January 1974. With this information alone, it was possible to determine that all components of the DFW are not presently of historic-age (50 years in age or older). However, as part of the DFW’s and FAA’s due diligence approach to cultural resources, and the Section 106 process, resources 45 years or older were evaluated for NRHP eligibility.

1.4 Administrative Information

Sponsor(s): DFW, FAA

Review Agencies: FAA and THC

Architectural Historian: Jessica Stevenson, MA

Project Archeologist: Anne Gibson, MA, RPA

Principal Investigator: Jamie Vandagriff, MA, RPA

IES Project Number(s): 03.006.087

Date(s) of Field Work: 24 June 2020

Area Surveyed: 18.93 ac

Architectural Resources Recommended Eligible for NRHP Under Criteria in 36 CFR 60.4: None

Architectural Resources Recommended Not Eligible for NRHP Under Criteria in 36 CFR 60.4: None



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CHAPTER 2: ENVIRONMENTAL BACKGROUND

2.1 Topography, Geology, and Soils

2.1.1 Climate

Tarrant County is located in the north-central portion of the State of Texas. This region has a humid subtropical climate and average annual precipitation ranging from approximately 35 to 40 in (89 to 102 cm). About half of the precipitation usually falls as rain between April and May, with July and August being the two driest months of the year. The subtropical region tends to have a relatively mild year-round temperature with the occasional exceedingly hot and cold snaps (Estaville and Earl 2008).

Dallas County is located in the north-central portion of the State of Texas approximately 250 mi north of the Gulf of Mexico at roughly 475 ft (145 m) above sea level. The Dallas region is near the headwaters of the Trinity River with a general climate of warm and humid with subtropical temperatures. Precipitation varies annually; however, typically ranges from less than 20 in to more than 50 in with peak rainfall occurring during spring months (Coffee et al. 1980; Ressel 1981).

2.1.2 Topography, Geology, and Soils

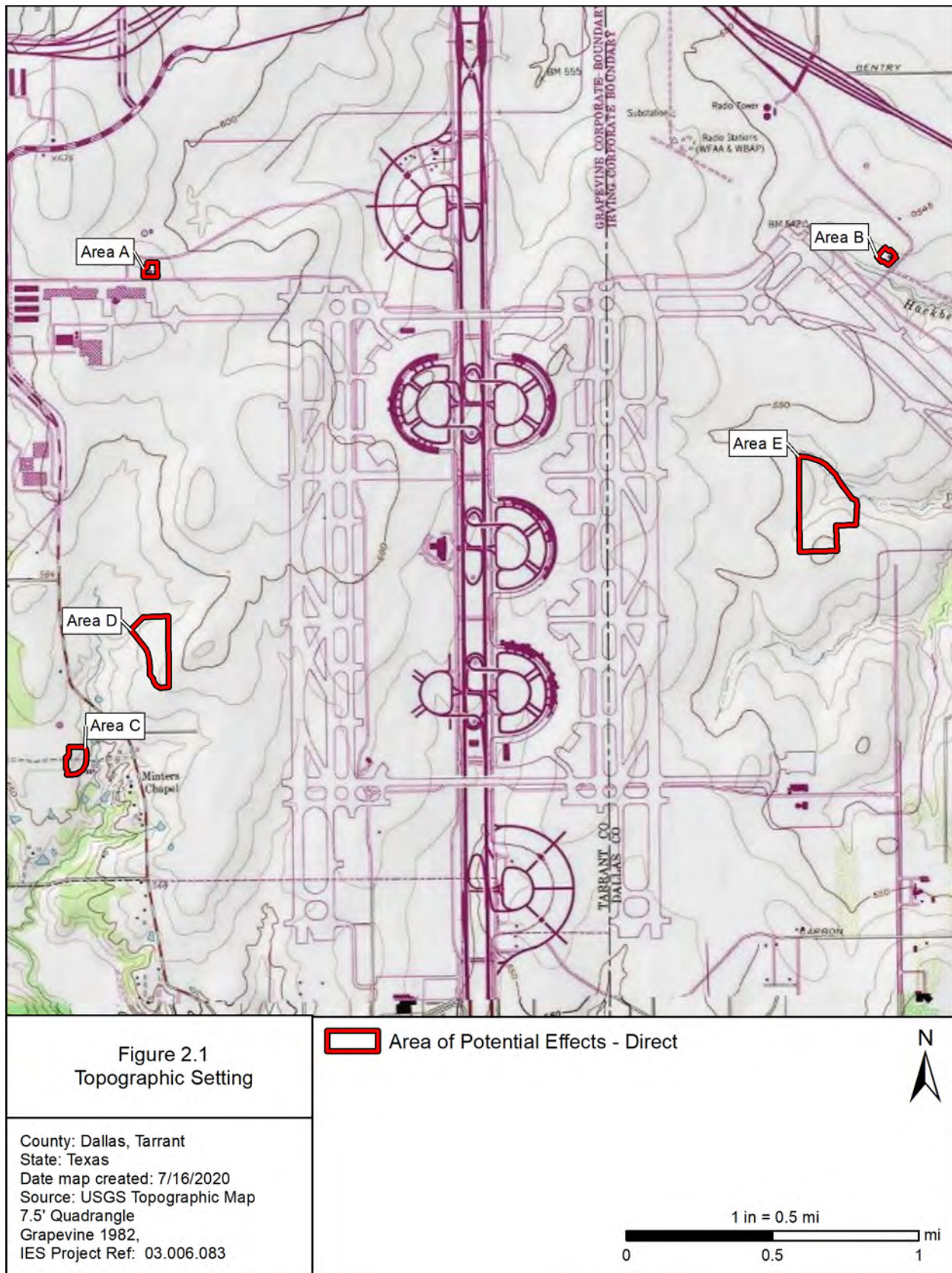
Overall, Areas A through E are located within a gently rolling upland setting that is irregularly dissected by the headwaters of unnamed tributaries of surrounding streams. The periphery of the DFW property contains more dramatic topography with incised drainages and named waterways, particularly along the western, southern, and eastern limits. The transition of the gently sloping upland ridges to the low-lying Big Bear Creek valley floor correlates to a transition from the more stable, clay-rich Blackland Prairie soils to the more erosive, sandy soils of the Cross Timbers ecological region. All of the Areas are located within the Blackland Prairie and on the margins of an upland terrace save Area C, which is located within the Eastern Cross Timbers (**Figure 2.1**).

