U.S. Department of Transportation
Federal Aviation Administration
Southwest Region

PROGRAMMATIC ENVIRONMENTAL ASSESSSMENT AND FINDING OF NO SIGNIFICANT IMPACT

Business Park Development

Midland International Air & Space Port
Midland, Midland County, Texas

April 2016

1. INTRODUCTION

The City of Midland (City), Texas, is proposing to create a Midland International Space Port Business Park (Park) at the Midland International Air & Space Port (Airport) for aviation/aerospace and non-aeronautical uses. The City has identified approximately 45 acres at the Airport suitable for development that would include hangars, offices, and warehouses representing a mix of aeronautical and non-aeronautical uses.

The attached Programmatic Environmental Assessment (PEA) evaluates the potential broad-scale/high level environmental effects of a full build-out scenario of the Park. The PEA is not intended to fulfill all of the environmental requirements for site specific future construction and/or operational activities at the Park. Rather, future activities at individual lots or locations within the Park will be subject to site-specific NEPA and other environmental planning and regulatory requirements prior to construction. It is anticipated that such future planning and regulatory documents will be tiered under this PEA.

2. PURPOSE AND NEED

The purpose of the proposed action is to establish a 45-acre development park to provide buildable space for aviation/aerospace and non-aeronautical uses to meet the demands of businesses looking to begin or expand commercial operations at the Airport. This demand is illustrated by the exceptionally high interest for building space by businesses in the aerospace industry due to the Airport's recent Spaceport certification. Although demand is high for land, the Park is expected to develop to its full potential over a period of years rather than in a relatively short period of time.

The development of the Park area is also supported by previous planning documents. In 1996, a master plan was completed for the Airport that provided guidance for airport development and identified the Park area as having potential for commercial opportunities. Also, in 2002, a master plan update was completed that identified long-range Airport needs and recommend a plan for the future growth of the Airport that included development of the area currently being proposed.

3. PROPOSED ACTION AND FEDERAL ACTION

3.1 Proposed Action

The proposed action is to develop a 45-acre area Park. The Park would include facilities for aeronautical uses (e.g., hangars) and non-aeronautical uses (e.g., commercial offices and warehouses) and associated infrastructure (such as roadways, utilities, etc.). The conceptual breakdown of the proposed uses can be found in Figure 2.2 Project Site Plan of the EA. It is anticipated that development would occur over time and would follow standard development patterns. Under this Alternative, the property would remain under Airport ownership and leased to tenants and users.

Development includes:

- Demolition of an existing dilapidated storage building
- Demolition of an existing dilapidated cargo building
- Removal of an abandoned railroad spur
- Construction of a two-lane, 51-foot wide access road from La Force Boulevard to the northeast portion of the Park (dead end)
- Division of space into approximately 17 parcels/lots/tracts ranging in size from 0.95 acres to 7.37 acres
- Construction of new hangar, office, and warehouse facilities based on tenant requirements
- Extension or upgrade of existing utilities to serve new the facilities

3.2 Requested Federal Action

The following actions require approval prior to actual construction of the proposed project:

- Unconditional approval of the ALP that depicts the Proposed Action

4. ALTERNATIVES

Alternative 1 – Proposed Action: Development of a 45-acre business park.

Alternative 2 - No Action: No development would occur in the identified location at the Airport. Additional hangar and warehouse space, as well as supporting infrastructure, would not be constructed. The area identified for this purpose would remain vacant. This alternative does not meet the Purpose and Need of the project and is dismissed from further consideration.

5. ENVIRONMENTAL CONSEQUENCES

FAA evaluated the potential impacts associated with the Proposed Action by following the guidance in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* and *FAA Order 5050.4B, the National Environmental Policy Act (NEPA) Implementing Instructions for*

Airport Actions in accordance with NEPA and CEQ regulations. FAA Orders require the evaluation of specific environmental impact categories. Chapter 3 of the EA provides an analysis of anticipated environmental impacts resulting from the proposed action. In accordance with NEPA, the FAA compared the Proposed Action to the no build alternative in evaluating potential impacts.

A number of resources were dismissed from further analysis because it was determined that they will not be impacted by implementation of the Proposed Action and will not be further discussed in detail in this Finding of No Significant Impact (FONSI). However, because implementation of the Proposed Action has the potential to impact the following resource categories, FAA's review is more detailed.

5.1 Air Quality

The construction of the Preferred Alternative is not expected to impact air quality through increased Airport operations; rather it will provide additional hangar, office, and warehouse space for other industries/businesses. The current or foreseeable operations do not meet the criteria which require an analysis of potential air quality impacts. Air quality impacts are not expected from the Preferred Alternative or the No Action Alternative.

5.2 Fish, Wildlife, and Plants

A project-specific data request was submitted to the Texas Parks and Wildlife Department (TPWD) Texas Natural Diversity Database. The database request returned no entries for any state- or federally-listed species occurring within Midland County. However, written coordination from the TPWD (found in Appendix B Agency & Tribal Coordination of the EA) indicated that habitat found in the project area (open, arid, spare vegetation) is characteristic of the habitat used by the Texas horned lizard (state-listed species) and the Spot-tailed earless lizard (federally-endangered candidate species). It should be noted that TPWD's habitat determination was based upon a review of publicly available aerial photographs and not on-site inspection by a qualified biologist. As such, the TPWD recommends a pre-construction survey be conducted on and adjacent to the site prior to any construction activities to confirm the absence of the Texas horned lizard and the Spot-tailed earless lizard. If the target species are found, the TPWD should be contacted to develop a plan to relocate them. TPWD also recommends contractors implement the tortoise and Texas horned lizard BMPs (found on the TPWD website) during construction.

To complement the pre-construction habitat survey requested by the TPWD, the proposed Park location was surveyed by a qualified biologist to determine the potential presence of the target species. The biologist found no evidence of the Texas horned lizards or Spot-tailed earless lizards nor any indicator species (harvester ants). Given the disturbed and previously industrialized nature of the proposed Park, it anticipated that no special status species or their habitat occur in the project vicinity and no impacts are expected. However, prior to each of the sites being developed/graded, coordination with TPWD will take place to determine if a survey is required to determine the presence/absence of the target species.

It is expected that the Preferred Alternative and the No Action Alternative will not have adverse impacts on fish, wildlife and plant species in project area.

5.3 Hazardous Materials, Pollution Prevention, and Solid Waste

To assess the potential for hazardous materials impacts, a Phase I Environmental Site Assessment (Phase I ESA) was performed on the proposed Park location in September 2014. (A summary of the Phase I ESA can be found in Appendix D Phase I ESA of the EA.) The Phase I ESA found several areas on or adjacent to the project site with Recognized Environmental Conditions (RECs). According to the American Society of Testing and Materials (ASTM, E1527-13), the term Recognized Environmental Conditions means "the presence or likely presence of hazardous substances or petroleum products in, on, or at a property."

Based on the identification of these RECs, a subsurface investigation was completed to evaluate whether potential releases had impacted environmental resources (soils and groundwater) at the site. The investigation evaluated the presence of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and RCRA 8 metals in the soil and groundwater at the site and compared measured concentrations to the minimum levels reportable by lab tests. Concentrations above the sensitivity of the lab test methods were considered evidence of potential releases from the RECs.

Field investigations associated with this analysis included soil borings and installation of monitoring wells. Once subsurface investigations identified the presence of petroleum hydrocarbon and resulting barium impacts on a portion of the project site, coordination was initiated with the Texas Commission on Environmental Quality (TCEQ).

Based on the results of the soil borings and TCEQ coordination, it was determined the northeast portion of the site is subject to further assessment and corrective action through the TCEQ Petroleum Storage Tank (PST) Program (shaded in green on Figure 3.2 TCEQ Leaking Petroleum Storage Tank (LPST) Regulation Status Map of the EA). This is based on the discovery of petroleum hydrocarbons likely released by the former aviation fueling activities. The TCEQ determined the western portion of the site is not subject to further assessment or response action.

Based on correspondence from TCEQ and the LPST program, the expected corrective action will be to remove the Non-Aqueous Phase Liquid (NAPL) located in the previously identified "localized" northeastern edge of the development park site (shaded in green on Figure 3.2 TCEQ LPST Regulation Status Map of the EA). The NAPL is the petroleum product that is floating on top of the shallow ground water in the identified site. The following are the anticipated steps the Airport will perform to meet TCEQ requirements and ultimately obtain TCEQ Closure of the identified site:

- The Airport will prepare a remedial design plan to be presented to TCEQ PST Division for consideration and concurrence.

- The remedial design plan developed will be based on using typical petroleum product recovery equipment and will take into consideration the sub-surface soil strata characteristics as it relates to the flow of petroleum product.
- The remedial design plan is expected to involve utilizing the existing ground water monitor wells previously installed for sampling that are located within the identified eastern edge of the development park site to extract the NAPL.
- Continue to perform extraction of the NAPL down to a residual depth agreed upon between TCEQ and the Airport that is practical for extraction. The residual depth and extraction process will be a part of the remedial design plan developed in coordination with the TCEQ.
- Upon obtaining agreed upon residual depth, a final Closure will be obtained from TCEQ on the identified eastern edge of the development park site.
- No removal or treatment of soil located in the identified area is expected to be required based on TCEQ's requirements under the LPST program.

Coordination with TCEQ is on-going; however, the agency has indicated in writing that "the need for additional corrective action to address this release should not impede the City's plans for development" and "the TCEQ does not require regulatory closure for the LPST site prior to the proposed construction". TCEQ is primarily concerned with removal of the petroleum product that is floating on the shallow ground water down to a reasonable level and that extraction would not prohibit development on the surface or at shallow depths. A copy of the letter from TCEQ regarding the proposed development and the corrective actions required for this release can be found in Appendix D Phase I ESA of the EA.

The corrective actions required by TCEQ will continue independently of the Preferred Alternative described in this PEA; therefore, additional mitigation of hazardous materials is not required for the proposed development to continue. For more detailed information on the Phase I ESA methodology and findings, please see Appendix D Phase I ESA of the EA.

5.4 Water Quality

The TCEQ requires Stormwater Pollution Prevention Plans (SWP3s) that include appropriate best management practices (BMPs) to reduce erosion and discharge of pollutants via stormwater runoff during construction activities. BMPs include schedules of activities, prohibitions of certain practices, land maintenance procedures, and structural drainage controls to manage construction site runoff as well as practices to control spills, leaks, waste disposal, or drainage from raw material storage areas. TCEQ also requires final vegetative cover with a density of at least 70 percent of the native background vegetative cover for the area. MAF is covered under the TCEQ Multi-Sector General Permit for stormwater discharges.

5.5 Construction Impacts (Pollution Prevention)

There will be no permanent construction impacts associated with the Preferred Alternative or the No Action Alternative. Anticipated short-term or long-term construction related impacts resulting from future actions will be evaluated independently; however, it is anticipated that any

construction impacts may be considered routine and easily mitigated through the regulatory permitting process and the use of BMPs.

Coordination with the Texas Department of Transportation (TxDOT) indicates they have no objections to the project moving forward, but directed the City of Midland Traffic Engineer to coordinate with the TxDOT Odessa District Director of Operations regarding the layout of the Liberator/LaForce intersection to mitigate operational impacts. See Appendix B Agency & Tribal Coordination in the EA for TxDOT letter.

6. PUBLIC INVOLVEMENT

Because there are no environmental impacts associated with the proposed action that would exceed applicable thresholds of significance, the action is not one normally requiring preparation of an Environmental Impact Statement (EIS), and no special circumstances apply, circulation and review of the Draft EA was not warranted in accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*.

7. CONDITIONS AND MITIGATION

As prescribed by 40 CFR §1505.3, the FAA shall take steps as appropriate to the action, such as through special conditions in grant agreements, property conveyance deeds, releases, airport layout plan approvals, and contract plans and specifications and shall monitor these as necessary to assure that representations made in the EA and FONSI will be carried out. Specific conditions of approval associated with this project are listed below:

- Construction activities and stormwater detention requirements will comply with the TCEQ Multi-Sector General Permit for stormwater discharges.

- Mitigation measures shall be incorporated into the project to include use of BMPs during construction to minimize erosion and sedimentation; controlling runoff; and controlling waste and spoils disposal to prevent ground contamination.

- Prior to each of the sites being developed/graded, coordination with TPWD will take place to determine if a survey is required to determine the presence/absence of the target species; TPWD also recommends contractors implement the tortoise and Texas horned lizard BMPs (found on the TPWD website) during construction.

- The City of Midland Traffic Engineer will coordinate with the TxDOT Odessa District Director of Operations regarding the layout of the Liberator/LaForce intersection to mitigate operational impacts.

- Any structures or buildings scheduled for demolition as part of the project will be surveyed for Asbestos-Containing Materials (ACMs) prior to removal. If ACMs are found, they must be abated prior to demolition in accordance with TCEQ guidelines and procedures.

- The Airport will continue coordination with TCEQ to ensure the removal of the NAPL and the eventual regulatory closure of the contaminated area in the eastern portion of the project area.

8. DECISION CONSIDERATIONS AND ADDITIONAL FINDINGS

Throughout the development of the airport, including the proposed improvements described above, the FAA has made every effort to adhere to the policies and purposes of National Environmental Policy Act of 1969, as stated in CEQ Regulations for Implementing NEPA, 40 CFR §1500-1508. The FAA has concentrated on the truly significant issues related to the action in question. In its determination whether to prepare an Environmental Impact Statement (EIS) or process the EA as a FONSI, the FAA weighed its decision based on an examination of the EA, comments from federal, state, and local agencies, as well as all other evidence available to the FAA.

The FAA determined that the April 2016 EA, prepared by MAF, adequately assessed the potential individual and cumulative environmental impacts of the proposed business park development, and that the scope and alternatives considered, and content of the EA are adequate. This FONSI has therefore been prepared and is being submitted to document environmental review and evaluation in compliance with the National Environmental Policy Act of 1969.

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information, I find the proposed Federal action is consistent with existing national environmental policies and objectives of Section 101(a) of the National Environmental Policy Act of 1969 and other applicable environmental requirements. I also find the proposed Federal action, with the required mitigation referenced above, will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2)(C) of NEPA. As a result, FAA has determined that preparation of an EIS is not necessary for this proposed action.

RECOMMENDED FOR APPROVAL: _____ DATE: 4/15/16
John MacFarlane
Environmental Protection Specialist

APPROVED: _____ DATE: 4/16/16
D. Cameron Bryan
Acting Manager, Texas Airports
Development Office

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

for a

MIDLAND INTERNATIONAL SPACE PORT
BUSINESS PARK DEVELOPMENT

at the

MIDLAND INTERNATIONAL AIR & SPACE PORT

MIDLAND, TEXAS

Prepared by:

Mead & Hunt, Inc.

April 6, 2016

This Programmatic Environmental Assessment becomes a legal document when evaluated and signed by the responsible Federal Aviation Administration (FAA) official.

Responsible FAA Official Signature

Date 4/15/16

John MacFarlane, EPS, TX ADO

Responsible FAA Official Printed Name and Title

Preface

The National Environmental Policy Act (NEPA) of 1969 requires that federal agencies or their representatives identify and consider the social, economic, and environmental impacts of proposed actions as part of their decision making process. NEPA also requires that federal agencies provide information to the public and regulatory agencies and consider their input when reaching decisions. This Programmatic Environmental Assessment (PEA) has been prepared to satisfy these obligations, as well as all applicable state requirements.

The proposed actions that require the preparation of this PEA at the Midland International Air & Space Port include:

- Demolition of an existing dilapidated storage and cargo building
- Removal of an abandoned railroad spur
- Construction of a two-lane, 51-foot wide access road from La Force Boulevard to the northeast portion of the Park (dead end)
- Division of land into approximately 17 parcels/lots ranging in size from 0.95 acres to 7.37 acres
- Construction of future hangar, office, and warehouse facilities based on tenant requirements
- Extension or upgrade of existing utilities to serve new the facilities

This PEA has been prepared in accordance with the requirements of NEPA, Title V of the Public Law 97-248 of the Airport and Airway Improvement Act of 1982, FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*, and FAA Order 1050.1F, *Environmental Impacts Policies and Procedures*. The intent of the PEA is to serve as a decision making tool to be used by the public and local, state, and federal officials in evaluating the proposed development at the Midland International Air & Space Port.

Final Programmatic Environmental Assessment

Midland International Air & Space Port (MAF)

Midland, Midland County, Texas

April 6, 2016

Report prepared by

Mead & Hunt

Table of Contents

Figures

Tables

Appendices

Section 1.0 Purpose and Need

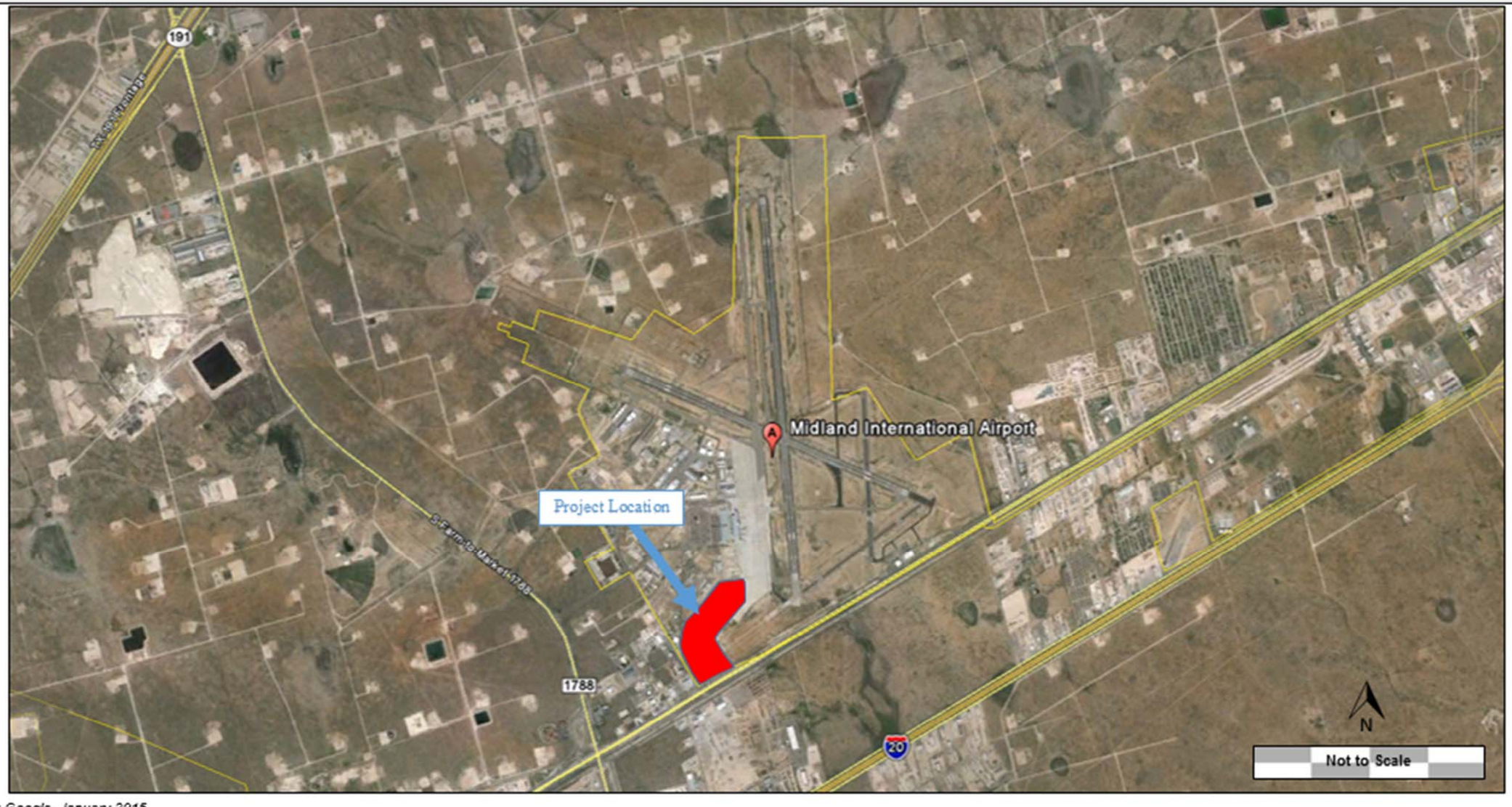
1.1 Introduction

The City of Midland (City), Texas, is proposing to create a Midland International Space Port Business Park (Park) at the Midland International Air & Space Port (Airport) for aviation/aerospace and non-aeronautical uses. The City has identified approximately 45 acres at the Airport suitable for development that would include hangars, offices, and warehouses representing a mix of aeronautical and non-aeronautical uses. The area identified for the proposed Park is located on the southwest side of the Airport between Pilot Avenue, Business Interstate 20-East, and La Force Boulevard. See **Figure 1.1 Location Map** for the proposed location of the Park within Airport property. For photos of the Park area see **Appendix A Site Photos**.

Proposed Development Park Area

The proposed action is subject to environmental review under the National Environmental Policy Act (NEPA) of 1969 as amended (42 United States Code [U.S.C.] §4321, et seq.). This Programmatic Environmental Assessment (PEA) evaluates the potential broad-scale/high level environmental effects of a full build-out scenario of the Park. This PEA is not intended to fulfill all of the environmental requirements for site specific future construction and/or operational activities at the Park. Rather, future activities at individual lots or locations within the Park will be subject to site-specific NEPA and other environmental planning and regulatory requirements prior to construction. It is anticipated that such future planning and regulatory documents will be tiered under this PEA. For details on the proposed action, see **Section 2.0 Alternatives Considered**.

The results of this PEA, including input from other agencies, will guide the decision made by the FAA at its conclusion. At that time, the project will either be cleared to proceed with the issuance of a Finding of No Significant Impact (FONSI) or will be required to undergo additional environmental analysis.



Source: Google, January 2015

Prepared by: Mead & Hunt

Figure 1.1

Location Map

Midland International Air & Space Port

1.2 Location and History

The Airport (Federal Aviation Administration [FAA] Identifier: MAF) is a commercial service airport also licensed to serve commercial human spaceflight (the first such facility in the country). The Airport is located halfway between the cities of Midland and Odessa in the State of Texas and is approximately 330 miles west of Dallas, Texas, and 300 miles east of El Paso, Texas. The Airport is owned and operated by the City of Midland (**Figure 1.2 Vicinity Map**).

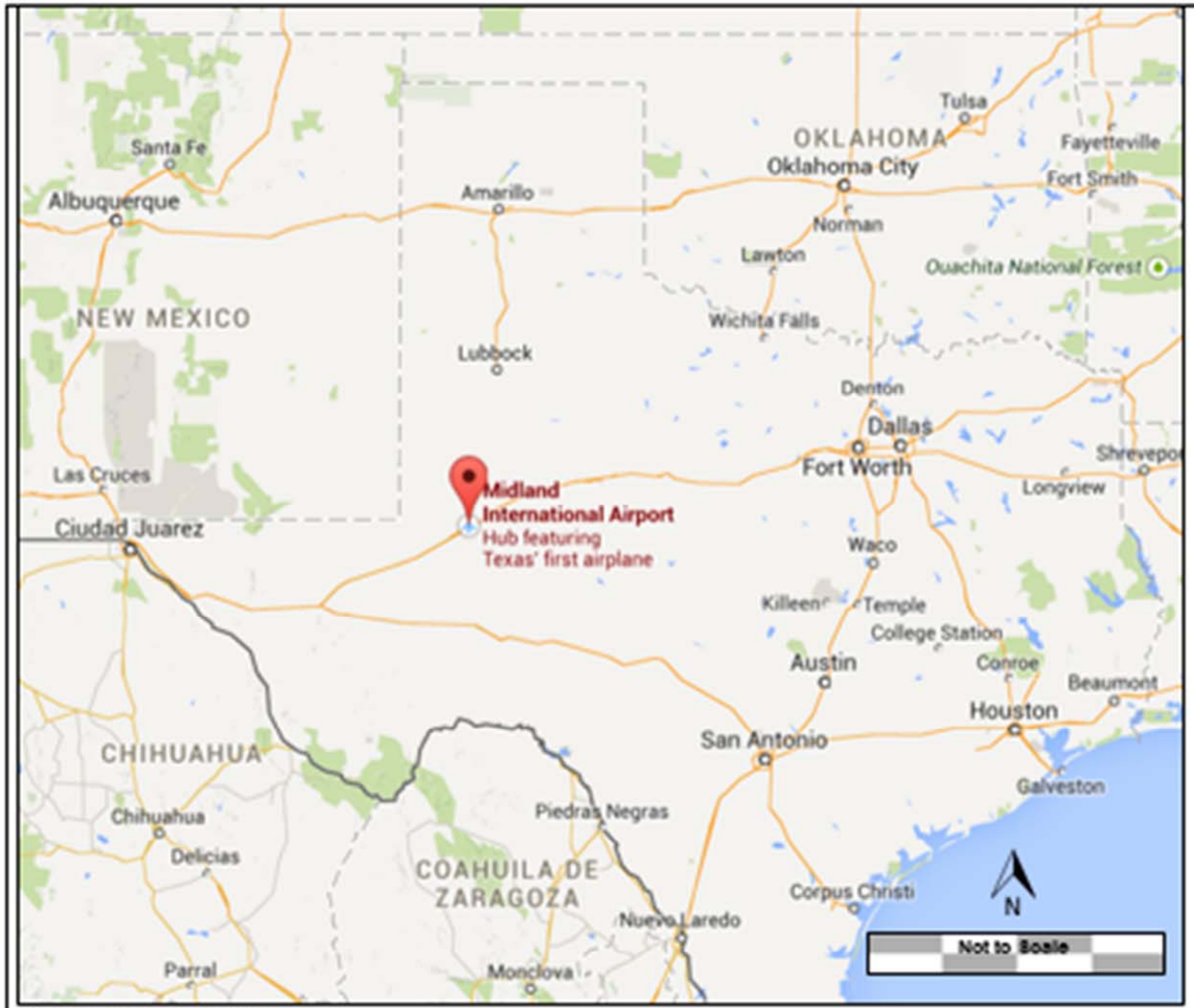
The City is the county seat of Midland County, Texas, and is home to approximately 111,150 residents according to the 2010 U.S. Census. The City is the administrative and management center for oil and gas industry activity within the Permian Basin. The Permian Basin is responsible for 61 percent of the State's oil production, 17 percent of the State's gas production, and 16 percent of the Country's oil reserves. Other major industries in the Midland area include aerospace and aviation, ranching and agriculture, healthcare, and retail and other supporting businesses. Midland is home to Midland College as well as Midland Airpark, a general aviation airport on the northeast side of the City.

The Midland area is located in a semi-arid climate characterized by long, hot summers and short, moderate winters. The average high temperature is 77.3 degrees Fahrenheit, the average low temperature is 50.4 degrees Fahrenheit, and annual precipitation averages 14.6 inches. The Airport's elevation is approximately 2,870 feet mean sea level (MSL).

The Airport started as a small, private facility known as Sloan Field in 1927, which was sold to the City in 1939. In 1941, following several improvements, an air school/training base was established (then called Midland Army Air Field). The first class graduated in 1942 and the school operated until 1946.

Following its service as an army facility, the Airport became Midland-Odessa Regional Airport and opened a passenger terminal in the early 1960s. MAF was served first by Continental, Trans-Texas, and American airlines followed by Southwest, Delta, and America West during the 1970s oil boom. By the 1990s, airline service declined and the Airport downgraded to smaller aircraft. Between 1996 and 1999 operations increased and a new passenger terminal was constructed and the original terminal was demolished.

In 2012, a commercial space launch site application was submitted to the FAA. The application was approved in 2014, making the Airport the first primary commercial service airport in the country to be certified as a Spaceport. This certification allows passenger flights into zero gravity environments as well as testing of orbital space equipment. Spaceport flights utilize Runway 16R/34L for launch and landing operations. The Spaceport is currently home to two aerospace companies and is poised for substantial growth in the future.



Source: Google, January 2015

Prepared by: Mead&Hunt

Figure 1.2

Vicinity Map

Midland International Air & Space Port

1.3 Purpose and Need

The purpose of the proposed action is to establish a 45-acre development park to provide buildable space for aviation/aerospace and non-aeronautical uses to meet the demands of businesses looking to begin or expand commercial operations at the Airport. This demand is illustrated by the exceptionally high interest for building space by businesses in the aerospace industry due to the Airport's recent Spaceport certification. Although demand is high for land, the Park is expected to develop to its full potential over a period of years rather than in a relatively short period of time.

Although the proposed Park location is largely vacant in its current condition (due to past demolition), the area once had commercial/industrial activities including a now abandoned railroad spur that provided regional connectivity. The Airport desires to be good stewards of its land and redevelop and reuse this area rather than develop other undisturbed green space surrounding the Airport. By directing new development to the Park area, the Airport is minimizing potential environmental impacts by redeveloping previously disturbed land while providing commercial opportunities for business expansion and economic growth for the local community.

The proposed action is needed because existing facilities and infrastructure at the Airport are not adequate to meet the current demand for such space. The Airport has become a leader in aerospace development and many commercial businesses are looking to establish operations at the Airport. In addition, the oil and gas industry has many corporate hangars located at the Airport and the need for additional infrastructure, including office and warehouse space, is high.

The development of the Park area is also supported by previous planning documents. In 1996, a master plan was completed for the Airport that provided guidance for airport development and identified the Park area as having potential for commercial opportunities. Also, in 2002, a master plan update was completed that identified long-range Airport needs and recommend a plan for the future growth of the Airport that included development of the area currently being proposed.

As a result of the *2002 Airport Master Plan Update*, the area identified for future development (known as the “west side terminal area” or “west side development area” in the master plan) was designated for industrial development on the Airport Layout Plan (ALP) and is reserved for aviation/aerospace and non-aeronautical related land use.

By allowing this area to be developed, the proposed Park would generate revenue for the Airport through hangar/office/warehouse leases. This also meets the Airport’s goal of enhancing on-Airport economic development activities. In addition, the west side of the Airport where the Park is proposed, is supported by previous planning documents and is currently the most intensely developed area on Airport property. As such, it will remain the primary location for many of the Airport's most vital landside functions. The proposed Park would complement these existing land use patterns.

1.4 Overview of Existing Airport Facilities

The Airport occupies approximately 1,600 acres and features landside and airside facilities as well as navigational aids and support facilities. The following is a brief summary of the existing facilities found at the Airport. This section is not intended to be a comprehensive list, but rather a synopsis of the major resources found at the Airport.

Landside Facilities:

The Airport's passenger terminal is located west of the airfield and has surface parking lots for passenger, employee, and rental car use. There are also a variety of hangar areas for general aviation, executive, commercial, and other tenants.

Airside Facilities:

The runways at MAF are served by a system of parallel and connector taxiways. The Airport has one main apron area adjacent to the passenger terminal area. The Airport has four runways, as listed in **Table 1-1**.

Table 1-1 Midland International Airport Runways

Runway	Length (feet)	Width (feet)	Construction
16R/34L	9,501	150	Asphalt
10/28	8,302	150	Asphalt
4/22	4,605	75	Asphalt
16L/34R	4,339(1)	100	Asphalt

[1] *A proposed extension to Runway 16L/34R is the subject of an on-going, independent Environmental Assessment.*

Navigational Aids:

The Airport operates a very high frequency omnidirectional radio range (VOR), lighted wind indicator, and a segmented circle. The runways have their own navigational aids and approaches, including precision approach path indicators (PAPIs), localizers, instrument landing system (ILS) approaches and/or global positioning system (GPS) approaches.

Support Facilities:

Major support facilities include an air traffic control tower (ATCT) and an aircraft rescue and firefighting (ARFF) facility.

1.5 Overview of Aviation Activity

The Airport serves 43 counties in Western Texas and Eastern New Mexico and is the closest commercial service airport to Big Bend National Park. The Airport is currently served by three airlines: Southwest, American Eagle, and United Express. It offers non-stop service to Dallas Fort Worth, Dallas Love Field, Houston Intercontinental, Houston Hobby, Las Vegas and Denver airports.

The *Texas Airport System Plan* (TASP) lists public use airports that play an essential role in the economic and social development of Texas by providing air access. The TASP classifies MAF as a "primary commercial service airport" and defines a primary commercial airport as a facility that "supports scheduled

passenger service by large and medium transport aircraft [and] enplanes at least 10,000 passengers annually."

The FAA's *National Plan of Integrated Airport Systems* (NPIAS) inventories the country's aviation facilities and identifies those which are significant to air transportation in the United States. The NPIAS classifies MAF as a small hub primary airport. Primary airports receive scheduled air carrier service. Small hubs enplane 0.05 percent to 0.25 percent of total U.S. passenger enplanements and average 122 based aircraft.

According to the FAA's 2014 *Terminal Area Forecast* (2014 TAF), MAF enplaned 502,303 passengers in 2013 (282,689 air carrier; 219,614 commuter; and 672 air taxi). The 2014 TAF also shows that the Airport had 72,163 total operations in 2013, including 27,185 general aviation operations; 21,754 military operations; 15,806 air taxi operations; and 7,418 air carrier operations.

1.6 Required Environmental Review

The proposed Airport improvements require a PEA be prepared under the direction of NEPA. NEPA requires any action that involves federal funding or federal permits undergo an environmental analysis that evaluates and documents the effects of the proposed project on the surrounding natural, social, and economic environment.

The intent of this PEA is to provide the environmental documentation necessary to assist local, state, and federal agencies in evaluating the proposed development. This PEA was also developed to determine whether any potential impacts associated with the proposed project are significant enough to necessitate a greater level of environmental analysis that would be typically achieved through an Environmental Impact Statement.

As previously stated, this PEA assesses the potential programmatic (broad-scale) environmental effects of a full build-out scenario of the Park. The information in this PEA is not intended to address all site-specific issues. Each subsequent site-specific development will be subject to its own environmental clearance (i.e. Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement) prior to construction.

The remainder of this document analyzes the proposed action and the No Action alternative, defines the affected environment and potential environmental consequences of the project (including measures to avoid and minimize impacts), and lists potential mitigation measures to address any adverse environmental impacts identified. This report also details the public involvement activities conducted for this assessment.

This document has been prepared in accordance with the requirements of NEPA, FAA Order 5050.4B, *NEPA Instructions for Airport Actions*, and FAA Order 1050.1F, *Environmental Impacts Policies and Procedures* and Council on Environmental Quality (CEQ) guidelines.

1.7 Requested Action

The following actions require approval prior to actual construction of the proposed project:

- This PEA will be submitted to the FAA for evaluation. If the FAA concludes the proposed action will not cause a significant environmental impact, they may issue a FONSI determination. If it is determined that a major or significant impact will result from the proposed action, the FAA may request that an EIS be completed.
- Unconditional approval of the ALP that depicts the Proposed Action as described in **Section 2.0 Alternatives Considered** and evaluated in **Section 3.0 Affected Environment & Environmental Consequences**.

1.8 Anticipated Project Timeline

The proposed project timeline (pending FAA approval of the PEA and funding availability) is as follows:

- Draft PEA: February 2016
- Final PEA and FONSI: April 2016
- Construction of site improvements (e.g. roads): Summer 2016

Section 2.0 Alternatives Considered

2.1 Introduction

The National Environmental Policy Act (NEPA) and Federal Aviation Administration (FAA) regulations do not require the inclusion of a specific number of alternatives or a specific range of alternatives in an environmental analysis prior to construction (e.g., Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement); however, an environmental document must consider the proposed action and the consequences of taking no action.

Pursuant to FAA regulations set forth in Order 1050.1F, *Environmental Impacts: Policies and Procedures,* an alternatives discussion must include:

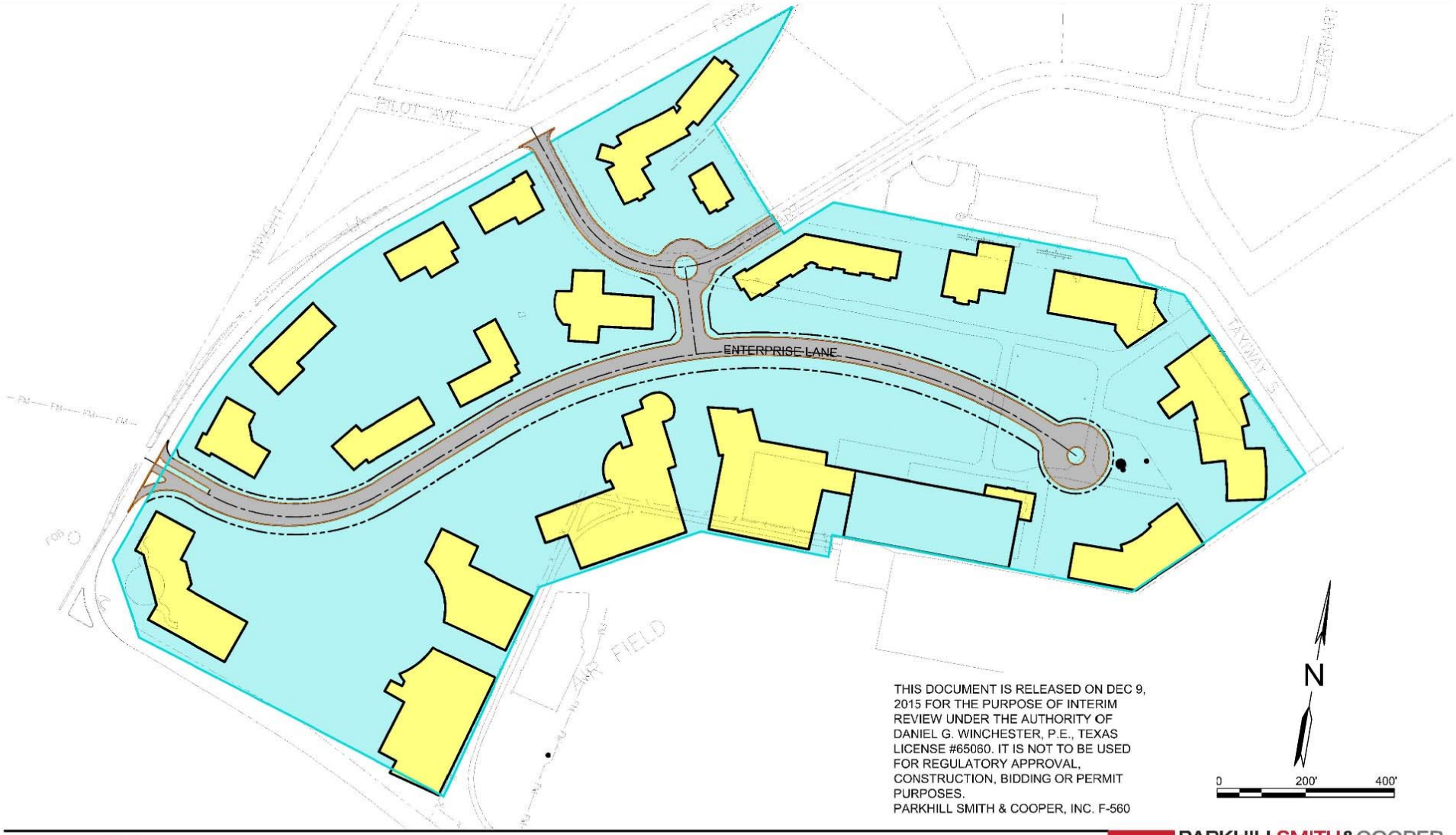
- A list of alternatives considered, including the proposed action and the No Action alternative
- Any connected or cumulative actions associated with each alternative
- A concise statement explaining why any initial alternative considered was eliminated from further study
- A statement identifying a Preferred Alternative, if one has been identified
- Any other applicable laws, regulations, executive orders and associated permits, licenses, approvals, and reviews required to implement a project alternative

2.2 Alternatives

This section introduces and compares the two alternatives considered for the Midland International Space Port Business Park (Park) at the Midland International Air & Space Port (Airport). For additional details about why the project is needed, see **Section 1.0 Purpose and Need**.

2.2.1 Full Build-out Alternative (Preferred Alternative)

Under this alternative, the 45-acre area proposed for the Park will be fully developed (**Figure 2.1 Full Build-out Alternative**). The Park would include facilities for aeronautical uses (e.g., hangars) and non-aeronautical uses (e.g., commercial offices and warehouses) and associated infrastructure (such as roadways, utilities, etc.). The conceptual breakdown of the proposed uses can be found in **Figure 2.2 Project Site Plan**. It is anticipated that development would occur over time and would follow standard development patterns. Under this Alternative, the property would remain under Airport ownership and leased to tenants and users.