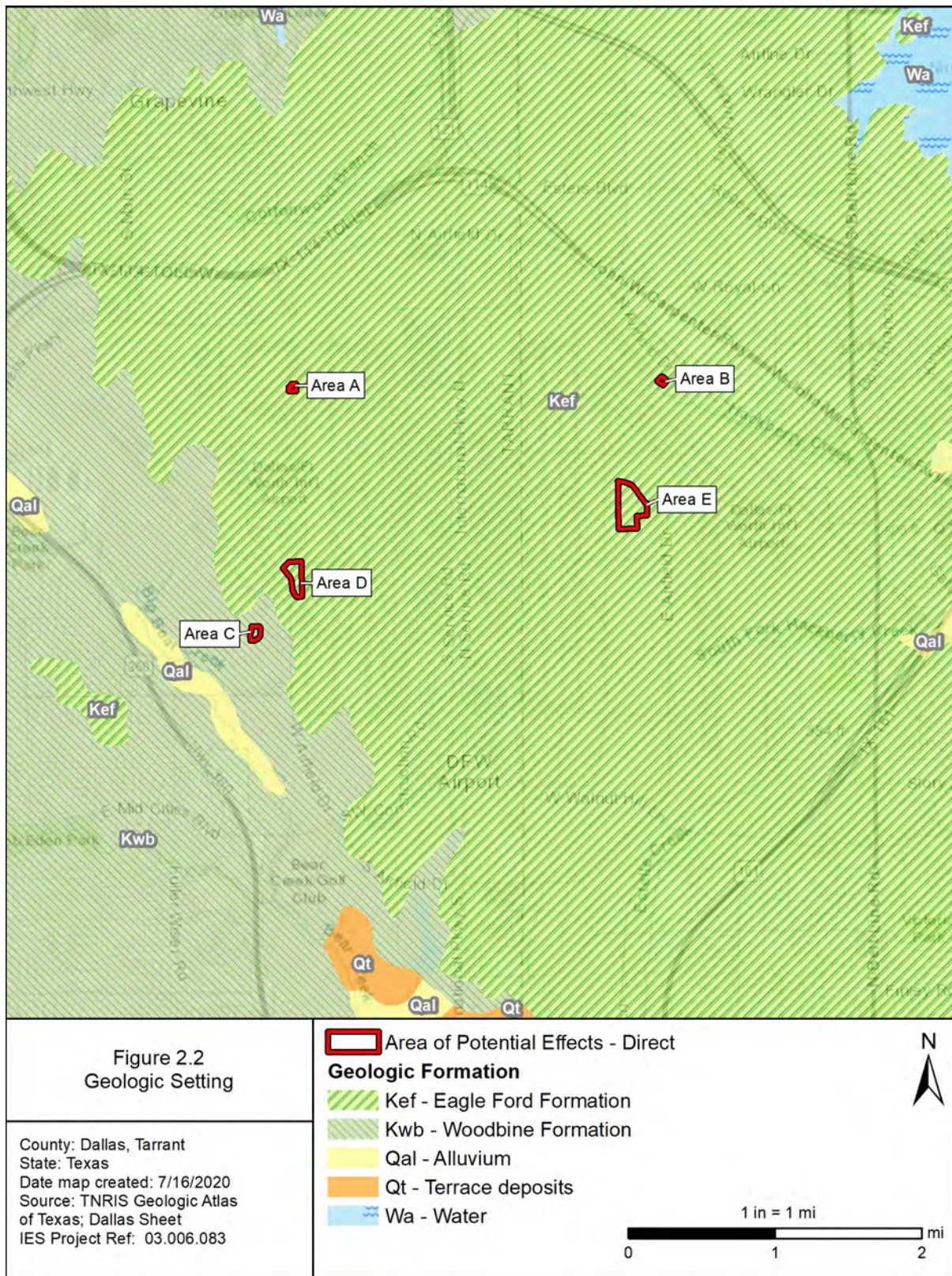
The DFW property is located within an environmental interface, known as an ecotone, between the Northern Blackland Prairie and Eastern Cross Timbers ecoregions (McGowen et al. 1987). Variation among each ecoregion is a direct result of the underlying regional geology (Diggs et al. 1999). The northwestern to southeastern orientation of Big Bear Creek, along the western boundary of DFW serves as a point of reference for the natural divide between these two ecoregions.

The Northern Blackland Prairie distinguishes itself from surrounding regions through gently rolling hills and black, fine-textured soils that primarily support prairie vegetation (Griffith et al. 2007). Historical vegetation included little bluestem, big bluestem, yellow Indiangrass, and tall dropseed. Most of the native prairie has been converted to cropland, non-native pasture, and expanding urban uses around Dallas, Waco, Austin, and San Antonio. Vertisols dominate the Blackland Prairie ecoregion and consist of high clay content soils with significant shrink and swell potential (Ressel 1981).

The Eastern Cross Timbers region is historically characterized by a narrow strip of timbered, low hills that are orientated along a north-to-south axis from Tishomingo, Oklahoma to Waco, Texas (Ferring 1994; McGowan et al. 1987, TPWD 2020). This region contains numerous hills that were once heavily wooded with oak, walnut, and hickory supported by deep sandy soils (Hill 1901). Early pioneers referred to the region as the Monte Grande (Grand Forest) and later the Lower Timbers. However, due to urban expansion, agricultural development, and other modern activities, the natural vegetation has become highly fragmented, and only a few large tracts of undisturbed woodlands remain today (Griffith et al. 2007).

Areas A, B, D, and E are underlain by the Eagle Ford Formation (Kef) geological formation (**Figure 2.2**; McGowen et al. 1987, USGS 2020). This formation is comprised of shale, sandstone, and limestone beds dating to the Cretaceous period. Area C is underlain by the Cretaceous-age Woodbine Formation (Kwb). This formation is comprised of various intertensing sequence of nonmarine, brackish-water, and marine beds of sand, clay, sandstone, and shale.

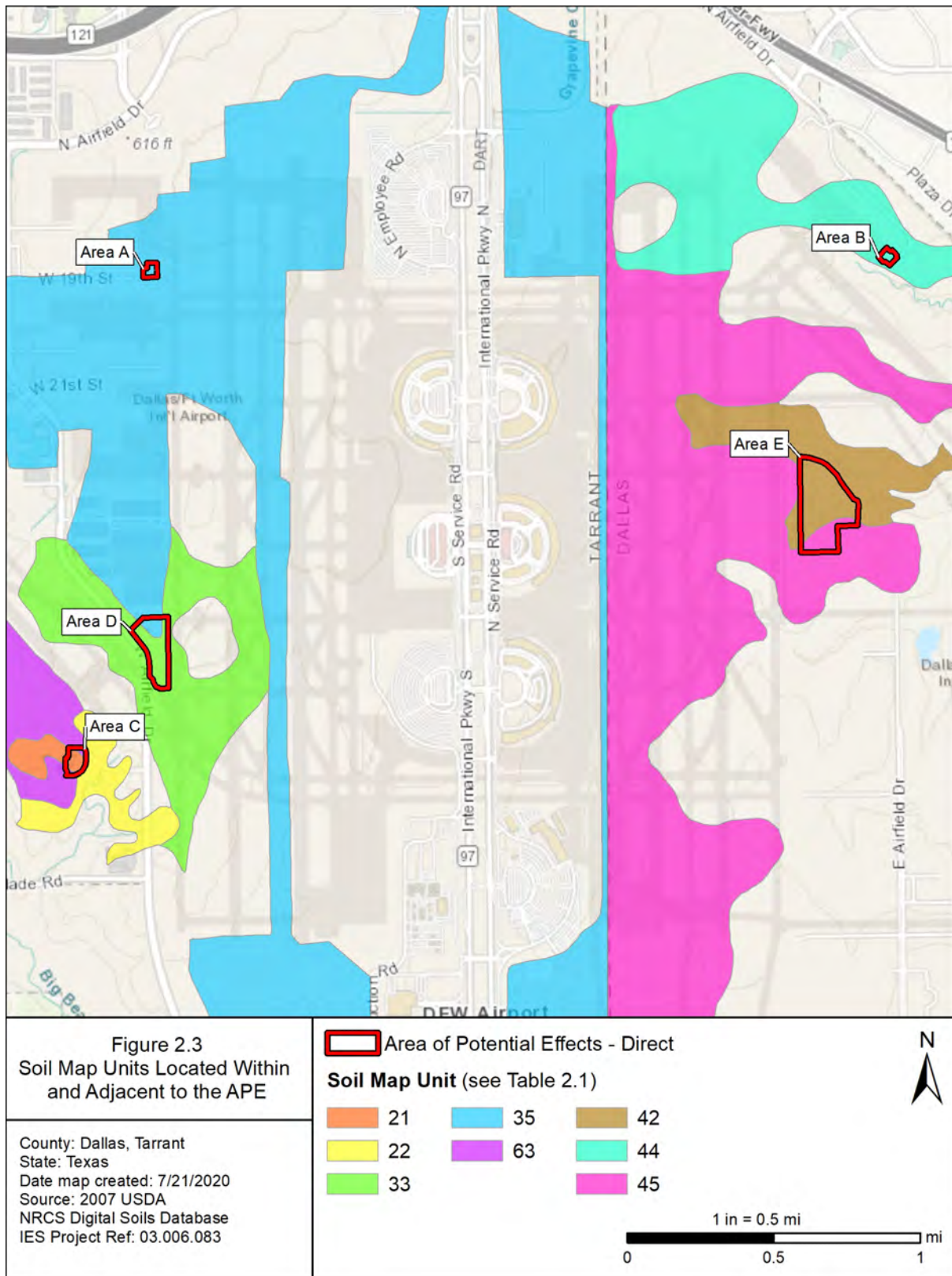




There are eight mapped soil units within the APE (**Figure 2.3; Table 2-1**, Coffee et al. 1980; Ressel 1981). The entire APE contains soils typical of *in situ* development in upland settings within the Eastern Cross Timbers and Northern Blackland Prairie ecotones. Soil data was viewed from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2020).

Table 2.1: Soils Located within the Project Area

County	Soil Map Unit Description	Percentage of the APE
Tarrant	21 – Crosstell fine sandy loam, 1 to 3 percent slopes - This component is described as fine sandy loam located on ridges. Typical Bt1 subsoil horizon depth is 7 to 27 in (18 to 69 cm). Depth to a root restrictive layer or bedrock is 40 to 60 in (101 to 152 cm). The natural drainage class is moderately well drained.	4.7
	22 – Crostell fine sandy loam, 3 to 8 percent slopes - This component is described as fine sandy loam located on ridges. Typical Bt subsoil horizon depth is 5 to 41 in (13 to 104 cm). Depth to a root restrictive layer or bedrock is 40 to 60 in (101 to 152 cm). The natural drainage class is moderately well drained.	0.8
	33 - Heiden clay, 1 to 3 percent slopes - This component is described as clay located on ridges. Typical Bkss1 subsoil horizon depth is 18 to 36 in (46 to 91 cm). Depth to a root restrictive layer or bedrock is 40 to 65 in (101 to 165 cm). The natural drainage class is well drained.	20.5
	35 - 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). Depth to a root restrictive layer or bedrock is more than 80 in (203 cm). The natural drainage class is moderately well drained.	8.0
	63 – Rader fine sandy loam, 0 to 3 percent slopes - This component is described as fine sandy loam located on ridges. 5 to 41 in (13 to 104 cm). Depth to a root restrictive layer or bedrock is 40 to 60 in (101 to 152 cm). The natural drainage class is moderately well drained.	1.8
Dallas	42 - Heiden clay, 2 to 5 percent slopes, eroded - This component is described as a clay located on upland ridges. Typical Bkss1 subsoil horizon depth is 18 to 36 in (46 to 91 cm). Depth to a root restrictive layer or bedrock is more than 80 in (203 cm). The natural drainage class is well drained.	46.3
	44 - 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 in (20 to 61 cm). Depth to a root restrictive layer or bedrock is more than 80 in (203 cm). The natural drainage class is moderately well drained.	2.8
	45 - Houston Black - Urban land complex, 0 to 4 percent slopes - This component is described as clay located in upland ridges. Typical Bw subsoil horizon depth is 8 to 24 in (20 to 61 cm). Depth to a root restrictive layer or bedrock is 78 in (198 cm). The natural drainage class is moderately well drained.	15.1



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CHAPTER 3: BACKGROUND RESEARCH

3.1 Texas Archeological Sites Atlas Review

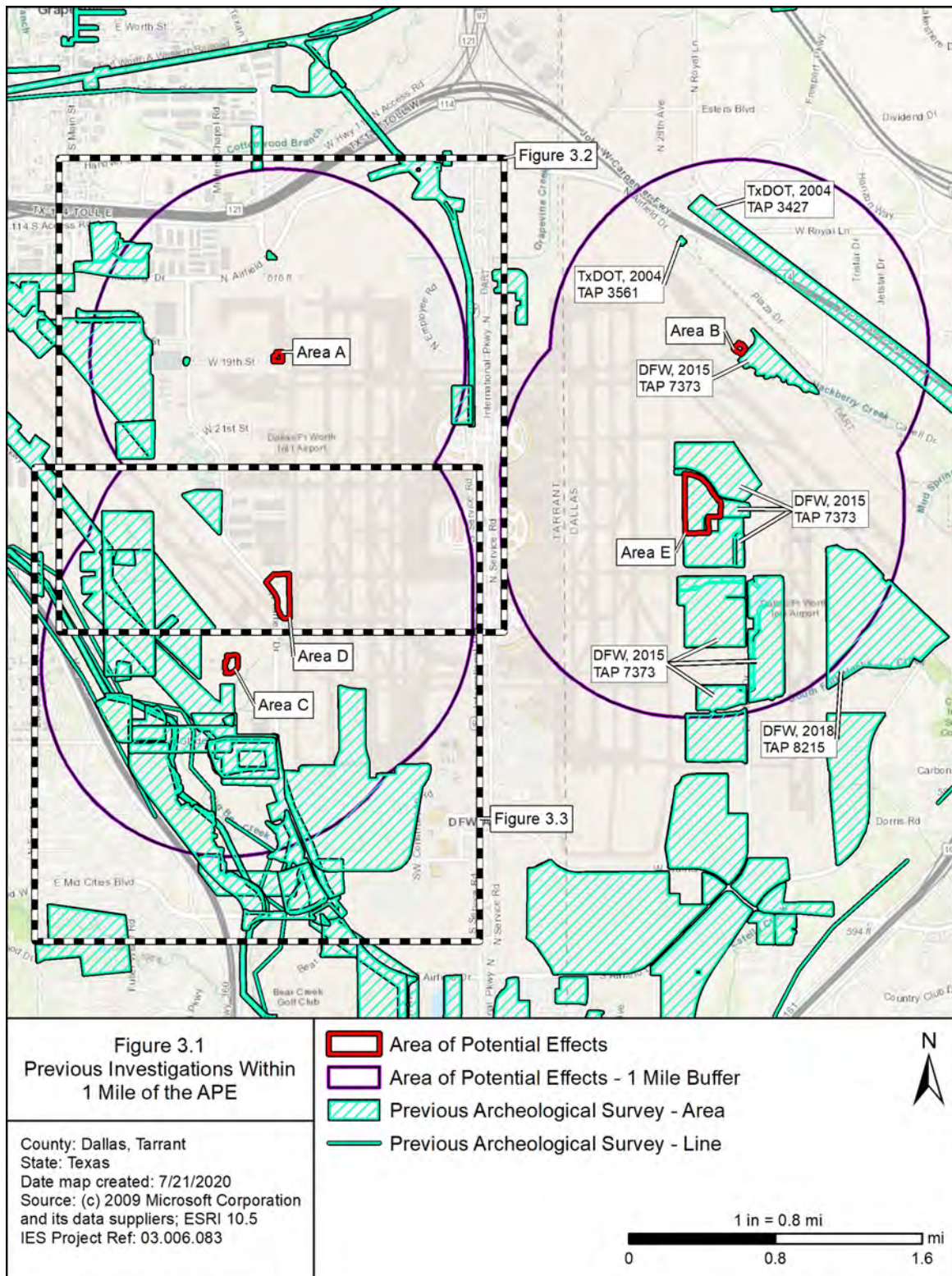
The Texas Archeological Sites Atlas (TASA) database, maintained by the THC, indicates that 16 previous professional cultural resources surveys have been conducted within the vicinity (i.e., 1 mi [1.6 km] of the APE (**Table 3.1; Figures 3.1** through **3.3**). In addition to these professional surveys conducted for compliance purposes, one academic survey (Prikryl 1990) included a limited archeological reconnaissance survey along Bear Creek in proximity to the APE. Area E was previously surveyed by IES and was found to be highly disturbed and void of prehistoric or historic archeological resources (Stone and Hamilton 2015). As a result of these prior surveys, three archeological sites have been previously recorded within 1 mi of the APE (**Table 3.2**). TASA records further indicate that no National Register properties, historical markers, or cemeteries are located within the APE (TASA 2020).