Midland International Air & Space Port

LEGEND

- NEW ROADWAY
- CONCEPT BUILDINGS
- BUSINESS PARK DEVELOPMENT SITE

PARKHILLSMITH&COOPER

PSC

PROPOSED SPACEPORT BUSINESS PARK DEVELOPMENT

Figure 2.1 Full Build-out Alternative

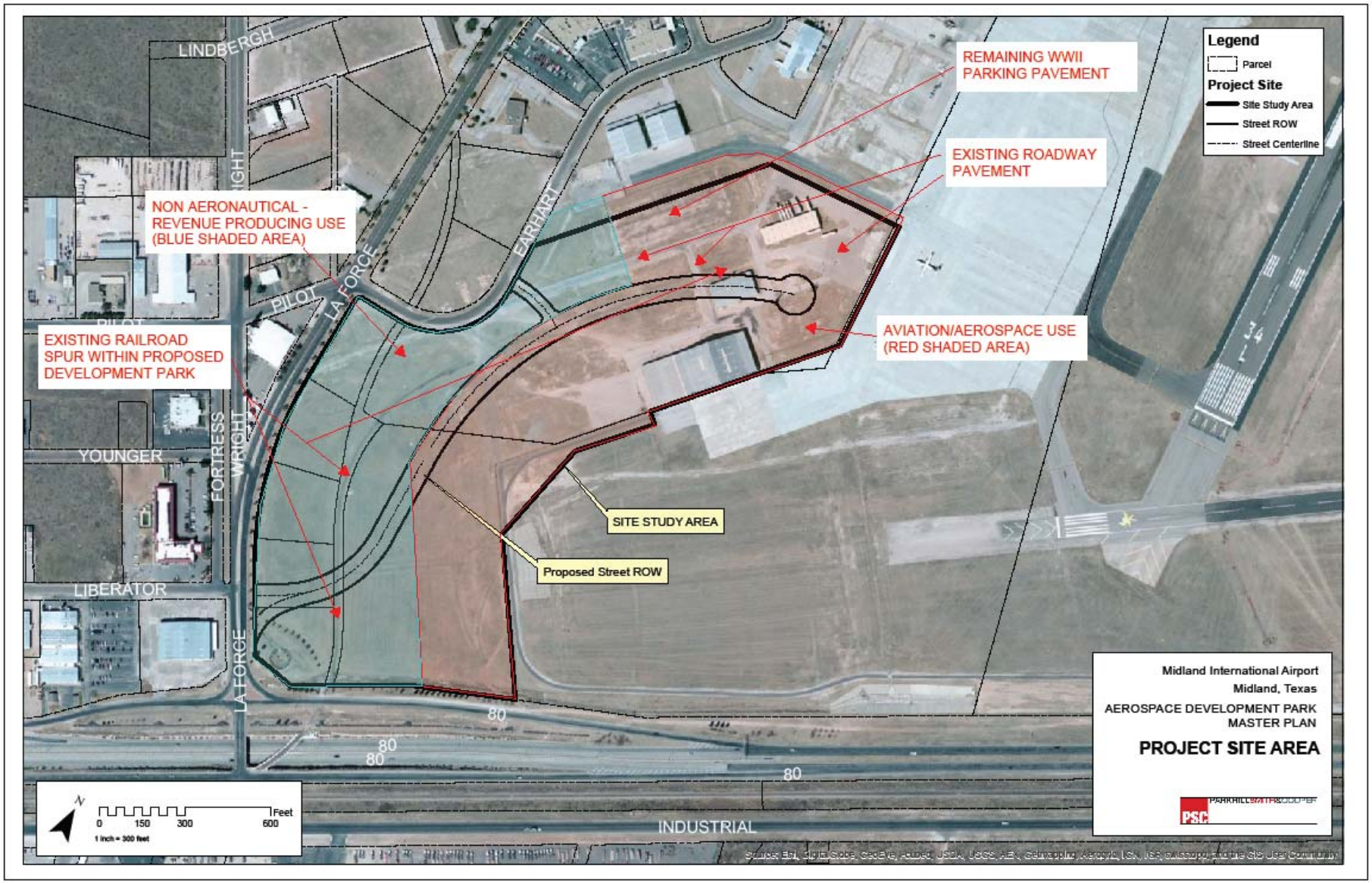


Figure 2.2 Project Site Plan

Proposed development items associated with Full Build-out Alternative include:

- Demolition of an existing dilapidated storage building
- Demolition of an existing dilapidated cargo building
- Removal of an abandoned railroad spur
- Construction of a two-lane, 51-foot wide access road from La Force Boulevard to the northeast portion of the Park (dead end)
- Division of space into approximately 17 parcels/lots/tracts ranging in size from 0.95 acres to 7.37 acres (**Figure 2.3 Conceptual Lease Plan**)
- Construction of new hangar, office, and warehouse facilities based on tenant requirements
- Extension or upgrade of existing utilities to serve new the facilities

An existing hangar in the southeast portion of the Park (adjacent to the apron) is anticipated to remain under the Full Build-out Alternative.

As previously described in **Section 1.0 Purpose and Need**, the proposed development at this location is supported by previous master planning documents dating back to 1996. During those planning efforts, various locations and alternatives within existing Airport property were analyzed and evaluated for potential future development. At the conclusion of those documents, the proposed Park area was identified as the preferred location. In addition, this location has also been designated for industrial development on the Airport Layout Plan (ALP) and is reserved for aviation/non-aviation related land use activities.

The benefits of this location are numerous and include:

- The site meets the high demand from commercial and industrial businesses wanting to relocate or expand their operations at the Airport.
- The site has been used for industrial/commercial activates in the past.
- The entire site is previously disturbed and is currently maintained by the Airport.
- The site has some utilities already present.
- The development of this site follows existing land use patterns for the area.
- This location follows previous master planning documents for logical airport development.
- Given the disturbed nature of the site, the social, environmental and economic impacts are expected to be minor and easily addressed through mitigation.
- This location is supported by the Airport and the City of Midland.

LEASE LOT TABLE		
NUMBER	SF	ACRES
LOT A	50,530	1.16
LOT B	56,202	1.29
LOT C	68,473	1.57
LOT D	93,316	2.14
LOT E	63,936	1.47
LOT F	49,940	1.14
LOT G	84,156	1.93
LOT H	41,496	0.95
LOT I	65,431	1.50
LOT J	69,293	1.59
LOT K	88,532	2.03
LOT L	131,750	3.02
LOT M	84,796	1.95
LOT N	287,991	6.61
LOT O	166,363	3.82
LOT P	320,947	7.37
LOT Q	100,942	2.31
TOTAL		41.85

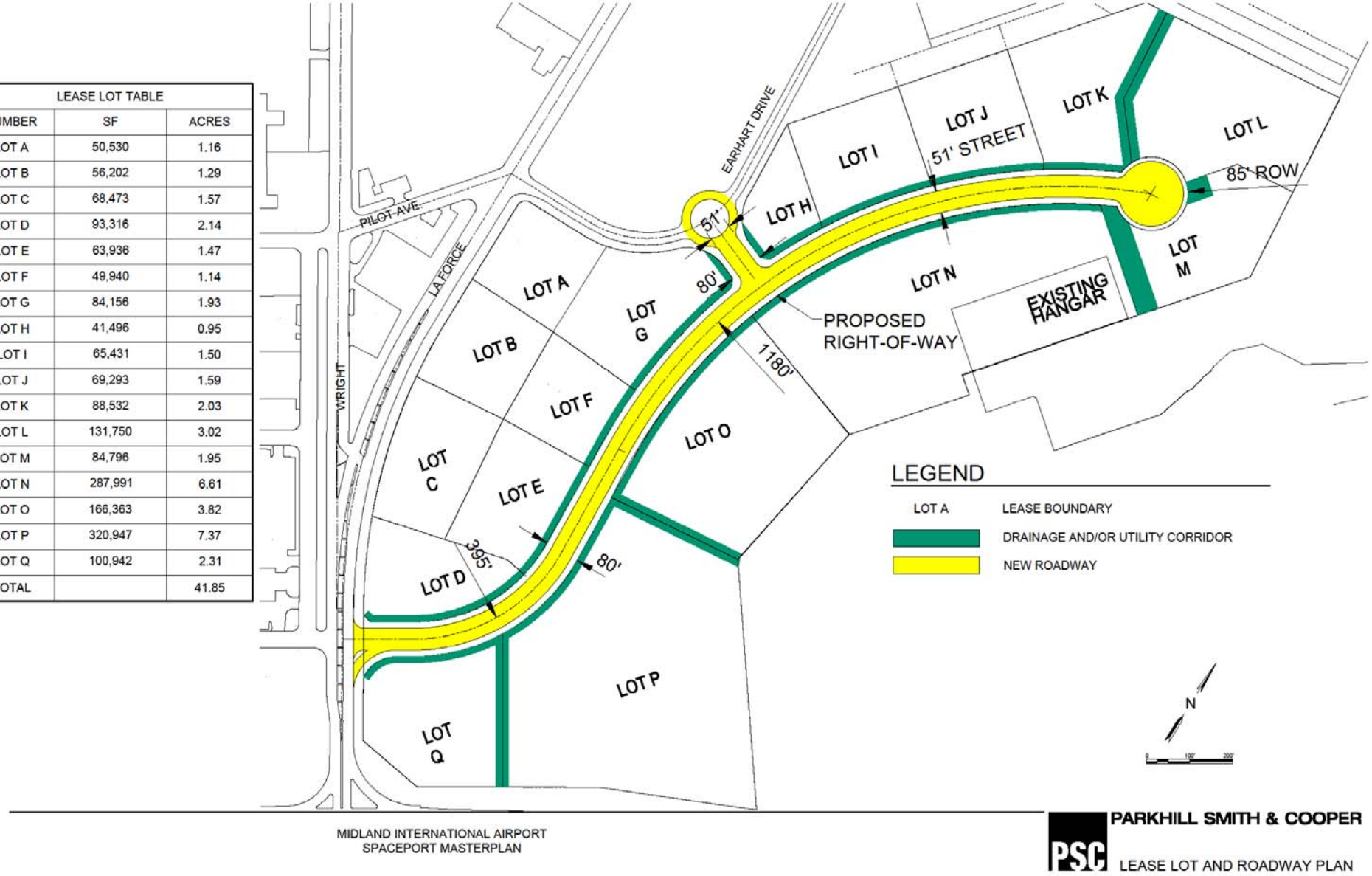


Figure 2.3 Conceptual Lease Plan

2.2.2 No Action Alternative

Under this alternative, no development would occur in the identified location at the Airport. Additional hangar and warehouse space, as well as supporting infrastructure, would not be constructed. The area identified for this purpose would remain vacant. This alternative does not meet the Purpose and Need of the project and is dismissed from further consideration.

Although the No Action Alternative does not meet the Purpose and Need of the project, it does serve as a baseline of comparison for environmental impacts associated with Preferred Alternative and is, therefore, retained for analysis and carried forward for review.

2.3 Selection of the Preferred Alternative

The Full Build-out Alternative, as identified and described in **Section 2.2.1 Full Build-out Alternative (Preferred Alternative)** is the Airport's Preferred Alternative because this alternative best meets the Purpose and Need of the proposed project by providing additional land for commercial and industrial development to support the growing demand for hangars, offices and warehouse space. This alternative is also supported by the City of Midland and the Airport.

For details and analysis on the anticipated impacts and proposed mitigation measures of the Preferred Alternative see **Section 3.0 Affected Environment & Environmental Consequences**.

Section 3.0 Affected Environment & Environmental Consequences

This section of the Programmatic Environmental Assessment (PEA) describes the social, environmental, and economic resources that may be affected by the Preferred Alternative (Full Build-out Alternative) and the No Action Alternative. This section also presents an analysis of the reasonably foreseeable direct, indirect, and cumulative potential impacts of the Preferred Alternative when compared with those of the No Action Alternative and mitigation measures recommended to avoid or minimize such effects. For a detailed discussion of the Preferred Alternative, see **Section 2.0 Alternatives Considered**. A summary of impacts associated with the Preferred Alternative is provided in **Table 3-7** located at the end of this section.

As noted previously, this PEA focuses on potential high level impacts of developing the broad geographic area of the Midland International Space Port Business Park (Park). The intent of this PEA is not to address all site-specific issues, but rather give a general overview of the resources found in the Park and identify likely impacts and expected mitigation of miscellaneous development. Each subsequent site-specific development will be subject to its own environmental clearance (*i.e.* Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement) prior to construction.

3.1 Agency and Public Coordination

Resource agencies and Native American Tribes with potential jurisdiction over or interest in the proposed action were contacted during the scoping phase of the project and given the opportunity to provide comment on the Preferred Alternative. A copy of the agency distribution list, early coordination letters, and maps sent to each agency are located in **Appendix B Agency & Tribal Coordination** along with scoping documentation received, including response letters and emails. Specific information and direction received from responding agencies is noted and addressed in the appropriate resource sections below.

Following the completion of the Draft PEA, the document was disturbed to various federal, state, and local agencies for review and comment. The document was also made available for public review and comment for 31 days. No public comments were received and only four agencies provided comments. Agency comments have been incorporated into the Final PEA where applicable. For details of the public and agency review of the Draft PEA including a copies of agency letters received and the public notice, see **Appendix G Public & Agency Review of the Draft PEA.**

3.2 Resources Not Impacted

The following resource categories are not anticipated to be impacted by the Preferred Alternative nor the No Action Alternative; therefore, they will not require further analysis in this chapter for the reasons explained below:

- Coastal Resources – The Midland International Air & Space Port (Airport or MAF) is located away from the coast in an inland area; therefore, there are no coastal resources within the proposed project area.
- Wild and Scenic Rivers – No wild or scenic rivers are located within the proposed project area. The closest protected river (the Rio Grande) is located about 140 miles from the Airport.
- Light Emissions and Visual Impacts - The Airport is located in a developed area surrounded by industrial uses/zoning. The area features existing lighting equipment and other visual features associated with an Airport and industrial area; the development of the Park will not introduce significantly different lighting or visual features than are currently present.
- Noise – The project is not expected to induce significant additional noise beyond existing levels.
- Property Acquisition - Under the Preferred Alternative, the property within the Park would remain under Airport ownership and would be leased to tenants and users. No property acquisition is required for the proposed action; therefore, no residential / business relocations, or other properties would be impacted.

3.3 Air Quality

An air quality analysis is the measure of the condition of the air in terms of pollutant concentrations. Air quality is regulated out of concern for human health (especially the health of children, the elderly, and those with certain health conditions). Poor air quality can also affect crops and vegetation as well as buildings and other facilities. Air quality is regulated by the United States Environmental Protection Agency (USEPA) under the Clean Air Act (CAA), which includes standards for six pollutants. The USEPA regulates these pollutants to permissible levels via standards called National Ambient Air Quality Standards (NAAQS).

Areas that have concentrations of the criteria pollutants below the NAAQS are designated as “attainment areas.” Areas with concentrations of these pollutants above the NAAQS are designated as “nonattainment areas.” Nonattainment areas must implement plans to lower pollutant levels below the standards. In addition, aviation-related federal actions planned for nonattainment areas must conform to such plans (also known as “General Conformity”). Midland County is in attainment for all criteria pollutants; therefore, no General Conformity analysis is required for the proposed action.

During construction of site improvements, temporary air quality impacts may occur from dust and emissions from equipment. Any changes in air quality are expected to be minor and temporary in nature and easily mitigated by using accepted construction techniques and best management practices (BMPs). However, efforts should be taken during construction to minimize air emissions from construction equipment. These may include: operating equipment that run on alternative fuels or electricity; implementing dust abatement methods on unpaved or dirt surfaces during construction; revegetating disturbed areas as soon as possible after disturbance; or covering construction materials including soils during transport or in stockpiles if they create dust.

The construction of the Preferred Alternative is not expected to impact air quality through increased Airport operations; rather it will provide additional hangar, office, and warehouse space for other industries/businesses. The current or foreseeable operations do not meet the criteria which require an analysis of potential air quality impacts. Air quality impacts are not expected from the Preferred Alternative or the No Action Alternative.

3.4 Climate Change and Greenhouse Gases

Of growing concern is the impact of proposed projects on climate change. Greenhouse gases are those that trap heat in the earth's atmosphere. Both naturally occurring and anthropogenic (man-made) greenhouse gases include water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3).

Research has shown that there is a direct link between fuel combustion and greenhouse gas emissions. Therefore, sources that require fuel or power at an airport are the primary sources that would generate greenhouse gases. Aircraft are probably the most often cited air pollutant source, but they produce the same types of emissions as cars. Aircraft jet engines, like many other vehicle engines, produce CO_2, water vapor, nitrogen oxides, carbon monoxide, oxides of sulfur, unburned or partially combusted hydrocarbons (also known as volatile organic compounds (VOCs)), particulates, and other trace compounds.

According to most international reviews, aviation emissions comprise a small but potentially important percentage of human-made greenhouse gases and other emissions that contribute to global warming. The Intergovernmental Panel on Climate Change (IPCC) estimates that global aircraft emissions account for about 3.5% of the total quantity of greenhouse gas from human activities. In terms of relative U.S. contribution, the U.S. General Accounting Office (GAO) reports that aviation accounts “for about 3 percent of total U.S. greenhouse gas emissions from human sources” compared with other industrial sources, including the remainder of the transportation sector (23%) and industry (41%).

The scientific community is developing areas of further study to enable them to more precisely estimate aviation's effects on the global atmosphere. The Federal Aviation Administration (FAA) is currently leading several efforts intended to clarify the role that commercial aviation plays in greenhouse gas emissions and climate change. The most comprehensive is a multi-year program geared towards quantifying climate change effects of aviation. This program is called the Aviation Climate Change Research Initiative (ACCRI) and is funded by the FAA and the National Aeronautics and Space Administration (NASA). ACCRI will reduce key scientific uncertainties in quantifying aviation-related climate impacts and provide timely scientific input to inform policy-making decisions. In addition, the FAA is funding a research initiative through the Partnership for AiR Transportation Noise & Emissions Reduction (PARTNER) Center of Excellence (Project 12) to quantify the effects of aircraft exhaust and contrails on global and U.S. climate and atmospheric composition. With regard to airports, the FAA participated in a recent effort through the Transportation Research Board (TRB) Airport Cooperative Research Program (ACRP) to develop a guidebook on how to prepare airport greenhouse gas emission inventories. The “Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories” (Report 11, 2009) is publicly available through TRB.

Airport development has the potential to both affect climate change and to be affected by it. Changes in resource categories such as air quality, natural resources, and energy supply can potentially contribute to climate change by increasing the amount of greenhouse gases emitted. Conversely, some airport projects may be impacted by the potential effects of climate change, such as rising sea levels. At this time, there is no consistent scientific indication of when and how the climate will change.

Based on FAA data, operations activity at the Midland International Air & Space Port (Airport), relative to aviation throughout the United States, represents less than 1% of U.S. aviation activity. Therefore, assuming that greenhouse gases occur in proportion to the level of activity, greenhouse gas emissions associated with existing and future aviation activity at the Airport would be expected to represent less than 0.03% of U.S.-based greenhouse gases. Therefore, we would not expect the emissions of greenhouse gases from Preferred Alternative or the No Action Alternative to be significant.

3.5 Compatible Land Use

Compatible land use is discussed in *FAA Order 5050.4B, Airport Environmental Handbook*, as follows: "the compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of the noise impacts related to that airport." The degree of annoyance people suffer from aircraft noise varies depending upon their activities at any given time. The concept of "land use compatibility" has arisen from the variation in human tolerance of aircraft noise.

According to FAA Advisory Circular (AC) 150/5200-33B, *Hazardous Wildlife Attractants on or near Airports*, the FAA requires that consideration be given to the potential increases in wildlife attractants that a project may create and that an assessment be done of potential incompatible land uses near airports, such as solid waste landfills, waste water treatment facilities, and wetlands that may act as wildlife attractants.

The proposed Park location is in an area north of Business 20 that is intended for high quality industrial and nonresidential development. Existing zoning and land uses as well as planned land uses within and around the proposed project area are compatible with Airport operations and, in particular, the proposed development of the Park.

No significant land use changes will occur with either the Preferred Alternative or the No Action Alternative. No noise sensitive areas (residential, educational, health, religious, park or recreational, wildlife refuges, or cultural and historical) will be introduced or impacted through the establishment of the Park. Further, the proposed action complies with restrictions that land adjacent to and in immediate vicinity of the Airport be used for activities and purposes compatible with normal airport operations (in accordance with the Airport's required assurance under 49 USC 47107[a][10] of the 1982 Airport Act). Based on this information, it is determined that the Preferred Alternative and the No Action Alternative are compatible with existing and planned land uses and zoning requirements.

Analysis indicates that the proposed project does not have the potential to become or create a wildlife attractant. No wetlands, open water, or habitat will be created as a result of establishing the Park. Construction of improvements to the site will require separate analysis to determine their potential to create

wildlife attractants; however, the Park is not expected to increase wildlife or bird hazards over the current conditions. For a comprehensive analysis of land use and zoning requirements including maps and illustrations, see **Appendix C Land Use and Zoning**.

3.6 Department of Transportation Act, Section 4(f) Properties

Section 4(f) properties such as publicly owned parks, recreational areas, wildlife and waterfowl refuges and historic sites are protected under Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1996 (now codified at 49 U.S.C. § 303).

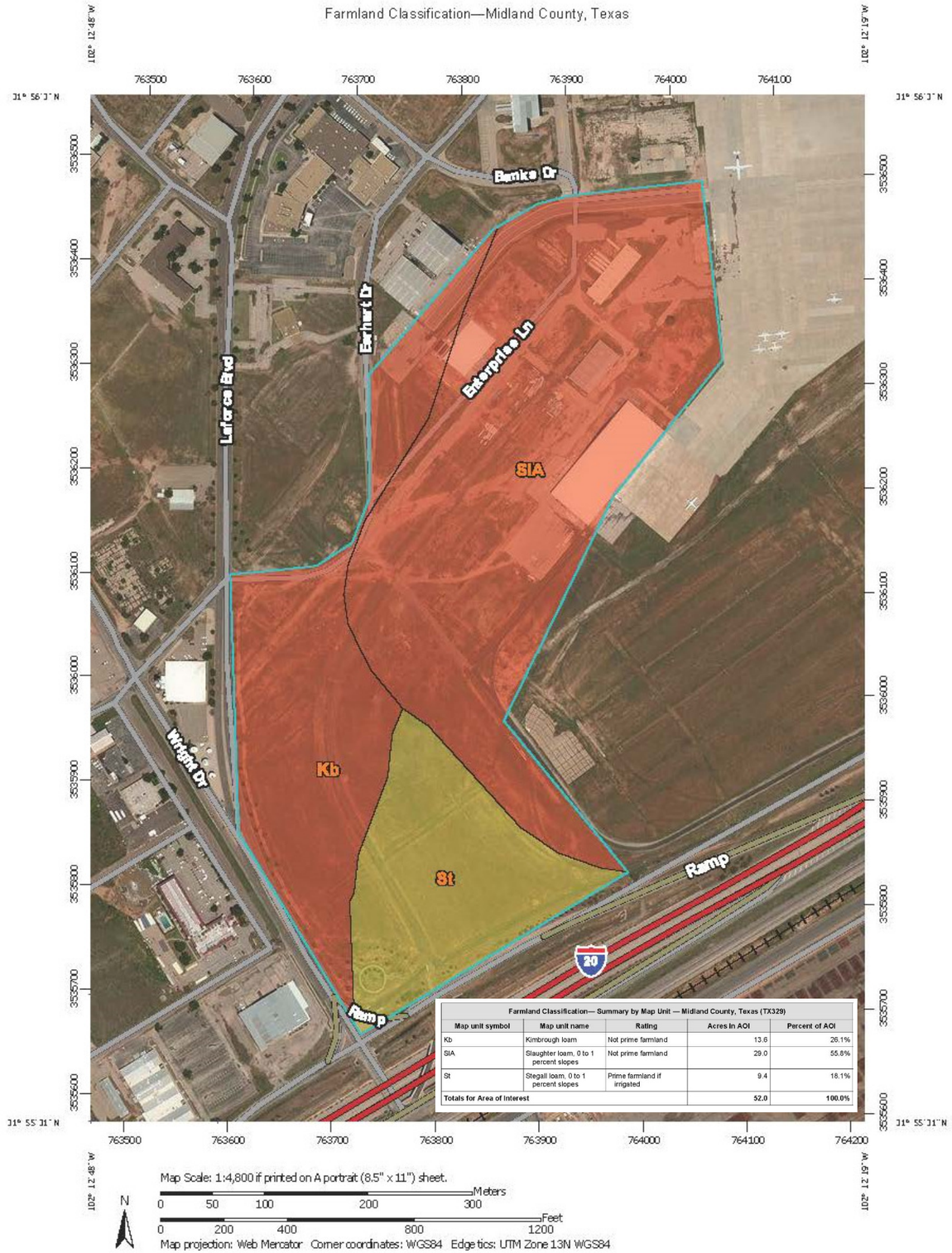
According to the City of Midland's website, the City is home to several parks including neighborhood, specialty, community, metropolitan, and regional parks. The majority of these facilities are located several miles northeast of the Airport within the more populated areas of the City. The closest public facility to the Airport is the Permian Basin Vietnam Veterans Memorial Park. This Park is located along Loop 40 at the western edge of Airport property. It is well outside the proposed project site. Other community features (including a wildlife preserve) are located further away from the Airport and well outside of the area proposed for development. No potential 4(f) properties were identified within the project area. Therefore, neither the Preferred Alternative nor the No Action Alternative would have an adverse effect on such properties.

3.7 Land and Water Conservation Fund Act, Section 6(f) Lands

Section 6(f) of the Land and Water Conservation Fund Act of 1965 provides funding for public use recreational lands. Section 6(f)(3) of the Act prevents conversion of lands purchased or developed with such funding to non-recreation uses unless approved by the Secretary of the Interior through the National Park Service. According to online records, there are no Section 6(f) lands within Midland County, Texas. No potential 6(f) properties were identified within the project area. Therefore, neither the Preferred Alternative nor the No Action Alternative would have an adverse effect on such lands.

3.8 Farmlands

The *Farmland Protection Policy Act of 1981* (FPPA) was enacted to minimize the extent to which federal actions and programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. Farmland can be classified as "prime farmland," "unique farmland," or "farmland that is of statewide or local importance," pursuant to the FPPA. Prime farmland has the best combination of physical and chemical characteristics for producing food, forage, fiber, and oilseed crops. Unique farmland is defined as land other than prime farmland that is used for the production of specific high-value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruits, and vegetables. Any federal action that may result in conversion of farmland to a non-agricultural use requires coordination with the Natural Resource Conservation Services (NRCS).



Farmland Classification— Summary by Map Unit — Midland County, Texas (TX329)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Kb	Kimbrough loam	Not prime farmland	13.6	26.1%
SIA	Slaughter loam, 0 to 1 percent slopes	Not prime farmland	29.0	55.8%
St	Stegall loam, 0 to 1 percent slopes	Prime farmland if irrigated	9.4	18.1%
Totals for Area of Interest			52.0	100.0%

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:31,700.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Midland County, Texas
Survey Area Data: Version 13, Sep 28, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 16, 2015—Jul 13, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Figure 3.1 Farmland Map

"Prime farmland if irrigated" soils were found within the study area using the NRCS Web Soil Survey website (**Figure 3.1 Farmland Map**). Approximately 9.4 acres (18.1%) of the proposed project area contains this soil unit and is located at the southern end of the project area. The remaining portion of the site is designated as "not prime farmland."

Early coordination was initiated with the NRCS at the start of the project. According to NRCS correspondence found in **Appendix B Agency & Tribal Coordination**, the proposed project site is considered to be "prior converted" and is exempt. As such, no prime or unique farmlands or farmland of statewide or local importance will be impacted by the Preferred Alternative or the No Action Alternative.

3.9 Fish, Wildlife, and Plants

Biological resources include plants (vegetation), animals (wildlife) and the habitats where they occur. Habitats are the resources and conditions that support the continuous existence of plants or animals in any particular area. Together, biological resources form ecosystems, which are dynamic and respond over time to changes in the environment, whether natural or human-induced. Biological resources provide aesthetic, recreational, and socioeconomic values to society as well as being valuable in their own right. Accordingly, federal and state laws and statutes exist to protect certain species and habitats of special importance.

Project Area Habitat

This analysis focuses on vegetation types and wildlife within the project area and whether any species or habitats protected under federal or state law exist there. The area of interest for vegetation includes the industrial Park property that would be subjected to ground-disturbing construction activities. The area of interest for wildlife and special-status species includes the area within the proposed Park boundaries and the immediate vicinity of the Airport where any mobile species could be expected under normal circumstances and existing habitat conditions. No water resources were identified in the project area.

To assess potential impacts of the Preferred Alternative and the No Action Alternative, a Wildlife Hazard Assessment (WHA) report conducted for the Airport from November 2010 to October 2011 was reviewed. This report identified and documented wildlife on the property and within a five-mile radius. Survey results of the WHA included the vicinity of the proposed Park location and observations and findings of the report can be considered representative of the wildlife using the proposed site. In addition, a habitat survey was

conducted for the proposed Park area on March 5, 2015, by a qualified biologist. The following analysis is the result of the biological survey and the WHA report.

Wildlife:

Wildlife resources include all vertebrate groups, such as mammals, reptiles, amphibians and birds, as well as invertebrates, such as mollusks or insects. During the WHA survey, a number of bird and mammal species were observed in or near the project site as shown in **Table 3-1**.

Table 3-1 Project Area Wildlife	
Common name	**Species**
European starling	*Sturnus vulgaris*
Great-tailed grackle	*Quiscalus mexicanus*
Brown-headed cowbird	*Molothrus ater*
Rock pigeon	*Columba livia*
White-winged dove	*Zenaida asiatica*
Mourning dove	*Z. macroura*
House sparrow	*Passer domesticus*
American kestrel	*Falco sparverius*
Cliff swallow	*Petrochelidon pyrrhonota*
Barn swallow	*Hirundo rustica*
Mexican ground squirrel	*Spermophilus mexicanus*
Grey fox	*Urocyon cinereoargenteus*
Coyote	*Canis latrans*
Black-tailed jackrabbit	*Lepus californicus*
Tarantula	*Aphonopelma sp.*

Burrows of the Mexican ground squirrel were also observed in the proposed Park site during the March 5, 2015, site visit and thus can be considered a breeding resident.

Migratory Birds:

The Migratory Bird Treaty Act (MBTA) protects migratory birds, including their eggs, active nests, and bird parts. The project area is within the Central Flyway (a major migratory route), but is located outside the most heavily utilized portion of the route.

Two of the bird species identified on the site are listed as invasive by the Texasinvasives.org group (Texasinvasives.org): the European starling (Sturnus vulgaris) and the Eurasian collared-dove (Streptopelia decaocto). Texasinvasives.org is a partnership of state and federal agencies, conservation organizations, green industries, academia and other private and public stakeholders willing to manage non-native invasive plants and pests in Texas. The listing of the European starling and Eurasian collared-dove is strictly advisory and by itself does not authorize or condone any actions against these species.

On a larger scale beyond the confines of the project site, the WHA also documented migratory birds moving through the area during spring and fall. The report documented approximately 8,000 birds within five miles of the Airport. The following table (**Table 3-2**) summarizes the migratory bird observations.

Table 3-2 Migratory Bird Observations at MAF in Vicinity	
Type	**Percentage**
Blackbird/starlings	39.1%
Larks and buntings	25.8%
Pigeons and doves	19.8%
Swallows	9.0%
Raptors	3.2%
Shorebirds	1.9%
Corvids	0.6%
Waterfowl	0.5%

The Texas Parks and Wildlife Department (TPWD) has recommended that in order to avoid impacts to nesting migratory birds, no vegetation clearing should be done between the March 1 and August 31 nesting period. If clearing during this time period is unavoidable, the TPWD recommends the area be surveyed for nesting birds and that these locations remain undisturbed until the eggs have hatched and the young fledged.

Plants:

Midland County is at the southern extent of the Llano Estacado sub-ecoregion of the High Plains ecoregion. The Llano Estacado is a mostly treeless plain that prior to settlement was covered by a shortgrass prairie dominated by buffalograss (Buchloe dactyloides), blue grama (Bouteloua gracilis), sideoats grama (Bouteloua curtipendula) and silver bluestem (Bothriochloa laguroides ssp. torreyana) with many species of perennial wildflowers. Past wildfires kept tree and brush cover to a minimum. With settlement and associated agriculture, livestock grazing, fire suppression and general development, the vegetation of the region is now dominated by mesquite shrub vegetation consisting of honey mesquite (Prosopis glandulosa), lotebush (Ziziphus obtusifolia), four-winged saltbrush (Atriplex canescens), soapweed yucca (Yucca glauca) and vine ephedra (Ephedra pedunculata).

The proposed Park site has a history of intense development and subsequent clearing of obsolete buildings and structures. The site is mostly free of structures (except for an abandoned railroad spur and an existing hangar) sparsely-vegetated and level and dominated by filaree (Erodium cicutarium), bladderpod (Lesquerella fendleri) and a mixture of grasses that include Texas millet (Brachiaria texana), slimspike three-awn (Aristida longespica), hooded windwill grass (Chloris cucullata) and western wheatgrass (Agropyron smithii). Buffalo gourd (Cucurbita foetidissima), yellow-flowered onion (Allium coryi) and ground cherry (Physalis sp.) are also present. This vegetation has no special habitat significance and is indicative of parcels with a history of recurrent disturbance.

Invasive species are non-native animals or plants that may harm native ecosystems once introduced. Federal agencies whose actions may encourage invasive species must prevent the introduction of such plants and animals and restore native species and habitats to the extent feasible. Texas Administrative Code (4 TAC §19.300[a]) lists six invasive plant species that have serious potential to cause harm to the ecosystems in the state. None of the plants were identified in the project area.

The vegetation assemblage documented on or near the proposed Park is largely composed of species adapted to developed or otherwise disturbed land uses that have simple plant communities. Some of the bird species documented also may nest or roost in structures or buildings. Daytime construction and soil disturbance will avert some species from directly using the site during construction, but wildlife uses will resume after the Park is finished. Some species, such as the Mexican ground squirrel, will experience a reduction in habitat while others, such as doves and pigeons, may be more attracted by the new buildings and the roosting or nesting habitat they provide.

Although open habitat after construction is likely to be seeded by drought-tolerant turf grasses such as Bermuda grass and buffalo grass, the new vegetation will provide improved ground cover over existing conditions (where grass cover is relatively low and soil is exposed). This increased ground cover may compensate for the loss of overall undeveloped areas by improving forage habitat for certain species.

Special Status Species:

The Endangered Species Act (ESA) of 1973 (16 U.S.C. §1531 et seq.) and subsequent amendments require the conservation of federally-listed threatened and endangered plant and animal species and critical habitats in which they are found. A species is considered endangered if it is in danger of extinction throughout all or a significant amount of its range. Threatened species are defined as those that are likely to become endangered in the foreseeable future. The United States Fish and Wildlife Service (USFWS) administers the ESA primarily for land and freshwater species and designates critical habitat for species protected under the ESA. Section 7 of the ESA requires all federal agencies to consult with the USFWS, as applicable, before initiating any action that may affect a listed species or designated critical habitat. Candidate species, which may be listed as threatened or endangered in the future, are not provided any statutory protection under the ESA.

The Texas legislature also authorized the TPWD to establish a list of threatened and endangered plant and animal species for protection. TPWD regulations prohibit the taking, possession, transportation, or sale of any of the animal species designated by state law as endangered or threatened without a permit.

Coordination was instituted with the USFWS and TPWD at the beginning of the project to assess potential special status species in the project area. No response was received from the USFWS, but the TPWD did provide guidance.

A project-specific data request was submitted to the TPWD Texas Natural Diversity Database. The database request returned no entries for any state- or federally-listed species occurring within Midland County. However, written coordination from the TPWD (found in **Appendix B Agency & Tribal Coordination)** indicated that habitat found in the project area (open, arid, spare vegetation) is characteristic of the habitat used by the Texas horned lizard (state-listed species) and the Spot-tailed earless lizard (federally-endangered candidate species). It should be noted that TPWD's habitat determination was based upon a review of publicly available aerial photographs and not on-site inspection by a qualified biologist. As such, the TPWD recommends a pre-construction survey be conducted on and adjacent to the site prior to any construction activities to confirm the absence of the Texas horned lizard and the Spot-tailed earless lizard. If the target species are found, the TPWD should be contacted to develop a plan to relocate them. TPWD also recommends contractors implement the tortoise and Texas horned lizard BMPs (found on the TPWD website) during construction.

To complement the pre-construction habitat survey requested by the TPWD, the proposed Park location was surveyed by a qualified biologist to determine the potential presence of the target species. The biologist found no evidence of the Texas horned lizards or Spot-tailed earless lizards nor any indicator species (harvester ants). Given the disturbed and previously industrialized nature of the proposed Park, it anticipated that no special status species or their habitat occur in the project vicinity and no impacts are expected. However, prior to each of the sites being developed/graded, coordination with TPWD will take place to determine if a survey is required to determine the presence/absence of the target species.

It is expected that the Preferred Alternative and the No Action Alternative will not have adverse impacts on fish, wildlife and plant species in project area.

3.10 Hazardous Materials, Pollution Prevention, and Solid Waste

Federal, state and local laws regulate the handling and disposal of hazardous materials, chemicals, substances, and wastes. Applicable federal statutes include the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the Community Environmental Response Facilitation Act of 1992. The Texas Commission on Environmental Quality (TCEQ) enforces state laws and rules concerning municipal hazardous and solid wastes.

The potential for hazardous waste generation at the Airport is primarily associated with the risk of fuel spills and vehicle washing. Aviation fuel (categorized as a hazardous material) is stored in three locations on the Airport. Five underground tanks including three 25,000-gallon Jet A tanks and two 25,000-gallon 100 LL

tanks are located in the North Hangar Development Area. The Airport has installed engineering controls and implemented administrative controls to prevent the release of hazardous wastes to the environment.

To assess the potential for hazardous materials impacts, a Phase I Environmental Site Assessment (Phase I ESA) was performed on the proposed Park location in September 2014. (A summary of the Phase I ESA can be found in **Appendix D Phase I ESA**.) The Phase I ESA found several areas on or adjacent to the project site with Recognized Environmental Conditions (RECs). According to the American Society of Testing and Materials (ASTM, E1527-13), the term Recognized Environmental Conditions means "the presence or likely presence of hazardous substances or petroleum products in, on, or at a property." The REC sites on or near the Park area include:

- Underground storage tanks (USTs) located in the northeastern portion of the project site. The USTs were utilized for aircraft refueling and were installed sometime between 1960 and the late 1970s. The USTs were removed in the late 1980s and early 1990s to allow construction of an office building. The capacity or number of USTs located in the former tankhold is unknown.
- Former on-site sewage treatment facility located on the northeastern portion of the site. The sewage treatment facility, which existed from at least 1946, was used to treat sewage water from on-site buildings until it was excavated and backfilled about 2005. The facility included multiple pits. The design, construction, and operations of chemical usage and handling procedures are unknown.
- Two former industrial buildings located north and adjoining the project site were used as aircraft maintenance shops from the 1960s through the 1970s and then used as storage buildings after the 1970s. Presently, the buildings are used to store excess equipment and de-icing equipment for Southwest Airlines. Chemical usage and waste handling practices of the former aircraft maintenance operations are unknown. This site was identified as a TCEQ Industrial Hazardous Waste (IHW) facility.
- Former Midland Army Air Field (AAF), which is now MAF. The nature of operations (aircraft repair, painting and re-fueling) and waste handling practices of the former Midland AAF are unknown.
- South fuel farm at MAF contains six USTs used for aircraft refueling. In December 1996, there was a fuel spill of approximately 1,470 gallons of Jet A fuel that saturated the truck parking ramp located near the project site.
- Former Exro Aviation facility, which was located 70 feet northwest of the project site. The facility was operated as a commercial aircraft maintenance service center. Waste streams, including waste mineral spirits, were identified for the facility.
- SkyWest Aviation located approximately 70 feet northwest of the project site provides aircraft maintenance on private jets. AvSource conducted painting operations in the SkyWest Aviation facility. The nature of operations, chemical usage and waste handling practices are unknown.
- Empire Airline facility, located 100 feet northwest of the project site, was previously occupied by AvSource that performed aircraft painting operations from at least 2006 to 2014. Chemical usage and waste handling practices of the former aircraft painting operations are unknown.

Based on the identification of these RECs, a subsurface investigation was completed to evaluate whether potential releases had impacted environmental resources (soils and groundwater) at the site. The

investigation evaluated the presence of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and RCRA 8 metals in the soil and groundwater at the site and compared measured concentrations to the minimum levels reportable by lab tests. Concentrations above the sensitivity of the lab test methods were considered evidence of potential releases from the RECs.

Field investigations associated with this analysis included soil borings and installation of monitoring wells. Once subsurface investigations identified the presence of petroleum hydrocarbon and resulting barium impacts on a portion of the project site, coordination was initiated with TCEQ.

Based on the results of the soil borings and TCEQ coordination, it was determined the northeast portion of the site is subject to further assessment and corrective action through the TCEQ PST Program (shaded in green on **Figure 3.2 TCEQ LPST Regulation Status Map**). This is based on the discovery of petroleum hydrocarbons likely released by the former aviation fueling activities. The TCEQ determined the western portion (area shaded in teal) of the site is not subject to further assessment or response action.

Based on correspondence from TCEQ and the Leaking Petroleum Storage Tank (LPST) program, the expected corrective action will be to remove the Non-Aqueous Phase Liquid (NAPL) located in the previously identified "localized" northeastern edge of the development park site (shaded in green on **Figure 3.2 TCEQ LPST Regulation Status Map**). The NAPL is the petroleum product that is floating on top of the shallow ground water in the identified site. The following are the anticipated steps the Airport will perform to meet TCEQ requirements and ultimately obtain TCEQ Closure of the identified site:

- The Airport will prepare a remedial design plan to be presented to TCEQ Petroleum Storage Tank (PST) Division for consideration and concurrence.
- The remedial design plan developed will be based on using typical petroleum product recovery equipment and will take into consideration the sub-surface soil strata characteristics as it relates to the flow of petroleum product.
- The remedial design plan is expected to involve utilizing the existing ground water monitor wells previously installed for sampling that are located within the identified eastern edge of the development park site to extract the Non-Aqueous Phase Liquid (NAPL).
- Continue to perform extraction of the NAPL down to a residual depth agreed upon between TCEQ and the Airport that is practical for extraction. The residual depth and extraction process will be a part of the remedial design plan developed in coordination with the TCEQ.
- Upon obtaining agreed upon residual depth, a final Closure will be obtained from TCEQ on the identified eastern edge of the development park site.
- No removal or treatment of soil located in the identified area is expected to be required based on TCEQ's requirements under the Leaking Petroleum Storage Tank (LPST) program.

Coordination with TCEQ is on-going; however, the agency has indicated in writing that "the need for additional corrective action to address this release should not impede the City's plans for development" and "the TCEQ does not require regulatory closure for the LPST site prior to the proposed construction". TCEQ is primarily concerned with removal of the petroleum product that is floating on the shallow ground water

Figure 3.2 TCEQ LPST Regulation Status Map

down to a reasonable level and that extraction would not prohibit development on the surface or at shallow depths. A copy of the letter from TCEQ regarding the proposed development and the corrective actions required for this release can be found in **Appendix D Phase I ESA**.

The corrective actions required by TCEQ will continue independently of the Preferred Alternative described in this PEA; therefore, additional mitigation of hazardous materials is not required for the proposed development to continue. For more detailed information on the Phase I ESA methodology and findings, please see **Appendix D Phase I ESA.**

In addition, any structures or buildings scheduled for demolition as part of the project will be surveyed for Asbestos-Containing Materials (ACMs) prior to removal. If ACMs are found, they must be abated in accordance with TCEQ guidelines and procedures.