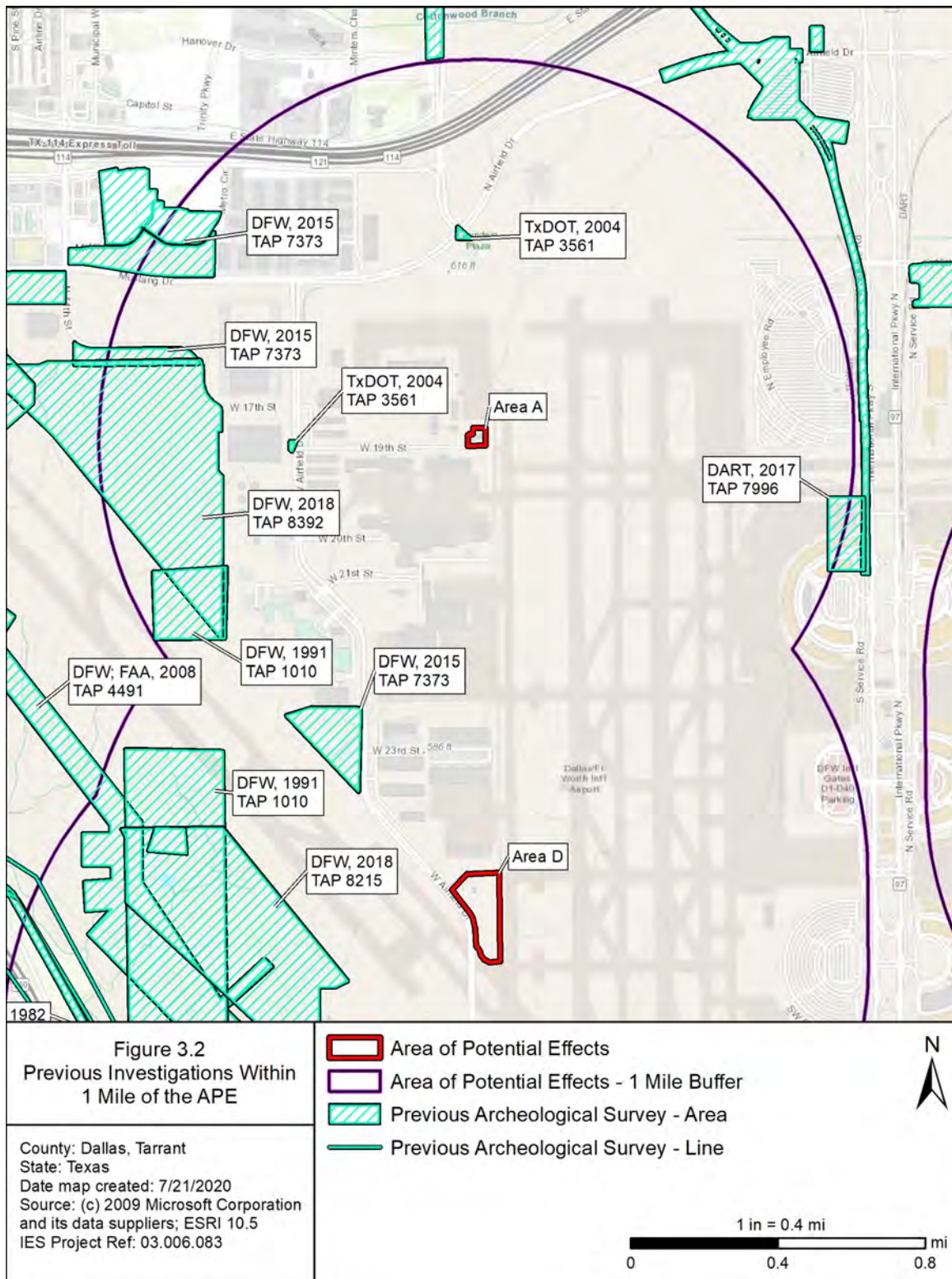
Table 3.1: Previously Conducted Archeological Surveys within 1 Mile of the APE

Agency	ACT Permit No.	Firm/Institution	Date	Survey Type	Location (Approximate)
Trinity River Authority / U.S. Environmental Protection Agency (EPA)	n/a	Texas Department of Water Resources (TDWR)	1979	Linear	0.73 mi southwest of SW APE
EPA	n/a	TDWR	1982	Linear	0.82 mi southwest of SW APE
Federal Highway Administration (FHWA)	n/a	FHWA	1990	Linear	0.73 mi southwest of SW APE
Texas Department of Transportation (TxDOT; formerly SDHPT)	3427	Parson Brinckerhoff Quade and Douglas, Inc.	2004	Area	0.47 mi northeast of NE APE
TXDOT	3561	Geo-Marine, Inc.	2004	Area	0.51mi west of NW APE
FAA / DFW	4491	AR Consultants, Inc.	2007	Area	0.63 mi southwest of SW APE
FAA / DFW	4773	AR Consultants, Inc.	2007	Evaluation	0.24 mi south of SW APE
FAA / DFW	6835	IES	2014	Area	0.37 mi south of SW APE
Alan Plummer Associates	7119	AR Consultants, Inc.	2015	Area	0.40 mi southwest of SW APE
DFW	7373	IES	2015	Area	0.02 mi southeast of NE APE 0.023 south of SW APE
DFW	7650	IES	2016	Area	0.60 mi southeast of SW APE
DART	7996	AmaTerra Environmental, Inc.	2017	Area	0.93 mi southeast of NW APE
DFW	8215	IES	2018	Area	0.14 mi west of SW APE; 1.23 mi SW of NW APE
USACE	n/a	AR Consultants, Inc.	2018	Area	0.53 mi southwest of SW APE
DFW	8392	IES	2018	Area	0.65 mi west of NW APE
DFW	8777	IES	2019	Area	0.28 mi south of SW APE

Table 3.2: Previously Recorded Archeological Sites within 1 Mile of the APE

Site Trinomial	Time Period	Site Type	Site Size	Depth Extent	Cultural Materials	Topographic Setting	Reference
41TR19	Prehistoric	Lithic scatter	400 x 75 m	0-10 cmbs	Lithic debitage, burned rock	Upland terrace	Hayden and Fox 1979
41TR87	Prehistoric; Historic	Artifact scatter	No data	No data	Lithic debitage	Stream terrace	Prikryl 1982
41TR218	Historic	Artifact scatter	30 x 50 m	25 cmbs	Nails, bolts, glass, and other 20 th century debris	Upland terrace	Shelton 2008





3.2 Previously Identified Cultural Resources

3.2.1 Archeological Resources

There are no previously identified archeological resources located within the APE.

3.2.2 Architectural Resources

There are no previously identified historic-age architectural resources located within the APE.

3.2.3 Disturbance Analysis

Prior to the construction of DFW in the early 1970s, the APE was used for agricultural and ranching purposes. Since 1972, significant ground disturbances have transpired throughout the APE related to large-scale surface grading and contouring, the construction of the DFW, as well as associated supporting building areas and infrastructure. As depicted within 1972 aerial photography, once the airport construction began, ground disturbances associated with large-scale grading occurred within the entirety of the direct APE. At that time, no buildings, structures, or roads were within the APE. Currently, Areas A and B occupy a support building and associated parking lot. Area C has several support buildings, parking lot, and a small green area. Area D occupies a support building and open field that was disturbed through previous airport development. Area E occupies an open field with minimal airport-related infrastructure. Prior to airport construction, land within and surrounding Area E featured significant degrees of erosional scarring and land modification and channelization of an unnamed tributary.

3.3 Cultural Resources Potential

3.3.1 Prehistoric Archeological Potential

Data presented within the Texas Department of Transportation (TxDOT) Potential Archeological Liability Map (PALM) for Dallas and Tarrant Counties indicates that all Areas (A through E) featured a low to negligible potential for both shallow and deeply-buried cultural deposits with reasonable contextual integrity. 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*. Through this study, three environmental zones were identified within the DFW that contain varying amounts of cultural resources probability. Areas A, B, D, and E are located in Zone 1. Area C is located in Zone 2.

Zone 1 is comprised of the Blackland Prairie Uplands ecoregion, which consists of mostly level clay or clay loam soils over a thin layer of limestone bedrock. Water permeates very slowly to the water table causing fast 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 for containing prehistoric sites.

Zone 2 is a narrow strip of the Eastern Cross Timbers ecoregion that extends from the northwest to the southeast on the western edge of the DFW property within the Bear Creek watershed. While this zone contains a wide variety of soils that are well drained and topography ranging from upland ridges and terraces to tributary streams and valleys, Area C is mainly within an upland setting and due to the limited resources available within the area like those of Areas A, B, D, and E, it has a low probability for containing prehistoric sites.

In summary, based on previous research and in combination with the current analysis, it is recommended that Areas A through E be considered to have a negligible potential to contain prehistoric archeological sites.