3.11 Historical, Architectural, Archeological, and Cultural Resources

Historical, architectural, archeological and cultural resources include a variety of sites, properties, and facilities related to activities and societal and cultural institutions. Such resources express past and present elements of human culture and are important to the community.

A reconnaissance-level survey was conducted for both historic and archeological resources within the project area to identify, document, and evaluate historic-age resources for National Register of Historic Places (NRHP) eligibility in compliance with Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

No resources listed in the NRHP, designated as Recorded Texas Historic Landmarks (RTHLs), or designated as Official Texas Historical Markers (OTHMs) are located within the project area. Three historic-age resources were identified within the Area of Potential Effects (APE): an abandoned railroad spur, an abandoned concrete runway pad, and an office and warehouse building currently in use by Central Transport, Inc. These resources were evaluated through the application of the *National Register Criteria for Evaluation* and found not to be eligible for the NRHP.

Copies of the historic and archeological reports were submitted to the State Historic Preservation Office (SHPO) at the Texas Historical Commission (THC). Notice of concurrence was received from the THC and is included in **Appendix E Historic Resources Report** and **Appendix F Archeology Report**. Based on this evaluation and concurrence from THC, it was concluded that none of the identified resources in the project area are eligible for listing in the NRHP; therefore, the Preferred Alternative and No Action Alternative will not result in adverse effects on historic properties.

3.12 Socioeconomics

Major airport development projects can impact the socioeconomic conditions of the surrounding community. Such projects have the potential to impact neighboring populations, including children, and may do so

disproportionately to the overall area population. The proposed project was evaluated for socioeconomic and environmental justice impacts as well as health and safety risks to children.

This section describes the human environment, particularly population, employment, income, and housing, within the vicinity of the Airport. Since MAF is centrally located between the Cities of Midland and Odessa, the Midland-Odessa area, which includes the unincorporated areas of Ector and Midland counties, represents the broad social and economic region for the proposed project. As such, the socioeconomic analysis described herein provides comparison data for the State of Texas, Ector and Midland counties, and the Cities of Midland and Odessa, where available.

Population:

The U.S. Census Bureau reports a combined population of 300,846 for Midland and Ector Counties. The cities of Midland and Odessa are among the fastest growing cities in the state and the country, largely attributable to rapid growth in the oil and gas extraction industry in the last several years. As of 2013, Midland's population totaled 123,933 residents, up 11.5 percent since 2010 (see **Table 3-3**). Based on data provided by the Midland Development Corporation (MDC), Midland's population is projected to increase to 138,962 residents by 2020.

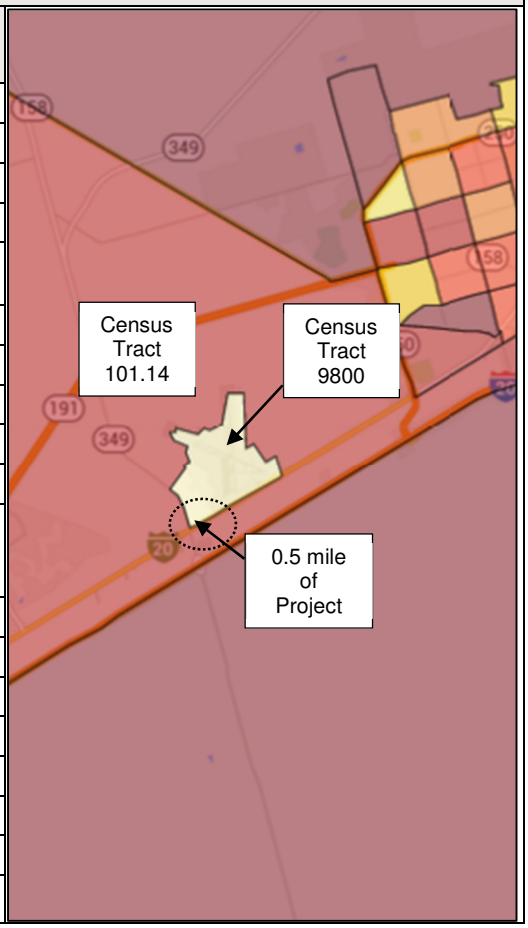
Table 3-3 Population - 2013

Jurisdiction	2013 Population	Population Change Since 2000 (%)	Population Change Since 2010
Texas	26,448,193	--	5.2
Ector County	149,378	--	8.9
Midland County	151,468	--	10.7
Odessa	110,720	21.7	10.9
Midland	123,933	30.5	11.5

City Data 2015; USCB 2015.

The 2010 census demographic profiles identify two census tracts within a 0.5 mile of the project area. Census Tract 9800 includes the Airport and adjacent industrial park to the west. Census Tract 101.14 surrounds the Airport property (see **Table 3-4**). A small population of 5,331 people reside within Census Tract 101.14 and are mostly non-Hispanic, white, over the age of 18 years. The minority groups in this census tract include African Americans (57 people) and American Indians (70 people). Population distribution by gender is equally split between male and female.

Table 3-4 Demographics by Census Tract - 2010	
Census Tract 101.14 (within 0.5 miles of project)	
Population	5,331
Percent Minority	29.7%
Ethnicity	
Hispanic or Latino	25%
Not Hispanic or Latino	75%
Race	
White	87%
African American	1%
Asian	2%
American Indian	1%
Native Hawaiian/Pacific Islander	0%
Some Other Race	7%
Two or more Races	2%
Gender	
Male	50%
Female	50%
Age	
Under 18	23%
18 and over	77%



USCB 2010 Census. No demographic data for Tract 9800.

Midland County has a population density of about 156 persons per square mile, while Ector County has a density of 155 persons per square mile. The majority of the population reside within the urbanized areas of the two counties. A large percentage (72.6%) of Midland's population work and live within the City (**Table 3-5**).

Table 3-5 City Employment - 2012	
Jurisdiction	**Percent of Population**
Odessa	57.7
Midland	72.6

City Data 2015.

Employment and Income:

The Midland-Odessa regional economy has relied heavily on the petroleum industry. While good economic times in the petroleum industry have led to prosperity for the region, the converse has also been true. The region has recently experienced a contraction in the Midland-Odessa general economy as a result of the dramatic slowdown underway in the Permian Basin regional oil and gas

economy. However, strong economic growth since 2010 is not anticipated to be significantly impacted by the cyclical nature of the oil and gas industry. For example, although the number of drilling permits issued in the region has fallen by about 70 percent from its October 2014 peak, construction activity soared in March 2015 with the valuation of all building permits issued up by more than 60 percent compared to March 2014. Although the regional economy remains closely tied to the oil and gas industry, diversification efforts are being strongly promoted within the City of Midland.

Employment:

With minor exceptions, all of the metropolitan areas of Texas have realized growth in employment over the last 12 months. Of the Texas metropolitan areas, Midland ranked first in job creation, followed by the City of Odessa. This growth in jobs resulted in Midland having the lowest unemployment rate (2.9 percent) compared to the other Texas metropolitan areas (**Table 3-6**).

Table 3-6 Unemployment Rates

Jurisdiction	**Unemployment Rate** March 2014 (%)	**Unemployment Rate** March 2015 (%)	**Change in Unemployment Rate** (%)
Texas	5.4	4.2	-1.2
Ector County	3.6	3.7	0.1
Midland County	3.0	2.9	-0.1

BLS 2015.

Income:

Table 3-7 presents a comparison of per capita income and median household income for Texas and the Midland-Odessa region. Midland County has a higher per capita and median household income than Texas and Ector County.

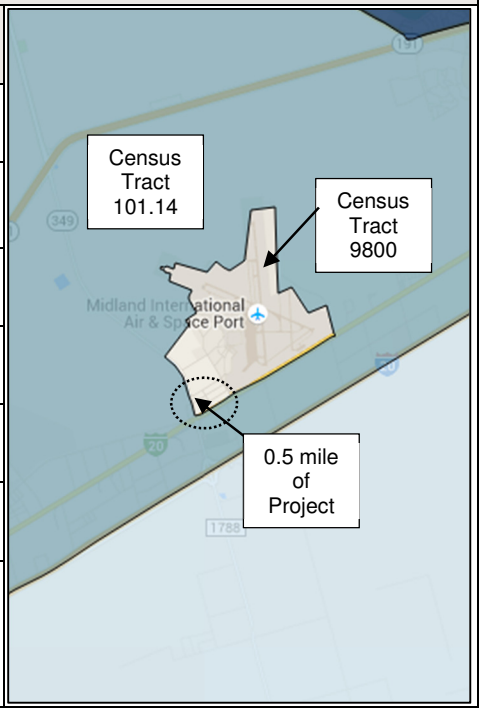
Table 3-7 Per Capita and Median Household Income

Jurisdiction	**Per Capita Income** (2013 dollars)	**Median Household Income** (2013 dollars)
Texas	$26,019	$51,900
Ector County	$24,247	$51,466
Midland County	$33,672	$62,993

USCB 2015.

Table 3-8 summarizes the 2010 income data for Census Tract 101.14 which is located within a 0.5 mile of the project site and surrounds the Airport. The data shows that about 8.7 percent of the population lives below the poverty line. The median family income was $72,119 in 2010, which is $9,126 above Midland County. As such, this census tract is classified as a Middle Income Level tract.

Table 3-8 Income Information by Census Tract - 2010	
Census Tract 101.14 (within 0.5 miles of project)	
Income Level	**Middle**
Estimated Median Family Income (2015)	$81,540
2010 Median Family Income (2010)	$72,119
Median Household Income (2010)	$60,905
Percent Median Family Income	112.78%
Population	5,331
Percent Below Poverty Level	8.7%



FFIEC 2015. No income data for Tract 9800.

Environmental Justice:

Environmental Justice requires the fair treatment of people of all races, cultures, and income levels, and no group of people should shoulder a disproportionate share of impacts of a given project. Environmental Justice is defined as the right to a safe, healthy, productive, and sustainable environment for all, where environment includes the ecological, physical, social, political, aesthetic, and economic environment. Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* is intended to identify, address, and avoid disproportionately high and adverse human or environmental impacts on specific populations.

Given that there will be no residential relocations or property acquisitions, no minority or low-income populations are expected to be disproportionately affected by the Preferred Alternative or the No Action Alternative.

Children's Environmental Health and Safety Risks:

FAA order 1050.1F requires evaluation of potential environmental health and safety risks that could disproportionately affect children. These could include products or substances a child is likely to come in contact with or ingest, such as air, food, drinking water, recreational waters, soil, or products they might use or to which they might be exposed.

Construction under the proposed action would occur on current Airport property and access to the site would be restricted. It is unlikely that the development of either the Preferred Alternative or the No Action Alternative will include products or substances with which a child is likely to come in contact or result in any environmental health or safety risks that could disproportionately affect children.

Major airport development projects can impact the socioeconomic conditions of the surrounding community. Such projects have the potential to impact neighboring populations, including children, and may do so disproportionately to the overall area population. Because the proposed action will occur on existing Airport property, no property acquisitions or residential relocations will be required. The project is not anticipated to change local income trends and employment patterns or impact disadvantaged populations. Therefore, the Preferred Alternative and the No Action Alternative are not expected to impact local demographics, minority populations, low income populations, or child health and safety. The proposed project will cause minimal and temporary disruption along public roadways due to construction traffic and the construction of an access road within to serve the development Park.

3.13 Water Resources

Water resources are surface waters and groundwater, which are important to the ecosystem and the human environment. Analysis of impacts to water resources includes checking for disruption as well as changes in quality. Impacts to water quality typically include increases in impervious surfaces and runoff (vs. infiltration to recharge groundwater), ground disturbing activities that can result in temporary increases in sediment load to surface waters, and other changes that impact an area's capacity to store water after a rain event. Because wetlands, floodplains, surface waters, groundwater, and other water resources are all connected within the overall water system, this section encompasses an analysis of each.

Early coordination regarding the proposed action was conducted with the following agencies with interest in or jurisdiction over water resources (although not all agencies responded). See **Appendix B Agency & Tribal Coordination** for letters from the responding agencies.

- United States Army Corps of Engineers, Fort Worth District
- United States Environmental Protection Agency, Region 6
- United States Fish and Wildlife Service
- United States Department of Agriculture
- Texas Commission on Environmental Quality, Region 7
- Texas State Soil and Water Conservation Board

Surface Waters (Excluding Wetlands):

Surface waters typically include lakes, ponds, rivers, streams, creeks, and wetlands. Surface waters collect the water from precipitation that does not infiltrate the soil and instead flows across the land. Surface waters can be hydrologically connected to groundwater.

Midland County is located in the Colorado River Basin and the Johnson Draw Sub-basin. There are no surface waters located within the project site or its immediate vicinity. Based on a review of the proposed action, the USACE Fort Worth District determined the Preferred Alternative would not involve activities subject to Section 404 or Section 10 of the Clean Water Act (CWA), which regulates discharge of materials into waters of the United States. Correspondence from the USACE and a field survey confirmed the absence of waters of the U.S. in the project area. See **Appendix B Agency & Tribal Coordination** for the USACE letter clearing the project from Section 404 and Section 10 impacts. Construction activities will not impact protected surface water resources.

Construction site drainage can have downstream impacts to water resources if sediment sources and drainage are not properly controlled and the site is not properly re-vegetated. Operators of construction sites involving five or more acres of land must obtain a Construction General Permit from the TCEQ.

The TCEQ also requires Stormwater Pollution Prevention Plans (SWP3s) that include appropriate BMPs to reduce erosion and discharge of pollutants via stormwater runoff during construction activities. BMPs include schedules of activities, prohibitions of certain practices, land maintenance procedures, and structural drainage controls to manage construction site runoff as well as practices to control spills, leaks, waste disposal, or drainage from raw material storage areas. TCEQ also requires final vegetative cover with a density of at least 70 percent of the native background vegetative cover for the area. MAF is covered under the TCEQ Multi-Sector General Permit for stormwater discharges.

Because the exact characteristics or build-out scenario of the future Park are unknown at this time, the change in impervious surfaces expected under the Preferred Alternative cannot be calculated until the design phase is completed. However, it is reasonable to expect that a SWP3 would need to incorporate measures to protect water quality following construction/during operation of the Park. Recycling of rainwater for the maintenance of landscaping vegetation may also be appropriate at each built-out parcel. If detention basins are used they must conform to performance criteria under FAA AC 150/5200-33B whereby standing water cannot be maintained for more than a 48–hour detention period after the design storm and the basin must remain completely dry between storms (to prevent the creation of a wildlife attractant).

Runoff during and after construction would be controlled by scheduling and coordination of soil disturbance and erosion control activities; interim and final soil erosion control measures, including seeding of permanent vegetation; temporary and permanent drainage routing and control and catchment structures; and areas to temporarily detain or infiltrate storm waters.

Based on the expected implementation of a SWP3 and appropriate BMPs as outlined above, no adverse impacts to water quality are anticipated from the construction of the Preferred Alternative or the No Action Alternative. The development of the individual sites will incorporate appropriate water quality BMPs and obtain necessary permits, where applicable.

Groundwater:

The primary groundwater resource for Midland County is the Ogallala Aquifer, which occurs in the Great Plains states of South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico, and Texas. The Ogallala Aquifer is the principal source of water for the City of Midland, with the Paul Davis Well Field supplying up to 18 million gallons per day. Storage is provided by a system of reservoirs and elevated tanks with a total capacity of seven million gallons, and additional water is provided by diversion from the Lake O.H. Ivie reservoir approximately 160 miles southeast of the project area. With the delivery of Lake O.H. Ivie water, the Paul Davis well fields are not used as much, but are still maintained for peak demand and as a backup supply. Current water reserves in the Paul Davis field are projected to last through 2030. In some areas, the water does not meet USEPA drinking water standards, specifically for sulfate, chloride, selenium, fluoride, nitrate, and total dissolved solids.

Due to a proposed increase in impervious surfaces (quantity to be determined during design of the business Park facilities), the opportunity for ground water recharge will be reduced. This reduction is not anticipated to have a significant impact on groundwater resources and no other effects on groundwater are expected. The Park project will obtain its water supply via the City of Midland, whose supply comes from a combination of local and regional reservoir sources supplemented by the Paul Davis Well Field.

Wetlands:

Wetlands are areas that support specific vegetation due to inundation or saturation by ground water. Sometimes these are called swamps, marshes, or bogs. Wetlands provide benefits to the natural and human environments that include habitat, water filtration, water storage, and recreation. There are several statues, regulations, orders, and other requirements related to wetlands. The CWA regulates the discharge of pollutants into waters of the United States (including wetlands), establishes a program to regulate discharge of fill material into such waters, and requires projects not to violate water quality standards.

A water of the United States is considered a jurisdictional surface water or wetland under the CWA; however, not all surface waters are under the jurisdiction of the CWA. This determination is made on a case-by-case basis by the USACE. Non-jurisdictional wetlands are protected under Executive Order 11990, *Protection of Wetlands*.

Drainage Ditch

Based on the March 5, 2015, site visit, examination of National Wetland Inventory (NWI) maps (**Figure 3.3 Wetland Map**), and coordination with the USACE, it was determined that surface waters and wetlands are absent from the proposed Park location. The USACE determined the project area is not subject to Section 404 or Section 10 of the CWA (which regulate discharge of materials into waters of the United States including wetlands). See **Appendix B Agency & Tribal Coordination** for the USACE determination letter.

U.S. Department of Agriculture (USDA) soil mapping shows the entire site to be covered with well drained Kimbrough loam, a non-hydric soil unassociated with wetlands or regularly-flooded conditions. The only drainage feature is a regularly-mown ditch on the south edge of the site, parallel to the Highway 80 right-of-way, that conveys local drainage about 3,700 feet northeast to a box culvert that diverts flow to the south beneath Interstate Highway 20.

There are no wetlands located within the project or in the immediate vicinity. No wetland impacts are expected from the Preferred Alternative or the No Action Alternative.

Floodplains:

A floodplain is a flat, low area adjacent to a stream, river, or creek, which may flood during high water flow conditions. A 100-year floodplain includes the area that has a one percent chance of flooding in any given year. Projects within a 100-year floodplain are discouraged.

Examination of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) found that there are floodplains within the greater Airport property boundary; however, none of these occur within the Park area (**Figure 3.4 Floodplain Map**). During construction, BMPs as described in the *Surface Waters* subsection will be implemented to minimize indirect impacts to the adjacent floodplains. The proposed action and the No Action Alternative are not expected to have adverse impacts on floodplains.

Source: U.S. FWS NWI (May 2015)

Figure 3.3 Wetland Map

Source: FEMA Flood Insurance Rate Map

Figure 3.4 Floodplain Map

3.14 Construction Impacts

In accordance with the *FAA Environmental Desk Reference for Airport Actions*, the impacts to the environment due to construction activities must be assessed when preparing an environmental document. Construction impacts are commonly short-term and temporary in nature. Typical impacts resulting from airport construction include air, water, and noise pollution. In addition, surface transportation traffic patterns may be altered during construction. Typical impacts include:

- Noise from construction equipment and related activities at the site
- Noise and dust from delivery of materials through residential areas
- Air pollution from burning debris
- Use and mitigation of borrow and waste sites
- Excessive dust

As noted in **Section 2.0 Alternatives Considered** the proposed action includes establishing a business Park at the Airport by allocating a 45-acre area for future development. The Preferred Alternative is a conceptual full build-out scenario that includes demolition of an existing hangar, removal of a railroad spur, construction of a two-lane access road, leasing of space into approximately 17 parcels or lots, construction of facilities based on tenant requirements and extension or upgrade of existing utilities.

Operations at the Airport will not be affected during the implementation of the Preferred Alternative. Each subsequent improvement to the Park will require its own and independent environmental analysis and will include *FAA Advisory Circular 150/5370-10A, Standards for Specifying Construction of Airports*, in planning, construction and implementation to minimize adverse environmental impacts. Consequently, construction impacts on nearby land uses will be minimal.

Soil erosion is a major source of concern as a possible adverse impact of construction projects. Since the Airport site is generally flat, there is not expected to be a high risk for soil erosion during the excavation and site preparation process. Erosion control measures such as sediment traps, temporary cement ponds, and temporary grassing will be employed, as appropriate, during the construction phase. Vegetation cover will be replaced as soon as possible. Soil erosion will be minimized through the application of an erosion control plan prepared under the provisions of *FAA AC 150/5370-10A, Standards for Specifying Construction of Airports*. To the extent possible, excavated soils will be deposited in environmentally non-sensitive upland areas and staging areas for construction equipment will be placed in a non-sensitive upland area with any disturbed areas replanted upon completion of the project as an erosion control measure.

Adverse impacts on water quality due to erosion and subsequent sedimentation are another prime consideration during construction. As erosion and subsequent sedimentation will be minimized by erosion control measures, water quality is not expected to be measurably affected. Stormwater runoff from the sites will drain into the Airport's existing drainage system. However, during construction, minor and temporary erosion may occur. All applicable permitting requirements as described in **Section 3.12 Water Resources** will be followed.

Mitigation measures prepared under an erosion control plan in accordance with *FAA AC 150/5370-10A, Standards for Specifying Construction of Airports* will help minimize long-term impacts to area water quality or to the existing drainage system. In addition, the specification in *FAA AC 150/5320-5B, Airport Drainage,* will be used to draft contract specifications.

In addition, coordination with the Texas Department of Transportation (TxDOT) indicates they have no objections to the project moving forward, but directed the Midland Traffic Engineer to coordinate with the TxDOT Odessa District Director of Operations regarding the layout of the Liberator/LaForce intersection to mitigate operational impacts. See **Appendix B Agency & Tribal Coordination** for TxDOT letter.

There will be no permanent construction impacts associated with the Preferred Alternative or the No Action Alternative. Anticipated short-term or long-term construction related impacts resulting from future actions will be evaluated independently; however, it is anticipated that any construction impacts may be considered routine and easily mitigated through the regulatory permitting process and the use of BMPs.

3.15 Cumulative Impacts

Cumulative impacts result from the incremental impact of the proposed action when added to or interacting with other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR Part 1508.7). This geographic focus of cumulative impacts is narrow and based only on resources where incremental impacts exist or may occur.

The TxDOT Odessa District "Planned Projects to be Let" list was reviewed for areas around the Airport and Midland County to determine if any major construction projects were planned at the State level that might represent a cumulative impact when viewed together with past, current, or future projects.

Portions of State Highway (SH) 349 (located approximately 0.5 miles west of the project area) were identified as having construction already scheduled or under long term planning activities. Active projects included two signal installations and reconstruction and widening of SH 349. Long term planning projects include operational improvements of SH 349 and ramp extensions of Interstate 20. Although these projects are in the vicinity of the Airport, they are not necessarily adjacent to proposed location of the Preferred Alternative. These projects will be constructed within existing road right-of-way (ROW) and environmental impacts are anticipated to be minimal, if any.

As described in **Section 3.11 Socioeconomics**, the Airport and the Midland-Odessa area has experienced rapid growth due to the petroleum industry. This rapid population and economic growth has caused the need for additional housing, schools, and community facilities as well as support services and infrastructure for the oil and gas industry. The City of Midland has also been steadily implementing Airport improvements over many years to accommodate this growth.

Major past, present, and future projects in and around the Airport include:

- Midland T-Bar Well Line (water supply pipeline)
- XCOR Aerospace (commercial space launch and testing site)
- Orbital Outfitters building (space and pressure suit manufacturing company)
- Retail development in the Midland-Odessa area (miscellaneous retail shopping)
- Extension of Runway 16L/34R, parallel taxiway, and apron (airport improvement project)
- Housing development in the Midland-Odessa area (miscellaneous housing to address growth)

It is reasonable to assume that the Preferred Alternative would contribute cumulatively to population growth and the need for additional housing and community services due to new commercial and industrial operations at the proposed business Park. However, it is unlikely the level of demand for goods and services from the Preferred Alternative alone would encourage secondary development. It would, however, incrementally add to the larger demands for services generated by the rapid growth of the area.

Local plans are in place by the cities of Midland and Odessa to address ongoing economic growth and employment, it is questionable that cumulative socioeconomic impacts will result from the Preferred Alternative. The Preferred Alternative is expected to be constructed over a period of years and provide sufficient time for the local community to adjust to any socioeconomic changes.

Because aviation activity at the Airport represents such a small amount of U.S. and global emissions, and the related uncertainties involving the assessment of such emissions regionally and globally, the incremental contribution of this proposed action cannot be adequately assessed given the current state of the science and assessment methodology.

An evaluation of the Preferred Alternative indicates that no direct impacts to social, environmental and economic resources are expected. The project may have minor indirect and/or cumulative impacts on socioeconomic resources. It is anticipated that the construction of the Preferred Alternative, when viewed in light of past, current, and future planned actions, would not result in significant cumulative impacts. However, future projects would be subject to rigorous NEPA analysis, regulatory permitting, and mitigation requirements.

3.16 Environmental Consequences – Other Considerations

This section discusses other items that, while not specifically covered in previous sections, are important to the understanding of the project's potential impacts on the social, environmental, and economic surroundings.

Conformance with Plans, Policies, and Controls: An Airport development project plays an important role in the local and regional economy. Often times, a project influences the type and location of specific land uses, the ground transportation network, and the general direction of community growth. When evaluating an action's conformance with plans and polices, there are usually two levels of planning involved. The first level addresses policy plans, which are goals and objectives for the area or jurisdiction. The second

addresses specific physical plans that direct development of the physical infrastructure. An analysis of the Preferred Alternative does not indicate any conflict with local, county, or regional planning efforts.

Conformance with Laws and Administrative Rules: In preparing this PEA, various federal, state, regional, and local agencies were contacted to solicit their comments on the proposed project as it related to their specific area of expertise or regulatory jurisdiction including permitting and mitigation requirements (**Appendix B Agency & Tribal Coordination**). Based on this coordination, inconsistency with known federal, state, or local laws or administrative rules is not expected. All phases of the proposed action will adhere to appropriate regulations and permitting requirements including any necessary mitigation measures. A summary of approvals, permits, and mitigation required to implement the Preferred Alternative is included in **Table 3-7 Environmental Summary of the Preferred Alternative**.

3.17 Summary of Impacts and Mitigation

The following table summarizes the impacts and mitigation measures of the Preferred Alternative.

Table 3-7 Environmental Summary of the Preferred Alternative		
Environmental Factor	**Significant Impact?**	**Mitigation Requirements/Permits**
Air Quality	No	• Consider BMPs during construction to minimize air emissions from equipment including: o Use equipment that run on alternative fuels or electricity o Implement dust abatement methods on unpaved or dirt surfaces o Re-vegetate disturbed areas as soon as possible o Cover construction materials including soils during transport or in stockpiles
Climate Change and Greenhouse Gases	No	• None Required
Compatible Land Use	No	• Construction of individual site improvements will require separate analysis to determine their potential to create wildlife attractants
Section 4(f) Properties	No	• None Required
Section 6(f) Lands	No	• None Required
Farmlands	No	• None Required
Fish, Wildlife, and Plants		
Wildlife	No	• None Required
Migratory Birds	No	• No vegetation clearing between the March 1 and August 31 nesting period
Plants	No	• None Required
Special Status Species	No	• Coordinate with TPWD to determine if a pre-construction survey is required on and adjacent to the site prior to construction of individual sites to confirm the absence of the Texas horned lizard and the Spot-tailed earless lizard.

		• Implement the tortoise and Texas horned lizard BMPs (found on the TPWD website) during construction.
Hazardous Materials	No	• The corrective actions required by TCEQ will continue independently of the Preferred Alternative. • Structures or buildings scheduled for demolition will be surveyed for ACMs prior to removal. If ACMs are found, they must be abated in accordance with TCEQ guidelines and procedures.
Historical, Architectural, Archeological, or Cultural Resources	No	• None Required
Socioeconomics	No	• None Required
Water Quality		
Surface Waters	No	• Obtain a Construction General Permit from the TCEQ. • Create a Stormwater Pollution Prevention Plan (SWP3). • Follow FAA AC 150/5200-33B. • Implement BMPs during construction such as erosion mats, silt fences, and sediment traps. • The development of the individual sites will incorporate appropriate water quality BMPs and obtain necessary permits, where applicable.
Groundwater	No	• None Required
Floodplains	No	• None Required
Wetlands	No	• None Required
Construction Impacts	No	• Implement BMPs including re-vegetation of disturbed areas using original soil and native species. • Implement provisions of AC 150/5370-10A, Airport Construction Standards. • Midland Traffic Engineer to coordinate with the TxDOT Odessa District Director of Operations regarding the layout of the Liberator/LaForce intersection to mitigate operational impacts.
Cumulative Impacts	No	• None Required

Section 4.0 List of Preparers

This section lists the names and responsibilities of the team members that assisted in the preparation of the Programmatic Environmental Assessment.

Federal Aviation Administration (FAA), Southwest Region:

John MacFarlane, Environmental Protection Specialist – Responsible for National Environmental Policy Act (NEPA) compliance and FAA oversight.

Parkhill, Smith & Cooper:

Danny Winchester, P.E. – Project Manager and client representative.

Mead & Hunt:

Stephanie Ward, AICP, Project Principal/Quality Control - Has more than 20 years of experience in preparing airport master plans, airport layout plans (ALPs), environmental overviews, airport site selection studies, airport feasibility studies, and developing community support and understanding of airports and their importance to a community. Has prepared more than 60 planning studies for air carrier and general aviation facilities.

William Ballard, AICP, Project Manager - More than 18 years of experience evaluating environmental impacts associated with transportation projects and preparing NEPA documents. Has served as project manager for various environmental assessments and environmental impact statements.

Morgan Turner, Environmental Planner - Serves as an airport planner for Mead & Hunt and is responsible for developing planning and environmental documents. Has assisted with several environmental assessments and has a strong understanding of the NEPA, environmental management systems, solid waste and recycling regulations and sustainability practices.

Perry Rossa, Wetlands and Biological Resources Scientist - More than 20 years of experience in the execution of NEPA compliance documents and state and federal wetland permitting. Has served as project manager for wetland permitting and mitigation design teams.

Sara Gredler, Cultural Resources Specialist – Specializes in historic and archival research, field survey and data management. Responsible for completing surveys, evaluating National Register eligibility and preparing reports. Experience includes Section 106, Section 4(f) and NEPA compliance.

Rick Mitchell, Cultural Resources Practice Leader – 21 years of experience in cultural resources management. Proficient in Section 106/110 and Section 4(f) regulatory coordination and historic resource requirements for NEPA documentation, as well as environmental document review. Conducts architectural surveys and preservation planning in Texas and serves as project manager for historic preservation projects

Maranda Thompson – 12 years of experience in aviation planning, including land use compatibility planning and safety and noise impact assessments. Responsible for conducting technical research and analyses and preparing airport noise contours for airport planning projects and environmental assessments.

Subconsultants:

COX | McLain Environmental Consulting – Responsible for Archeological Survey and coordination with the Texas Historic Commission.

Appendix A – Site Photos

Abandoned Rail Spur

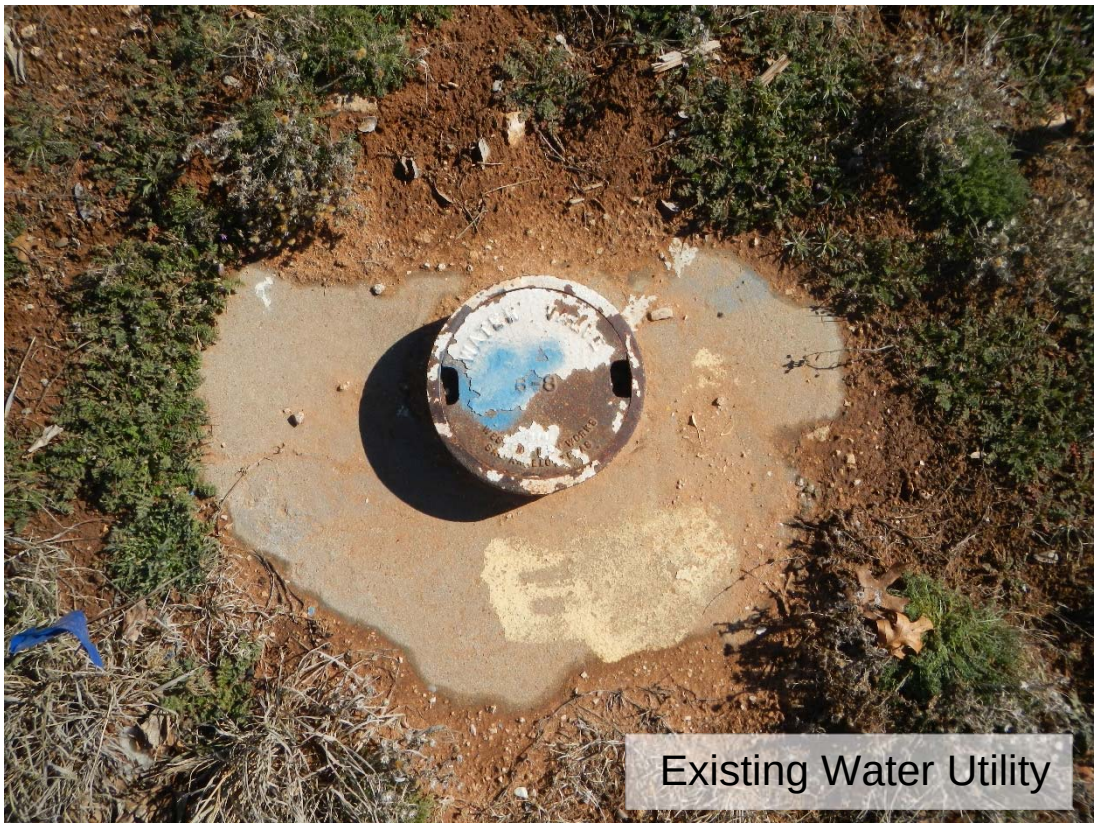
Proposed Project Area

Proposed Project Area

Existing Utilities

Looking South
Flags marking gas line

Looking Northeast
Existing Stormwater Fixtures



Existing Water Utility

Stormwater Ditch

Appendix B – Agency & Tribal Coordination

Type of Agency	Agency	Division/Office	Prefix	First Name	Last Name	Job Title
Federal	U.S. Army Corps of Engineers	Fort Worth District	Ms.	Peggy	Grubbs	
Federal	U.S. Department of Agriculture	Natural Resource Conservation Service Center - Midland	Mr.	Leo	Carrillo	Natural Resource Manager
Federal	U.S. Environmental Protection Agency	Region 6 (South Central)	Mr.	Ron	Curry	Regional Administrator
Federal	U.S. Fish and Wildlife Services	Austin Ecological Services Field Office	Ms.	Tanya	Sommer	Austin Branch Chief
Federal	U.S. Fish and Wildlife Services	Austin Ecological Services Field Office	Mr.	Adam	Zerrenner	Field Supervisor
State	Texas Commission on Environmental Quality	TCEQ Regional and Watermaster Office 7 - Midland	Ms.	Lorinda	Gardner	Regional Director
State	Texas Department of Agriculture	West Texas Regional Office (Region 1)	Mr.	Bob	Tarrant	Regional Director
State	Texas Department of Transportation	Odessa District Office	Mr.	Mike	McAnally	District Engineer
State	Texas General Land Office	Energy Resources Field Office				
State	Texas Groundwater Protection Committee	TCEQ	Ms.	Cary	Betz	
State	Texas Historical Commission	State Historic Preservation Office	Mr.	Mark	Wolfe	Executive Director
State	Texas Parks and Wildlife Department	Wildlife Division, Wildlife Habitat Assessment Program	Ms.	Julie	Wicker	Habitat Assessment Biologist
State	Texas State Soil and Water Conservation Board	San Angelo Regional Office	Mr.	Clayton	Vanderburg	Natural Resources Specialist
Local	County of Midland	Commissioners' Court				
Local	City of Midland	City Management	Ms.	Courtney	Sharp	City Manager
Local	City of Midland	Planning & Zoning	Mr.	Bob	Baronti	Planning Division Manager
Local	City of Odessa	City Manager's Office	Mr.	Richard	Morton	City Manager
Local	City of Odessa	Community Development Department				
Local	City of Odessa	Planning & Zoning				
Local	Midland County Historical Society/Commission		Mr.	Pat	McDaniel	Director

List of agencies that received early coordination letters.

Type of Agency	Agency	Prefix	First Name	Last Name	Job Title
Tribe	Comanche Nation of Oklahoma	Mr.	Jimmy	Arterberry	THPO
Tribe	Comanche Nation of Oklahoma	Mr.	William	Owens	Tribal Administrator
Tribe	Tonkawa Tribe of Oklahoma	Ms.	Miranda	Allen	Executive, Museum and NAGPRA Assistant
Tribe	Tonkawa Tribe of Oklahoma	Mr.	Don	Patterson	Tribal President

List of tribes that received early coordination letters.

The following letter is an example of the letter sent during early agency and tribal coordination.

Date:

Address:

Re: Aerospace Development Park
Midland International Air & Space Port, City of Midland, Midland County, Texas
Early Agency Coordination / Programmatic Environmental Assessment

Dear:

The City of Midland (City) and the Federal Aviation Administration (FAA) are notifying your agency/organization that a Programmatic Environmental Assessment (PEA) is being prepared for the proposed Aerospace Development Park (Park) at the Midland International Air & Space Port (Airport). The proposed Park encompasses approximately 45 acres in the southwest corner of the Airport. This site is bordered by Highway 80 to the south, La Force to the west and the Airport's airfield to the east.

Due to existing demand for additional hangar and warehouse space the Airport is proposing to develop this area. The area has been previously disturbed and is currently zoned for commercial development. Previous planning documents have also identified this area as suitable for additional Airport improvements. The Park is anticipated to include both aeronautical uses (e.g., hangars) and non-aeronautical uses (e.g., commercial offices and warehouses). Development of the Park is anticipated to occur over time. For your convenience, several maps are enclosed that illustrate the site location and approximate project area limits (see Exhibits 1 through 3).

The PEA will be prepared in accordance with the National Environmental Policy Act (NEPA), FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B. *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. The purpose of the PEA is to assess the potential programmatic (broad-scale) environmental effects of a full build-out scenario of the Park. The information in the PEA is not intended to address all site-specific issues. Rather, the PEA will focus on potential high level impacts of developing the broad geographic area of the Park. Each subsequent site-specific development will be subject to its own environmental clearance prior to construction.

As part of our early coordination, we are attempting to identify key issues that will need to be addressed during the NEPA process. To accomplish this, your comments are being requested for the above referenced project as it relates to the following:

- Your specific areas of concern / regulatory jurisdiction
- Specific benefits the project may have to your organization
- Any available technical information / data for the site
- Potential mitigation / permitting requirements for project implementation

In order to sufficiently address key project issues and maintain the project schedule, your comments are requested by **May 15, 2015**. Please send your written or email comments to:

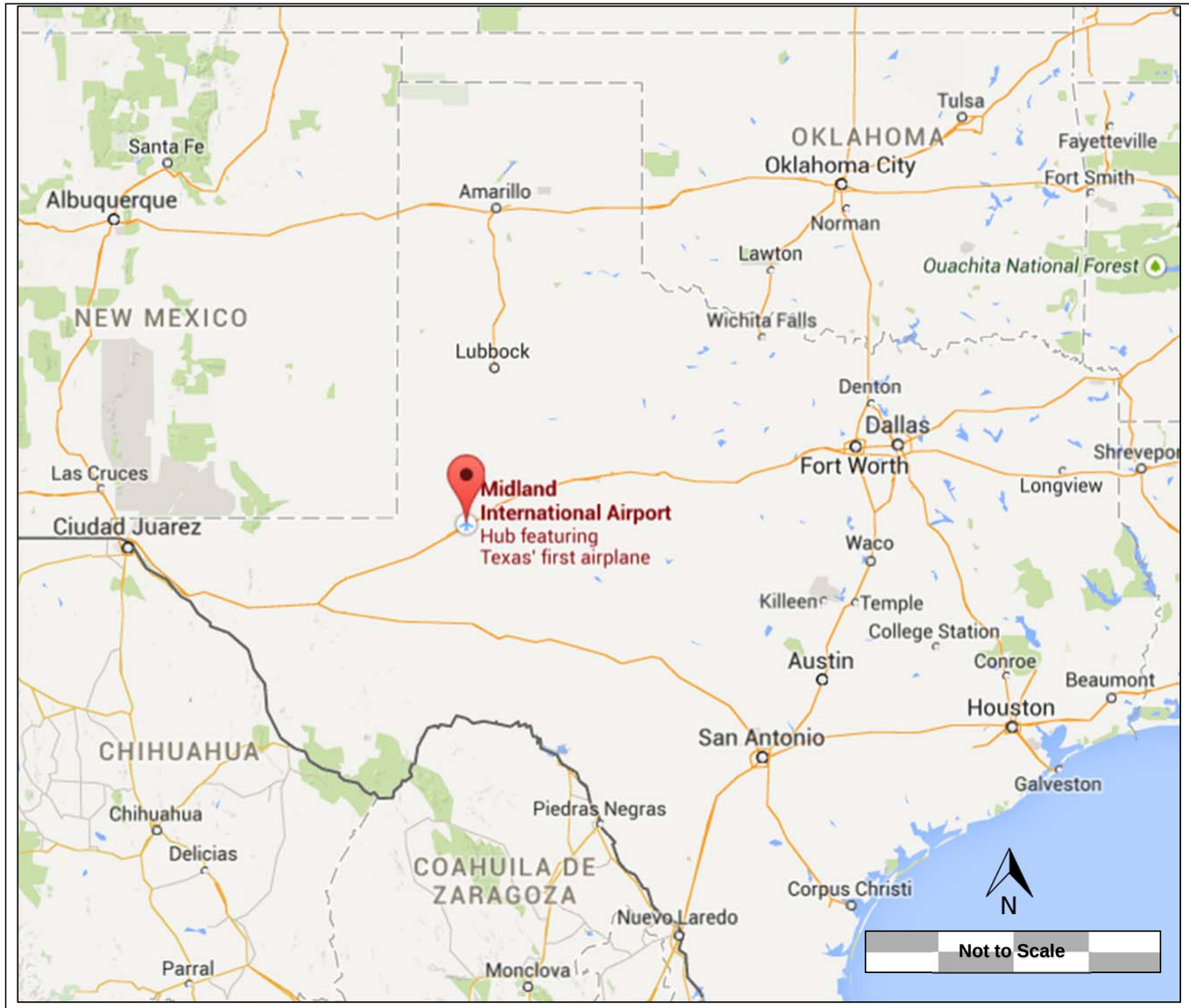
MEAD & HUNT, Inc.
William Ballard, AICP
2605 Port Lansing Road
Lansing, MI 48906
517-321-8334
william.ballard@meadhunt.com

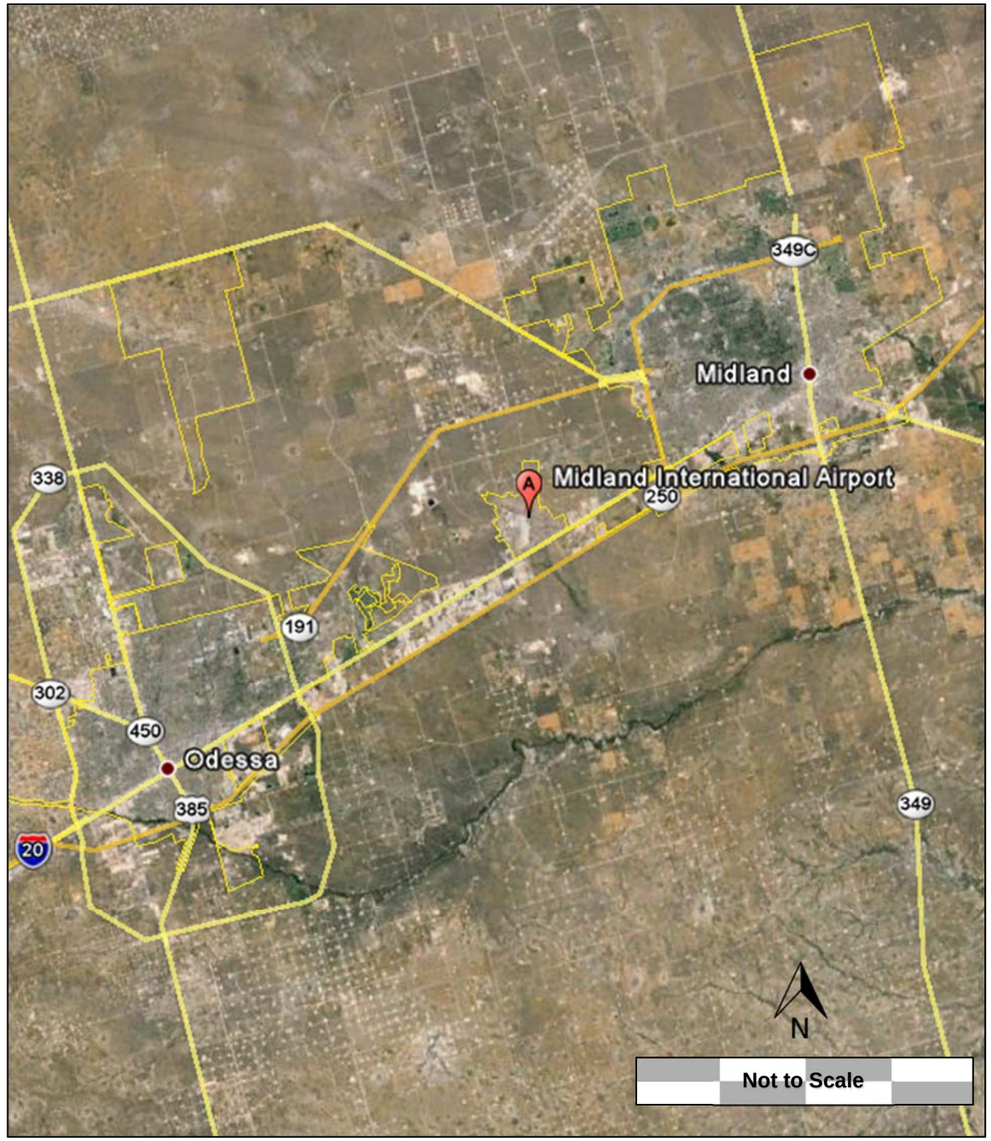
Thank you in advance for your assistance in this matter.

Sincerely,

William Ballard, AICP
Senior Planner

Enclosures





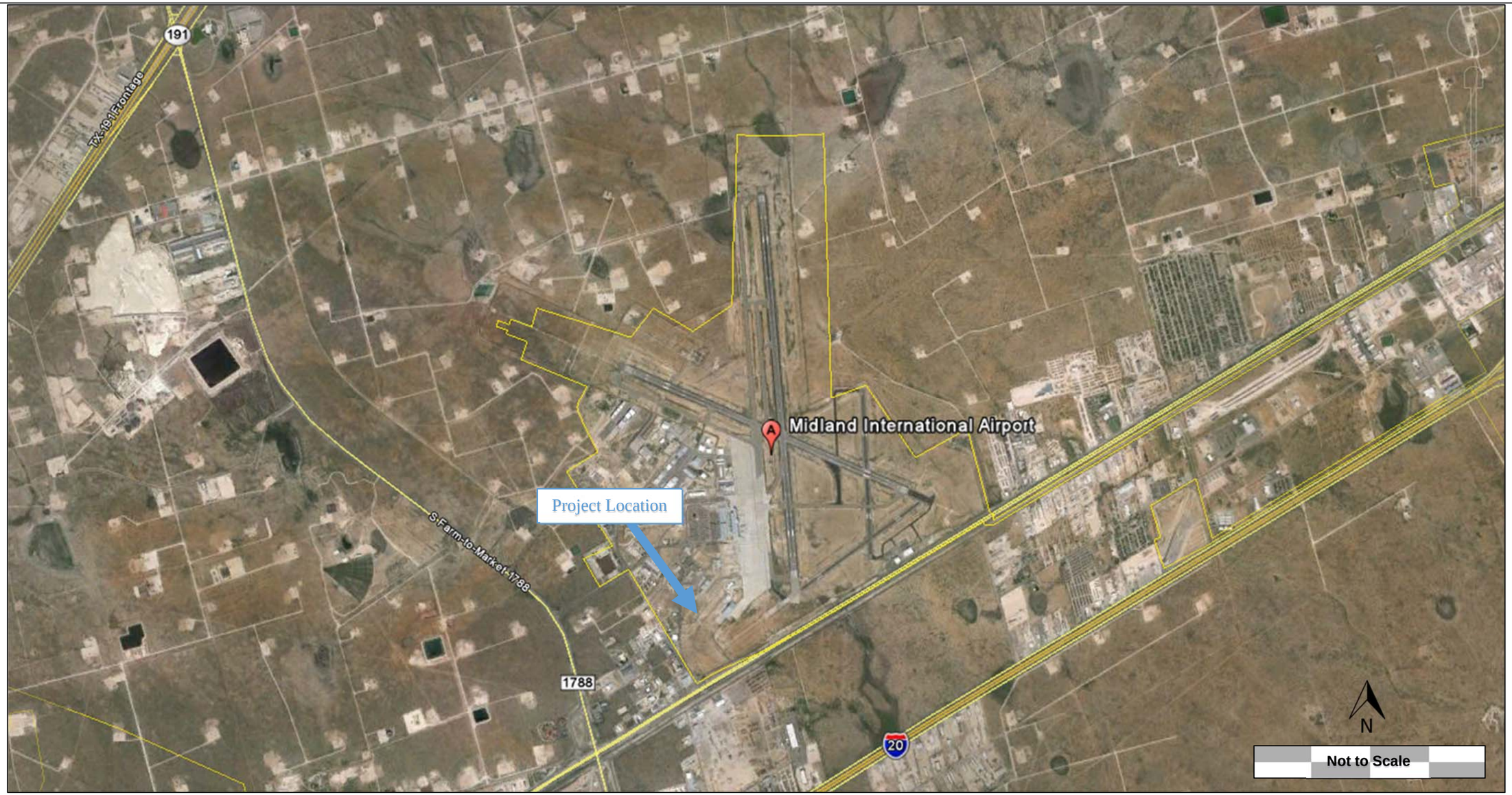
Source: Google, January 2015

Prepared by: Mead&Hunt *(March 23, 2015)*

Exhibit 1

Vicinity Map

Midland International Airport



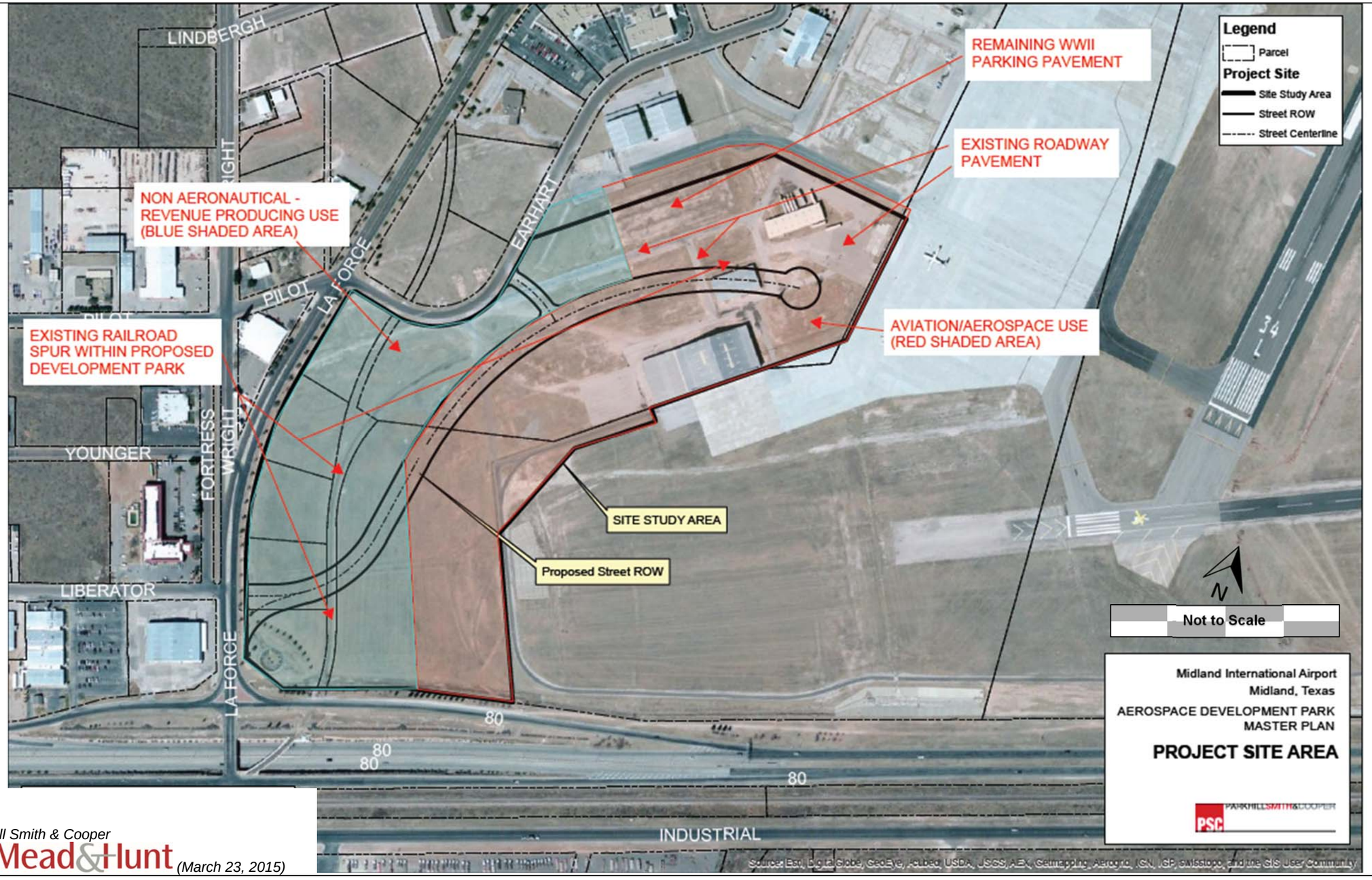
Source: Google, January 2015

Prepared by: Mead&Hunt *(March 23, 2015)*

Exhibit 2

Location Map

Midland International Airport



Source: Parkhill Smith & Cooper

Prepared by: Mead&Hunt *(March 23, 2015)*

Exhibit 3

Project Area

Midland International Airport

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

May 6, 2015

Regulatory Division

SUBJECT: Project Number SWF-2015-00198, Aerospace Development Park

William Ballard
Mead & Hunt, Inc.
2605 Port Lansing Rd
Lansing, MI 48906

Dear Mr. Ballard:

Thank you for your letter received April 28, 2015, concerning a proposal by the City of Midland and the Federal Aviation Administration to construct additional hangar and warehouse spaces and associated infrastructure located in the city of Midland, Midland County, Texas. This project has been assigned Project Number SWF-2015-00198. Please include this number in all future correspondence concerning this project.

Mr. Billy Standridge has been assigned as the regulatory project manager for your request and will be evaluating it as expeditiously as possible.

You may be contacted for additional information about your request. For your information, please reference the Fort Worth District Regulatory Branch homepage at www.swf.usace.army.mil/Missions/Regulatory.aspx and particularly guidance on submittals at www.media.swf.usace.army.mil/pubdata/environ/regulatory/introduction/submital.pdf and mitigation at www.usace.army.mil/Missions/Regulatory/Permitting/Mitigation.aspx that may help you supplement your current request or prepare future requests.

If you have any questions about the evaluation of your submittal or would like to request a copy of one of the documents referenced above, please refer to our website at http://www.swf.usace.army.mil/Missions/Regulatory.aspx or contact Mr. Billy Standridge at the address above or telephone 817-886-1662 and refer to your assigned project number. Please note that it is unlawful to start work without a Department of the Army permit if one is required.

Please help the regulatory program improve its service by completing the survey on the following website: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

Stephen L Brooks
Chief, Regulatory Division

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

June 2, 2015

Regulatory Division

SUBJECT: Project Number SWF-2015-00198, Aerospace Development Park

Mr. William Ballard
Mead & Hunt, Inc.
2605 Port Lansing Rd
Lansing, Michigan 48906

Dear Mr. Ballard:

This letter is in regard to information received April 28, 2015, concerning a proposal by the City of Midland and the Federal Aviation Administration to construct additional hangar and warehouse spaces and associated infrastructure located in the city of Midland, Midland County, Texas. This project has been assigned Project Number SWF-2015-00198. Please include this number in all future correspondence concerning this project.

Under Section 404 of the Clean Water Act the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into waters of the United States, including wetlands. USACE responsibility under Section 10 of the Rivers and Harbors Act of 1899 is to regulate any work in, or affecting, navigable waters of the United States. Based on your description of the proposed work, and other information available to us, we have determined this project will not involve activities subject to the requirements of Section 404 or Section 10. Therefore, it will not require Department of the Army authorization pursuant to Section 404 and/or Section 10.

Thank you for your interest in our nation's water resources. If you have any questions concerning our regulatory program, please refer to our website at http://www.swf.usace.army.mil/Missions/Regulatory.aspx or contact Mr. Billy Standridge at the address above or telephone 817-886-1662 and refer to your assigned project number.

Please help the regulatory program improve its service by completing the survey on the following website: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

Sincerely,

for Stephen L Brooks
Chief, Regulatory Division

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Fort Worth

Carter P. Smith
Executive Director

May 1, 2015

Mr. William Ballard
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, MI 48906

RE: Early Agency Coordination, Aerospace Development Park, Midland International Air and Space Port, City of Midland, Midland County, Texas

Dear Mr. Ballard:

Texas Parks and Wildlife Department (TPWD) has received the request for comments regarding the above-referenced proposed project located in Midland. TPWD staff has reviewed the information provided and offers the following information, comments, and recommendations concerning this project.

TPWD Wildlife Habitat Assessment Program is now accepting projects through electronic submittal. Future project review requests can be submitted to WHAB@tpwd.texas.gov. If submitting requests electronically, please include geographic location files when available (e.g. GIS shape file, .kmz, etc.).

Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency may be required by state law. For further guidance, see the Texas Parks and Wildlife Code, Section 12.0011, which can be found online at http://www.statutes.legis.state.tx.us/Docs/PW/htm/PW.12.htm#12.0011. For tracking purposes, please refer to TPWD project number 34544 in any return correspondence regarding this project.

Project Description

A Programmatic Environmental Assessment is being prepared for the proposed Aerospace Development Park (Park) at the Midland International Air and Space Port (Airport). The proposed Park encompasses approximately 45-acres in the southwest corner of the Airport. Due to existing demand for additional hangar and warehouse space the Airport is proposing developing this area. Development of the Park is anticipated to occur over time.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

Federal Laws

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits taking, attempting to take, capturing, killing, selling/purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts and nests, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The U.S. Fish and Wildlife Service (USFWS) Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

Recommendation: If migratory bird species are found nesting on or adjacent to the project area, they must be dealt with in a manner consistent with the MBTA. TPWD recommends excluding vegetation clearing activities during the general bird nesting season, March through August, to avoid adverse impacts to this group. If clearing vegetation during the migratory bird nesting season is unavoidable, TPWD recommends surveying the area proposed for disturbance to ensure that no nests with eggs or young will be disturbed by operations. Any vegetation (trees, shrubs, and grasses) where occupied nests are located should not be disturbed until the eggs have hatched and the young have fledged.

State Laws

Parks and Wildlife Code, Section 68.015

Section 68.015 of the Parks and Wildlife Code regulates state-listed species. Please note that there is no provision for take (incidental or otherwise) of state-listed species. A copy of *TPWD Guidelines for Protection of State-Listed Species*, which includes a list of penalties for take of species, can be found on-line at http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/habitat_assessment/media/tpwd_statelisted_species.pdf. State-listed species may only be handled by persons with a scientific collection permit obtained through TPWD. For more information on this permit, please contact the Wildlife Permits Office at (512) 389-4647.

Texas horned lizard (*Phrynosoma cornutum*) – State-listed Threatened

The Texas horned lizard can be found in open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees. Based on publically available aerial photographs, suitable habitat for the Texas horned lizard may be present at the proposed project site.

If present in the project area, the Texas horned lizard could be impacted by ground disturbing construction activities. Horned lizards may hibernate on-site in the loose soils a few inches below ground during the cool months from September/October to March/April. Construction in these areas could harm hibernating lizards. Horned lizards are active above ground when temperatures exceed 75 degrees Fahrenheit. If horned lizards (nesting, gravid females, newborn young, lethargic from cool temperatures or hibernation) cannot move away from noise and approaching construction equipment in time, they could be affected by construction activities.

Recommendation: TPWD recommends that a pre-construction survey be conducted to determine if horned lizards are present on the project site or directly adjacent to the construction area. A useful indication that the Texas horned lizard may occupy the site is the presence of harvester ant (*Pogonomyrmex barbatus*) nests since harvester ants are the primary food source of horned lizards. The survey should be performed during the warm months of the year when the horned lizards are active. Fact sheets, including survey protocols and photos of Texas horned lizard can be found on-line at http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/texas_nature_trackers/horned_lizard/ and at http://www.tpwd.state.tx.us/huntwild/wild/species/thlizard/.

If horned lizards are found on site, TPWD recommends contacting this office to develop plans to relocate them, particularly if there is likelihood that they would be harmed by project activities. To minimize impacts to the Texas horned lizard, TPWD recommends the use of the best management practices (BMPs) described in the *Texas Horned Lizard Watch – Management and Monitoring Packet* which can be found on-line at http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_w7000_0038.pdf. and *Texas Tortoise Best Management Practices* which can be found on-line at http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/habitat_assessment/media/texas_tortoise_bmps.pdf. Please note that Texas tortoise BMPs are applicable to the Texas horned lizard.

Rare Species

In addition to state and federally-protected species, TPWD tracks special features, natural communities, and rare species that are not listed as threatened or endangered. TPWD actively promotes their conservation and considers it important to evaluate and, if necessary, minimize impacts to rare species and their habitat to reduce the likelihood of endangerment and preclude the need to list. These species and communities are tracked in the Texas Natural Diversity

Database (TXNDD). The most current and accurate TXNDD data can be requested at: TexasNatural.DiversityDatabase@tpwd.texas.gov.

No records of rare, threatened, or endangered species have been documented with 1.5 miles of the proposed project area in the TXNDD. However based on publically available aerial photographs, suitable habitat may be present for the Spot-tailed earless lizard (*Holbrookia lacerata*) on the proposed project site.

In January 2010, the Spot-tailed earless lizard was petitioned for listing under the Endangered Species Act (ESA). On May 24, 2011, the USFWS issued a 90-day finding on that petition. Based on their review, the USFWS found the petition presents substantial scientific or commercial information indicating that listing the Spot-tailed earless lizard may be warranted. The USFWS has therefore initiated a status review to determine if listing is in fact warranted. Based on this status review, the USFWS will issue a 12-month finding on the petition.

Recommendation: TPWD recommends monitoring the listing status of the Spot-tailed earless lizard throughout project planning and construction and perform required consultation, permitting, and mitigation with the USFWS if this species becomes listed under the ESA. TPWD also recommends surveying for this species in areas proposed for disturbance, and avoid impacts to this species if found on-site.

Please note that the absence of TXNDD information in an area does not imply that a species is absent from that area. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. This information cannot be substituted for on-the-ground surveys.

Recommendation: Please review the TPWD county list for Midland County, as rare species could be present, depending upon habitat availability. These lists are available online at http://tpwd.texas.gov/gis/rtest/. If during construction, the project area is found to contain rare species, natural plant communities, or special features, TPWD recommends that precautions be taken to avoid impacts to them. The USFWS should be contacted for species occurrence data, guidance, permitting, survey protocols, and mitigation for federally-listed species. For the USFWS threatened and endangered species lists by county, please visit http://ecos.fws.gov/ipac/.

Determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity

cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence. If encountered during construction, measures should be taken to avoid impacting wildlife.

TPWD strives to respond to requests for project review within a 45 day comment period. Responses may be delayed due to workload and lack of staff. Failure to meet the 45 day review timeframe does not constitute a concurrence from TPWD that the proposed project will not adversely impact fish and wildlife resources.

TPWD advises review and implementation of these recommendations. If you have any questions, please contact me at (806) 761-4936 or Richard.Hanson@tpwd.texas.gov.

Sincerely,

Rick Hanson

Rick Hanson
Wildlife Habitat Assessment Program
Wildlife Division

RH:gg.ERCS-10846

Texas Department of Transportation

3901 EAST HIGHWAY 80 • ODESSA, TEXAS 79761-0501 • (432) 332-0501

May 15, 2015

William Ballard, AICP
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, MI 48906

RE: Aerospace Development Park
Midland International Air & Space Port, City of Midland, Midland County, Texas
Early Agency Coordination / Programmatic Environmental Assessment

Dear Mr. Ballard,

TxDOT's Odessa District does not offer objection to the subject project. Request City of Midland Traffic Engineer coordinate with District Director of Operations regarding layout and design of revised Liberator / LaForce Intersection to mitigate operational impact to BI 20-E / LaForce intersection.

Additional comments may be provided by TxDOT's Environmental Affairs Division.

If you should have questions, concerns or comments; please feel free to contact me directly at either gary.law@txdot.gov or (432) 498-4712.

Sincerely,

Gary J. Law, P.E.
Director of Transportation
Planning and Development

William Ballard

From: John.MacFarlane@faa.gov
Sent: Tuesday, May 05, 2015 9:20 AM
To: William Ballard
Subject: FW: Midland International Air & Space Port, Aerospace Development Park

Thanks,

John MacFarlane
Environmental Protection Specialist
FAA-Southwest Regional Office
Texas Airports Development Office
2601 Meacham Blvd
Fort Worth, TX 76137
Phone: 817-222-5681
Fax: 817-222-5989

From: Jimmy Arterberry [mailto:jimmya@comanchenation.com]
Sent: Monday, May 04, 2015 10:30 AM
To: MacFarlane, John (FAA)
Subject: Midland International Air & Space Port, Aerospace Development Park

In response to your request, the above referenced project has been reviewed by staff of this office. Based on the information provided and a search within the Comanche Nation Site Files, we have determined that there are ***no properties*** affected by the proposed undertaking.

If you require additional information or are in need of further assistance, please contact this office at (580) 595-9960 or 9618.

This review is performed in order to identify and preserve the Comanche Nation and State's cultural heritage, in conjunction with the State Historic Preservation Office.

Jimmy W. Arterberry, THPO
Comanche Nation
#6 SW 'D' Avenue, Suite C
Lawton, Oklahoma 73502
(580) 595-9960 or 9618
(580) 595-9733 FAX

Natural Resources
Conservation Service

State Office

101 S. Main Street
Temple, TX 76501
Voice 254.742.9800
Fax 254.742.9819

January 14, 2016

Mead and Hunt
2605 Port Lansing Road
Lansing, Michigan 48906

Attention: William Ballard

Subject: LNU-Farmland Protection
Proposed Midland Airport Support Facilities Construction
Midland County, Texas

We have reviewed the information provided in your correspondence dated January 11, 2016 concerning the support facilities construction in Midland County, Texas. This review is part of the National Environmental Policy Act (NEPA) evaluation for Federal Aviation Administration (FAA). We have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

The proposed project is considered to be "prior converted" and is exempt. The Farmland Conversion Impact Rating (Form AD-1006) indicating the exemption is enclosed. We encourage the use of accepted erosion control methods during the construction of this project.

If you have any questions, please contact me at (254) 742-9826 or by email at micki.yoder@tx.usda.gov.

Sincerely,

JO YODER

Digitally signed by JO YODER
DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=JO YODER, 0.9.2342.19200300.100.1.1=12001000351761
Date: 2016.01.14 16:16:48 -06'00'

Micki Yoder
NRCS Soil Conservationist

Attachment

COMANCHE NATION

Federal Aviation Administration Southwest Region, Airports Division
Attn: John MacFarlane
10101 Hillwood Parkway
Texas 76177

March 11, 2016

Re: Midland International Air & Space Port
Aerospace Development Park
Tribal Coordination
City of Midland, Midland County, Texas

Dear Mr. MacFarlane :

In response to your request, the above reference project has been reviewed by staff of this office to identify areas that may potentially contain prehistoric or historic archeological materials. The location of your project has been cross referenced with the Comanche Nation site files, where an indication of ***"No Properties"*** have been identified.

Please contact this office at (580) 595-9960/9618 if you require additional information on this project.

This review is performed in order to identify and preserve the Comanche Nation and State cultural heritage, in conjunction with the State Historic Preservation Office.

Regards

Comanche Nation Historic Preservation Office
Theodore E. Villicana ,Resource Technician
#6 SW "D" Avenue , Suite C
Lawton, OK. 73502

Appendix C – Land Use & Zoning

Compatible Land Use

Midland International Air and Space Port (Airport or MAF) is centrally located approximately 10 miles west of Midland, Texas and 10 miles east of Odessa, Texas. The City of Midland owns and operates the Airport and has land use jurisdiction for the incorporated areas on and west of the Airport. The majority of the area beyond the Airport property is unincorporated land of Midland County. See **Figure 1**.

Midland serves as the hub of the oil and gas industry in West Texas. Oil and gas wells are a common feature in the unincorporated areas around the Airport. Industrial, commercial, and retail development exists along the Business 20 and Interstate Highway 20 corridors (major east-to-west transportation routes traversing the southern portions of Midland and Odessa). Existing residential, schools, and other noise-sensitive uses exist more than two miles away from the Airport.

Figure 2 shows a representation of the existing land use pattern for the incorporated areas on and around the Airport. The majority of Airport property is designated as "Public Lands." The project site includes three existing land use designations: Public Lands, Office, and Vacant.

The zoning designations for the incorporated area around MAF are depicted on **Figure 3**. As indicated in the exhibit, the Airport and surrounding areas are zoned as Industrial Park District, Planned District, and Local Retail. These zoning designations allow development typically compatible with airport operations.

The Midland Master Plan 2025 provides guidance for future development within the City of Midland. The *Midland International Airport Business Development Plan (2002)* and the *Midland International Airport Master Plan Update (2002)* were considered when the Midland Master Plan 2025 was developed. The Midland Master Plan 2025 acknowledges the Airport as an important economic development tool for the City of Midland and for the region.

Figure 4 shows the future land use plan for the incorporated areas on and around the Airport. The Airport property is designated as Public/Semi-Public which is intended for educational, governmental, or institutional uses. The area surrounding the Airport and north of Business 20 is designated as Industrial/Mixed Use. The area south of the Airport between Business 20 and Interstate Highway 20 is planned for Business Park uses. The Industrial Park at the Airport is in a concentrated area between Interstate and Business 20 and is intended for high quality industrial and nonresidential development.

The industrial land use surrounding the Airport was identified by the *Midland International Airport Business Development Plan (2002)* as an industrial site with numerous advantages, including "where air, highway, and rail converge" (page 4). Midland County does not have any specific planning and zoning requirements for the unincorporated areas of the county.

Compatible land use is discussed in *FAA Order 5050.4B, Airport Environmental Handbook*, as follows: "the compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of the noise impacts related to that airport." The degree of annoyance which people suffer from

aircraft noise varies depending upon their activities at any given time. The concept of "land use compatibility" has arisen from the variation in human tolerance of aircraft noise.

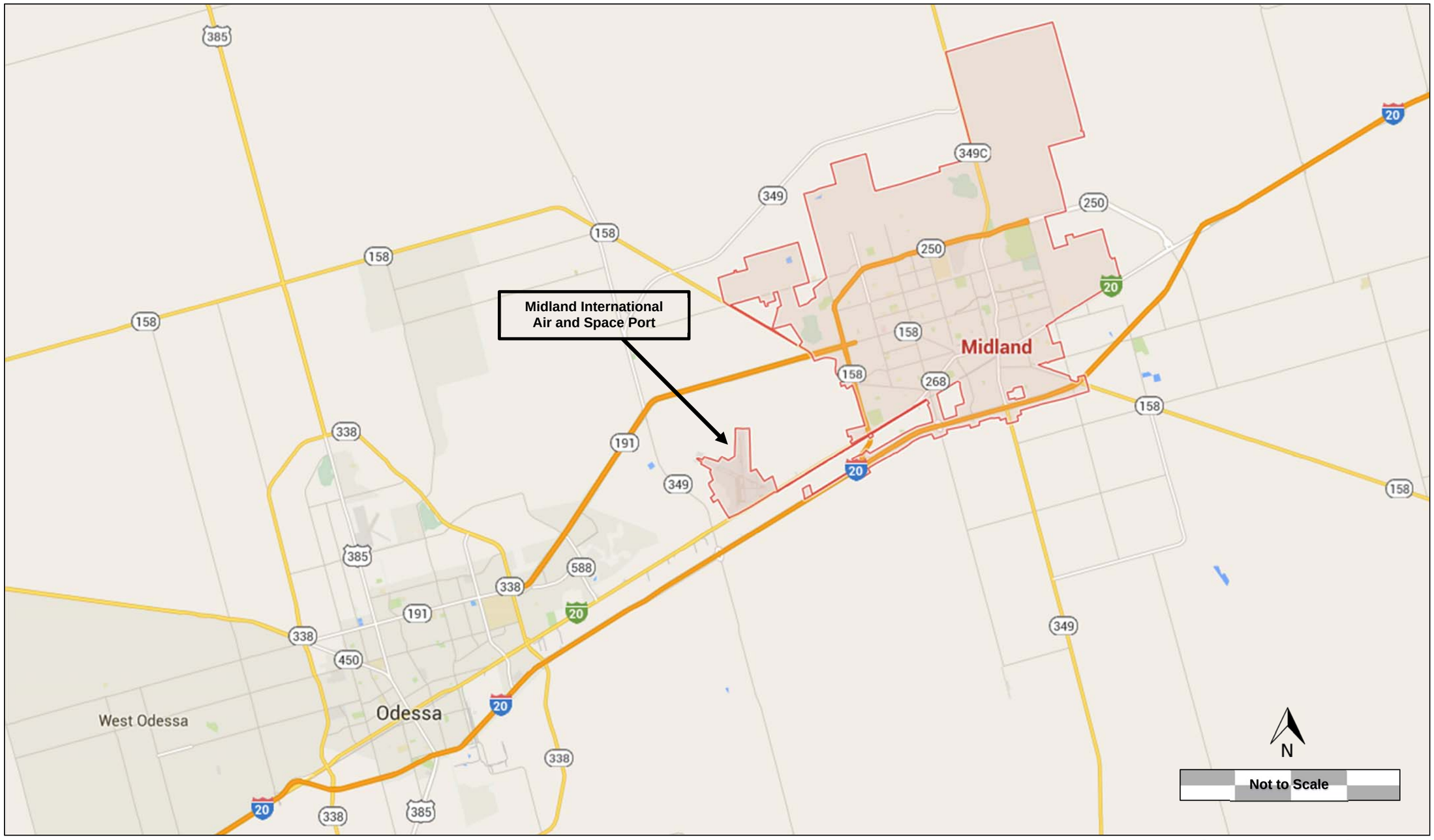
In addition, according to FAA Advisory Circular (AC) 150/5200-33B, *Hazardous Wildlife Attractants on or near Airports*, the FAA requires that consideration be given to the potential increases in wildlife attractants that a project may create and that an assessment be taken of potential incompatible land uses near airports such as solid waste landfills, waste water treatment facilities, and wetlands that may act as wildlife attractants.

Existing zoning and land uses as well as planned land uses within and around the proposed project area are compatible with Airport operations and in particular the proposed development of the Park.

No significant land use changes will occur with either the Preferred Alternative or the No-Build Alternative. The proposed Midland International Space Port Business Park (Park) will be located within existing Airport property and existing land use patterns will remain unchanged. No noise sensitive areas (residential, educational, health, religious, park or recreational, wildlife refuges, or cultural and historical) will be introduced or impacted through the establishment of the Park. Further, the proposed action complies with restrictions that land adjacent to and in immediate vicinity of the Airport is used for activities and purposes compatible with normal airport operations (in accordance with the Airport's required assurance under 49 USC 47107(a)(10) of the 1982 Airport Act). Based on this information, it is determined that the Preferred Alternative and the No-Build Alternative are compatible with existing and planned land uses.

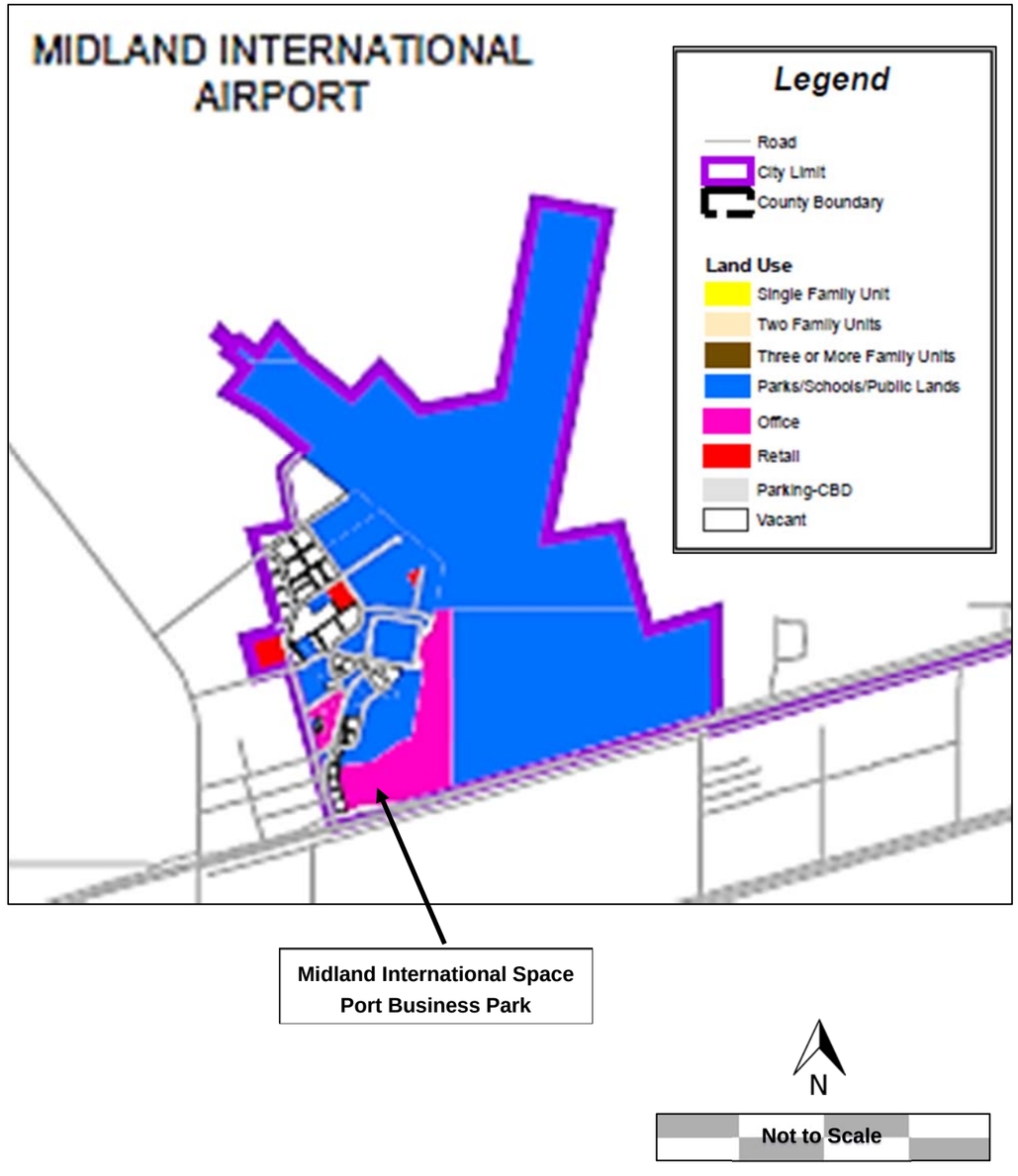
Per an evaluation from local organizations authorized to plan for the development of the area surrounding the Airport, the Airport itself is categorized as a land use type of Public Lands and is zoned as Industrial park District, Planned District, and Local Retail. The proposed action would be allowed under the existing and planned classifications.

Analysis indicates that the proposed project does not have the potential to create a wildlife attractant (pursuant with FAA Advisory Circular 150/5200-33A, *Hazardous Wildlife Attractants on or Near Airports*). No wetlands, open water, or habitat will be created as a result of establishing the business park. Construction of improvements to the site will require separate analysis to determine their potential to create wildlife attractants; however, the park is not expected to increase wildlife or bird hazards over the current conditions.