3.3.2 Historic-Period Archeological 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 also can be located along railroads, creeks, and open pastures. Although determining the presence of the earliest buildings and structures were problematic, thorough and accurate maps depicting these features are available post-1920.

Historical aerial photographs show that the direct and indirect APE of Areas A through E were used for agricultural or pastoral activities until groundbreaking for the construction of DFW in 1970. Historical maps and aerial photographs illustrate current structures located within and adjacent to Area A and Area B APE were constructed between 1972 and 1979. The APE was void of historic-age above ground non-archeological resources prior to the 1970 groundbreaking. Area C was also void of historic-age structures from at least 1957 based on aerial photographs. No structures were present until between 1981 and 1990 with expansion of the DFW property. Area D was void of historic-age structures as early as 1956 and did not have any structures present until between 2008 and 2010. Area E also features no historic-age structures as early as 1956. The area remained void of any type of structures until channelization of unnamed tributary occurred in 1995.

In summary, based on previous research and in combination with the current analysis, it is recommended that Areas A through E contain a negligible potential to contain historic period archeological resources.

3.4 Architectural Resources Potential

Through background research, it was discovered that two of the DPS Stations proposed for demolition, DPS Station 2 and DPS Station 3 (Areas A and B), were constructed as part of the initial phase of construction for the DFW in 1973. An additional DPS Station, DPS Station 4 (Area C), was constructed between 1981 and 1990. Groundbreaking for the airport began in 1969, with runway and building construction completed by the end of 1973. The first aircraft landing at the airport transpired on 13 January 1974. The original conceptual designs for DFW included 13 airline passenger terminals and one field transit and mass transit terminal. The 14 buildings were to form symmetrical semi-circles along a 10-lane spine roadway. However, only five terminals were constructed, and the remaining proposed terminals were never completed due to the downturn of the airline economy. IES went into further detail of the history of DFW in an earlier report for the DFW Bridge Demolition Project completed in 2019 and reviewed by the THC under Track #201910932.

3.5 Historic Context

The Historic period in the North-Central Texas region is characterized by early Spanish and French influences in the area. The region also experienced a brief period as part of the Texas Republic before becoming a part of the United States of America. This historical sequence resulted in the broad-scale displacement and assimilation of the indigenous groups in the region. The following is a brief discussion of North-Central Texas during the Historic period.

The first presence of Europeans in North-Central Texas may have occurred in 1542 when the remnants of the de Soto expedition, led by Luis de Moscoso de Alvarado, entered the area in an effort to find a land route to New Spain. Some researchers believe that the expedition crossed North-Central Texas (Lebo and Brown 1990:61), although others place the route much farther to the east and south (Bruseth and Kenmotsu 1991; Chipman 1992; Hudson 1986; Schambach 1989; Weber 1992). A consistent European presence in the region did not occur until the early 1700s, when French traders from Louisiana began to move west along the Red River. The Spanish considered this French incursion to be a threat to the security of New Spain, and they responded by redoubling efforts to counterbalance the French influence with the Native Americans in East and North-Central Texas. These efforts continued until 1763, when France ceded Louisiana to Spain under the Treaty of Paris. This reduced the perceived threat to the security of New Spain and resulted in a reduction in Spanish investment in eastern and northern Texas. More important

from the Native American viewpoint was the severe military defeat inflicted on the Spanish by the Wichita and allied tribes at Spanish Fort on the Red River in 1758. It has been argued that this defeat put an end to Spanish military and missionary expansion to the north (Weddle 1964, 1965).

The first European Americans to colonize the region settled along the Trinity River and its tributaries as the frontier grew westward. The area remained largely unsettled until 1841 when migrants, primarily from the upper southern states, were drawn by a land grant known as the Peters Colony. William S. Peters and the Texas Emigration and Land Company obtained the first land contract in 1841 to populate the newly formed Republic of Texas. Over time, the Texas Emigration and Land Company acquired three additional land contracts, encompassing most of North-Central Texas, including present-day Dallas and Tarrant counties. Prior to 1843, occupation by Anglo-American settlers was limited due to hostile relations with Native American Comanche, Kiowa, and Wichita tribes. A series of punitive raid attempts, beginning in 1838, were conducted against the Native Americans settled along Village Creek, culminating in the Battle of Village Creek on 24 May 1841. A treaty signed in 1843 relocated the Native Americans to a reservation on the upper Brazos River. The treaty provided a greater sense of security to immigrants, which began to move into the region in larger quantities. By 1849, the population growth warranted additional military support. Thus, an outpost, Camp Worth (later to become the town of Fort Worth) was established, and the area was formally recognized as Tarrant County by the Texas Legislature (Hightower 2012).

Although the fertile Blackland Prairie soils attracted settlers, poor transportation limited markets prior to the 1870s, and lack of mechanized farm equipment prevented the large-scale plantation agriculture characteristic of many parts of the South, and most settlers at this time were subsistence farmers living near reliable water and timber supplies along major steams. Because of the difference in economies, slavery was not a major institution in Tarrant County. Due to the county's relatively low reliance on slavery, residents of the county voted for secession from the Union by a small margin in 1861. However, the City of Dallas and Dallas County had a rapidly increasing population, and the slave population rose higher than that of the residents though Dallas County had fewer slaves than most other Texas counties

Although the fighting never reached North-Central Texas, the Civil War still inflicted hardships on the region. Because most able-bodied men were away fighting for the Confederacy, most small towns and villages were left unprotected, and the region gradually became impoverished when food and other commodities became expensive and difficult to obtain throughout the course of the war (Works Projects Administration [WPA] 1992:55–58). The post-Civil War and Reconstruction years during the mid- to late-1860s saw the population decrease as well as economic decline and shortages. However, construction of the Texas and Pacific Railroad and the Missouri-Kansas-Texas Railroad through Fort Worth, during the 1870s, ensured the importance of the region and aided in its development and growth. Spurred by the railroads, agriculture began to take root during the 1880s. Agriculture was firmly established within the region by 1890, when open range ranching and long-distance cattle drives were eliminated by the widespread adoption of barbed wire fencing (Hightower 2016).

The combination of agriculture, coupled with localized cattle ranching, continued to fuel growth in Tarrant County, raising the population from 41,142 to 152,800 between 1890 to 1920 with similar occurrences happening in Dallas County. Economies within the counties flourished until the peak of the Great Depression in 1932. Times remained tough, with few employment opportunities, until New Deal projects were initiated by President Franklin D. Roosevelt. The economy continued to improve with the onset of World War II, which permanently established Fort Worth as an aviation powerhouse in both the military and manufacturing sectors.

Population growth within the counties was immense during the mid to late 20th century. The population growth was linked to several key components, including aviation, manufacturing, interstate highway construction, and the completion of the DFW. Today, the City of Fort Worth and Tarrant County has maintained its frontier atmosphere, while serving as a vital component to the Dallas-Fort Worth metropolitan area (Hightower 2016). However, The City of Dallas and Dallas County have a metropolitan feel and remain the heart of the metroplex (Maxwell 2019).

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CHAPTER 4: METHODS

4.1 Archeological Desktop Analysis

To complete the archeological desktop analysis, a variety of literature and online sources were referenced to determine if potential cultural resources were located within the APE. These sources included the *Soil Survey of Dallas County, Texas*, the *Soil Survey of Tarrant County, Texas*, the Geologic Atlas of Texas (Dallas Sheet), the U.S. Geological Survey (USGS) topographic map, USDA NRCS digital soil database for Dallas and Tarrant Counties, the 1936 State Highway Map for Dallas and Tarrant Counties, the Texas Historic Overlay, TxDOT PALM of Dallas and Tarrant Counties, and both past and current aerial photography of the proposed APE. Additionally, a file search of the TASA and Texas Historical Sites Atlas (THSA) were performed to identify if archeological sites or any previously designated or identified historic properties were within the APE, including: NRHP properties, State Archeological Landmarks (SAL), and Official Texas Historical Markers (OTHM), which includes Recorded Texas Historic Landmarks (RTHL), historic cemetery markers, thematic markers, and 1936 Centennial Markers. This review was performed by Anne Gibson on 05 June 2020.

All photographs used within the report were taken by IES architectural historian; no archeological field assessments were conducted. IES archeologists used the photographs to assist in determining potential effects to archeological resources and if an archeological survey would be required.