Source: Google Maps, April 2015

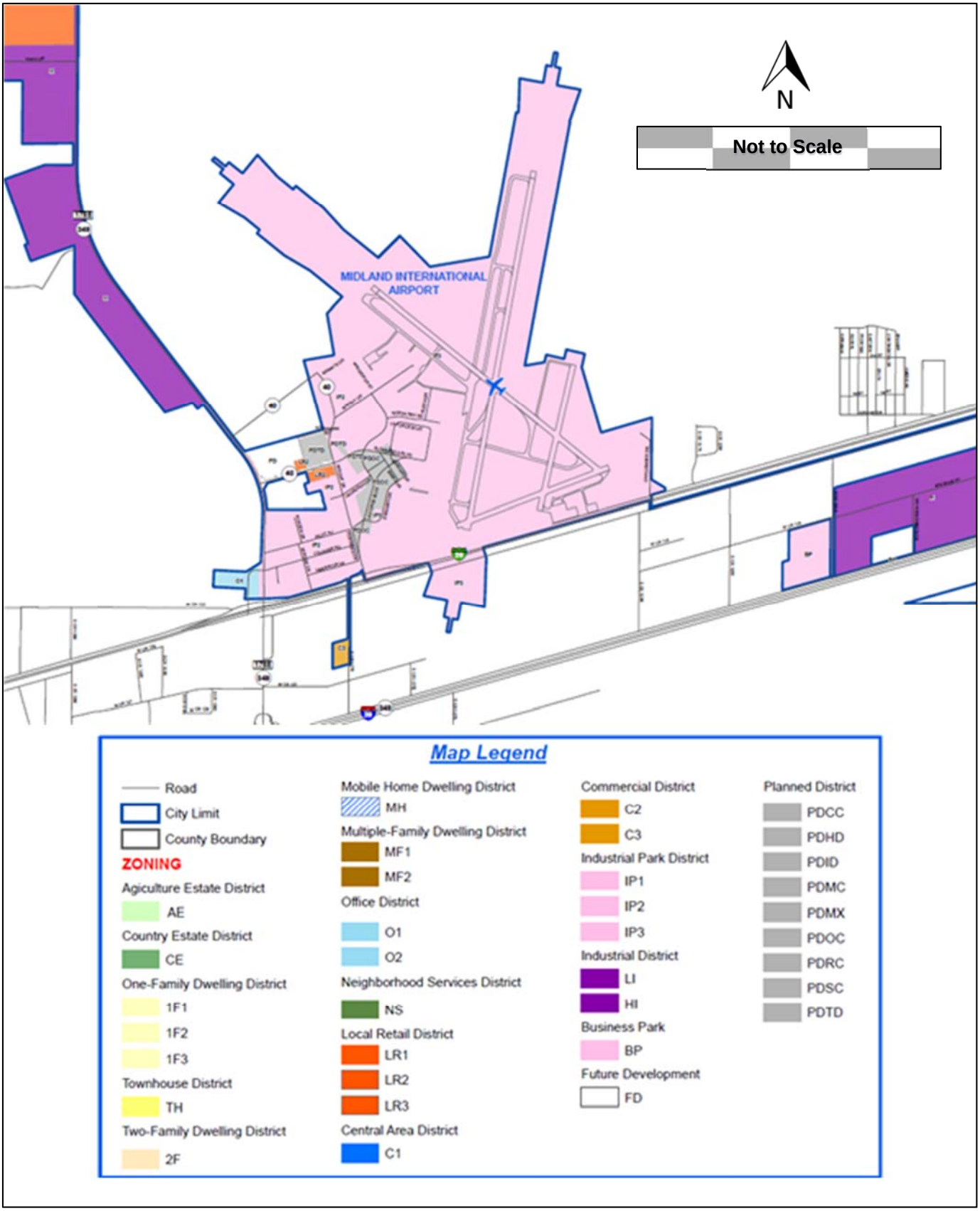
Figure 1: Location Map



Sources: Google (May 2015) and City of Midland Master Plan 2025

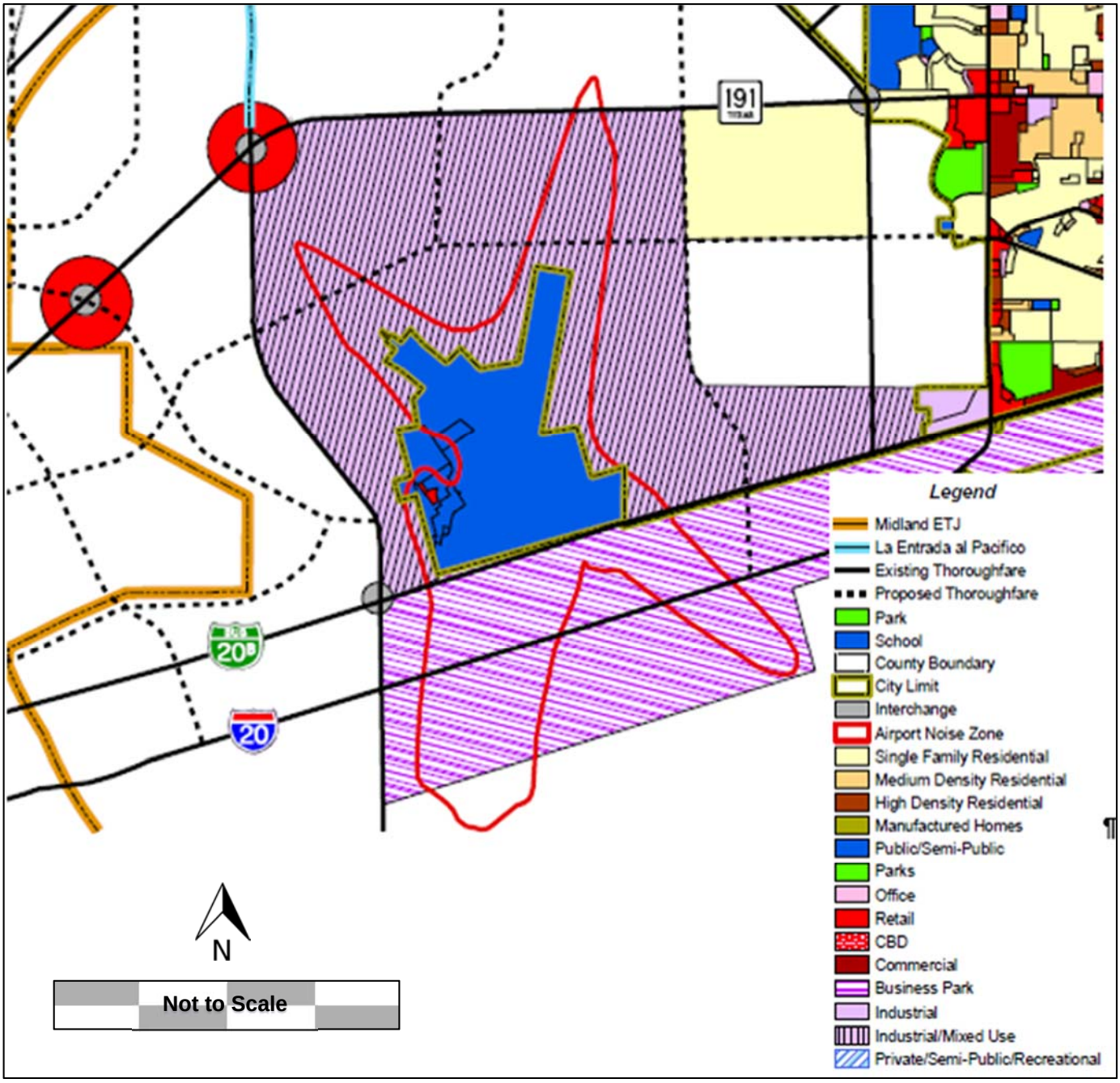
Prepared by Mead & Hunt

Figure 2: Existing Land Uses



Source: City of Midland Master Plan 2025
Prepared by: Mead & Hunt

Figure 3: Zoning Map



Source: City of Midland Master Plan 2025
Prepared by: Mead & Hunt

Figure 4: Future Land Use Plan

Appendix D – Phase I ESA

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 30, 2015

CERTIFIED MAIL

Mr. Frank Salvato
City of Midland
300 North Loraine
Midland, TX 79701

Re: Leaking Petroleum Storage Tank (LPST) ID Number Assignment and Corrective Action Requirements for Midland International Air and Space Port, 9506 La Force Blvd, Midland, Midland County, Texas
RN101236750; CN602242612
LPST ID No. 119786 - Priority 4.0 - Facility ID No. NA; R - 7

Dear Mr. Salvato:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the Summary of Environmental Assessment report dated November 5, 2015, documenting a release at the above-referenced facility. **The LPST ID number 119786 has been assigned to your case and should be included on all future correspondence.**

The City has indicated that a roadway and associated improvements are planned within the property, including the northeastern portion. The need for any additional corrective action to address this release should not impede the City's plans for development. Additionally, the TCEQ does not require regulatory closure for the LPST site prior to the proposed construction.

Please note that you are required to conduct an investigation for soil and groundwater cleanup according to Title 30, Texas Administrative Code (TAC), Section 334.71-334.85. We request that you contact an environmental consulting firm registered as a Corrective Action Specialist (CAS) and knowledgeable in hydrogeology and contaminant assessment to discuss investigation requirements at your facility.

Please submit a risk-based assessment report (Assessment Report Form (ARF)) before March 1, 2106. Please note that all correspondence should be submitted to Mail Code

(MC) - 137 at the Central Office in Austin. Should you have any questions, please contact me at 512-239-5695. We appreciate your cooperation.

Sincerely,

Victoria K. Modak

Victoria K. Modak, Technical Specialist
PST/DCRP Section
Remediation Division
Texas Commission on Environmental Quality

VKM/hmw
119786.lad.doc

Enclosures: Regulatory Responsibilities
Specific Comments
PST Pamphlet Order Form

Regulatory Responsibilities

Emergency Abatement

The TCEQ is responsible for protecting waters in the state as well as public health and safety from contamination that may result when a release occurs from a storage tank system. As the responsible party, you must pursue whatever actions are necessary to minimize any imminent impacts or threats to human health and safety and to stabilize any adverse conditions caused by this release. Should any emergency abatement actions become necessary as a result of this release incident, you must immediately notify the local TCEQ Regional Office as well as the Central Office in Austin.

Non-Aqueous Phase Liquid (NAPL)

If assessment activities reveal the presence of any non-aqueous phase liquid (NAPL), then you are required to immediately implement a recovery program which effectively removes the product from all impacted monitoring wells, the tank hold, the piping chase, etc., to the maximum extent practicable and to notify this office immediately. Appropriate corrective action should be pursued to ensure that all NAPL is continuously removed. You are required to report the results of NAPL recovery efforts pursuant to 30 TAC Section 334.79.

Conducting a Drinking Water Survey Report

A Drinking Water Survey will be required if analytical data from a groundwater sample is above the PST action levels. The Texas Water Code (TWC) §26.408 requires the TCEQ, within 30 days of the date the TCEQ receives notice or otherwise becomes aware of groundwater contamination from a properly-constructed well, to notify owners and users of private drinking water wells that may be affected by the groundwater contamination (ingestion standards exceeded). Please refer to TCEQ web site at http://www.tceq.state.tx.us/remediation/twc26_408.html for further details. Please include the **Drinking Water Survey** as a stand-alone document with your Risk-Based Assessment Report. If we do not receive written acknowledgment that you will perform the survey or we do not receive the Drinking Water Survey Report by the established time frames, the TCEQ will use a state contractor to conduct the survey and may seek to recover from you the costs of performing the survey.

Notification for Affected Property Owners of Off-site Contamination

You are required to notify all parties affected by the contamination. If you determine that contamination from the release has migrated off-site, or if you are required by the TCEQ to conduct further assessment or other corrective actions off-site, then you must notify the affected landowner(s) within 30 days of documenting the impact. Please note that landowners may include the owner of the land on which the tanks are located, and state and local owners of right-of-way properties. For the purpose of this requirement, notice shall be through any means described in 30 TAC Section 334.82(a). **Please provide documentation to the TCEQ that the affected landowner(s) has/have been notified within 30 days of the date notification was provided. Be aware that failure to notify affected parties as required by 30 TAC Section 334.82(a) herein is grounds for formal enforcement proceedings.**

Permanent Removal of the Underground Storage Tank (UST) system

If you permanently remove your underground storage tank (UST) system from service, you are required to submit permanent-removal-from-service documentation (if not submitted previously) in accordance with 30 TAC Section 334.55. For reporting and sampling requirements for both USTs and above-ground storage tanks (ASTs), please refer to *Investigating and Reporting Releases from PSTs* (RG-411). You must also submit revised UST or AST tank registration forms (TCEQ-0724 or TCEQ-0659, respectively) to the TCEQ PST Registration Team (address is on forms) when tanks are removed from service.

Financial Assurance

Please note that TCEQ rules require tanks to be covered by financial assurance (typically insurance) pursuant to Title 30, TAC, Chapter 37. It is important to contact your insurance company or agent promptly regarding filing a claim.

LPST Program Guidance

Please refer to the *Guidance for Risk-Based Assessments at LPST Sites in Texas* (RG-175) which describes the process for completing a typical risk-based site assessment. You may request or download TCEQ forms and guidance from our website at http://www.tceq.texas.gov/remediation/pst_rp/downloads.html. Please be advised that it is your obligation to bring the site to closure. All corrective action activities must be performed in accordance with all applicable regulations and guidance.

PST State Lead Program

The Responsible Party Remediation Program will be responsible for the regulatory coordination of this facility unless you are advised otherwise in writing. Unless you demonstrate financial inability to the executive director's satisfaction, the agency will continue to designate you the Responsible Party for undertaking all necessary corrective actions to address this release incident. The PST State-Lead Program may be able to conduct necessary corrective actions at your site; however, you must provide sufficient proof of financial inability in order to qualify. Additionally, you may be asked for the status of your insurance claim. If you think you are financially unable to continue corrective action, contact the TCEQ project manager within 14 days of the date of this letter to request a State Lead application packet. Documents requested must be completed and submitted for review and approval to the PST/DCRP Section Mail Code (MC) - 137 as referenced in the packet's cover letter. For specifics on the evaluation of financial assurance, you may contact the Financial Assurance Section at 512/239-1738. Please be advised that you are still responsible for environmental correction action activities until this site is accepted into the PST State Lead program.

Specific Comments

1. Because a groundwater sample was above action levels, a Drinking Water Survey will be required. The Texas Water Code (TWC) §26.408 requires the TCEQ, within 30 days of the date the TCEQ receives notice or otherwise becomes aware of groundwater contamination from a properly-constructed well, to notify owners and users of private drinking water wells that may be affected by the groundwater contamination (ingestion standards exceeded). Please refer to TCEQ web site at http://www.tceq.state.tx.us/remediation/twc26_408.html for further details.

PETROLEUM STORAGE TANK DOCUMENTS

Copies of the following guidance documents are available free of charge from the Texas Commission on Environmental Quality, PST/DCRP Section, at MC-137, P.O. Box 13087, Austin, Texas 78711-3087 or phone 512/239-2201:

____	RG-14	*Soil and Groundwater Sampling and Analysis (4/95)*
____	RG-19	*Soil Boring and Monitor Well Installation (10/93)*
____	RG-36	*Risk-Based Corrective Action for Leaking Storage Tank Sites (1/94)*
____	RG-41	*Corrective Action Plans for LPST Sites (11/96)*
____	RG-91	*Guidance Manual for Risk Assessment Contaminant Fate and Transport Modeling (5/94)*
____	RG-175	*Guidance for Risk-Based Assessments at LPST Sites in Texas (10/95)*
____	RG-261	*Operation, Monitoring and Performance of Remedial Systems at LPST Sites (10/96)*

The following documents are available from the Texas Commission on Environmental Quality, PST Program wed page, at http://www.tceq.state.tx.us/remediation/pst_rp/downloads.html#IOM

Guidance

____	RG-523/PST-06	*Groundwater Monitoring and Reporting For LPST Sites (6/14)*
____	RG-411	*Investigating and Reporting Releases for Petroleum Storage Tanks (8/12)*

Forms

____	TCEQ-00013	*Groundwater Monitoring Report Form (Revised 6/14)*
____	TCEQ-0017	*Field Activity Report Form (8/31/09)*
____	TCEQ-0025	*Product Recovery Report Form (8/27/09)*
____	TCEQ-0028	*Site Closure Request Form (8/31/09)*
____	TCEQ-0030	*Final Site Closure Report Form (8/31/09)*
____	TCEQ-0495	*Construction Notification Form (5/7/02)*
____	TCEQ-0507	*Notice of Corrective Action (8/26/09)*
____	TCEQ-0562	*Assessment Report Form (8/27/09)*
____	TCEQ-00621	*Release Determination Report Form (Revised 1/15)*
____	TCEQ-0659	*Aboveground Storage Tank Registration Form (4/18/02)*
____	TCEQ-0694	*Notice of Remedial System Installation (NRSI) Form (8/31/09)*
____	TCEQ-0695	*Remedial Technology Screening (RTS) Form* (8/20/09)
____	TCEQ-0696	*Operation, Monitoring, and Performance Report (OMPR) Form (8/27/09)*
____	TCEQ-0707	*CAP Worksheets (7/18/08)*
____	TCEQ-0724	*UST Registration & Self Certification Form (2/21/13)*
____	TCEQ-20097	*Incident Report Form (12/07)*
____	TCEQ-20428	*Correspondence Identification Form (6/08)*

If you should have questions concerning the above referenced documents, please contact the PST/DCRP Section at 512/239-2201.

Summary of Environmental Assessment

Aerospace Development Park

NEC of La Force Boulevard and Highway 80 East

Midland, Midland County, Texas 79706

November 5, 2015

Terracon Project Nos. 94157612A & AR157008B

Prepared for:
City of Midland
In Care of, Parkhill Smith & Cooper, Inc.
Midland, Texas

Prepared by:
Terracon Consultants, Inc.
Lubbock, Texas

November 5, 2015

City of Midland
In care of Parkhill Smith & Cooper, Inc.
1700 West Wall Street, Suite 100
Midland, TX 79701

Attn: Mr. Danny G. Winchester
P: (432) 697-1447
E: dwinchester@team-psc.com

Re: Summary of Environmental Assessment
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Midland County, Texas 79706
Terracon Project Nos. 94147612A and AR157008B

Dear Mr. Winchester:

Terracon Consultants, Inc. (Terracon) is pleased to provide a summary of the findings of Terracon's Phase I Environmental Site Assessment (ESA – Terracon Project No. 94147612A), dated November 20, 2014, and subsequent soil and groundwater investigation activities conducted from February 2015 to the present. This letter report is intended to provide an executive summary of the findings to date. A formal comprehensive report will be prepared subsequent to further evaluation of the release and correspondence with TCEQ personnel.

Phase I ESA Summary

Terracon's Phase I ESA was conducted consistent with the procedures included in ASTM E 1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the responsible charge of Valarie A. Stewart, LEED AP and Environmental Professional, who performed the site reconnaissance on November 5, 2014.

At the time of the Phase I ESA, the site consisted of an approximate 45-acre tract of land located on the northeast corner of La Force Boulevard and West Highway 80 East in Midland, Midland County, Texas. The site is located within the southwest portion of the Midland International Airport and was improved with an approximate 60,000-square foot (sf) hangar (currently under renovation), an approximate 13,500-sf commercial building, an approximate 12,000-sf commercial building, railroad tracks, a sewage lift station, concrete and asphalt-paved parking areas, security fencing, and utilities. The site is currently owned by the City of Midland and was occupied at the time of inspection by Central Transport, a supply distribution company, and Sting, a supplier and distributor of hydraulic fracturing sand.

Historical Information

Review of the historical information for the site identified the following chronology and historical ownership/usage:

- 1927 – Established as a private landing field and flying school;
- July 1939 – Air field is sold to the City of Midland;
- July 1941 – Municipal airport is leased to the United States government and operated as a World War II United States Army Air Force bombardier-training base;
- June 1946 – Air field is deactivated as a military installation; and
- July 1947 - Air field is returned to the City of Midland, and has remained under the responsible charge of the City of Midland to date.

Historical Facility Features

Multiple structures associated with the Army Air Force base were developed on the northern portion of the site prior to 1946 and were removed prior to 1996, with the exception of three industrial buildings. Two of these buildings were removed in September of 2015 following the abatement of asbestos containing materials (ACM).

A railroad spur has transected the site from southwest to northeast since at least 1946.

Based on the interview with the on-site facility manager conducted during the ESA, an aircraft refueling underground storage tank (UST) system was noted to be historically present on the northeastern portion of the site. The facility manager noted that this UST system was likely installed sometime between 1960 and the late 1970s. The USTs were reportedly removed prior to the development of an office building in the late 1980s to early 1990s. The former office building reportedly later sank as a result of improperly-compacted fill material used to backfill the tankhold. Reports documenting the on-site UST removal were not available for review. Based on the potential duration of operations and absence of analytical data associated with the removal of the USTs, the former on-site aviation fuel service operations constituted a recognized environmental condition (REC) to the site.

Following completion of the Phase I ESA, it was discovered that the aviation UST system was installed under the operation of the Army Air Force in the early 1940s.

A waste water treatment facility was located on the northeast portion of the site (south of the above-noted UST system) from at least 1946 until approximately 2005 when the associated water pits were excavated and backfilled. Reports documenting the removal of the waste water treatment facility were not available for review. Based on unknown chemical usage and handling procedures associated with former on-site operations, the former on-site waste water treatment facility constituted a REC to the site.

Conclusions

The following RECs were identified in connection with the site:

- Former on-site aircraft fueling USTs;
- Former on-site waste water treatment facility;
- Former on-site Rich-Air Company/Aircraft Maintenance International Airport facility (aircraft painting and maintenance);
- Former on-site Midland Army Airfield facility;
- Current northwest-adjoining fuel farm USTs;

- Current (SkyWest Aviation) and former (Exro Aviation Inc.) northwest-adjacent aircraft painting and maintenance facilities;
- Current (Empire Airlines) and former (AvSource) northwest-adjacent aircraft painting and maintenance facilities; and
- Former north-adjoining aircraft repair/maintenance facilities.

Complete findings and conclusions can be found in Terracon's finalized Phase I ESA, issued on November 20, 2014.

Recommendations

Terracon recommended subsurface investigation to evaluate whether potential releases from the above-mentioned RECs had impacted environmental media on the site.

Soil and Groundwater Investigation Summary

At the request of the City of Midland and Parkhill Smith & Cooper, Inc. (PSC), Terracon's investigation activities were undertaken in response to the ESA findings summarized above.

The objective of the investigation activities was to evaluate the presence of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and/or RCRA 8 metals in the on-site soils and groundwater at concentrations above relevant laboratory reporting limits as a result of potential releases from the above-mentioned RECs.

Terracon's field investigation activities began in February of 2015 and remain ongoing. Below is a summary of Terracon's advancement of soil borings and installation of monitoring wells across the site.

February/March 2015

- Advanced 12 soil borings (SB-1 through SB-12)
- Installed 6 groundwater monitoring wells (MW-1 through MW-6)

July 2015

- Advanced 2 soil borings (SB-17 and SB-19A)
- Installed 6 groundwater monitoring wells (MW-7 through MW-12)

August/September 2015

- Advanced 1 soil boring (SB-20)
- Installed 5 groundwater monitoring wells (MW-13 through MW-17)

A topographic map depicting the location of the site is included as Exhibit 1 (Attachment A), and a site plan depicting the site boundaries, pertinent site features, and sampling locations is included as Exhibit 2 (Attachment A).

Shallow groundwater at the site is present at depths ranging from 28 to 31 feet below the top of monitoring well casing and generally flows to the northeast, as showing in Exhibit 3 (Attachment A).

Laboratory Data Summary

Based on a review of the laboratory data, the site is impacted predominately by petroleum hydrocarbons, arsenic, barium, silver and select PAHs at concentrations above applicable TCEQ Petroleum Storage Tank (PST) Action Levels or Texas Risk Reduction Program (TRRP) Action Levels. In addition, phase-separated hydrocarbons (PSH) have been observed in monitoring wells MW-2, MW-3, MW-7, MW-8, MW-9, MW-10, MW-12, and MW-13. Measured PSH thicknesses have ranged from 0.02 feet in monitoring wells MW-9 and MW-13 to 1.87 feet in monitoring well MW-10. Laboratory data summary tables (Tables 1 through 5) and a groundwater gauging summary table (Table 6) are included in Attachment B. A map depicting PSH thickness as observed during the latest gauging event is included as Exhibit 5.

Review of the data indicates a correlation between elevated concentrations of arsenic and barium in groundwater and the presence of PSH or elevated concentrations of dissolved-phase petroleum hydrocarbons. Potential sources of arsenic and barium that would lead to this condition were not identified during the Phase I ESA. The arsenic and barium concentrations detected in the groundwater appear to be associated with the solubilization of naturally-occurring arsenic and barium as a result of altered geochemistry and reducing conditions caused by biodegradation of the petroleum hydrocarbon plume. This correlation will continue to be evaluated over the course of investigative and remedial activities.

Soils and groundwater exhibiting chemical concentrations above PST and/or TRRP Action Levels or exhibiting the presence of PSH are located in areas proximate to or down-gradient of the above-noted UST system. A map illustrating the location of the historic UST system in relation to current on-site features and sampling locations is included as Exhibit 2.

Areas to the west of soil borings/monitoring wells MW-1, MW-16, MW-20, SB-14, and SB-15 did not exhibit COC concentrations above applicable PST or TRRP Action Levels. Maps illustrating the noted line of demarcation traversing the site are included as Exhibits 4 and 4A.

Conclusions

Based on the results of our assessment, the area of the site located west of the above-noted sampling locations does not appear to be subject to further assessment or response action under PST or TRRP. The release of petroleum hydrocarbons from the former aviation fueling system on the northeast portion of the site appears to be subject to further assessment and response action through the TCEQ PST Program based on the nature and source of the release.

Recommendations

Terracon recommends that the City of Midland and PSC submit this report to the TCEQ Remediation Division and request concurrence from the TCEQ that the area of the site located west of the line of demarcation running from monitoring well MW-16 through MW-1 is not subject to further assessment or response action.

PSH removal activities and continued assessment are planned to address the known petroleum hydrocarbon and resulting barium impacts observed east of the proposed line of demarcation. The elevated barium concentrations in groundwater appear to be a result of altered geochemistry associated with biodegradation of the petroleum hydrocarbon plume. Based on the source and nature of the hydrocarbon release, Terracon recommends that the City of Midland and PSC request that the site closure process remain within the TCEQ PST Program.

Terracon recommends that the responsible party and their consultant interact with the TCEQ to develop a remedial work plan that integrates PSH removal, risk-based management, and possible

institutional and/or engineered controls to achieve site closure. This interaction would follow TCEQ review of this submittal and receipt of associated TCEQ comments by the responsible party.

Terracon appreciates this opportunity to provide environmental consulting services to the City of Midland and Parkhill Smith & Cooper, Inc. Should you have any questions or require additional information, please do not hesitate to contact either of the undersigned.

Sincerely,
Terracon Consultants, Inc.

Erin Loyd, P.G.
Office Manager
Lubbock

STATE OF TEXAS
ERIN LOYD
SOIL SCIENCE
11540
LICENSED
PROFESSIONAL GEOSCIENTIST
11/5/15

Scott M. Kolodziej, P.G.
Environmental Department Manager
Dallas

Attachments

Attachment A:
Exhibit 1 – Topographic Map
Exhibit 2 – Site Plan
Exhibit 3 – Groundwater Gradient Map
Exhibit 4 – Line of Demarcation Map
Exhibit 4A – Line of Demarcation Map (Detailed View)
Exhibit 5 – PSH Thickness Map

Attachment B:
Table 1 – Soil Analytical Summary (VOCs, BTEX, and TPH)
Table 2 – Soil Analytical Summary (RCRA 8 Metals)
Table 3 – Groundwater Analytical Summary (VOCs, BTEX, and TPH)
Table 4 – Groundwater Analytical Summary (RCRA 8 Metals)
Table 5 – Groundwater Analytical Summary (PAHs)
Table 6 – Groundwater Gauging Data

Attachment C:
Laboratory Data Sheets (on CD)

ATTACHMENT A

Exhibit 1 – Topographic Map
Exhibit 2 – Site Plan
Exhibit 3 – Groundwater Gradient Map
Exhibit 4 – Line of Demarcation Map
Exhibit 4A – Line of Demarcation Map (Detailed View)
Exhibit 5 – PSH Thickness Map

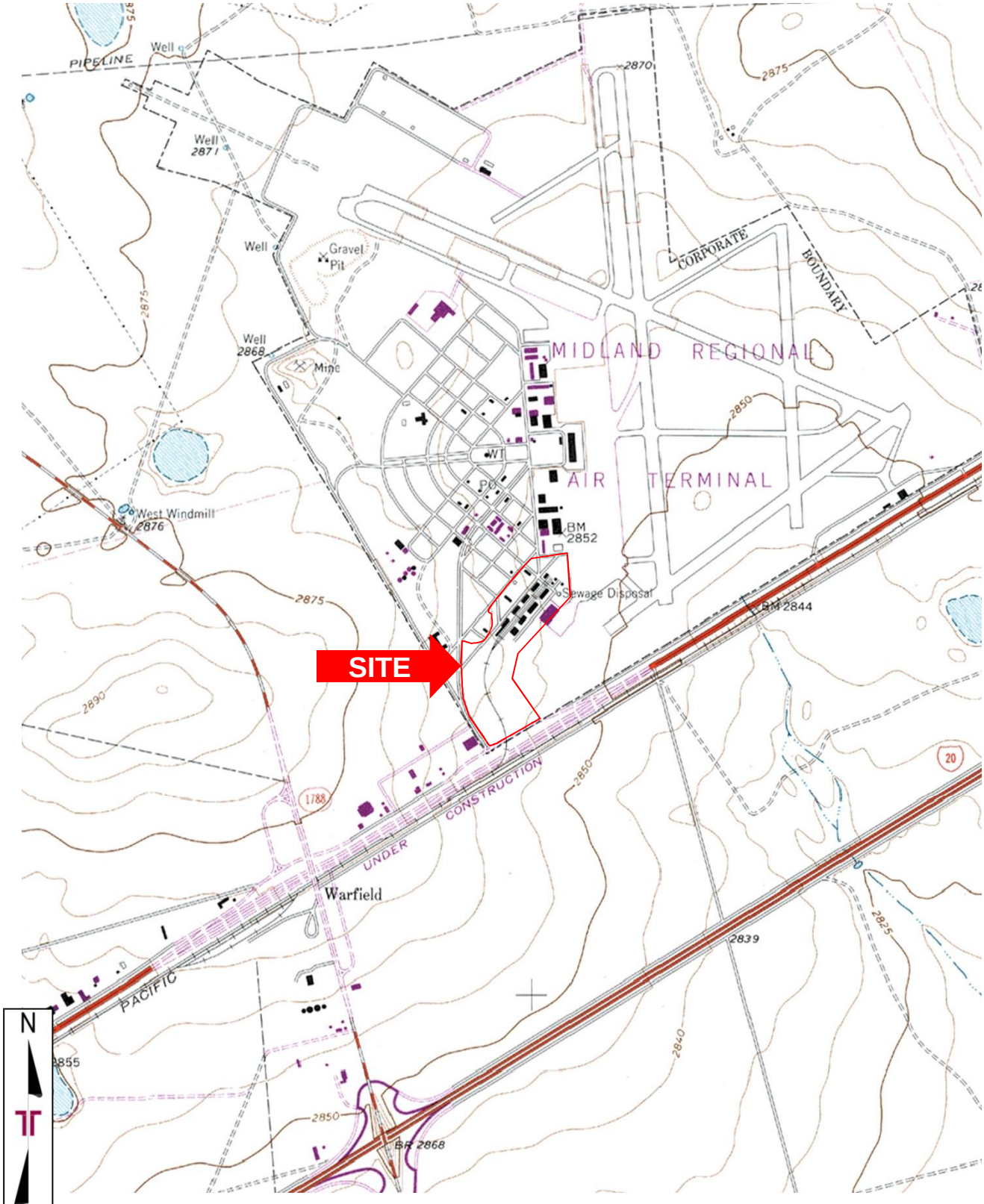


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project No.	AR157008B
Scale:	1" = 2,000'
Quad Name:	Southwest Midland
Date:	1959, Revised 1974

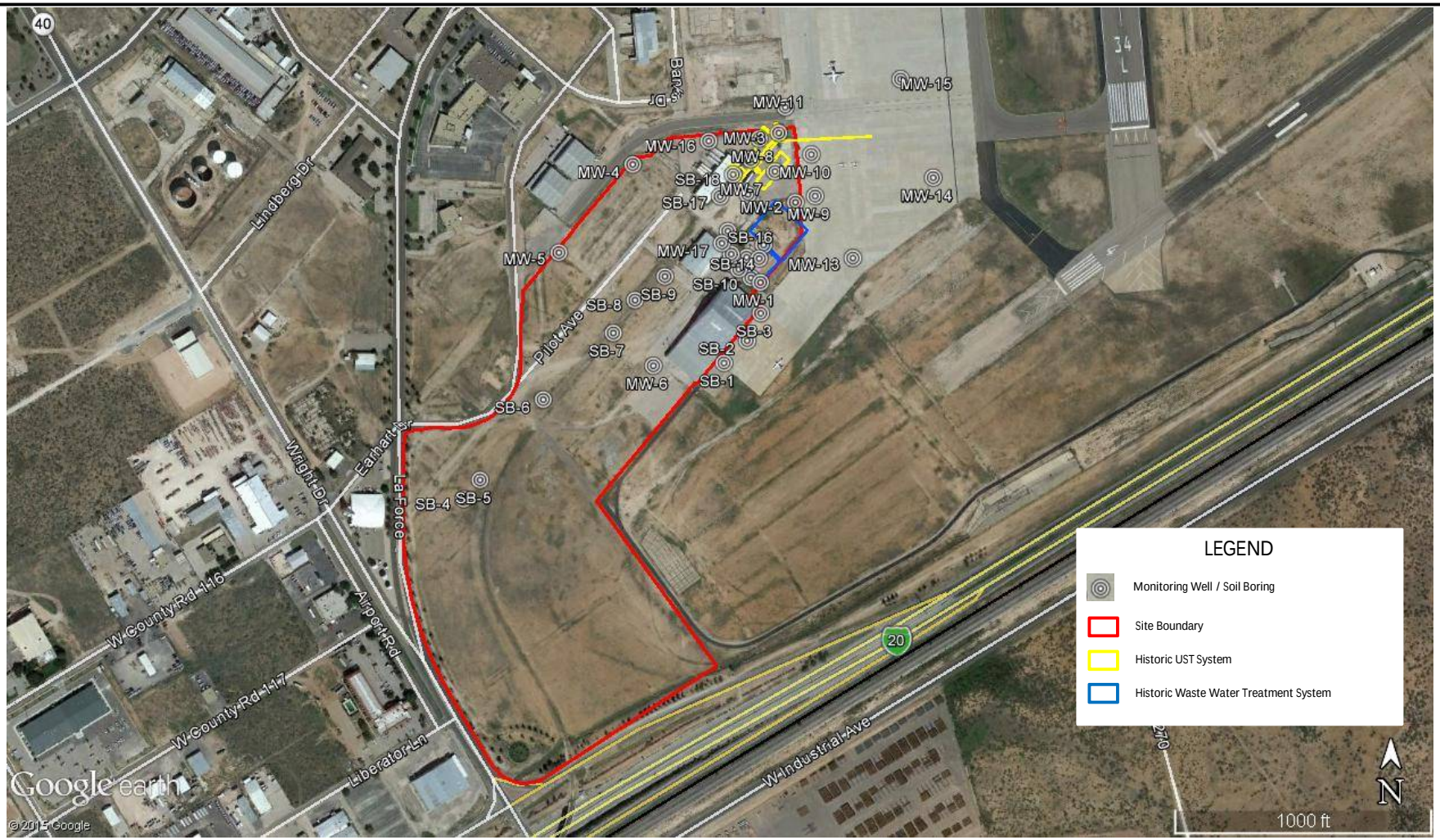
Terracon
Consulting Engineers & Scientists
5827 50th Street, Suite 1 Lubbock, Texas 79424
PH. (806) 300-0140 FAX (806) 797-0947

TOPOGRAPHIC MAP

Aerospace Development Park
NEC of La Force Boulevard & Highway 80 East
Midland, Midland County, Texas

EXHIBIT

1



Project No.	AR157008B
Scale:	As Shown
Source:	Google Earth
Date:	2015

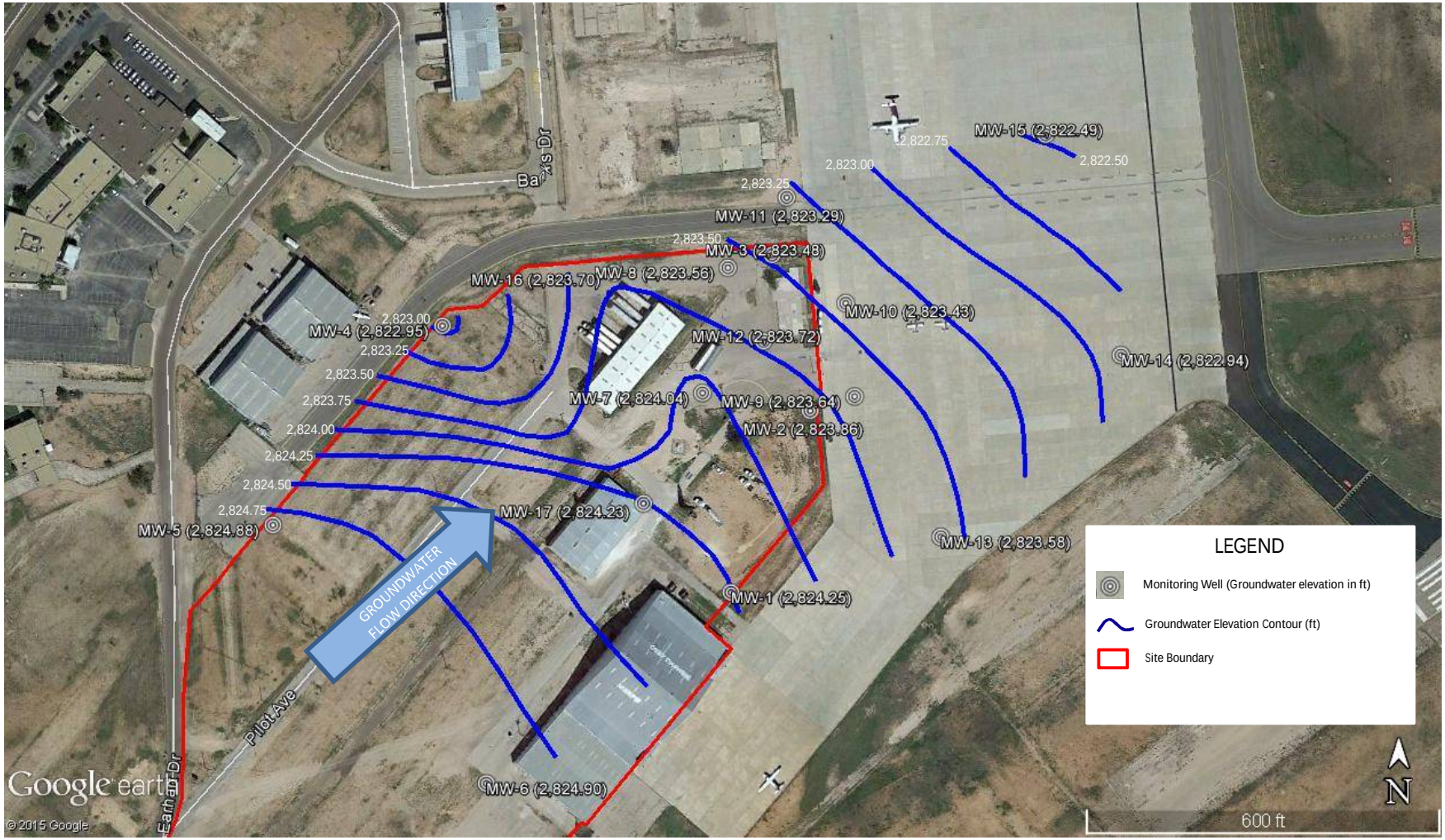
Terracon
Consulting Engineers & Scientists
5827 50th Street, Suite 1 Lubbock, Texas 79424
Phone (806) 300-0140 Fax (806) 797-0947

SITE PLAN

Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Midland County, Texas

EXHIBIT

2



Project No.	AR157008B
Scale:	As Shown
Source:	Google Earth
Date:	2015

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Consulting Engineers & Scientists
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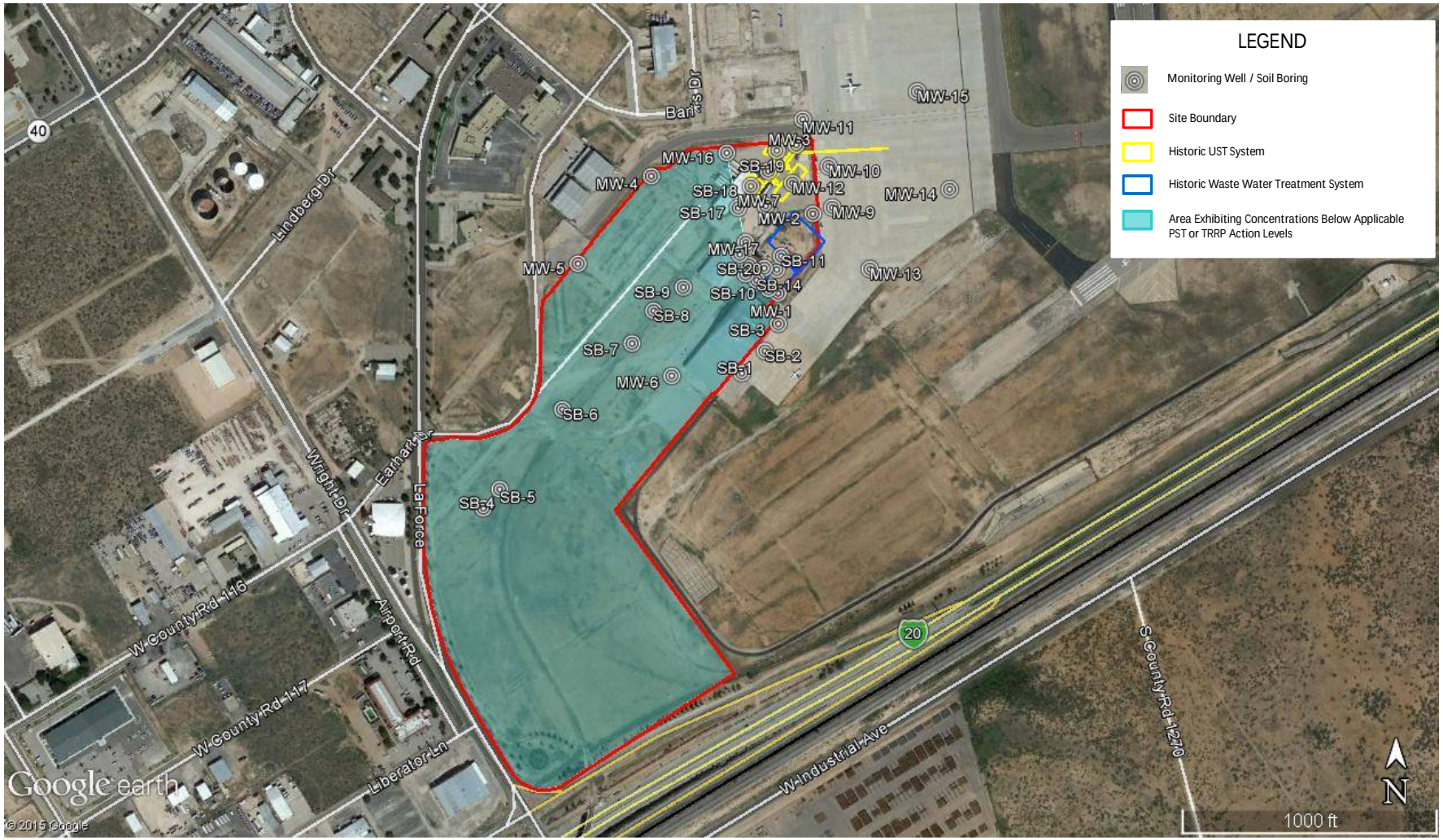
GROUNDWATER FLOW DIRECTION

Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Midland County, Texas

EXHIBIT 3



Project No.	AR157008B
Scale:	As Shown
Source:	Google Earth
Date:	2015

Terracon
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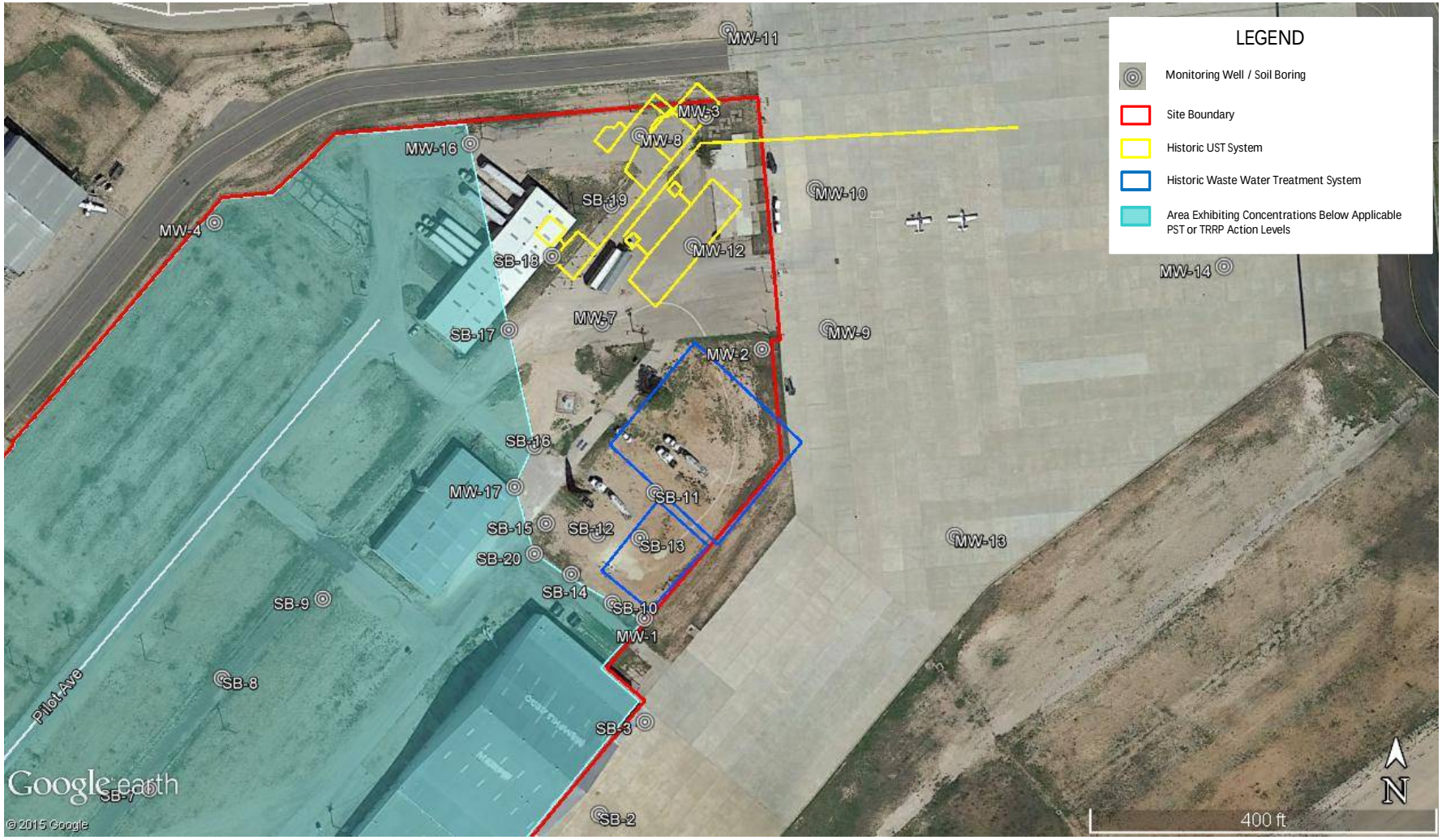
Phone (806) 300-0140 Fax (806) 797-0947

LINE OF DEMARCATION MAP

Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Midland County, Texas

EXHIBIT

4



Project No.	AR157008B
Scale:	As Shown
Source:	Google Earth
Date:	2015

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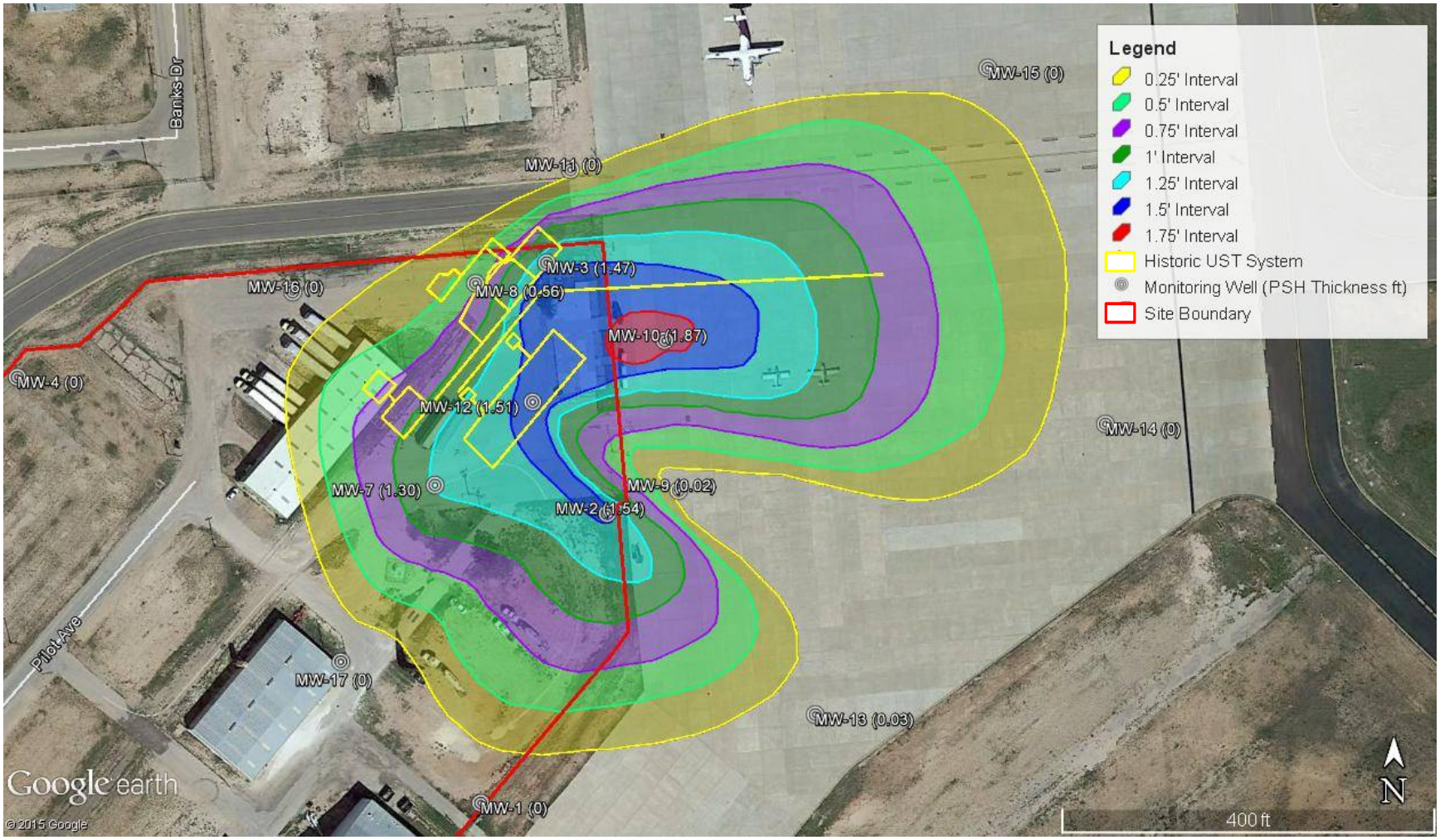
LINE OF DEMARCATION MAP (DETAILED VIEW)

Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Midland County, Texas

EXHIBIT

4A



Project No.	AR157008B
Scale:	As Shown
Source:	Google Earth
Date:	2015

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PSH THICKNESS MAP – NOVEMBER 2015

Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Midland County, Texas

EXHIBIT

5

ATTACHMENT B

Table 1 – Soil Analytical Summary (VOCs, BTEX, and TPH)
Table 2 – Soil Analytical Summary (RCRA 8 Metals)
Table 3 – Groundwater Analytical Summary (VOCs, BTEX, and TPH)
Table 4 – Groundwater Analytical Summary (RCRA 8 Metals)
Table 5 – Groundwater Analytical Summary (PAHs)
Table 6 – Groundwater Gauging Data

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - VOCs[1], BTEX[2] and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Depth (feet bgs)	Sample Date	VOCs[4] (mg/kg)	BTEX[4] (mg/kg)	TPH (TX1005) (mg/kg)			
					C6-C12	>C12-C28	>C28-C35	C6-C35
SB-1	9 - 10	02/25/15	ND	ND	<17	<17	<17	<17
SB-2	9 - 10	02/25/15	ND	ND	<16	<16	<16	<16
SB-3	7 - 8	02/25/15	ND	ND	<17	<17	<17	<17
SB-4	13 - 14	03/02/15	ND	ND	<16	<16	<16	<16
SB-5	14 - 15	03/02/15	ND	ND	<15	<15	<15	<15
SB-6	11 - 12	03/02/15	ND	ND	<15	<15	<15	<15
SB-7	11 - 12	03/02/15	ND	ND	<17	<17	<17	<17
SB-8	15 - 16	03/02/15	ND	ND	<15	<15	<15	<15
SB-9	11 - 12	03/02/15	Acetone - 0.034 J	ND	<16	<16	<16	<16
SB-10	11 - 12	03/02/15	ND	ND	<18	<18	<18	<18
TCEQ PST Program (30 TAC 334) Surface Soil (0 - 15 ft) Action Levels			---	---	There are no published PST Action Levels for TPH under the PST Program; however, TPH is utilized to screen for polycyclic aromatic hydrocarbons (PAHs).			
Texas Risk Reduction Program (TRRP) Action Levels[5]			Acetone - 43	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 65 mg/kg >C12-C35: 200 mg/kg			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
3. TPH = Total petroleum hydrocarbons analyzed by TCEQ Method TX1005
4. Only those constituents detected above the laboratory sample detection limit (SDL) are reported
5. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitation limit (MQL)
< = Constituent not detected above the indicated laboratory sample detection limit (SDL)
ND = Constituents not detected above applicable laboratory SDLs
NA = Not analyzed

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - VOCs[1], BTEX[2] and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Depth (feet bgs)	Sample Date	VOCs[4] (mg/kg)	BTEX[4] (mg/kg)	TPH (TX1005) (mg/kg)			
					C6-C12	>C12-C28	>C28-C35	C6-C35
SB-11	18 - 19	03/02/15	ND	ND	<16	**16 J**	**24 J**	**40 J**
SB-12	10 - 11	03/02/15	ND	ND	<15	<15	<15	<15
SB-17	17.5 - 20	07/01/15	NA	ND	<28	<28	<28	<28
SB-18	17.5 - 20	07/01/15	NA	ND	<28	<28	<28	<28
SB-19A	17.5 - 20	07/17/15	NA	Ethylbenzene - 0.00273 Total Xylenes - 0.0121	<16.0	<16.0	<16.0	<16.0
SB-20	17.5 - 20	09/02/15	NA	ND	<16.6	<16.6	<16.6	<16.6
TCEQ PST Program (30 TAC 334) Surface Soil (0 - 15 ft) Action Levels			---	Ethylbenzene - 36.8 Total Xylenes - 117	There are no published PST Action Levels for TPH under the PST Program; however, TPH is utilized to screen for polycyclic aromatic hydrocarbons (PAHs).			
TCEQ PST Program (30 TAC 334) Subsurface Soil (Greater than 15 ft) Action Levels			---	Ethylbenzene - 36.8 Total Xylenes - 117				
Texas Risk Reduction Program (TRRP) Action Levels[5]			---	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 65 mg/kg >C12-C35: 200 mg/kg			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - VOCs[1], BTEX[2] and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Depth (feet bgs)	Sample Date	VOCs[4] (mg/kg)	BTEX[4] (mg/kg)	TPH (TX1005) (mg/kg)			
					C6-C12	>C12-C28	>C28-C35	C6-C35
MW-1	14 - 15	02/25/15	ND	ND	<17	<17	<17	<17
MW-2	27 - 28	02/26/15	Bromodichloromethane - 0.0112 J n-Butylbenzene - 0.011 J trans-1,3-Dichloropropene - 0.00903 J Isopropylbenzene - 0.0424 2-Butanone (MEK) - 0.128 J n-Propylbenzene - 0.0219 J 1,1,2,2-Tetrachloroethane - 0.0161 J **1,2,3-Trichloropropane - 0.0220 J**	Ethylbenzene - 0.050	<15	<15	<15	<15
MW-3	29 - 30	02/26/15	Bromodichloromethane - 0.0169 J n-Butylbenzene - 0.0099 J sec-Butylbenzene - 0.0281 tert-Butylbenzene - 0.0139 J Chlorobenzene - 0.00667 J Chloroform - 0.00559 J trans-1,3-Dichloropropene - 0.00866 J Isopropylbenzene - 0.555 p-Isopropyltoluene - 0.00694 J 2-Butanone (MEK) - 0.156 J n-Propylbenzene - 0.0189 J 1,1,2,2-Tetrachloroethane - 0.00990 J **1,2,3-Trichloropropane - 0.0212 J** 1,2,4-Trimethylbenzene - 0.00816 J 1,2,3-Trimethylbenzene - 0.0165 J	ND	<16	<16	<16	<16
TCEQ PST Program (30 TAC 334) Surface Soil (0 - 15 ft) Action Levels			---	Ethylbenzene - 36.8	There are no published PST Action Levels for TPH under the PST Program; however, TPH is utilized to screen for polycyclic aromatic hydrocarbons (PAHs).			
TCEQ PST Program (30 TAC 334) Subsurface Soil (Greater than 15 ft) Action Levels			---	Ethylbenzene - 36.8				
Texas Risk Reduction Program (TRRP) Action Levels[5]			Bromodichloromethane - 0.065 n-Butylbenzene - 150 sec-Butylbenzene - 85 tert-Butylbenzene - 100 Chlorobenzene - 1.1 Chloroform - 1.0 trans-1,3-Dichloropropene - 0.036 Isopropylbenzene - 350 p-Isopropyltoluene - 230 2-Butanone (MEK) - 29 n-Propylbenzene - 45 1,1,2,2-Tetrachloroethane - 0.023 1,2,3-Trichloropropane - 0.00053 1,2,4-Trimethylbenzene - 49 1,2,3-Trimethylbenzene - 32	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 65 mg/kg >C12-C35: 200 mg/kg			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
3. TPH = Total petroleum hydrocarbons analyzed by TCEQ Method TX1005
4. Only those constituents detected above the laboratory sample detection limit (SDL) are reported
5. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitation limit (MQL)
< = Constituent not detected above the indicated laboratory sample detection limit (SDL)
ND = Constituents not detected above applicable laboratory SDLs
NA = Not analyzed
Bold denotes concentrations that exceed applicable TCEQ PST or TRRP Action Levels

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - VOCs[1], BTEX[2] and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Depth (feet bgs)	Sample Date	VOCs[4] (mg/kg)	BTEX[4] (mg/kg)	TPH (TX1005) (mg/kg)			
					C6-C12	>C12-C28	>C28-C35	C6-C35
MW-4	29 - 30	02/26/15	ND	ND	<15	<15	<15	<15
MW-5	26 - 27	02/26/15	ND	ND	<15	<15	<15	<15
MW-6	27 - 28	03/02/15	ND	ND	<16	<16	<16	<16
MW-7A	27.5 - 30	07/17/15	NA	Ethylbenzene - 0.000626 J	**19.3 J**	**70.7**	<18.0	**90.0**
MW-8A	30 - 32.5	07/17/15	NA	Ethylbenzene - 0.0244 Total Xylenes - 0.124	<16.0	<16.0	<16.0	<16.0
MW-9A	25 - 27.5	07/16/15	NA	Ethylbenzene - 0.0623	<16.0	**93.0**	<16.0	**93.0**
MW-10A	27.5 - 30	07/16/15	NA	ND	<16.0	<16.0	<16.0	<16.0
MW-11A	27.5 - 30	07/16/15	NA	ND	<15.0	<15.0	<15.0	<15.0
MW-12	27.5 - 30	07/16/15	NA	ND	<15.0	**22.8 J**	<15.0	**22.8 J**
MW-13	27.5 - 30	08/31/15	NA	ND	<16.4	<16.4	<16.4	<16.4
MW-14	32.5 - 35	09/01/15	NA	ND	<16.6	<16.6	<16.6	<16.6
MW-15	30 - 32.5	08/31/15	NA	ND	<15.8	<15.8	<15.8	<15.8
MW-16	30 - 32.5	09/01/15	NA	ND	<17.4	<17.4	<17.4	<17.4
MW-17	35 - 37.5	09/02/15	NA	ND	<17.8	<17.8	<17.8	<17.8
TCEQ PST Program (30 TAC 334) Surface Soil (0 - 15 ft) Action Levels			---	Ethylbenzene - 36.8 Total Xylenes - 117	There are no published PST Action Levels for TPH under the PST Program; however, TPH is utilized to screen for polycyclic aromatic hydrocarbons (PAHs).			
TCEQ PST Program (30 TAC 334) Subsurface Soil (Greater than 15 ft) Action Levels			---	Ethylbenzene - 36.8 Total Xylenes - 117				
Texas Risk Reduction Program (TRRP) Action Levels[5]			---	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 65 mg/kg >C12-C35: 200 mg/kg			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
3. TPH = Total petroleum hydrocarbons analyzed by TCEQ Method TX1005
4. Only those constituents detected above the laboratory sample detection limit (SDL) are reported
5. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitation limit (MQL)
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ND = Constituents not detected above applicable laboratory SDLs
NA = Not analyzed
Bold denotes concentrations that exceed applicable TCEQ PST or TRRP Action Levels

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - METALS[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Arsenic (mg/kg)	Barium (mg/kg)	SPLP[2] Barium (mg/L)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
SB-10	03/02/15	3 - 4	NA	111	NA	NA	NA	NA	NA	NA	NA
		7 - 8	NA	91.3	NA	NA	NA	NA	NA	NA	NA
		11 - 12	**9.6**	330	NA	0.34 J	15	12	0.020 J	0.75	**0.60 J**
		19 - 20	NA	124	NA	NA	NA	NA	NA	NA	NA
SB-11	03/02/15	4 - 5	NA	293	NA	NA	NA	NA	NA	NA	NA
		11 - 12	NA	304	NA	NA	NA	NA	NA	NA	NA
		18 - 19	**6.5**	190	NA	0.27 J	10	15	0.026	0.46 J	**1.3**
		19 - 20	NA	169	NA	NA	NA	NA	NA	NA	NA
SB-12	03/02/15	2 - 3	NA	**570**	NA	NA	NA	NA	NA	NA	NA
		19 - 20	4.7	**1,800**	NA	0.13 J	1.5	3	0.0070 J	<0.038	0.17 J
Texas Risk Reduction Program (TRRP) Action Levels[3]			5	440	2	1.5	2,400	3	0.0078*	2.3	0.48
Texas-Specific Background Concentration (TSBC)			5.9	300	---	NP	30	15	0.04	0.3	NP

1. Metals = RCRA 8 metals analyzed by EPA Methods 6020/7471A

2. SPLP = Synthentic Precipitation Leaching Procedure analyzed by EPA Method 1311

3. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area.

< = Constituent not detected above indicated laboratory sample detection limit (SDL)

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitiation limit (MQL)

NA = Not analyzed

Bold denotes concentrations that exceed applicable TCEQ TRRP Action Levels

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - METALS[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Arsenic (mg/kg)	Barium (mg/kg)	SPLP[2] Barium (mg/L)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
SB-13	07/01/15	17.5 - 20	4.52	70.5	NA	NA	NA	NA	NA	NA	0.34 J
SB-14	07/01/15	17.5 - 20	2.29	53.1	NA	NA	NA	NA	NA	NA	<0.16
SB-15	07/01/15	17.5 - 20	4.35	**602**	NA	NA	NA	NA	NA	NA	<0.16
			NA	**1,070**	NA	NA	NA	NA	NA	NA	NA
SB-16	07/01/15	17.5 - 20	3.82	83.8	NA	NA	NA	NA	NA	NA	<0.17
			NA	37.5	NA	NA	NA	NA	NA	NA	NA
SB-17	07/01/15	17.5 - 20	NA	117	NA	NA	NA	NA	NA	NA	NA
SB-18	07/01/15	17.5 - 20	NA	**510**	NA	NA	NA	NA	NA	NA	NA
SB-19A	07/17/15	17.5 - 20	4.35	177	NA	NA	NA	NA	NA	NA	<0.17
			NA	**481**	NA	NA	NA	NA	NA	NA	NA
SB-20	09/02/15	2.5 - 5.0	NA	0.565	NA	NA	NA	NA	NA	NA	NA
		17.5 - 20	4.97	350	NA	NA	NA	NA	NA	NA	NA
Texas Risk Reduction Program (TRRP) Action Levels[3]			5	440	2	1.5	2,400	3	0.0078*	2.3	0.48
Texas-Specific Background Concentration (TSBC)			5.9	300	---	NP	30	15	0.04	0.3	NP

1. Metals = RCRA 8 metals analyzed by EPA Methods 6020/7471A

2. SPLP = Synthentic Precipitation Leaching Procedure analyzed by EPA Method 1311

3. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area.

< = Constituent not detected above indicated laboratory sample detection limit (SDL)

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitiation limit (MQL)

NA = Not analyzed

Bold denotes concentrations that exceed applicable TCEQ TRRP Action Levels

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - METALS[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Arsenic (mg/kg)	Barium (mg/kg)	SPLP[2] Barium (mg/L)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
MW-2	02/26/15	4 - 5	NA	175	NA	NA	NA	NA	NA	NA	NA
		10 - 11	NA	**554**	NA	NA	NA	NA	NA	NA	NA
		18 - 19	NA	69.8	NA	NA	NA	NA	NA	NA	NA
		27 - 28	0.853	104	NA	<0.083	1.95	1.5	<0.0029	<0.2	0.359 J
		39 - 40	NA	29.9	NA	NA	NA	NA	NA	NA	NA
MW-3	02/26/15	4 - 5	NA	**568**	NA	NA	NA	NA	NA	NA	NA
		22 - 23	NA	57.2	NA	NA	NA	NA	NA	NA	NA
		36 - 37	NA	24.5	NA	NA	NA	NA	NA	NA	NA
Texas Risk Reduction Program (TRRP) Action Levels[3]			5	440	2	1.5	2,400	3	0.0078*	2.3	0.48
Texas-Specific Background Concentration (TSBC)			5.9	300	---	NP	30	15	0.04	0.3	NP

1. Metals = RCRA 8 metals analyzed by EPA Methods 6020/7471A

2. SPLP = Synthentic Precipitation Leaching Procedure analyzed by EPA Method 1311

3. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area.

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Bold denotes concentrations that exceed applicable TCEQ TRRP Action Levels

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - METALS[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Arsenic (mg/kg)	Barium (mg/kg)	SPLP[2] Barium (mg/L)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
MW-7A	07/17/15	27.5 - 30	0.951	35.5	NA	NA	NA	NA	NA	NA	<0.190
			NA	36.0	NA	NA	NA	NA	NA	NA	NA
MW-8A	07/17/15	30 - 32.5	1.71	63.9	NA	NA	NA	NA	NA	NA	<0.170
MW-9A	07/16/15	25 - 27.5	1.45	102	NA	NA	NA	NA	NA	NA	<0.180
MW-10A	07/16/15	27.5 - 30	1.27	53.6	NA	NA	NA	NA	NA	NA	<0.170
MW-11A	07/16/15	27.5 - 30	4.15	**1,520**	NA	NA	NA	NA	NA	NA	<0.160
			NA	**1,060**	NA	NA	NA	NA	NA	NA	NA
MW-12	07/16/15	27.5 - 30	1.69	29.1	NA	NA	NA	NA	NA	NA	<0.160
MW-13	08/31/15	2.5 - 5.0	NA	322	NA	NA	NA	NA	NA	NA	NA
		27.5 - 30	0.406 J	9.88	NA	NA	NA	NA	NA	NA	NA
MW-14	09/01/15	2.5 - 5.0	NA	**694**	NA	NA	NA	NA	NA	NA	NA
		32.5 - 35	1.15	177	NA	NA	NA	NA	NA	NA	NA
MW-15	08/31/15	2.5 - 5.0	NA	**1,190**	NA	NA	NA	NA	NA	NA	NA
		30 - 32.5	1.31	156	NA	NA	NA	NA	NA	NA	NA
MW-16	09/01/15	2.5 - 5.0	NA	**488**	0.118	NA	NA	NA	NA	NA	NA
		30 - 32.5	0.481 J	128	NA	NA	NA	NA	NA	NA	NA
MW-17	09/02/15	2.5 - 5.0	NA	271	NA	NA	NA	NA	NA	NA	NA
		35 - 37.5	0.783	171	NA	NA	NA	NA	NA	NA	NA
Texas Risk Reduction Program (TRRP) Action Levels[3]			5	440	2	1.5	2,400	3	0.0078*	2.3	0.48
Texas-Specific Background Concentration (TSBC)			5.9	300	---	NP	30	15	0.04	0.3	NP

1. Metals = RCRA 8 metals analyzed by EPA Methods 6020/7471A

2. SPLP = Synthentic Precipitation Leaching Procedure analyzed by EPA Method 1311

3. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area.

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NA = Not analyzed

Bold denotes concentrations that exceed applicable TCEQ TRRP Action Levels

TABLE 3
GROUNDWATER SAMPLE ANALYTICAL RESULTS - VOCs[1] BTEX[2], and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	VOCs[4] (mg/L)	BTEX[4] (mg/L)	TPH (TX1005 Rev. 3) (mg/L)			
				C6-C12	>C12-C28	>C28-C35	C6-C35
MW-1	03/03/15	ND	ND	<0.6	<0.6	<0.6	<0.6
	07/07/15	ND	ND	<0.6	<0.6	<0.6	<0.6
	09/13/15	NA	ND	<0.6	<0.6	<0.6	<0.6
MW-2	03/03/15	n-Butylbenzene - 0.00301 sec-Butylbenzene - 0.00481 tert-Butylbenzene - 0.00212 Isopropylbenzene - 0.523 p-Isopropyltoluene - 0.000721 J n-Propylbenzene - 0.0651 1,2,3-Trimethylbenzene - 0.00188	**Benzene - 0.369** Toluene - 0.000868 J **Ethylbenzene - 0.823** Naphthalene - 0.0517	**6.39**	<0.6	<0.6	**6.39**
	07/07/15	Not Sampled due to the presence of PSH[6]					
	09/14/15	NA	**Benzene - 0.396** Toluene - 0.000862 J Ethylbenzene - 0.611 Total Xylenes - 0.00221 J	**2.52**	<0.6	<0.6	**2.52**
TCEQ PST Program (30 TAC 334) Action Levels, Effective September 1, 2011		---	Benzene - 0.005 Toluene - 1 Ethylbenzene - 0.7 Total Xylenes - 10 Naphthalene - 0.73	There are no published PST Action Levels for TPH under the PST Program; however, the TPH concentrations are evaluated as a screening for polycyclic aromatic hydrocarbons (PAHs).			
Texas Risk Reduction Program (TRRP) Action Levels[5]		n-Butylbenzene - 1.2 sec-Butylbenzene - 0.98 tert-Butylbenzene - 0.98 Isopropylbenzene - 2.4 p-Isopropyltoluene - 2.4 n-Propylbenzene - 0.98 1,2,4-Trimethylbenzene - 1.2 1,2,3-Trimethylbenzene - 1.2 1,3,5-Trimethylbenzene - 1.2	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 0.98 mg/L >C12-C35: 0.98 mg/L			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
3. TPH = Total petroleum hydrocarbons analyzed by TCEQ Method TX1005
4. Only those constituents detected above the laboratory sample detection limit (SDL) are reported
5. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area
6. PSH = Phase separated hydrocarbons

< = Constituent not detected above the indicated laboratory SDL
ND = Not detected above applicable SDLs
PSH = Phase separated hydrocarbons
J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitiation limit (MQL)
NA = Not analyzed
NP = Not published
Bold denotes concentrations that exceed applicable TCEQ PST or TRRP Action Levels

TABLE 3
GROUNDWATER SAMPLE ANALYTICAL RESULTS - VOCs[1] BTEX[2], and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	VOCs[4] (mg/L)	BTEX[4] (mg/L)	TPH (TX1005 Rev. 3) (mg/L)			
				C6-C12	>C12-C28	>C28-C35	C6-C35
MW-3	03/03/15	sec-Butylbenzene - 0.00202 tert-Butylbenzene - 0.00261 Isopropylbenzene - 2.11 n-Propylbenzene - 0.00959 1,2,4-Trimethylbenzene - 0.00772 1,2,3-Trimethylbenzene - 0.0111 1,3,5-Trimethylbenzene - 0.00275	Toluene - 0.00108 J Ethylbenzene - 0.372 Total Xylenes - 0.0404 Naphthalene - 0.00519	**6.65**	<0.6	<0.6	**6.65**
	07/07/15	Not Sampled due to the presence of PSH					
	09/14/15	NA	Ethylbenzene - 0.294 Total Xylenes - 0.279	**9.2**	<0.6	**1.74**	**10.9**
TCEQ PST Program (30 TAC 334) Action Levels, Effective September 1, 2011		---	Benzene - 0.005 Toluene - 1 Ethylbenzene - 0.7 Total Xylenes - 10 Naphthalene - 0.73	There are no published PST Action Levels for TPH under the PST Program; however, the TPH concentrations are evaluated as a screening for polycyclic aromatic hydrocarbons (PAHs).			
Texas Risk Reduction Program (TRRP) Action Levels[4]		n-Butylbenzene - 1.2 sec-Butylbenzene - 0.98 tert-Butylbenzene - 0.98 Isopropylbenzene - 2.4 p-Isopropyltoluene - 2.4 n-Propylbenzene - 0.98 1,2,4-Trimethylbenzene - 1.2 1,2,3-Trimethylbenzene - 1.2 1,3,5-Trimethylbenzene - 1.2	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 0.98 mg/L >C12-C35: 0.98 mg/L			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
3. TPH = Total petroleum hydrocarbons analyzed by TCEQ Method TX1005
4. Only those constituents detected above the laboratory sample detection limit (SDL) are reported
5. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area
6. PSH = Phase separated hydrocarbons

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Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	VOCs[4] (mg/L)	BTEX[4] (mg/L)	TPH (TX1005 Rev. 3) (mg/L)			
				C6-C12	>C12-C28	>C28-C35	C6-C35
MW-4	03/03/15	Bromodichloromethane - 0.00398 Chloroform - 0.00235 J Isopropylbenzene - 0.00275	Ethylbenzene - 0.000589 J	<0.6	<0.6	<0.6	<0.6
	7/7/2015	NA	ND	<0.6	<0.6	<0.6	<0.6
	9/13/2015	NA	ND	<0.6	<0.6	**1.79**	**1.79**
MW-5	03/03/15	Bromodichloromethane - 0.00691 Chloroform - 0.00286 J Isopropylbenzene - 0.000702 J	ND	<0.6	<0.6	<0.6	<0.6
MW-6	03/03/15	Bromodichloromethane - 0.00306 Chlorodibromomethane - 0.000481 J Chloroform - 0.00125 J	ND	<0.6	<0.6	<0.6	<0.6
TCEQ PST Program (30 TAC 334) Action Levels, Effective September 1, 2011		---	Benzene - 0.005 Toluene - 1 Ethylbenzene - 0.7 Total Xylenes - 10 Naphthalene - 0.73	There are no published PST Action Levels for TPH under the PST Program; however, the TPH concentrations are evaluated as a screening for polycyclic aromatic hydrocarbons (PAHs).			
Texas Risk Reduction Program (TRRP) Action Levels[4]		Bromodichloromethane - 0.015 Chlorodibromomethane - 0.98 Chloroform - 0.24 Isopropylbenzene - 2.4	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 0.98 mg/L >C12-C35: 0.98 mg/L			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
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TABLE 3
GROUNDWATER SAMPLE ANALYTICAL RESULTS - VOCs[1] BTEX[2], and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	VOCs[4] (mg/L)	BTEX[4] (mg/L)	TPH (TX1005 Rev. 3) (mg/L)			
				C6-C12	>C12-C28	>C28-C35	C6-C35
MW-7	07/07/15	NA	**Benzene - 0.01** Ethylbenzene - 0.193 Total Xylenes - 0.00173 J	**2.33**	<0.6	<0.6	**2.33**
	09/13/15	NA	**Benzene - 0.0216** Ethylbenzene - 0.155 Total Xylenes - 0.00204 J	**1.23**	<0.6	<0.6	**1.23**
MW-8	07/07/15	Not Sampled due to the presence of PSH					
	09/13/15	NA	Ethylbenzene - 0.333 Total Xylenes - 0.456	**5.89**	<0.6	**1.74**	**7.63**
MW-9	07/07/15	NA	**Benzene - 0.801** Ethylbenzene - 0.291	**2.37**	<0.6	<0.6	**2.37**
	09/14/15	NA	**Benzene - 1.58** Ethylbenzene - 0.673	**3.38**	<0.6	<0.6	**3.38**
TCEQ PST Program (30 TAC 334) Action Levels, Effective September 1, 2011		---	Benzene - 0.005 Toluene - 1 Ethylbenzene - 0.7 Xylenes, Total - 10 Naphthalene - 0.73	There are no published PST Action Levels for TPH under the PST Program; however, the TPH concentrations are evaluated as a screening for polycyclic aromatic hydrocarbons (PAHs).			
Texas Risk Reduction Program (TRRP) Action Levels[4]		n-Butylbenzene - 1.2 sec-Butylbenzene - 0.98 tert-Butylbenzene - 0.98 Isopropylbenzene - 2.4 p-Isopropylbenzene - NP n-Propylbenzene - 0.98 1,2,4-Trimethylbenzene - 1.2 1,2,3-Trimethylbenzene - 1.2 1,3,5-Trimethylbenzene - 1.2	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 0.98 mg/L >C12-C35: 0.98 mg/L			

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2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
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TABLE 3
GROUNDWATER SAMPLE ANALYTICAL RESULTS - VOCs[1] BTEX[2], and TPH[3] (TX1005)
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	VOCs[4] (mg/L)	BTEX[4] (mg/L)	TPH (TX1005 Rev. 3) (mg/L)			
				C6-C12	>C12-C28	>C28-C35	C6-C35
MW-10	07/07/15	NA	**Benzene - 0.484** Toluene - 0.0011 J **Ethylbenzene - 1.37** Total Xylenes - 0.00211 J	**7.21**	<0.6	<0.6	**7.21**
	09/14/15	NA	**Benzene - 0.560** **Ethylbenzene - 1.63**	**10.9**	<0.6	<0.6	**10.9**
MW-11	07/07/15	NA	**Benzene - 0.0105** Ethylbenzene - 0.017	<0.6	<0.6	<0.6	<0.6
	09/14/15	NA	**Benzene - 0.0109** Ethylbenzene - 0.0746	**0.787 J**	<0.6	**1.75**	**2.54**
MW-12	07/20/15	NA	**Benzene - 0.642** Toluene - 0.025 **Ethylbenzene - 1.31** Total Xylenes - 0.823	**8.64**	<0.6	<0.6	**8.64**
	09/13/15	NA	**Benzene - 0.866** Toluene - <0.0390 **Ethylbenzene - 1.15** Total Xylenes - 0.619	**6.29**	<0.6	**1.69**	**7.97**
TCEQ PST Program (30 TAC 334) Action Levels, Effective September 1, 2011		---	Benzene - 0.005 Toluene - 1 Ethylbenzene - 0.7 Xylenes, Total - 10 Naphthalene - 0.73	There are no published PST Action Levels for TPH under the PST Program; however, the TPH concentrations are evaluated as a screening for polycyclic aromatic hydrocarbons (PAHs).			
Texas Risk Reduction Program (TRRP) Action Levels[4]		n-Butylbenzene - 1.2 sec-Butylbenzene - 0.98 tert-Butylbenzene - 0.98 Isopropylbenzene - 2.4 p-Isopropylbenzene - NP n-Propylbenzene - 0.98 1,2,4-Trimethylbenzene - 1.2 1,2,3-Trimethylbenzene - 1.2 1,3,5-Trimethylbenzene - 1.2	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 0.98 mg/L >C12-C35: 0.98 mg/L			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
3. TPH = Total petroleum hydrocarbons analyzed by TCEQ Method TX1005
4. Only those constituents detected above the laboratory sample detection limit (SDL) are reported
5. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area
6. PSH = Phase separated hydrocarbons

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TABLE 3
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Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	VOCs[4] (mg/L)	BTEX[4] (mg/L)	TPH (TX1005 Rev. 3) (mg/L)			
				C6-C12	>C12-C28	>C28-C35	C6-C35
MW-13	09/14/15	NA	Benzene - 0.00257 Ethylbenzene - 0.00175	<0.6	<0.6	<0.6	<0.6
MW-14	09/14/15	NA	**Benzene - 2.14** Toluene - 0.00273 J **Ethylbenzene - 0.163** Total Xylenes - 0.00336	**4.45**	<0.6	<0.6	**4.45**
MW-15	09/14/15	NA	**Benzene - 0.0156** Ethylbenzene - 0.0403	<0.6	<0.6	<0.6	<0.6
MW-16	09/13/15	NA	ND	<0.6	<0.6	<0.6	<0.6
MW-17	09/13/15	NA	ND	<0.6	<0.6	<0.6	<0.6
TCEQ PST Program (30 TAC 334) Action Levels, Effective September 1, 2011		---	Benzene - 0.005 Toluene - 1 Ethylbenzene - 0.7 Xylenes, Total - 10 Naphthalene - 0.73	There are no published PST Action Levels for TPH under the PST Program; however, the TPH concentrations are evaluated as a screening for polycyclic aromatic hydrocarbons (PAHs).			
Texas Risk Reduction Program (TRRP) Action Levels[4]		n-Butylbenzene - 1.2 sec-Butylbenzene - 0.98 tert-Butylbenzene - 0.98 Isopropylbenzene - 2.4 p-Isopropylbenzene - NP n-Propylbenzene - 0.98 1,2,4-Trimethylbenzene - 1.2 1,2,3-Trimethylbenzene - 1.2 1,3,5-Trimethylbenzene - 1.2	---	TRRP-27 Tier 1 TPH PCL Screening Criteria/Action Levels: C6-C12: 0.98 mg/L >C12-C35: 0.98 mg/L			

1. VOCs = Volatile organic compounds analyzed by EPA Method 8260B
2. BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8260B
3. TPH = Total petroleum hydrocarbons analyzed by TCEQ Method TX1005
4. Only those constituents detected above the laboratory sample detection limit (SDL) are reported
5. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area
6. PSH = Phase separated hydrocarbons

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TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS - METALS[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
MW-1	03/03/15	0.00468	0.286	<0.00016	0.00145 J	0.000575 J	<0.000049	0.00248	0.000331 J
	07/07/15	0.00612	0.301	NA	NA	NA	NA	NA	NA
	09/13/15	0.012	0.244	NA	NA	NA	NA	NA	NA
MW-2	03/03/15	**0.0225**	**6.35**	<0.00016	0.00186 J	0.00655	<0.000049	<0.00038	<0.00031
	09/14/15	**0.0284**	**7.77**	NA	NA	NA	NA	NA	NA
MW-3	03/03/15	0.00473	**12.9**	<0.00016	<0.000540	0.00256	<0.000049	<0.00038	<0.00031
	09/14/15	<0.0065	**9.76**	NA	NA	NA	NA	NA	NA
MW-4	03/03/15	0.00719	0.102	<0.00016	0.00201	<0.000240	<0.000049	0.00322	<0.00031
	07/07/15	0.00604	0.108	NA	NA	NA	NA	NA	NA
	09/13/15	0.00867 J	0.113	NA	NA	NA	NA	NA	NA
MW-5	03/03/15	0.00605	0.0997	<0.00016	0.00283	0.000449 J	<0.000049	0.00288	<0.00031
Texas Risk Reduction Program (TRRP) Action Levels[2]		0.01	2	0.005	0.1	0.015	0.002	0.05	0.12

1. Metals = RCRA 8 metals analyzed by EPA Methods 6020/7470A

2. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

< = Constituent not detected above the indicated laboratory sample detection limit (SDL)

NA = Not analyzed

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitiation limit (MQL)

Bold denotes concentrations that exceed TRRP Action Levels

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS - METALS[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
MW-6	03/03/15	0.00662	0.0853	<0.00016	0.00231	0.000369 J	<0.000049	0.00286	<0.00031
MW-7	07/07/15	**0.0177**	**9.16**	NA	NA	NA	NA	NA	NA
	09/13/15	**0.0205**	**7.61**	NA	NA	NA	NA	NA	NA
MW-8	09/13/15	0.0086 J	**12.1**	NA	NA	NA	NA	NA	NA
MW-9	07/07/15	**0.0366**	**8.23**	NA	NA	NA	NA	NA	NA
	09/14/15	**0.0826**	**8.84**	NA	NA	NA	NA	NA	NA
MW-10	07/07/15	**0.0624**	**10.2**	NA	NA	NA	NA	NA	NA
	09/14/15	**0.0791**	**10.4**	NA	NA	NA	NA	NA	NA
MW-11	07/07/15	0.00715	**4.11**	NA	NA	NA	NA	NA	NA
	09/14/15	0.0336	**5.91**	NA	NA	NA	NA	NA	NA
MW-12	07/20/15	**0.0397**	**14.5**	NA	NA	NA	NA	NA	NA
	09/13/15	**0.0407**	**14.8**	NA	NA	NA	NA	NA	NA
MW-13	09/14/15	**0.0293**	1.25	NA	NA	NA	NA	NA	NA
MW-14	09/14/15	**0.0777**	**14.5**	NA	NA	NA	NA	NA	NA
MW-15	09/14/15	**0.0253**	**5.07**	NA	NA	NA	NA	NA	NA
MW-16	09/13/15	<0.0065	0.165	NA	NA	NA	NA	NA	NA
MW-17	09/13/15	**0.0137**	0.324	NA	NA	NA	NA	NA	NA
Texas Risk Reduction Program (TRRP) Action Levels[2]		0.01	2	0.005	0.1	0.015	0.002	0.05	0.12

1. Metals = RCRA 8 metals analyzed by EPA Methods 6020/7470A

2. Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

< = Constituent not detected above the indicated laboratory sample detection limit (SDL)

NA = Not analyzed

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitiation limit (MQL)