4.2 Architectural Resources Survey

The purpose of the architectural resources survey is:

- 1) To locate both previously identified and unidentified architectural properties in the APE;
- 2) To identify the characteristics which the properties must possess to be eligible for NRHP listing;
- 3) To identify whether the properties retain sufficient integrity to be qualify for NRHP listing;
- 4) To determine if any properties require additional evaluation to determine historic significance; and
- 5) To determine if any historic properties are affected by the project.

Typical methods accepted by the THC place the cut-off date for historic-aged resources as those determined to be 50 years old or greater, which for this project was 1969. However, as detailed previously in this report, architectural resources 45 years in age or older were visited to observe and briefly document location, type, age, material, and integrity, which was primarily through photographs and field notes. The existing conditions and architectural elements of each resource were evaluated for NRHP eligibility and potential adverse effects.

4.3 Resource Evaluation

4.3.1 National Register Evaluation Criteria

The assessment of significance of a cultural resource is based on federal guidelines and regulations. The criteria for evaluating resources for inclusion in the NRHP are codified under the authority of the NHPA, as amended (36 CFR 60.4 [a–d]), and the Advisory Council on Historic Preservation (ACHP) has set forth guidelines to use in determining site eligibility. Federal regulations indicate that “[t]he term ‘eligible for inclusion in the National Register’ includes both properties formally determined as such by the Secretary of the Interior and all other properties that meet National Register listing criteria” (36 CFR 800.2[e]). Based on ACHP guidelines, any cultural resource that is included in or eligible for inclusion in the NRHP is a historic property.

Subsequent to the identification of relevant historical themes and related research questions for the evaluation of a resource, four criteria for NRHP eligibility are applied (36 CFR 60.4[a–d]). The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, material, workmanship, feeling, and association and:

- Criterion A: that are associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: that are associated with the lives of persons significant in our past; or
- Criterion C: that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: that have yielded, or may be likely to yield, information important in prehistory or history.

4.3.2 National Register Integrity Requirements

In addition to meeting one or more of the criteria outlined in 36 CFR 60.4, a cultural resource must possess integrity of various aspects of its character to be considered a significant cultural resource. In the most general sense, integrity refers to the “ability of a property to convey its significance” (*National Register Bulletin* 15:44). The determination of integrity is intrinsically related to the physical features or aspects of a cultural resource and their ability to contribute to the significance of the resource.

Typically, the cultural resource must also retain the defining features and characteristics that were present during the property’s period of significance to be considered eligible NRHP listing. The NRHP defines seven aspects of integrity as: location, setting, design, materials, workmanship, feeling, and association. Design typically refers to elements such as the form, structure, space, plan, or style of a structure or archeological site. Setting refers to the physical environment of a cultural resource, which differs from the location aspect in that setting considers the character of a site’s surroundings and how it relates to them. Materials are the physical elements of a site, such as the building materials used to construct a structure, or remnants of the raw materials that provided the subsistence base for past human occupation of a site. Workmanship encompasses physical aspects of labor or craft industries through the application of both technological practices and aesthetic principles and can be expressed either as common traditions or innovative techniques. Feeling refers to an expression of the aesthetic character of a site and is typically applied to sites that include visible structural features.

Resources that may be considered eligible under Criteria A and B are those associated with events or broad patterns in history or persons affiliated with those activities. Although it is necessary to consider the architectural and physical integrity for resources evaluated under Criteria A or B, attributes of historical integrity will be more highly valued for these criteria. Thus, the most important aspects of integrity for evaluating resources under these criteria are location, feeling, and association.

Properties eligible for the NRHP under Criterion C derive significance from the physical qualities of their design, construction, and/or craftsmanship, which includes elements like engineering or architecture. A property significant under Criterion C is one that clearly represents a noteworthy example of a defined property type, dates from a period of significance of one or more historic context(s) and exhibits the character-defining features of its property type. Therefore, a property must retain a high degree of physical integrity, as well as having relation to the historic context.

For a cultural resource to be eligible under Criterion D, the property must have the potential to answer questions, in part or full, about human history that can only be answered by the actual physical material of the resource and the information to be obtained must also be important. The most common cultural resource that are listed under this criterion are archeological sites; however, non-archeological resources can also be eligible under Criterion D.

Guidance from the National Parks Service within *National Register Bulletin 15* states the NRHP Criteria Evaluation exclude properties that are 50 years or less unless they are of exceptional importance. Cultural resources less than 50 years in age can be evaluated for NRHP eligibility under Criteria Consideration G, which allows for NRHP eligibility if the resource has achieved exceptional importance on the local, state, or national level within the last 50 years. As all above ground elements in the APE are less than 50 years in age, they were evaluated under this framework.

CHAPTER 5: RESULTS

5.1 Archeological Resources

Through the background review and review of photographs taken during the architectural survey, IES determined that the APE was significantly disturbed and contained no potential for archeological resources and would not require an archeological survey to be performed prior to construction.

5.2 Architectural Resources

5.2.1 Direct APE

Through a detailed background research and reconnaissance architectural survey, no historic-age architectural resources 50 years in age or older were identified within the APE. However, the direct APE contained two DPS Stations (Areas A and B), 45 years in age or older, which are associated with the initial construction phase of the DFW completed at end of 1973. Construction dates of these buildings were confirmed through a review of historical and modern aerial photographs and archival records. The aerial photographs also indicate that all three DPS Stations (Areas A through C) within in the APE were heavily modified by subsequent building additions in 2001. The 2001 modifications enveloped the original DPS Stations except for the elongated truck bay that extended from each building.

The other buildings identified within the APE were not constructed until at least the 1980s for DPS Station 4 (Area C), and the 1990s for both the Fumigation Building (Area D) and the Eastern ATC Tower (Area E). Although no historic-age architectural resources were present within the APE, all buildings, structures 45 years in age or older were photographed and assessed for potential NRHP eligibility. For ease of discussion, each building in the APE was assigned a unique identifier and are summarized in the following section and within **Tables 5.1** and **5.2**. Representative photographs are provided within **Appendix A**.

5.2.1.1 Area A (DPS Station 2)



DPS Station 2 is located where West 19th Street meets Runway 18R/36L. The original footprint of the building was cross-shaped structure that connected to an elongated garage bay wing. The garage has eight connected bays on the north and south façade with brown overhanging garage doors. The west façade of the garage has an additional four overhanging garage doors. The concrete building is similar to other concrete structures used for the construction of DFW in the early 1970s in that it shares the same texture and consistency. Concrete for the newer portion of the structure is lighter in appearance and is comprised of different substrate (**Appendix A, Photographs 1** through **5; Table 5.1**).


DPS Station 2 was constructed in the initial phase of development for the airport in the early 1970s. Like DPS Station 3 (Area B) and DPS Station 4 (Area C), DPS Station 2 underwent heavy modification in 2001. In early 2001, the central cross-shaped structure at the east façade of the building and the elongated wing on the west façade were the only building components. By 2002, an addition had completely enveloped the original cross-shaped section while the truck bay wing retained its original appearance.

5.2.1.2 Area B (DPS Station 3)

DPS Station 3 is located northeast of the intersection for North Airfield Drive and Emergency Road along Runway 13L/31R. Like DPS Station 2 (Area A), DPS Station 3 was constructed in a similar manner with the building connected to an elongated garage bay wing. The garage for DPS Station 3 has seven bays on the west and east façade of the structure. Four smaller, additional doors are located on the south façade of the garage. DPS Station 3 is comprised of similar materials as DPS Station 2 and has brown large, overhanging garage doors. Originally, the building connected to the garage was rectangular. The structure underwent renovation in the early 1990s where the rectangular portion was enlarged and turned into a cross-shaped building. By 2001, an additional renovation enveloped the cross-shaped portion in a manner similar to DPS Station 2 (Area A; **Appendix A, Photographs 6** through **10; Table 5.1**).

Table 5.1: Modern Architectural Resources within the APE

APE Area	Property Name	Potential Effects Type	Construction Date/ Architectural Elements	Photograph
Area A	DPS Station 2	Direct	c. late 1973, modified in 2001, concrete building with an attached elongated garage wing	
Area B	DPS Station 3	Direct	c. late 1973, modified in 1990s and 2001, concrete building with an attached elongated garage wing.	

APE Area	Property Name	Potential Effects Type	Construction Date/ Architectural Elements	Photograph
Area C	DPS Station 4	Direct	c. 1980s, modified in 2001, concrete building with an attached elongated garage wing.	

5.2.1.1 Area C (DPS Station 4)

DPS Station 4 had a similar footprint to DPS Station 3 (Area B) with a rectangular building attached to an elongated garage bay wing. The building also changed shape in 2001, as did DPS Stations 2 and 3 (Areas A and B). DPS Station 4 is shown on an historic aerial photograph in 1990; however, it was constructed before that sometime in the mid to late 1980s. It appears to be one of the earliest buildings to occur in that section of DFW. The Station was not present in the 1980 aerial photograph. The building was not part of the original development of the airport (**Appendix A, Photographs 11 through 16; Table 5.1**).

5.2.1.2 Area D (Fumigation Building)

The Fumigation Building noted on the APE General Location Map was constructed between 1995 and 2001 and is not of historic age. The building is a nondescript structure comprised of cement block (**Appendix A, Photographs 17 through 22; Table 5.2**).

5.2.2 Indirect APE

5.2.2.1 Area E (Eastern ATC Tower)

Area E is the area near the Eastern ATC Tower. The area is flat with the exception of the Eastern ATC Tower. The Eastern ATC Tower was constructed between 1990 and 1995, and is not historic (**Appendix A, Photographs 23 through 25; Table 5.2**).

Table 5.2: Modern Architectural Resources within the Indirect APE

APE Area	Property Name	Potential Effects Type	Construction Date/ Architectural Elements	Photograph
Area D	Fumigation Building	Direct	c. 1995-2001, Nondescript structure comprised of concrete block.	
Area E	Area near Eastern ATC Tower	Indirect	c. 1990-1995.	

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CHAPTER 6: SUMMARY AND RECOMMENDATIONS

6.1 Archeological Resources

The entirety of the APE have been exposed to significant previous ground disturbances and contains negligible potential for containing prehistoric or historic-age archeological sites.

6.2 Architectural Resources

Although no historic-age architectural resources 50 years in age or older were identified within the APE, two architectural resources 45 years in age or older were photographed and assessed for NRHP eligibility (**Table 6.1**).

Table 6.1: Modern Architectural Resources within the APE

Property Name	APE Area Name	Impact Type	NRHP Eligibility Recommendation
DPS Station 2	Area A	Direct	Not Eligible
DPS Station 3	Area B	Direct	Not Eligible
DPS Station 4	Area C	Direct	Not Eligible
Fumigation Building	Area D	Direct	Not Eligible
Eastern ATC Tower	Area E	Indirect	Not Eligible

The entirety of the APE has been exposed to significant previous ground disturbances and contains negligible potential for containing prehistory or historic-age archeological sites. There are two modern architectural resources that are between 45 and 49 years in age (*see Table 6.1*) and are within the direct APE. However, both buildings underwent heavy modification that altered their original appearance. The remaining architectural resources were located within the indirect APE and were constructed within the past 35 years. IES recommends that DPS Station 2 (Area A), DPS Station 3 (Area B), DPS Station 4 (Area C), Fumigation Building (Area D), Eastern ATC Tower (Area E) to be not eligible for NRHP listing under Criteria Consideration G.

6.3 Recommendations

Therefore, FAA requests concurrence with the findings of this study and the recommendation that no historic properties will be affected under 36 CFR Part 800.4(d)(1) within the current APE. In addition, the FAA requests that the undertaking be permitted to continue without the need for further cultural resources investigations. However, in the unlikely event that any prehistoric or historic features or deposits are encountered during construction, work should cease in that area immediately and the THC should be contacted for further consultation.

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APPENDIX A
Photograph Location Map and Photographs



Appendix A
Area A
Photograph Location Map

County: Dallas, Tarrant
State: Texas
Date map created: 7/22/2020
Source: (c) 2009 Microsoft Corporation
and its data suppliers; ESRI 10.5
IES Project Ref: 03.006.083

- Area of Potential Effects - Direct
- Area of Potential Effects - Indirect
- ▲ Photograph Location



1 inch = 200 ft

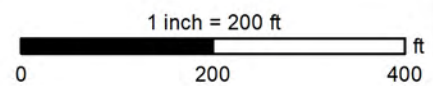
0 200 400 ft

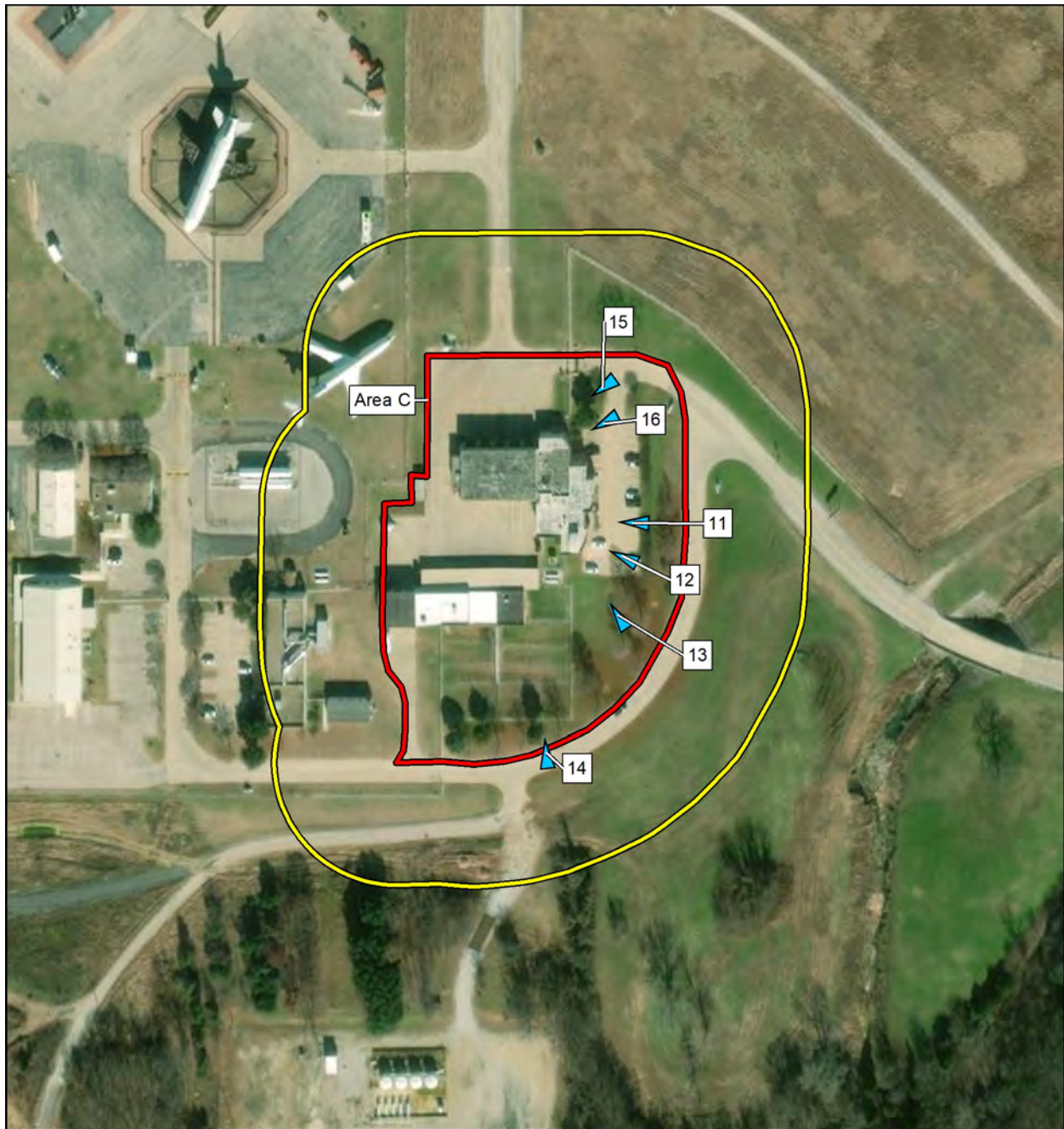


Appendix A
Area B
Photograph Location Map

County: Dallas, Tarrant
State: Texas
Date map created: 7/22/2020
Source: (c) 2009 Microsoft Corporation
and its data suppliers; ESRI 10.5
IES Project Ref: 03.006.083