Bold denotes concentrations that exceed TRRP Action Levels

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS - PAHs[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	PAHs (mg/L)	PST Program[2] Action Levels
MW-1	07/07/15	Anthracene - 0.0000145 J	11
		Benzo (a) anthracene - 0.00000608 J	0.000117
		Dibenzofuran - 0.00000192 J	0.146
		Naphthalene - 0.0000384 J	0.73
		Pyrene - 0.0000147 J	1.1
MW-2	03/03/15	Anthracene - 0.00124	11
		Acenaphthene - 0.00146	2.19
		Benzo (a) anthracene - 0.000984	0.000117
		Benzo (b) pyrene - 0.000536	0.0002
		Benzo (b) flouranthene - 0.000696	0.000117
		Benzo (g,h,i) perylene - 0.000205	1.1
		Chrysene - 0.000795	0.0117
		Dibenzofuran - 0.00124	0.146
		Fluoranthene - 0.00306	1.46
		Fluorene - 0.00153	1.46
		Indeno(1,2,3-cd)pyrene - 0.000193	0.0013
		Naphthalene - 0.0705	0.73
		Phenanthrene - 0.00426	1.1
		Pyrene - 0.00345	1.1
		1-Methylnaphthalene - 0.0466	0.031*
		2-Methylnaphthalene - 0.0598	0.098*
MW-3	03/03/15	Acenaphthene - 0.000277	2.19
		Benzo (a) anthracene - 0.0000637	0.000117
		Benzo (a) pyrene - 0.000021 J	0.0002
		Benzo (b) fluoranthene - 0.0000236 J	0.000117
		Benzo (g,h,i) perylene - 0.0000113 J	1.1
		Chrysene - 0.0000542	0.0117
		Dibenzofuran - 0.000202	0.146
		Fluoranthene - 0.00023	1.46
		Fluorene - 0.000282	1.46
		Naphthalene - 0.00712	0.73
		Phenanthrene - 0.000745	1.1
		Pyrene - 0.00026	1.1
		1-Methylnaphthalene - 0.00305	0.031*
		2-Methylnaphthalene - 0.00378	0.098*

1. PAHs = Polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C

2. TCEQ PST Program (30 TAC 334) Action Levels, Published in TCEQ Regulatory Guidance RG-411, dated April 2010.

* Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitation limit (MQL)

Bold denotes concentrations that exceed PST Program Action Levels

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS - PAHs[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	PAHs (mg/L)	PST Program[2] Action Levels
MW-4	07/07/15	Benzo (a) anthracene - 0.00000498 J	0.000117
		Dibenzofuran - 0.00000162 J	0.146
		Naphthalene - 0.0000583 J	0.73
MW-7	07/07/15	Anthracene - 0.00255	11
		Acenaphthene - 0.00265	2.19
		Acenaphthylene - 0.0000384 J	2.19
		Benzo (a) anthracene - 0.000322	**0.000117**
		Benzo (a) pyrene - 0.0000581	0.0002
		Benzo (b) fluoranthene - 0.0000616	0.000117
		Benzo (g,h,i) perylene - 0.0000131 J	1.1
		Benzo (k) fluoranthene - 0.000025 J	0.00117
		Chrysene - 0.000286	0.0117
		Dibenzofuran - 0.00164	0.146
		Fluoranthene - 0.00399	1.46
		Fluorene - 0.00281	1.46
		Naphthalene - 0.0266	0.73
		Phenanthrene - 0.00827	1.1
		Pyrene - 0.00316	1.1

1. PAHs = Polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C

2. TCEQ PST Program (30 TAC 334) Action Levels, Published in TCEQ Regulatory Guidance RG-411, dated April 2010.

* Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitation limit (MQL)

Bold denotes concentrations that exceed PST Program Action Levels

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS - PAHs[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	PAHs (mg/L)	PST Program[2] Action Levels
MW-9	07/07/15	Anthracene - 0.000267	11
		Acenaphthene - 0.000678	2.19
		Acenaphthylene - 0.000117	2.19
		Benzo (a) anthracene - 0.0000126 J	0.000117
		Dibenzofuran - 0.000647	0.146
		Fluoranthene - 0.000409	1.46
		Fluorene - 0.000708	1.46
		Naphthalene - 0.0298	0.73
		Phenanthrene - 0.0000456 J	1.1
		Pyrene - 0.000274	1.1
MW-10	07/07/15	Anthracene - 0.0000673	11
		Acenaphthene - 0.000101	2.19
		Acenaphthylene - 0.000259	2.19
		Benzo (a) anthracene - 0.00000864 J	0.000117
		Benzo (b) fluoranthene - 0.00000263 J	0.000117
		Dibenzofuran - 0.000124	0.146
		Fluoranthene - 0.0000408 J	1.46
		Fluorene - 0.000134	1.46
		Naphthalene - 0.0276	0.73
		Phenanthrene - 0.000222	1.1
		Pyrene - 0.0000304 J	1.1

1. PAHs = Polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C

2. TCEQ PST Program (30 TAC 334) Action Levels, Published in TCEQ Regulatory Guidance RG-411, dated April 2010.

* Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitation limit (MQL)

Bold denotes concentrations that exceed PST Program Action Levels

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS - PAHs[1]
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Sample I.D.	Sample Date	PAHs (mg/L)	PST Program[2] Action Levels
MW-11	07/07/15	Acenaphthene - 0.0000213 J	2.19
		Acenaphthylene - 0.0000511	2.19
		Benzo (a) anthracene - 0.00000686 J	0.000117
		Dibenzofuran - 0.0000234 J	0.146
		Fluorene - 0.0000284 J	1.46
		Naphthalene - 0.000222 J	0.73
		Phenanthrene - 0.00031 J	1.1
MW-12	07/20/15	Anthracene - 0.000487	11
		Acenaphthene - 0.000892	2.19
		Acenaphthylene - 0.0000279 J	2.19
		Benzo (a) anthracene - 0.0000199 J	0.000117
		Benzo (b) fluoranthene - 0.00000269 J	0.000117
		Dibenzofuran - 0.000611	0.146
		Fluoranthene - 0.000358	1.46
		Fluorene - 0.000902	1.46
		Naphthalene - 0.0714	0.73
		Phenanthrene - 0.00217	1.1
		Pyrene - 0.000269	1.1

1. PAHs = Polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C

2. TCEQ PST Program (30 TAC 334) Action Levels, Published in TCEQ Regulatory Guidance RG-411, dated April 2010.

* Defined in TCEQ guidance as the TRRP Tier 1 Critical Protective Concentration Level (PCL) assuming Residential land use and a 0.5-acre source area

J = Estimated value, value is above the laboratory SDL, but below the laboratory method quantitation limit (MQL)

Bold denotes concentrations that exceed PST Program Action Levels

TABLE 6
GROUNDWATER GAUGING DATA
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Monitor Well	Gauging Date	Total Depth From TOC (feet)	Top of Casing Elevation	Depth to Groundwater From TOC (feet)	Depth to PSH (feet)	PSH Thickness (feet)	Corrected Groundwater Elevation (feet)
MW-1	3/3/2015	44.5	2,853.81	29.78	---	---	2,824.03
	6/1/2015			29.49	---	---	2,824.32
	7/20/2015			29.25	---	---	2,824.56
	9/13/2015			29.44	---	---	2,824.37
	11/2/2015			29.56	---	---	2,824.25
MW-2	3/3/2015	44.8	2,853.00	30.46	---	---	2,822.54
	6/1/2015			29.95	28.71	1.24	2,823.98
	7/20/2015			29.27	28.50	0.77	2,824.31
	9/13/2015			29.88	28.68	1.20	2,824.02
	11/2/2015			30.3	28.76	1.54	2,823.86
MW-3	3/3/2015	44.7	2,853.52	30.58	---	---	2,822.94
	6/1/2015			29.93	29.72	0.21	2,823.75
	7/20/2015			29.69	29.40	0.29	2,824.05
	9/13/2015			30.69	29.55	1.14	2,823.69
	11/2/2015			31.14	29.67	1.47	2,823.48
MW - 4	3/3/2015	44.5	2,855.64	32.69	---	---	2,822.95
	6/1/2015			31.87	---	---	2,823.77
	7/20/2015			31.86	---	---	2,823.78
	9/13/2015			32.51	---	---	2,823.13
	11/2/2015			32.69	---	---	2,822.95
MW-5	3/3/2015	44.3	2,856.78	32.45	---	---	2,824.33
	6/1/2015			31.20	---	---	2,825.58
	7/20/2015			31.24	---	---	2,825.54
	9/13/2015			31.72	---	---	2,825.06
	11/2/2015			31.90			2,824.88

--- = PSH not detected

TABLE 6
GROUNDWATER GAUGING DATA
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Monitor Well	Gauging Date	Total Depth From TOC (feet)	Top of Casing Elevation	Depth to Groundwater From TOC (feet)	Depth to PSH (feet)	PSH Thickness (feet)	Corrected Groundwater Elevation (feet)
MW-6	3/3/2015	44.8	2,856.17	31.87	---	---	2,824.30
	6/1/2015			31.11	---	---	2,825.06
	7/20/2015			30.94	---	---	2,825.23
	9/13/2015			31.15	---	---	2,825.02
	11/2/2015			31.27	---	---	2,824.90
MW-7	7/20/2015	50.1	2,853.04	28.55	---	---	2,824.49
	9/13/2015			28.98	28.91	0.07	2,824.11
	11/2/2015			29.98	28.68	1.30	2,824.04
MW-8	7/20/2015	50.2	2,853.08	28.94	28.93	0.01	2,824.15
	9/13/2015			29.79	29.22	0.57	2,823.72
	11/2/2015			29.94	29.38	0.56	2,823.56
MW-9	7/20/2015	44.5	2,852.62	28.52	---	---	2,824.10
	9/13/2015			28.81	28.79	0.02	2,823.83
	11/2/2015			29.00	28.98	0.02	2,823.64
MW-10	7/20/2015	46.2	2,852.18	28.41	28.19	0.22	2,823.94
	9/13/2015			29.59	28.17	1.42	2,823.66
	11/2/2015			30.15	28.28	1.87	2,823.43
MW-11	7/20/2015	45.9	2,852.44	28.51	---	---	2,823.93
	9/13/2015			28.95	---	---	2,823.49
	11/2/2015			29.15	---	---	2,823.29
MW-12	7/20/2015	44.28	2,852.79	28.53	---	---	2,824.26
	9/13/2015			28.89	---	---	2,823.90
	11/2/2015			30.20	28.69	1.51	2,823.72

--- = PSH not detected

TABLE 6
GROUNDWATER GAUGING DATA
Aerospace Development Park
NEC of La Force Boulevard and Highway 80 East
Midland, Texas
Terracon Project No. AR157008B

Monitor Well	Gauging Date	Total Depth From TOC (feet)	Top of Casing Elevation	Depth to Groundwater From TOC (feet)	Depth to PSH (feet)	PSH Thickness (feet)	Corrected Groundwater Elevation (feet)
MW-13	9/13/2015	42.72	2,853.18	29.52	29.50	0.02	2,823.68
	11/2/2015			29.62	29.59	0.03	2,823.58
MW-14	9/13/2015	45.04	2,851.49	29.77	---	---	2,823.02
	11/2/2015			29.85	---	---	2,822.94
MW-15	9/13/2015	45.02	2,851.45	30.26	---	---	2,822.53
	11/2/2015			30.30	---	---	2,822.49
MW-16	9/13/2015	44.98	2,852.94	29.03	---	---	2,823.76
	11/2/2015			29.09	---	---	2,823.70
MW-17	9/13/2015	45.27	2,852.95	28.42	---	---	2,824.37
	11/2/2015			28.56	---	---	2,824.23

--- = PSH not detected

ATTACHMENT C

Laboratory Data Sheets (on CD)

Appendix E – Historic Resources Report

Mead & Hunt, Inc.
M & H Architecture, Inc.
2605 Port Lansing Road
Lansing, Michigan 48906
517-321-8334
meadhunt.com

April 14, 2015

Mr. Mark Wolfe, Executive Director
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Re: Aerospace Development Park
Midland International Air & Space Port, City of Midland, Midland County, Texas
Early Agency Coordination / Programmatic Environmental Assessment

Dear Mr. Mark Wolfe:

The City of Midland (City) and the Federal Aviation Administration (FAA) are notifying your agency/organization that a Programmatic Environmental Assessment (PEA) is being prepared for the proposed Aerospace Development Park (Park) at the Midland International Air & Space Port (Airport). The proposed Park encompasses approximately 45 acres in the southwest corner of the Airport. This site is bordered by Highway 80 to the south, La Force to the west and the Airport's airfield to the east.

Due to existing demand for additional hangar and warehouse space the Airport is proposing to develop this area. The area has been previously disturbed and is currently zoned for commercial development. Previous planning documents have also identified this area as suitable for additional Airport improvements. The Park is anticipated to include both aeronautical uses (e.g., hangars) and non-aeronautical uses (e.g., commercial offices and warehouses). Development of the Park is anticipated to occur over time. For your convenience, several maps are enclosed that illustrate the site location and approximate project area limits (see Exhibits 1 through 3).

The PEA will be prepared in accordance with the National Environmental Policy Act (NEPA), FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B. *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. The purpose of the PEA is to assess the potential programmatic (broad-scale) environmental effects of a full build-out scenario of the Park. The information in the PEA is not intended to address all site-specific issues. Rather, the PEA will focus on potential high level impacts of developing the broad geographic area of the Park. Each subsequent site-specific development will be subject to its own environmental clearance prior to construction.

As part of our early coordination, we are attempting to identify key issues that will need to be addressed during the NEPA process. To accomplish this, your comments are being requested for the above referenced project as it relates to the following:

- Your specific areas of concern / regulatory jurisdiction
- Specific benefits the project may have to your organization
- Any available technical information / data for the site
- Potential mitigation / permitting requirements for project implementation

In order to sufficiently address key project issues and maintain the project schedule, your comments are requested by **May 15, 2015**. Please send your written or email comments to:

MEAD & HUNT, Inc.
William Ballard, AICP
2605 Port Lansing Road
Lansing, MI 48906
517-321-8334
william.ballard@meadhunt.com

Thank you in advance for your assistance in this matter.

Sincerely,

William Ballard

William Ballard, AICP
Senior Planner

Enclosures

Historic Resources Survey Report

Midland International Air & Space Port

Spaceport Business Park

Midland, Midland County, Texas

Report prepared for

Parkhill, Smith, & Cooper, Inc.

and

City of Midland, Texas

Report prepared by

Mead & Hunt

www.meadhunt.com

April 2015

Table of Contents

Appendices

1. Introduction

Midland International Air & Space Port (Air & Space Port) in Midland, Midland County, Texas, is developing the Spaceport Business Park, which is located southwest of the Air & Space Port and east of LaForce Boulevard. The Business Park development would create a curved roadway with a series of lots on either side of it. These lots would be mixed use, with both aerospace and commercial development planned. The Area of Potential Effects (APE) includes the properties west and south of the airport's runway boundaries, the area south of Earhart Drive, and the area west of LaForce Boulevard, which corresponds to the entire area currently planned for development. A project location map is included in Appendix A-1.

The Texas Department of Transportation Aviation Division (TxDOT Aero), on behalf of the Federal Aviation Administration (FAA), is required to complete a National Environmental Policy Act (NEPA)-compliant environmental document.

TxDOT Aero retained Mead & Hunt, Inc. (Mead & Hunt) to conduct a reconnaissance-level historic resources survey to identify, document, and evaluate historic-age resources for National Register of Historic Places (NRHP) eligibility within the project area. The historic resources survey findings are for use in regulatory coordination under Section 106 of the National Historic Preservation Act (36 Code of Federal Regulations [CFR] 800) and the Antiquities Code of Texas (13 Texas Administrative Code [TAC] 26). Maps showing the project location and the historic-age resources within the APE are presented in Appendix A. Photographic images of historic-age resources are included in Appendix B.

2. Methodologies

A. Research methodology

Mead & Hunt conducted a background literature review and records search to understand the historical background and developmental trends of the project area. Research was conducted by Mead & Hunt staff meeting the *Secretary of the Interior's Professional Qualifications Standards* for architectural historians. The *Texas Historic Sites Atlas* was consulted to identify previously designated historic properties in the project area. Mead & Hunt also examined several historic maps and aerial images to identify the location of historic-age buildings and structures, and to better understand the area's growth and development over time. These maps included:

- United States Geological Survey (USGS) topographic quadrangle maps of Southwest Midland from 1965, 1974, 2008, and 2012, accessed from the online map collection of the University of Texas at Austin's Perry-Castañeda Library.

- Texas Highway Department Midland County highway maps from 1936 and 1961, accessed from the Texas State Library and Archives map collection.

- USGS aerial photographic images from 1954, 1963, 1969, 1972, and 1974, accessed from http://earthexplorer.usgs.gov/, aerial images from 1946 accessed from GeoSearch, and an aerial "birds' eye" view of Midland Airport's Runways and Aerial Facilities, 1945/1946, accessed from The Portal to Texas History at the University of North Texas.

- Midland Airfield, Texas: Advanced Twin Engine School, General Layout Map from 1941, accessed from The Portal to Texas History at the University of North Texas.

Research of secondary sources and Internet websites was conducted, including:

- *Online Handbook of Texas* entries for Midland and the Midland Army Air Field.

- Midland International Air & Space Port website.

- *Images of America* book for Midland, Texas.

B. Survey methodology

Qualified Mead & Hunt historic preservation staff conducted a reconnaissance-level field survey on March 5, 2015, to identify and document historic-age resources in the project's APE. The field survey was conducted by Mead & Hunt staff meeting the *Secretary of the Interior's Professional Qualifications Standards* for architectural historians. Historic-age resources are defined as buildings, structures, objects, or designed landscape features constructed in 1965 or earlier, based on the proposed project construction date of 2015. The Texas Historical Commission's History Programs Division was consulted regarding definition of an appropriate APE. Maps showing the project's APE are included in Appendix A.

During the survey, Mead & Hunt took high-resolution digital photographs and gathered physical information on historic-age resources in the project's APE. Identified resources were keyed to field maps based on aerial images of the project area superimposed with parcel boundaries.

In addition to the reconnaissance-level field survey, Mead & Hunt staff completed research at the Midland Public Library and discussed the historic development of the airport with airport staff at a meeting on March 4, 2015.

C. Evaluation methodology

Mead & Hunt evaluated the surveyed resources for their eligibility for listing in the NRHP. The resources were evaluated through application of the *National Register Criteria for Evaluation* (36 CFR 60.4).

To be eligible for listing in the NRHP, a property must be 50 years of age or older at the time of the undertaking or possess exceptional significance, meet one of four criteria for significance, and retain historic integrity with respect to location, design, setting, materials, workmanship, feeling, and association. The following criteria and areas of significance were used to evaluate properties:

- *Criterion A*: Event for significant historical associations with events, trends, or patterns.
- *Criterion B*: Person for associations with significant persons.
- *Criterion C*: Design/construction for significant physical design or construction, in the areas of architecture and engineering.

3. Historical Background of the Project Area

The history of the Midland International Air & Space Port and its associated surroundings began in the 1920s as air explorations began to increase. Due to its location outside the Midland city limits, and halfway between Midland and Odessa, in the years before its development the land was used for ranching. This was typical for West Texas in this period.

Midland in the 1920s was a promising city with its economy based on the discovery of oil. Prior to that, the city was in decline due to droughts and a lagging agricultural economy.[1] The discovery of oil in the Permian Basin gave the economy around Midland a needed boost. This increased economic prosperity was a factor in the establishment of the airfield. The original airfield was established in 1927 by Samuel A. Sloan. Sloan leased 200 acres of ranchland from a prominent Midland and West Texas landowning family, the Scharbauers, and established an airfield. Though Sloan died in an air accident in 1929, his siblings continued to run the private airfield, known as Sloan Field.[2]

This early period in aviation history is characterized by a mixture of private and public enterprise. The Air Corps Act, passed in 1928, provided money to increase the numbers of airplanes and personnel for the armed forces. It also provided for the establishment or expansion of ground facilities.[3] Under this law, Sloan Field was designated an Army Airways Station in 1930. The Army Air Corps Flying Cadets utilized Sloan Field "as a routine stop on cross-country training flights" by 1939.[4] In that same year the City of Midland (City) bought the airfield. Its location between the cities of Midland and Odessa meant the airport could serve both cities. Due to its new status as a municipal airport, Sloan Field became eligible for improvement funds from the Works Progress Administration (WPA), as well as receiving City money. The airport's improvements included runway upgrades and the installation of landing lights.[5] The establishment of new airports and improvements to existing facilities occurred across the country as part of a plan to ensure that the U.S. would be ready for war if necessary. As part of that plan, Sloan Field was one of 133 airports in Texas by 1938.[6]

With the outbreak of World War II the state of Texas began to play host to a number of military training facilities. Throughout the war there were over 40 military airfields and stations in the state, of which

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[1] John Leffler, "MIDLAND, TX," *Handbook of Texas Online,* http://www.tshaonline.org/handbook/online/articles/hdm03 (accessed 18 March 2015), uploaded on 15 June 2010, published by the Texas State Historical Association.

[2] James L. Colwell, "MIDLAND ARMY AIR FIELD," *Handbook of Texas Online,* http://www.tshaonline.org/handbook/online/articles/qbm02 (accessed 12 February 2015).

[3] Ralph Newlan, "Historical Studies Report: Texas General Aviation," prepared for Texas Department of Transportation, 2008, 10.

[4] James Collett, *Images of Midland* (Charleston, SC: Arcadia Publishing, 2010), 93.

[5] Colwell.

[6] Newlan, 15.

Midland's airport was one.[7] Midland's airport had a number of good qualities to make it enticing for training: the airport facilities was satisfactory, the area was remote, the surrounding terrain was open, and petroleum products were easily obtained.[8] Sloan Field was chosen as an Army Air Field in 1941 and the city leased the land to the federal government for a minimal cost. Originally known as the Midland Army Flying School, it became more widely known as "Bombardier College."[9] The first trainees were on site by October 1941, and training began in January 1942.[10] The attack on Pearl Harbor in December 1941 spurred the Army Air Corps to train more bombardiers. Runways were originally located on the east side of the field, while the west part of the airfield consisted of over 100 buildings that supported the trainees.[11] An image of the airfield's layout in 1941, with clear separation between the runways and the support facilities visible, is found in Figure 1.

[7] Newlan, 18.

[8] Collett, 85.

[9] Colwell.

[10] "Army Airfield | Midland Airport, TX", *Midland International Air & Space Port*, n.d. (http://www.flymaf.com/137/Army-Airfield), accessed 18 March 2015.

[11] Midland Airfield, Texas : Advanced Twin Engine School, General Layout, Map, 1941; (http://texashistory.unt.edu/ark:/67531/metapth190363/ : accessed March 18, 2015), University of North Texas Libraries, The Portal to Texas History, http://texashistory.unt.edu; crediting University of Texas at Arlington Library, Arlington, Texas.

Figure 1. General layout map of the Advanced Twin Engine School at Midland Airfield in 1941. Source: "Midland Airfield, Texas: Advanced Twin Engine School, General Layout, Map, 1941," University of North Texas Libraries, The Portal to Texas History.

In September 1942 the base was formally designated as Midland Army Airfield and the training facility was named the Army Air Forces Bombardier School. The airfield continued to be in use through the end of the war. The base trained in the use of the Norden bombsight, which consisted of a stabilizer and a computer that completed the mathematical calculations to accurately drop bombs from planes onto particular targets.[12] The personnel at the base "were instrumental in developing photographic and sonic methods of scoring bomb hits and analyzing bombing proficiency."[13] Through the course of the war and

[12] Wayne Whittaker, "The Bombsight that Thinks," *Popular Mechanics Magazine* 83 (February 1945): 8-9.

[13] Colwell.

into 1946, over 6,600 bombardier officers trained at Midland Army Air Field. It was deactivated in 1946 and returned to the control of the city of Midland. Figure 2 illustrates the runways and facilities directly after the war.

Figure 2. Aerial view of the runways and airport facilities, 1945 or 1946, Midland Airport, facing north-northeast. Source: University of North Texas Libraries, The Portal to Texas History.

After the war, the City's goal for the airport was to return its facilities to those sufficient for civilian purposes after years of use by the military. The improvements and expansions completed just prior to and during the war could now be utilized by commercial airlines. By November 1947 three companies operated flights out of Midland for their air travels: American, Continental, and Pioneer.[14] Midland became an important refueling spot on many east-west routes. The airport's location allowed the facility to serve the populations of Midland and Odessa, both of which were growing due to another oil boom after World War II. Buildings on the airport property that had been used for the soldiers were repurposed, sold to other entities, or demolished to make way for new construction. This evolution is clearly visible in

[14] Collett, 103.

aerial photographs of the airport from the 1950s and 1960s (see Figure 3), as well as later in the airport's growth.[15]

Figure 3. Aerial image of the Midland Airport in 1963, illustrating the airport growth, runway expansions, and the beginning of layout changes. Source: EarthExplorer.

In response to booming numbers of air travelers in the 1950s, a new terminal was constructed for the airport and opened in January 1960. The oil boom continued from the postwar years into the 1950s, and

[15] United States Geological Service, *EarthExplorer,* http://earthexplorer.usgs.gov/ (accessed 16 March 2015). Aerial photographs are available from 1954, 1963, 1969, 1973, 1974, 1984, 1991, 1995, 2010, and 2012.

the city of Midland rapidly expanded. Downtown Midland continued to epitomize its nickname of "The Tall City" with a number of large skyscrapers built in this period.

While the local economy did slump between 1960 and 1970, the airport continued to expand and modernize its facilities. This was necessary to "accommodate larger jets and maintain its role as a regional airport."[16] These changes are again evident in the aerial photographs, which illustrate additional buildings and facilities constructed for the Army Air Field being demolished or abandoned from the 1960s through the 1980s, rather than reusing them as had been done in the immediate postwar period. New construction was required for private airplane hangars and for fueling tanks used by airlines. Due to this continued demolition and construction, little remains of the army air field today. While the primary runways are still in use (though in altered form), the support areas of the airport have been completely altered and maintain no links to its beginnings as an Army Air Field. These changes to the airport's design and layout are clearly visible in the aerial images of the airport taken in 2015 (Figure 4).

[16] Collett, 103.

Figure 4. Aerial image of the Midland Airport in 2015, illustrating the layout changes on the west side of the airport and runway expansions. Source: Google Maps.

4. Survey Findings

A. Previously designated historic properties

As part of the literature review, Mead & Hunt consulted the Texas Historical Commission's online *Texas Historic Sites Atlas* to identify any resources within 1,300 feet of the project area listed in the NRHP, designated as Recorded Texas Historic Landmarks (RTHLs), or designated as Official Texas Historical Markers (OTHMs). Mead & Hunt also reviewed the Texas Historical Commission's list of buildings and structures designated as State Antiquities Landmarks (SALs). The nearest OTHM is at the airport terminal building, and is nearly 3,000 feet away from the project area.

B. NRHP eligibility determinations

The March 2015 field survey identified three historic-age resources within the APE. Locations of surveyed resources can be found in Appendix A-2. Inventory forms of the surveyed resources can be found in Appendix B.

Generally, the period of significance for the airport dates from the years during World War II when the airport was known as the Midland Army Air Field (1941-1946). No potential exists for a historic district, as there are few remaining resources that date to the period of significance and retain their ability to convey that significance.

Resource 1: Abandoned Railroad Spur

Built c.1940, this abandoned railroad spur was constructed for the use by the military during World War II. The spur crosses over Business Interstate (BI) 20 via a concrete bridge, which dates after 1972. Prior to that the railroad spur crossed the highway from the main tracks of the Missouri Pacific (now Union Pacific) at grade. The spur includes a railroad switch as well as another piece of machinery relating to the tracks. The spur is abandoned and is either covered with weeds and grass or covered earth to render it unusable. The track begins at BI 20 by utilizing a bridge to cross over the highway and the track ends are located near 2803 Enterprise Drive. It is unclear when the tracks were abandoned.

As noted in the context, there are few extant resources remaining on airport property that illustrate the airport's use as an Army Air Field during World War II, the period in which the spur was constructed. The railroad spur alone, while it retains its association with the military training facility, does not have enough significance to be individually eligible for the NRHP under *Criterion A*. Under *Criterion C*, there is no evidence that this railroad spur has any engineering significance. In addition, there is no historic district present to which the railroad spur may contribute. Therefore, Resource 1 is not eligible for the NRHP.

Resource 2: Abandoned Concrete Runway Pad

Also built c.1940, the abandoned concrete runway pad is the last remnant of a runway that used to be located on the south side of the airport. Approximately half of this runway has been removed and the other half covered with asphalt for use as a taxiway. The concrete portion, located at the far west end of the former runway and separated from the asphalt-covered portion by a section of grass and earth, is the only remaining intact element of the 1940s runway connected with the Army Air Field.

As noted in the context, there is little extant evidence remaining on airport property that illustrates the airport's use as an Army Air Field during World War II, the period in which the runway was constructed. While the other runways at the airport date to the historic period, they have been extended from their original length, are covered with asphalt, and are physically separated from this original concrete portion. The remaining intact portion of this one concrete runway does not illustrate the extent of the significance of the Army Air Field. The concrete runway alone does not have enough significance with the military training facility to be individually eligible for the NRHP under *Criterion A*, and there is no historic district to which it could contribute. Under *Criterion C*, there is no evidence that this concrete runway has any engineering significance. Therefore, Resource 2 is not eligible for the NRHP.

Resource 3: Central Transport, Inc., Office and Warehouse Building
Resource 3 is an office and warehouse building that current serves Central Transport, Inc., a freight moving company located at 2803 Enterprise Drive. This building was built c.1960, based on aerial photographs. It is a rectangular building with a side gable roof and is sheathed in metal. An entrance is located on the north elevation, which also has eight garage bays for the loading of freight.

At the time of the building's construction the airport was taking advantage of the oil and gas boom in the Permian Basin to become a larger travel and shipping center. To that end, buildings from World War II were being demolished and new structures, such as this combined office and warehouse building, were constructed. However, while this is an example of the construction from that period, it does not fully illustrate the history of the airport and the surrounding area, as the period of significance for the airport dates to its time as an Army Air Field. Due to its lack of association with the military training facility, this resources is not eligible for the NRHP under *Criterion A*. There is no evidence that this building is of high artistic value or is the work of a master, and thus it has no significance under *Criterion C*. Therefore, Resource 3 is not eligible for the NRHP.

C. Potential effects to historic properties

Based on the NRHP eligibility recommendations, the proposed project will not result in adverse effects on historic properties.

5. List of Preparers

Survey documentation and evaluation activities were performed by qualified Mead & Hunt staff meeting the *Secretary of the Interior's Standards for Professional Qualifications*. Mead & Hunt staff who worked on the project are:

Name	Title	Role
Richard E. Mitchell, AICP	Senior Professional Historian	• Historic resources task manager • QA/QC of survey report and other deliverables
Sara Gredler	Historian	• Directed survey documentation and evaluation activities • Prepared survey report, including eligibility determinations • Prepared survey documentation forms and inventory • Prepared survey maps
Dustin Nielsen	Technical Editor/ Clerical	• Edited and formatted survey report

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"World War II Texas Aviation." *Texas Aviation Online.* http://www.texasaviationonline.com/world-war-ll-texas-aviation.html (accessed 16 March 2015).

Appendix A. Project Maps

A-1. Project Location Map

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

Project Location
Midland International Air & Space Port
Spaceport Business Park
Midland, Midland County, Texas

N

0 2 4 8 12 16 Miles

A-2. Surveyed Resources Map

Surveyed Resources
Midland International Air & Space Port
Spaceport Business Park
Midland, Midland County, Texas

Legend

Area of Potential Effect
Surveyed Linear Resource
Surveyed Resource

Feet
0 150 300 600 900 1,200

N

Appendix B. Inventory Forms of Surveyed Resources

Resource 1

Resource ID: 1
Resource Name: Abandoned Railroad Spur
Address: Running parallel to La Force Boulevard and Enterprise Drive
Latitude/Longitude: 31.928835°, -102.210999°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Rail-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Abandoned railroad spur with one set of tracks leading from Business Interstate 20 to railroad switch with two sets of tracks and ending just southeast of 2803 Enterprise Drive.
National Register Eligibility: Not Eligible

Facing south-southwest

Resource ID: 1
Resource Name: Abandoned Railroad Spur
Address: Running parallel to La Force Boulevard and Enterprise Drive
Latitude/Longitude: 31.928835°, -102.210999°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Rail-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Abandoned railroad spur with one set of tracks leading from Business Interstate 20 to railroad switch with two sets of tracks and ending just southeast of 2803 Enterprise Drive.
National Register Eligibility: Not Eligible

Facing west-southwest, illustrating two separate railroad tracks

Resource ID: 1
Resource Name: Abandoned Railroad Spur
Address: Running parallel to La Force Boulevard and Enterprise Drive
Latitude/Longitude: 31.928835°, -102.210999°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Rail-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Abandoned railroad spur with one set of tracks leading from Business Interstate 20 to railroad switch with two sets of tracks and ending just southeast of 2803 Enterprise Drive.
National Register Eligibility: Not Eligible

Facing north-northwest

Resource ID: 1
Resource Name: Abandoned Railroad Spur
Address: Running parallel to La Force Boulevard and Enterprise Drive
Latitude/Longitude: 31.928835°, -102.210999°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Rail-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Abandoned railroad spur with one set of tracks leading from Business Interstate 20 to railroad switch with two sets of tracks and ending just southeast of 2803 Enterprise Drive.
National Register Eligibility: Not Eligible

Facing west, illustrating abandoned railroad switch

Resource ID: 1
Resource Name: Abandoned Railroad Spur
Address: Running parallel to La Force Boulevard and Enterprise Drive
Latitude/Longitude: 31.928835°, -102.210999°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Rail-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Abandoned railroad spur with one set of tracks leading from Business Interstate 20 to railroad switch with two sets of tracks and ending just southeast of 2803 Enterprise Drive.
National Register Eligibility: Not Eligible

Facing west-southwest

Resource ID: 1
Resource Name: Abandoned Railroad Spur
Address: Running parallel to La Force Boulevard and Enterprise Drive
Latitude/Longitude: 31.928835°, -102.210999°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Rail-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Abandoned railroad spur with one set of tracks leading from Business Interstate 20 to railroad switch with two sets of tracks and ending just southeast of 2803 Enterprise Drive.
National Register Eligibility: Not Eligible

Facing southwest

Resource 2

Resource ID: 2
Resource Name: Abandoned Concrete Runway Pad
Address: Southwest of 2901 Enterprise Drive
Latitude/Longitude: 31.928765°, -102.208667°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Air-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Concrete pad from abandoned runway on the southwest side of the airport.
National Register Eligibility: Not Eligible

Facing north-northeast

Resource ID: 2
Resource Name: Abandoned Concrete Runway Pad
Address: Southwest of 2901 Enterprise Drive
Latitude/Longitude: 31.928765°, -102.208667°
City: Midland
County: Midland
Property Type/Subtype: Transportation/Air-related
Building Form/Roof Form: N/A
Wall/Roof Materials: N/A
Architectural Style: N/A
Construction Date: c.1940
Description/Alterations: Concrete pad from abandoned runway on the southwest side of the airport.
National Register Eligibility: Not Eligible

Facing north-northeast

Resource 3

Resource ID: 3
Resource Name: Central Transport, Inc.
Address: 2803 Enterprise Lane
Latitude/Longitude: 31.932841°, -102.208063°
City: Midland
County: Midland
Property Type/Subtype: Commerce/Office and Warehouse
Building Form/Roof Form: Rectangular/Side gable
Wall/Roof Materials: Metal/Metal
Architectural Style: None
Construction Date: c.1960
Description/Alterations: Entry located on the north elevation of the building.
National Register Eligibility: Not Eligible

Facing southeast

Resource ID: 3
Resource Name: Central Transport, Inc.
Address: 2803 Enterprise Lane
Latitude/Longitude: 31.932841°, -102.208063°
City: Midland
County: Midland
Property Type/Subtype: Commerce/Office and Warehouse
Building Form/Roof Form: Rectangular/Side gable
Wall/Roof Materials: Metal/Metal
Architectural Style: None
Construction Date: c.1960
Description/Alterations: Entry located on the north elevation of the building.
National Register Eligibility: Not Eligible

Facing west

Appendix F – Archeology Report

COX | McLAIN
Environmental Consulting

TRANSMITTAL MEMO	To: Tiffany Osburn – THC, Archeology
Cox|McLain Environmental Consulting, Inc. 600 E. John Carpenter Frwy, Suite 380 Irving, TX 75062 www.coxmclain.com (469) 647-4866	From: Missi Green – Cox|McLain
	Date: 4 June 2015
	RE: Draft Report: *Intensive Archeological Survey for Proposed Road and Utility Improvements at the Spaceport Business Park, Midland International Air & Space Port, Midland County, Texas*

Dear Tiffany,

Please find enclosed draft report summarizing the results of the archeological survey for utility and road improvements at the Spaceport Business Park on Midland International Air & Space Port in Midland, Texas. This survey was conducted under Antiquities Permit #7229. The area contained extensive disturbances and no archeological remains were encountered. I look forward to your comments. Please do not hesitate to call or email if you have any questions or comments.

Thank you!

Sincerely,

Missi Green

Melissa M. Green, RPA
missig@coxmclain.com
(469) 647-4866

Cc: Rick Mitchell – Mead & Hunt

NO HISTORIC
PROPERTIES AFFECTED
PROJECT MAY PROCEED
by William D. Martin
for Mark Wolfe
State Historic Preservation Officer
Date 7/9/15
Track#

INTENSIVE ARCHEOLOGICAL SURVEY FOR PROPOSED ROAD AND UTILITY IMPROVEMENTS AT THE SPACEPORT BUSINESS PARK, MIDLAND INTERNATIONAL AIR & SPACE PORT, MIDLAND COUNTY, TEXAS

DRAFT

Prepared by
Chris Dayton, RPA
Melissa M Green, RPA (Principal Investigator)
Cox | McLain Environmental Consulting, Inc.
600 E. John Carpenter Freeway
Suite 380
Irving, TX 75062

For

Midland International Air & Space Port
9506 La Force Blvd.
Midland, TX 79706

Under
Texas Antiquities Permit 7229

Cox | McLain Environmental Consulting, Inc. Archeological Report 94
(CMEC-AR-094)

COX | McLAIN
Environmental Consulting

May 1, 2015

This report contains archeological site information (not for public disclosure).

Management Summary

In April 2015, an intensive archeological survey was completed in order to inventory and evaluate archeological resources within the footprint of proposed road and utility improvements at the Spaceport Business Park located on the southwest corner of the Midland International Air & Space Port. These improvements include construction of a new road approximately 0.476 mile (assuming 50-foot [ft] wide right-of-way) and 2.42 miles of new utilities (varying 15 to 50-ft wide right-of-way) within the Park. The road footprint is 4.8 acres (ac) or 1.9 hectares (ha) while the utilities corridors cover approximately 6.0 ac or 2.4 ha for a total of 10.8 ac or 4.3 ha. The work was carried out for the Midland International Air & Space Port under Texas Antiquities Permit 7229 by Chris Dayton and Melissa Green (Principal Investigator) of Cox|McLain Environmental Consulting, Inc. (CMEC), a subcontractor to Mead & Hunt.

Ground surfaces within the APE were moderately to highly visible (between 50 and 90 percent). Bedrock outcrops were encountered on the south side of the APE, illustrating the thinness of soil cover in this area. The APE has been subjected to extensive previous disturbance, including decades of airfield-related clearing and grading, railroad construction and maintenance, utility installation and maintenance, drainage modification, landscaping, and spreading of imported gravels. No suitable locations for productive shovel testing were found. No materials of archeological interest were found during pedestrian examination of the APE. The APE contains a historic-age railroad spur that follows approximately the orientation of the proposed roadway; the railroad is being assessed in a separate Mead & Hunt report regarding the built environment.

No artifacts, features, deposits, sites, or other cultural resources were encountered during the survey, so there are no artifacts to be curated. However, all notes, forms, and other project data will be made permanently available to future researchers at Texas Archeological Research Laboratory (TARL) at the University of Texas at Austin per TAC 26.16 and 26.17.

INTENSIVE ARCHEOLOGICAL SURVEY FOR PROPOSED ROAD AND UTILITY IMPROVEMENTS AT THE SPACEPORT BUSINESS PARK, MIDLAND INTERNATIONAL AIR & SPACE PORT, MIDLAND COUNTY, TEXAS

Table of Contents

LIST OF FIGURES

LIST OF TABLES

1.0 Introduction

Overview of the Project

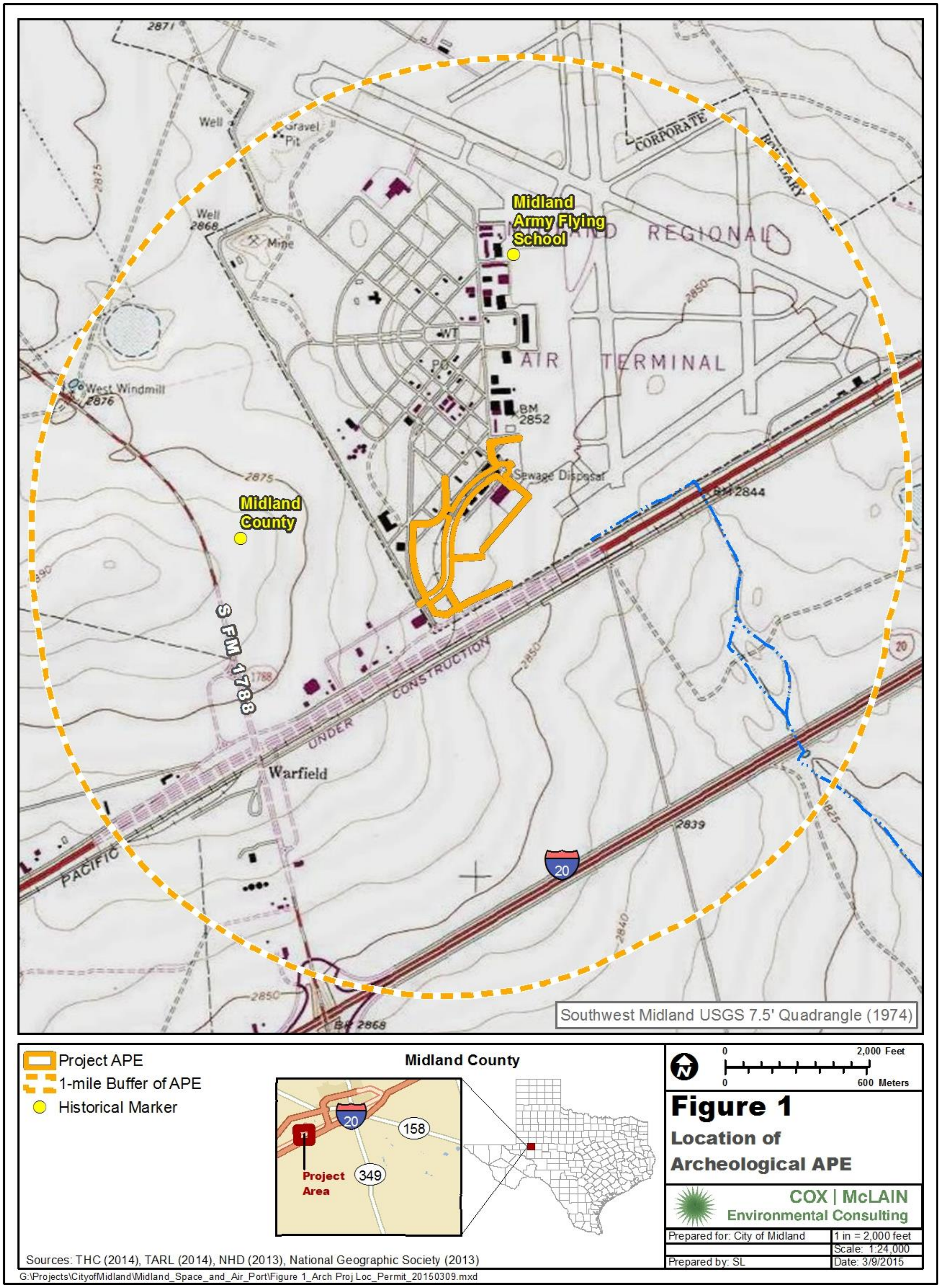
The Midland International Air & Space Port, a political subdivision of the State of Texas, has proposed road and utility improvements at the Spaceport Business Park in the southwest corner of the overall port property in the City of Midland, Midland County, Texas (**Figure 1**). The proposed improvements entail construction of a new road approximately 0.476 miles in length and 2.42 miles of new utilities (varying 15 to 50-ft wide right-of-way) within the Park. The road footprint is 4.8 acres (ac) or 1.9 hectares (ha) (assuming a 50-foot [ft] wide right-of-way), while the utilities corridors cover approximately 6.0 ac or 2.4 ha for a total of 10.8 ac or 4.3 ha.

The project is owned and funded by the Midland International Air & Space Port, a City of Midland facility, rendering the project subject to the Antiquities Code of Texas (9 TNRC 191) as well as triggering Section 106 of the National Historic Preservation Act (NHPA), as amended (16 USC 470; 36 CFR 800). All materials generated from this work will be permanently housed at the Center for Archaeological Studies (CAS) at Texas State University or the Texas Archeological Research Laboratory (TARL) at the University of Texas at Austin per TAC 26.27 and 26.5.

Chris Dayton of Cox|McLain Environmental Consulting, Inc., (CMEC) performed the fieldwork in April 2015 as a subcontractor to Mead and Hunt. Melissa M. Green served as Principal Investigator. A pedestrian survey was carried out based on guidelines established by the Council of Texas Archeologists (CTA) and approved by the Texas Historical Commission (THC). The methods employed during this study and relevant constraints are discussed further in Chapters Three and Four.

Structure of the Report

Following this introduction, Chapter Two presents environmental parameters, a brief cultural context, and a summary of previous archeological research near the APE; Chapter Three discusses research goals, relevant methods, and the underlying regulatory considerations; Chapter Four presents the results of the survey and summarizes the implications of the investigations, and references are in Chapter Five.


Midland Army Flying School
Midland County
S FM 1788
Warfield
AIR TERMINAL
REGIONAL
Sewage Disposal
Southwest Midland USGS 7.5' Quadrangle (1974)
Project APE
1-mile Buffer of APE
Historical Marker
Midland County
Project Area
0 2,000 Feet
0 600 Meters
Figure 1
Location of Archeological APE
COX | McLAIN Environmental Consulting
Prepared for: City of Midland
1 in = 2,000 feet
Scale: 1:24,000
Prepared by: SL
Date: 3/9/2015
Sources: THC (2014), TARL (2014), NHD (2013), National Geographic Society (2013)
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2.0 Environmental and Cultural Context

Topography, Land Use, Geology, and Soils

Midland County is in the middle of the Permian Basin, a Permian-age shallow sea that was located between central Texas and New Mexico. The Edwards Plateau is found in the southeastern third of Midland County and the remainder of the county, including the City of Midland, is on the Llano Estacado. The Llano Estacado is a very flat, arid plain found in western Texas and eastern New Mexico, with elevations of 2,776 to 2,830 ft (846 to 862.5 m) above mean sea level.

The 10.8-ac (4.3-ha) archeological area of potential effects (APE) is located at approximately 2,856 to 2,860 feet above mean sea level in the northwest corner of Midland County, Texas. The project footprint is located in the southwest corner of the airport property, surrounded by industrial development to the west, the frontage road for Business Interstate Highway (IH) 20 along the south, and airport facilities to the north and east.

The geology of the project area is mapped as Pleistocene-age windblown cover sand (BEG 1976), although outcrops of heavily eroded caliche were noted on the south side of the APE. According to Natural Resources Conservation Service (NRCS) data, three mapped soil units occur in the APE: Kimbrough loam, Stegall loam, and Slaughter loam on 0 to 1 percent slopes (NRCS 2015). Kimbrough soils are well drained, shallow, gravelly soils formed in fine textured eolian sediments. Stegall soils are well drained, moderately deep soils formed in loamy eolian sediments. Slaughter soils are well drained, shallow soils formed in loamy and clayey eolian sediments. All of these soils generally formed in sediments originating from the Blackwater Draw Formation.

Vegetation/Climate

The project is located in the southern portion of the High Plains ecoregion within the Llano Estacado (Griffith et al. 2007; BEG 1996). According to the TPWD's *Vegetation Types of Texas* map and accompanying descriptions, the APE is in an area (Type 44) mapped as cropland (McMahan et al. 1984). Permanent water sources are few, primarily consisting of playa basins that have been reduced in size. Average annual precipitation in both regions is reported to be less than 14 inches between 1981 and 2010 (SCAS 2000). Although rainfall likely fluctuated throughout prehistory, the region tends to be dry at present.

Archeological Chronology for the High Plains

The APE is at the southwestern corner of the Southern High Plains archeological region (Perttula 2004). Detailed descriptions of the archeological chronology will not be presented here; three recent reviews on the archeology of the Llano Estacado by Hofman et al. (1989) and Johnson and Holliday (1995; 2004) are excellent references for such details.

Table 1 presents the chronology of the Southern High Plains. Following Perttula (2004:9) **Table 1** combines the chronology of the Southern High Plains and the Panhandle into one region, simply known as the "High Plains". However, Johnson and Holliday (2004:294-295) note that the Late Quaternary paleoenvironmental records of the Southern Plains are well preserved in the draws, dunes, and lake basins, with draws providing the most complete and sensitive environmental record available. Likewise, the known archeological record provides a lengthy and rich heritage for the region with people living on and using the Southern Plains for at least 11,000 years and possibly longer due to the ample and varied natural resources available. Climate changes over the millennia determined the availability and

variety of resources, but the occupation of the Southern Plains generally consisted of small, mobile groups making repeated, short-duration seasonal visits to resource gathering and residential areas.

Table 1: Archeological Chronology for the High Plains in Texas*

Period	Years Before Present (BP)**
Early Paleoindian	11,500 – 10,500
Late Paleoindian	10,500 – 8.500
Archaic	8,500 – 2,000
Ceramic (Late Prehistoric)	2,000 – 1,000
Antelope Creek	1,000 – 500
Protohistoric	500 – 250

* After Perttula 2004: 9, Table 1.1
** Based on uncalibrated radiocarbon dates, which are typical in Texas archeology (see Perttula 2004:14, Note 1).

Historic Context

Midland, originally called Midway, was established in 1881 when the Texas and Pacific Railway placed a section house or Midway Station on its line halfway between Dallas and El Paso. The first permanent resident was Herman N. Garrett, who settled there with a herd of sheep in 1882. A post office was established in 1884 and the name changed to Midland as more ranchers moved into the area. By 1885 over 100 families lived in the area and Midland County was established with Midland as the county seat. A courthouse was built in 1886 with churches and a school following soon afterward. As the area had become an important cattle shipping center, the area prospered and the population grew into the early twentieth century, particularly with the Permian Basin oil boom which began in the 1920s (Leffler 2010).

The area suffered during the early part of the Depression as oil and gas production was greatly reduced and many workers were forced out of work. However, the oil and gas industry began to recover after the Railroad Commission began regulating oil and gas production across the state and tariffs on foreign oil were instituted. The Permian Basin oil production grew and Midland along with it. Midland also grew with the establishment of the Midland Army Air Force Base which operated the Army Air Force Bombardier School during World War II until it was closed in 1946 (Leffler 2010).

Since the end of World War II, with the exception of a short time during the 1960s and early 1970s, Midland and the surrounding area has continued to prosper due to oil and gas exploration and production, and the city has remained the financial and administrative center for the Permian Basin (Leffler 2010).

Previous Investigations and Previously Identified Resources

A search of the *Texas Archeological Sites Atlas* (Atlas) maintained by the Texas Historical Commission (THC) and the Texas Archeological Research Laboratory (TARL) was conducted in order to identify archeological sites, historical markers (Recorded Texas Historic Landmarks or RTHLs), properties or districts listed on the National Register of Historic Places (NRHP), State Antiquities Landmarks (SALs),

cemeteries, or other cultural resources that may have been previously recorded in or near the APE, as well as previous surveys undertaken in the area.

According to Atlas survey coverage data, the APE has not been subjected to an archeological survey, but there have been four archeological studies within a 1.6-kilometer (one-mile) study area. These include two surveys conducted by the State Department of Highway and Public Transportation (now Texas Department of Transportation or TxDOT); one in 1984 along a portion of Farm-to-Market (FM) 1788 where no resources were identified (Weir 1984), as well as a 1991 linear survey just west of the Midland Airport terminal (THC 2015). In addition, there was a 2003 linear survey at the intersection of the IH 20 frontage road (US 80) and FM 1788 by Sul Ross University on behalf of the United States Department of Agriculture, Rural Utilities Service (USDA-RUS) and a 2007 areal survey just west of the Midland Airport terminal for US Customs Service and Border Patrol.

There are no previously recorded archeological sites recorded within the APE and the nearest site (41MD39) is located just outside of the larger one-mile study area. Site 41MD39, located approximately 1.45 miles to the south-southwest, is one of six sites identified during the USDA-RUS survey but the only one located near this project. It is a sparse scatter of lithic materials that extended beyond the project's right-of-way (Young 2003) and THC considered its eligibility as "undetermined" in 2003 (THC 2015).

Also there are two historical markers within the study area surrounding the APE: one is a marker for Midland County and its significance and the other commemorates the Old Sloan Field, constructed in 1931, later the Midland Army Flying School for bombardier cadets and one of the largest military aviation training facilities in the country. Military use was phased out in 1947 and the commercial airfield opened in 1950 (THC 2015).

3.0 Research Goals and Methods

Purpose of the Research

The present study was carried out to accomplish three major goals:

1. To identify all historic and prehistoric archeological resources located within the APE defined in Chapter One;

2. To perform a preliminary evaluation of the identified resources' potential for inclusion in the NRHP and/or for designation as a SAL (typically performed concurrently); and

3. To make recommendations about the need for further research concerning the identified resources based on the preliminary NRHP/SAL evaluation and with guidance on methodology and ethics from the THC and CTA.

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA of 1966, as amended (16 USC 470; 36 CFR 800), directs federal agencies and entities using federal funds to "take into account the effect of their undertakings on historic properties" (36 CFR 800.1a), with "historic property" defined as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places [NRHP] maintained by the Secretary of the Interior" (36 CFR 800.16).

In order to determine the presence of historic properties (with this phrase understood in its broad Section 106 sense) an APE is first delineated. The APE is the area in which direct impacts (and in a federal context, indirect impacts as well) to historic properties may occur. Within the APE, resources are evaluated to determine if they are eligible for inclusion in the NRHP, and to determine the presence of any properties that are already listed on the NRHP. To determine if a property is significant, cultural resource professionals and regulators evaluate the resource using these criteria:

> …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
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> 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
>
> d. that have yielded or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Note that significance and NRHP eligibility are determined by two primary components: integrity *and* one of the four types of association and data potential listed under 36 CFR 60.4(a-d). The criterion most often applied to archeological sites is the last—and arguably the broadest—of the four; its phrasing allows regulators to consider a broad range of research questions and analytical techniques that may be brought to bear (36 CFR 60.4[d]).

Occasionally, certain resources fall into categories which require further evaluation using one or more of the following Criteria Considerations. If a resource is identified and falls into one of these categories, the Criteria Considerations listed below may be applied in conjunction with one or more of the four National Register criteria listed above:

a. A religious property deriving primary significance from architectural or artistic distinction or historical importance, or

b. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or

c. A birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life, or

d. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or

e. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or

f. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance, or

g. A property achieving significance within the past 50 years if it is of exceptional importance (36 CFR 60.4).

Resources that are listed in the NRHP or are recommended eligible are treated the same under Section 106, and are generally treated the same at the state level as well.

After cultural resources within the APE are identified and evaluated, effects evaluations are completed to determine if the proposed project has no effect, no adverse effect, or an adverse effect on these resources. Effects are determined by assessing the impacts that the proposed project will have on the characteristics that make the property eligible for listing in the NRHP as well as its integrity. Types of potential adverse effects considered include physical impacts, such as the destruction of all or part of a resource; property acquisitions that adversely impact the historic setting of a resource, even if built resources are not directly impacted; noise and vibration impacts evaluated according to accepted professional standards; changes to significant viewsheds; and cumulative effects that may occur later in time. If the project will have an adverse effect on cultural resources, measures can be taken to avoid, minimize, or mitigate this adverse effect. In some instances, changes to the proposed project can be made to avoid adverse effects. In other cases, adverse effects may be unavoidable, and mitigation to compensate for these impacts will be proposed and agreed upon by consulting parties.

The Antiquities Code of Texas

Because the project is currently owned and funded by the City of Midland, a political subdivision of the State of Texas, the project is subject to the Antiquities Code of Texas (9 TNRC 191), which requires consideration of effects on properties designated as—or eligible to be designated as—SALs, which are defined as:

> ...sites, objects, buildings, structures and historic shipwrecks, and locations of historical, archeological, educational, or scientific interest including, but not limited to, prehistoric American Indian or aboriginal campsites, dwellings, and habitation sites, aboriginal paintings, petroglyphs, and other marks or carvings on rock or elsewhere which pertain to early American Indian or other archeological sites of every character, treasure imbedded in the earth, sunken or abandoned ships and wrecks of the sea or any part of their contents, maps, records, documents, books, artifacts, and implements of culture in any way related to the inhabitants, prehistory, history, government, or culture in, on, or under any of the lands of the State of Texas, including the tidelands, submerged land, and the bed of the sea within the jurisdiction of the State of Texas. (13 TAC 26.2)

Guidelines for the evaluation of cultural resources as SALs and/or for listing on the NRHP, which is also explicitly referenced at the state level, are detailed in 13 TAC 26. An archeological site identified on lands owned or controlled by the State of Texas may be of sufficient significance to allow designation as a SAL if at least one of the following criteria applies:

1. the site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;
2. the site's archeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation interests of the site;
3. the site possesses unique or rare attributes concerning Texas prehistory and/or history;
4. the study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge;
5. the high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to insure [sic] maximum legal protection, or alternatively further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected (13 TAC 26.10).

For archeological resources, the state-level process requires securing and maintaining a valid Texas Antiquities Permit from the THC, the lead state agency for Antiquities Code compliance, throughout all stages of investigation, analysis, and reporting.

Survey Methods and Protocols

With the goals and guidelines above in mind, CMEC personnel conducted an intensive survey in April 2015, per category 6 under 13 TAC 26.15 and using the definitions in 13 TAC 26.3, searching for previously identified and unidentified archeological sites (**Figure 2**). Field methods complied with the coverage requirements of 13 TAC 26.15, as elaborated by the THC and CTA.

The shovel testing and collection protocols in the approved scope for Texas Antiquities Permit 7229 were moot; previous disturbance prevented shovel testing, and no archeological materials were observed or found.

No materials were collected during the investigation; therefore, this project generated no archeological materials to be curated. Project field notes, forms, and other data will be made available to future researchers at TARL per 13 TAC 26.16 and 26.17.

Project APE

0 500 Feet
0 150 Meters

Figure 2

Location of Archeological APE (Aerial Base)

COX | McLAIN Environmental Consulting

Prepared for: City of Midland	1 in = 500 feet
	Scale: 1:6,000
Prepared by: SL	Date: 4/24/2015

Sources: TARL (2014)
Aerial Source: NAIP (2014)

G:\Projects\CityofMidland\Midland_Space_and_Air_Port\Figure 2_Arch Proj Loc_Permit_Aerial_20150424.mxd

4.0 Results and Recommendations

Field Observations

In April 2014, CMEC personnel conducted an intensive survey of the 10.8-acre APE. Ground surface visibility was generally moderate to high, between 50 and 90 percent (see **Figures 2** and **3**).

Figure 3. View northwest across the APE. Note caliche fragments churned up from near-surface bedrock.

The survey began in the southwest corner of the APE, where recent landscaping has caused substantial disturbance, including a raised plant bed (**Figure 4**) surrounded by floodlights supplied by underground electrical lines (**Figure 5**), newly planted trees, and irrigation lines (**Figure 6**).

Figure 4. View north at recent landscaping in southwest corner of airport property. Note exposed caliche in drainage ditch in foreground.

Figure 5. View of typical floodlight surrounding recently landscaped area.

Figure 6. View north at recently planted trees with subsurface irrigation lines in southwest corner of airport property. Note caliche fragments from near-surface bedrock.

Continuing east and north, CMEC archeologists found further disturbances throughout the APE, including major utility crossings (**Figure 7**), previous road construction and use of unprepared surfaces as informal roads (**Figure 8**), and previous excavation/filling with imported materials (**Figure 9**). Gravel, concrete and asphalt fragments, and other construction/demolition debris were noted throughout the APE.

One historic-age feature, a short railroad spur associated with the former military airfield, was observed curving from the south side of the APE to the north and east, for a total length of approximately 0.4 miles (**Figures 10** and **11**). No historic-age archeological materials were found near the railroad. Given the fact that the tracks are no longer complete (see partial removal/demolition in **Figure 11**) and are no longer in context with other historic airfield infrastructure or buildings, modification/removal of the tracks would not constitute a direct or indirect effect on a significant resource. Historic buildings/structures issues are discussed further in a separate Mead & Hunt report to be submitted to the Historic Programs Division.

Figure 7. View northeast at utility crossing near center of APE.

Figure 8. View west along road along north side of APE, in proposed utility installation area.

Figure 9. View of typical imported gravels near center of APE.

Figure 10. View north along historic-age railroad tracks (addressed in separate buildings/structures report) running through APE.

Figure 11. View west from northeast end of APE, along proposed roadway route and current route of historic-age railroad track remnants. Note that rails are partially buried in the background and pulled up/misaligned in the foreground.

Recommendations

No evidence was found of preserved deposits with a high degree of integrity; associations with distinctive architectural and material culture styles; rare materials and assemblages; the potential to yield data important to the study of preservation techniques and the past in general; or potential attractiveness to relic hunters (13 TAC 26.10; 36 CFR 60.4).

Based on the intensity and variety of disturbances noted with the APE and the lack of evidence of significant cultural resources, no further work within the APE is recommended. If any unanticipated discoveries occur during construction, work should halt immediately and the Archeology Division of the THC should be contacted.

No archeological materials were collected, however, all notes, photos, forms, and other information generated from this work will be permanently housed at TARL at the University of Texas at Austin per TAC 26.27 and 26.5.

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Appendix G – Public Agency Review of the Draft PEA

Appendix G – Public & Agency Review of the Draft PEA

Public Involvement Details

A public notice (found in this section) was advertised in a local newspaper explaining that the Draft Programmatic Environmental Assessment (PEA) was available for public review and comment and included directions on how to provide comments regarding the proposed action to the project team. To allow the public a chance to thoroughly review the Draft PEA, the document was available for 31 days prior to the closing of the commenting period. Hardcopies of the Draft PEA document were available for public review at the Midland International Air & Space Port, Midland County Public Library, City of Midland Office, and the Federal Aviation Administration (FAA) Southwest Regional Office during normal business hours. An online version was also available on the Airport's website.

Summary of Agency and Public Comments and Responses

No public comments were received. However, correspondence from four agencies were received on the Draft PEA and their letters can be found in the following pages.

Summary of Agency Comments Received on the Draft PEA:

Texas Parks & Wildlife Department – March 9, 2016

- Advised the project team to review and incorporate the provisions of an earlier letter (dated May 1, 2015). A copy of the May 1, 2015 letter can be found in **Appendix B Agency & Tribal Coordination**.

  Airport Response: The Final PEA has incorporated the recommendations where applicable.

US Army Corps of Engineers – March 9, 2016

- Stated that the Airport may be contacted for additional information and that an evaluation may be coming.

  Airport Response: No request from the Corps for additional information or consultation was received by the Airport. However, an earlier coordination letter (dated June 2, 2015 and found in **Appendix B Agency & Tribal Coordination**) from the Corps stated that the project will not involve activities subject to Section 404 or Section 10 requirements.

Texas Historical Commission – March 28, 2016

- After a review of the Draft PEA, they had no comments.

Airport Response: Comment noted.

Texas Department of Transportation – April 4, 2016

- Following a review of the Draft PEA, they had no objections to the project, but directed the City of Midland Traffic Engineer to coordinate with the TxDOT Odessa District Director of Operations regarding the layout of the Liberator/LaForce Intersection to mitigate operational impacts.

  Airport Response: No objections noted. Document has been updated to reflect required coordination between Midland and TxDOT.

Midland Reporter-Telegram

Delivering life...every day.

201 East Illinois
Midland, Texas 79701

City of Midland - Airport
P.O. Box 60305
Midland, TX 79711

Account Number: 10007545
Order Number: 0000309154

Before Me, the undersigned authority, on this day personally appeared

Amber Garcia of the Midland Reporter-Telegram, a newspaper of general circulation published in Midland, Ector, Howard, Crane, Glasscock, Martin, Upton, and Andrews Counties, Texas, who stated on oath that the attached instrument was published in said newspaper on each of the following dates to wit:

02-28-2016

A.D. Amber Garcia

Amber Garcia

Sworn and Subscribed to before me, this Monday, February 29, 2016

TWILA GAYE DENISON
Notary Public, State of Texas
My Commission Expires
January 15, 2018

Notary Public

NOTICE OF AVAILABILITY OF A PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

FOR A

BUSINESS PARK DEVELOPMENT

AT THE

MIDLAND INTERNATIONAL AIR & SPACE PORT
MIDLAND, TEXAS

The City of Midland and the Federal Aviation Administration are evaluating the potential effects of the following proposed improvements at the Midland International Air & Space Port (Airport):

- Demolition of an existing dilapidated storage and cargo building
- Removal of an abandoned railroad spur
- Construction of a two-lane, 51-foot-wide access road from La Force Boulevard to the northeast portion of the Park (dead end)
- Division of land into approximately 17 parcels/lots ranging in size from 0.95 acres to 7.37 acres
- Construction of new hangar, office, and warehouse facilities based on tenant requirements
- Extension or upgrade of existing utilities to serve new the facilities

The purpose of the proposed action is to establish a 45-acre development park to provide buildable space for aviation/aerospace and non-aeronautical uses to meet the demands of businesses looking to begin or expand commercial operations at the Airport.

ALL INTERESTED PERSONS are notified of the availability of the Draft Programmatic Environmental Assessment evaluating the potential effects of the proposed improvements. The Draft Programmatic Environmental Assessment will be available on the Airport's website (www.flymaf.com) and during regular business hours beginning on February 28, 2016 at:

- Midland International Air & Space Port, 9506 La Force Blvd. Midland, TX 79706
- Midland County Public Library, 301 W. Missouri Ave., Midland, TX 79701
- City of Midland, Office of the City Secretary, 300 N. Loraine, Midland, TX 79701
- FAA Southwest Regional Office, Texas Airports Development Office, 10101 Hillwood Parkway, Fort Worth, TX 76177

Citizens are also encouraged to submit written comments or concerns by mail or email. Comments submitted in this manner must be received by **Wednesday, March 30, 2016**, to be included in the transcript of the project. Send written comments to:

MEAD & HUNT, Inc.
William Ballard, AICP
2605 Port Lansing Road
Lansing, MI 48906
Email - william.ballard@meadhunt.com

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Legal & Public Notices

CITATION BY PUBLICATION DETERMINATION OF HEIRSHIP

The State of Texas § L. SHANE STOKES, Applicant's Attorney
County of Midland § 300 NORTH MARIENFELD 700
§ MIDLAND, TX 79701

To all persons interested in the estate of

ROBERT CLINTON JONES, Deceased
Cause No. P18432
in COUNTY COURT, Midland County, Texas

The alleged heir(s) at law in the above-numbered and entitled estate filed an Application to Determine Heirship in this estate on 2/02/2016, requesting that the Court determine who are the heirs and only heirs of ROBERT CLINTON JONES, Deceased, and their respective shares and interests in such estate.

The court may act on this application at any call of the docket on or after 10:00 a.m. 3/07/2016, which is the first Monday next after the expiration of 10 days from the date of posting this citation, at the Midland County Courthouse, 500 N. Loraine, Midland, Texas 79701.

All persons interested in this case are cited to appear before this Honorable Court by filing a written contest or answer to this Application should they desire to do so. **To ensure its consideration, you or your attorney must file any objection, intervention, or response** in writing with the County Clerk of Midland County, Texas **on or before the above-noted date and time.**

Given under by hand and seal of the COUNTY COURT of Midland County, Texas at the office of the Midland County Clerk in Midland, Texas on February 23rd 2016.

Alison Haley
County Clerk, Midland County, Texas
Box 1350, Midland, Texas 79702
By: SHON BRENT, Deputy

Legal & Public Notices

CITATION BY PUBLICATION (DIVORCE - CHILDREN)

THE STATE OF TEXAS

TO: HORACE WITTMORE BYGRAVE

NOTICE TO THE DEFENDANT: "YOU HAVE BEEN SUED. YOU MAY EMPLOY AN ATTORNEY. IF YOU OR YOUR ATTORNEY DO NOT FILE A WRITTEN ANSWER WITH THE CLERK WHO ISSUED THIS CITATION BY 10:00 A.M. ON THE MONDAY NEXT FOLLOWING THE EXPIRATION OF TWENTY DAYS AFTER YOU WERE SERVED THIS CITATION AND PETITION, A DEFAULT JUDGMENT MAY BE TAKEN AGAINST YOU."

GREETINGS: HORACE WITTMORE BYGRAVE

"**YOU ARE HEREBY COMMANDED** to appear and answer before the Honorable Judge David W. Lindewood and the 318th District Court, Midland, Texas, at the Courthouse in Midland County, Texas, at or before 10:00 o'clock a.m. of the Monday next after the expiration of 20 days from the date of service of this Citation, then and there to answer the ORIGINAL PETITION OF DIVORCE of VERONICA ROSEMARIE BYGRAVE - Petitioner, filed in said Court on the 20th of September, 2015 against HORACE WITTMORE BYGRAVE - Respondent and said suit being Cause Number FM59484 on the docket of said court and entitled.

IN THE MATTER OF MARRIAGE OF: VERONICA ROSEMARIE BYGRAVE - PETITIONER, AND HORACE WITTMORE BYGRAVE - RESPONDENT, AND IN THE INTEREST OF JOSHUA THEODORE BYGRAVE, MINOR CHILD.

The nature of which suit is a request to dissolve marriage by divorce and matter of conservatorship of minor child/children.

The Court has authority in this suit to enter any judgment or decree dissolving the marriage and providing for division of property for any matter in the interest of the child/children including, but not limited to, the appointment of a conservator and order for child-support, all of which will be binding upon you."

Issued and given under my hand and seal of said Court at Midland, Texas on February 19, 2016.

Ross Bush, District Clerk
Midland County, Texas

By: Gilda Morales, Deputy

Legal & Public Notices

NOTICE OF AVAILABILITY OF A PROGRAMMATIC

ENVIRONMENTAL ASSESSMENT FOR A

BUSINESS PARK DEVELOPMENT

AT THE MIDLAND INTERNATIONAL AIR & SPACE PORT MIDLAND, TEXAS

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- Removal of an abandoned railroad spur
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- Division of land into approximately 17 parcels/lots ranging in size from 0.95 acres to 7.37 acres
- Construction of new hangar, office, and warehouse facilities based on tenant requirements
- Extension or upgrade of existing utilities to serve new the facilities

The purpose of the proposed action is to establish a 45-acre development park to provide buildable space for aviation/aerospace and non-aeronautical uses to meet the demands of businesses looking to begin or expand commercial operations at the Airport.

ALL INTERESTED PERSONS are notified of the availability of the Draft Programmatic Environmental Assessment evaluating the potential effects of the proposed improvements. The Draft Programmatic Environmental Assessment will be available on the Airport's website (www.flymaf.com) and during regular business hours beginning on February 28, 2016 at:

- Midland International Air & Space Port, 9506 La Force Blvd Midland, TX 79706
- Midland County Public Library, 301 W. Missouri Ave., Midland, TX 79701
- City of Midland, Office of the City Secretary, 300 N. Loraine, Midland, TX 79701
- FAA Southwest Regional Office, Texas Airports Development Office, 10101 Hillwood Parkway, Fort Worth, TX 76177

Citizens are also encouraged to submit written comments or concerns by mail or email. Comments submitted in this manner must be received by **Wednesday, March 30, 2016,** to be included in the transcript of the project. Send written comments to:

MEAD & HUNT, Inc.
William Ballard, AICP
2605 Port Lansing Road
Lansing, MI 48906
Email - william.ballard@meadhunt.com

Auctions

Legal & Public Notices

NOTICE OF PUBLIC AUCTION
City of Midland will hold a Public Vehicle Auction at Action Wrecker Service, Inc., 1109 S. Midland Dr. on Saturday, March 5, 2015. Gates open at 8:00 AM. Auction begins at 10:00 AM. All vehicles will be sold to the highest bidder. Full payment is due at the time of purchase. Buyer has five days to remove vehicles from impound lot. For more information visit www.actionwrecker.com or contact Action Wrecker Service Inc., 1109 S Midland Drive, Midland, TX (432) 697-8697.

Legal & Public Notices

APPLICATION HAS been made with the Texas Alcohol Beverage Commission for BQ Wine and Beer Retailers Permit by Bowen's Mini Super to be located at 3400 W. Thomason Drive, Midland, icMidland County, Texas 79703. Owner Diana Villarreal.

Legal & Public Notices

REQUEST FOR PROPOSAL
#303-6-20549

The Texas Facilities Commission seeks a lease of approx. 16,717 sq. ft. of space that consists of 16,522 sq. ft. of office space and 195 sq. ft. of outdoor employee lounge area space in Midland or Odessa, TX for the Department of Public Safety (DPS). Proposal deadline is March 29, 2016. For details contact Evelyn Esquivel at (512) 463-6494 or go to http://esbd.cpa.state.tx.us/bid_show.cfm?bidid=122900.

Legal & Public Notices

Notice #3

Callon Petroleum Operating Company is hereby providing Notice of Intent to Move in Equipment and Spud the Pecan Acres 22A4 11SH well located 310' FNL and 610' FEL of Section 22, Block 40, T-1-S, T&P RR Co. Survey, Midland County, Texas, within the City Limits of Midland. This notice is a requirement of the City of Midland Under Title VI, Chapter 1, Section 23 labeled "Ordinance No. 8769" more particularly found under Section L (7) effective January 1, 2010.

Legal & Public Notices

NOTICE #2

CALLON Petroleum Operating Company is hereby providing Notice of Intent to Move in Equipment and Spud the Pecan Acres 22A3 10SH well located 280' FNL and 610' FEL of Section 22, Block 40, T-1-S, T&P RR Co. Survey, Midland County, Texas, within the City Limits of Midland. This notice is a requirement of the City of Midland Under Title VI, Chapter 1, Section 23 labeled "Ordinance No. 8769" more particularly found under Section L (7) effective January 1, 2010.

Legal & Public Notices

NOTICE OF APPLICATION
FOR DISPOSAL WELL PERMIT

PT Petroleum, LLC, c/o Box 953, Midland, TX 79702 is applying to the Railroad Commission of Texas for a permit to dispose of produced formation water/fluid into a formation that is not productive of oil or gas.

The applicant proposes to dispose of fluids into the: Spraberry (Trend Area) (formation), University Red 515 (lease), Well Number: 1D. The proposed injection wells are located 11.25 miles in a SE direction from: Rankin, in the Spraberry (Trend Area) field, in Upton County, TX.

Fluid will be disposed into strata in the subsurface depth interval from 3700 to 4800 feet.

LEGAL AUTHORITY: Chapter 27 of the Texas Water Code, as amended, Title 3 of the Texas Natural Resources Code, as amended, and the Statewide Rules of the Oil and Gas Division of the Railroad Commission of Texas.

Requests for a public hearing from persons who can show they are adversely affected or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of publication, to the Environmental Services Section, Oil and Gas Division, Railroad Commission of Texas, P.O. Box 12967, Austin, Texas 78711-2967 (Telephone 512-463-6792).

appointment of a conservator and order for child-support, all of which will be binding upon you."

Issued and given under my hand and seal of said Court at Midland, Texas on February 19, 2016.

Ross Bush, District Clerk
Midland County, Texas

By: Gilda Morales, Deputy

Legal & Public Notices

NOTICE OF AVAILABILITY OF A PROGRAMMATIC

ENVIRONMENTAL ASSESSMENT FOR A

BUSINESS PARK DEVELOPMENT

AT THE MIDLAND INTERNATIONAL AIR & SPACE PORT MIDLAND, TEXAS

The City of Midland and the Federal Aviation Administration are evaluating the potential effects of the following proposed improvements at the Midland International Air & Space Port (Airport):

- Demolition of an existing dilapidated storage and cargo building
- Removal of an abandoned railroad spur
- Construction of a two-lane, 51-foot-wide access road from LaForce Boulevard to the northeast portion of the Park (dead end)
- Division of land into approximately 17 parcels/lots ranging in size from 0.95 acres to 7.37 acres
- Construction of new hangar, office, and warehouse facilities based on tenant requirements
- Extension or upgrade of existing utilities to serve new the facilities

The purpose of the proposed action is to establish a 45-acre development park to provide buildable space for aviation/aerospace and non-aeronautical uses to meet the demands of businesses looking to begin or expand commercial operations at the Airport.

ALL INTERESTED PERSONS are notified of the availability of the Draft Programmatic Environmental Assessment evaluating the potential effects of the proposed improvements. The Draft Programmatic Environmental Assessment will be available on the Airport's website (www.flymaf.com) and during regular business hours beginning on February 28, 2016 at:

- Midland International Air & Space Port, 9506 La Force Blvd. Midland, TX 79706
- Midland County Public Library, 301 W. Missouri Ave., Midland, TX 79701
- City of Midland, Office of the City Secretary, 300 N. Loraine, Midland, TX 79701
- FAA Southwest Regional Office, Texas Airports Development Office, 10101 Hillwood Parkway, Fort Worth, TX 76177

Citizens are also encouraged to submit written comments or concerns by mail or email. Comments submitted in this manner must be received by **Wednesday, March 30, 2016,** to be included in the transcript of the project. Send written comments to:

MEAD & HUNT, Inc.
William Ballard, AICP
2605 Port Lansing Road
Lansing, MI 48906
Email - william.ballard@meadhunt.com

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Legal & Public Notices

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Legal & Public Notices

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The applicant proposes to dispose fluids into the: Spraberry (Trend Area) mation), University Red 515 (lease), Number: 1D. The proposed injec wells are located 11.25 miles in a SE rection from: Rankin, in the Sprab (Trend Area) field, in Upton County, T

Fluid will be disposed into strata in subsurface depth interval from 370 4800 feet.

LEGAL AUTHORITY: Chapter 27 of Texas Water Code, as amended, Tit of the Texas Natural Resources Code amended, and the Statewide Rules of Oil and Gas Division of the Railro Commission of Texas.

Requests for a public hearing from persons who can show they are advers affected or requests for further infor tion concerning any aspect of the appli tion should be submitted in writing, wi fifteen days of publication, to the Envir mental Services Section, Oil and Gas D sion, Railroad Commission of Texas, P Box 12967, Austin, Texas 78711-29 (Telephone 512-463-6792).

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MAF Spaceport Draft Programmatic EA
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Fort Worth

Carter P. Smith
Executive Director

March 9, 2016

Mr. William Ballard
MEAD & HUNT, Inc.
2605 Port Lansing Road
Lansing, MI 48906

RE: Draft Programmatic Environmental Assessment (PEA) for Proposed Improvements at the Midland International Air and Space Port, Midland, Texas

Dear Mr. Ballard:

Texas Parks and Wildlife Department (TPWD) has received the draft PEA for the above referenced project. TPWD staff has reviewed the information provided and offers the following comments and recommendations concerning this project.

Project Description

The proposed actions that require the preparation of the PEA at the Midland International Air &Space Port include:

- Demolition of an existing dilapidated storage building
- Demolition of an existing dilapidated cargo building
- Removal of an abandoned railroad spur
- Construction of a two-lane, 51-foot-wide access road from La Force Boulevard to the northeast portion of the Park (dead end)
- Division of land into approximately 17 parcels/lots ranging in size from 0.95-acres to 7.37-acres
- Construction of new hangar, office, and warehouse facilities based on tenant requirements
- Extension or upgrade of existing utilities to serve new the facilities

Previous Coordination

TPWD provided information and recommendations regarding this project to MEAD & HUNT, Inc. on May 1, 2015. This letter is included in Appendix B of the PEA.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

Recommendation: Please review the previous TPWD correspondence and consider the recommendations provided, as they remain applicable to the project as proposed.

TPWD appreciates the opportunity to provide comments on this PEA. Please contact me at (806) 761-4936 or Richard.Hanson@tpwd.texas.gov if you have any questions or need additional assistance.

Sincerely,

Rick Hanson

Rick Hanson
Wildlife Habitat Assessment Program
Wildlife Division

RH: gg.ERCS-12263

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

March 9, 2016

Regulatory Division

SUBJECT: Project Number SWF-2016-00088, Improvements at Midland International Air & Space Port

William Ballard
Mead & Hunt, Inc.
2605 Port Lansing Rd
Lansing, MI 48906

Dear Mr. Ballard:

Thank you for your letter received March 7, 2016, concerning a proposal by the City of Midland to construct improvements to the existing facility located in Midland County, Texas. This project has been assigned Project Number SWF-2016-00088. Please include this number in all future correspondence concerning this project.

Mr. Darvin Messer has been assigned as the regulatory project manager for your request and will be evaluating it as expeditiously as possible.

You may be contacted for additional information about your request. For your information, please reference the Fort Worth District Regulatory Branch homepage at www.swf.usace.army.mil/Missions/Regulatory.aspx and particularly guidance on submittals at www.media.swf.usace.army.mil/pubdata/environ/regulatory/introduction/submital.pdf and mitigation at www.usace.army.mil/Missions/Regulatory/Permitting/Mitigation.aspx that may help you supplement your current request or prepare future requests.

If you have any questions about the evaluation of your submittal or would like to request a copy of one of the documents referenced above, please refer to our website at http://www.swf.usace.army.mil/Missions/Regulatory.aspx or contact Mr. Darvin Messer at the address above or telephone 817-886-1744 and refer to your assigned project number. Please note that it is unlawful to start work without a Department of the Army permit if one is required.

Please help the regulatory program improve its service by completing the survey on the following website: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

Stephen L Brooks
Chief, Regulatory Division

William Ballard

From: Linda Henderson <Linda.Henderson@thc.state.tx.us>
Sent: Monday, March 28, 2016 9:54 AM
To: William Ballard
Cc: Rick Mitchell
Subject: SHPO in receipt of Draft PEA for Midland International Air & Space Port

Mr. Ballard,

Thank you for sending us the Draft PEA for the Midland International Air & Space Port new business park development. We have no comments at this time but will add the information to our files. We appreciate the work that Mead and Hunt has done on this project.

Best,

Linda

Linda Henderson
Historian, Federal Programs
History Programs Division
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276
phone: 512/463-5851
www.thc.state.tx.us

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April 4, 2016

William Ballard, AICP
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, MI 48906

Re: Draft Programmatic Environmental Assessment for Proposed Improvements at the Midland International Air & Space Port (MAF), Midland, Texas

Dear Mr. Ballard,

The Odessa District of the Texas Department of Transportation (TxDOT) has completed its review of the proposed project information received on March 1, 2016 concerning the above project. Based on the information provided, we have no objections.

As stated in our letter dated May 15, 2015, TxDOT requests that Mead & Hunt, Inc. ensure that the City of Midland Traffic Engineer coordinates with the TxDOT Odessa District Director of Operations regarding layout and design of revised Liberator/LaForce Intersection to mitigate operational impact to BI 20-E/LaForce intersection.

Thank you for affording TxDOT the opportunity to comment on the Draft Programmatic Environmental Assessment. If you have any questions or require further assistance, please contact me at (432) 498-4712 or gary.law@txdot.gov.

Sincerely,

Gary J. Law, P.E.
Director of Transportation
Planning and Development