- Area of Potential Effects - Direct
- Area of Potential Effects - Indirect
- ▲ Photograph Location

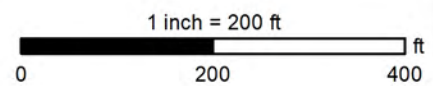


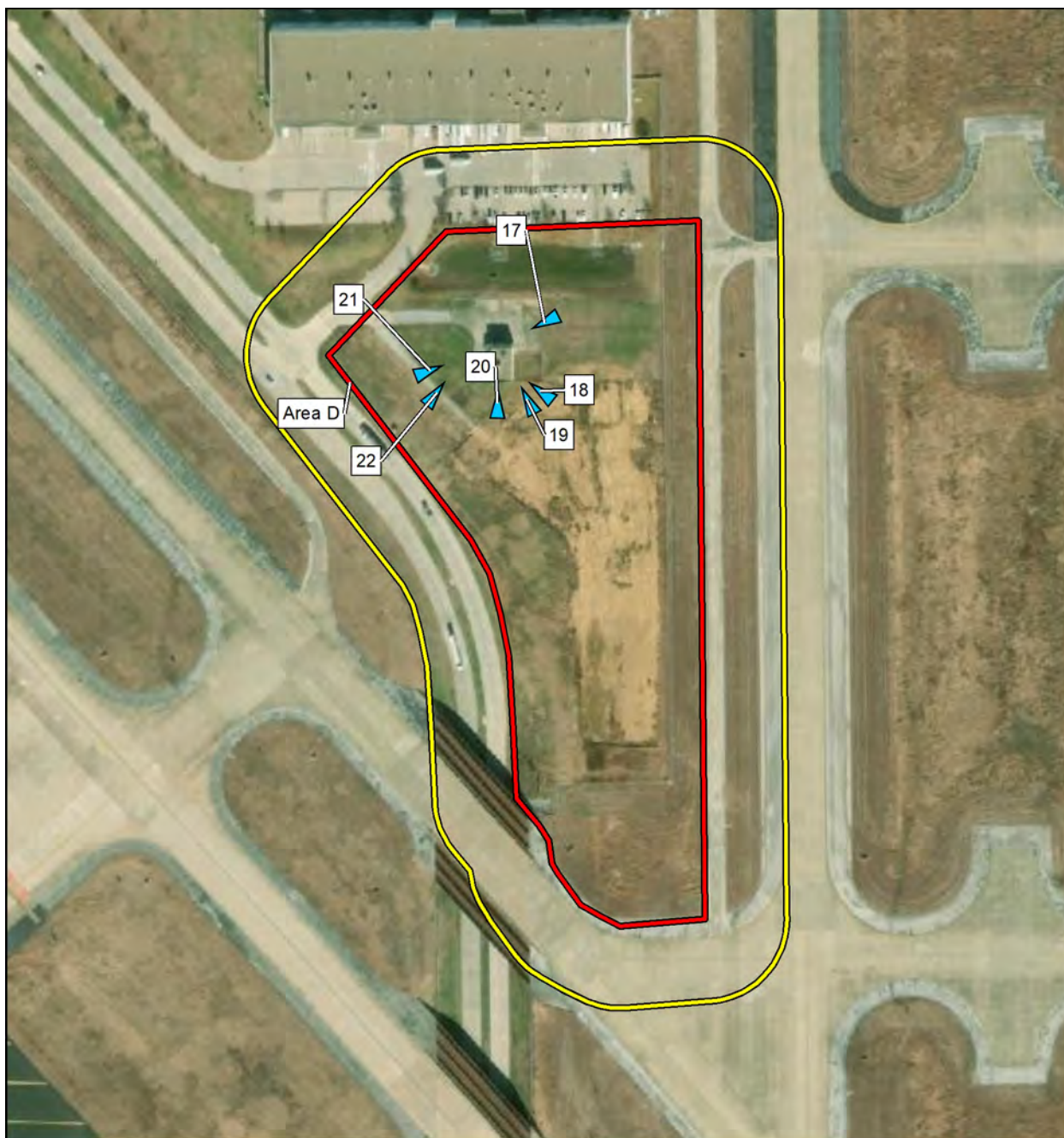


Appendix A
Area C
Photograph Location Map

County: Dallas, Tarrant
State: Texas
Date map created: 7/22/2020
Source: (c) 2009 Microsoft Corporation
and its data suppliers; ESRI 10.5
IES Project Ref: 03.006.083

- Area of Potential Effects - Direct
- Area of Potential Effects - Indirect
- ▲ Photograph Location





Appendix A Area D Photograph Location Map

County: Dallas, Tarrant
State: Texas
Date map created: 7/22/2020
Source: (c) 2009 Microsoft Corporation
and its data suppliers; ESRI 10.5
IES Project Ref: 03.006.083

- Area of Potential Effects - Direct
- Area of Potential Effects - Indirect
- Photograph Location



1 inch = 300 ft

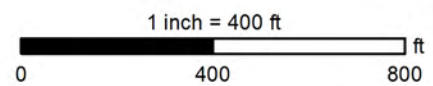
0 300 600 ft



Appendix A
Area E
Photograph Location Map

County: Dallas, Tarrant
State: Texas
Date map created: 7/22/2020
Source: (c) 2009 Microsoft Corporation
and its data suppliers; ESRI 10.5
IES Project Ref: 03.006.083

- Area of Potential Effects - Direct
- Area of Potential Effects - Indirect
- ▲ Photograph Location





Photograph 1: DPS Fire Station 2 (Area A), front façade and main entrance, facing East.



Photograph 2: DPS Fire Station 2 (Area A), northern half of front façade, facing Northeast.



Photograph 3: DPS Fire Station 2 (Area A), northwest corner, facing Southeast.



Photograph 4: DPS Fire Station 2 (Area A), northwest corner and north side of building, facing Southeast.



Photograph 5: DPS Fire Station 2 (Area A), south side of building, facing North.



Photograph 6: DPS Fire Station 3 (Area B), front façade and main entrance, facing Southwest.



Photograph 7: DPS Fire Station 3 (Area B), northwest side of building, facing South.



Photograph 8: DPS Fire Station 3 (Area B), north corner of building, facing South.



Photograph 9: DPS Fire Station 3 (Area B), front façade facing northeast, facing South.



Photograph 10: DPS Fire Station 3 (Area B), active construction at southeast corner, facing Southeast.



Photograph 11: DPS Fire Station 4 (Area C), front façade and main entrance, facing West.



Photograph 12: DPS Fire Station 4 (Area C), front façade and main entrance, facing Northwest.



Photograph 13: DPS Fire Station 4 (Area C), southeast corner, facing Northwest.



Photograph 14: DPS Fire Station 4 (Area C), south side, and K9 unit building, facing North.



Photograph 15: DPS Fire Station 4 (Area C), north side of building, facing Southwest.



Photograph 16: DPS Fire Station 4 (Area C), front façade at northeast corner, facing West.



Photograph 17: Fumigation building (Area D), northeast corner, facing Southwest.



Photograph 18: Fumigation building (Area D), east side, facing West.



Photograph 19: Fumigation building (Area D), southeast corner, facing Northwest.



Photograph 20: Fumigation building (Area D), south side, facing North.



Photograph 21: Fumigation building (Area D), west side, facing East.



Photograph 22: Fumigation building (Area D), southwest corner, facing Northeast.



Photograph 23: Proposed constructin site near air traffic control (ATC) tower (Area E) in eastern airfield, facing Northwest.



Photograph 24: Proposed constructin site near ATC tower (Area E) in eastern airfield, facing North .



Photograph 25: East of proposed constructin site near air ATC tower (Area E) in eastern airfield, facing Northeast.