

Environmental Assessment for the Construction and Operation of the Westside Shoppette/Gas Station at Kirtland Air Force Base, Albuquerque, Bernalillo County, New Mexico

DRAFT
August 2008



Prepared by:
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Proposed Action: Construction and operation of a new shoppette/gas station facility. New construction would total 4,940 square feet and include retail gasoline sales, a canopy roofing system, and 32 parking spaces.

Report Designation: Environmental Assessment.

Responsible Agency: Department of Air Force.

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Abstract: AAFES proposes to construct and operate a new shoppette/gas station for use by authorized patrons at Kirtland Air Force Base (Kirtland AFB), Albuquerque, Bernalillo County, New Mexico.

The preferred site (Alternative 3) for the Proposed Action would involve the construction of the proposed facility in a location that complies with the Kirtland AFB General Plan (Kirtland AFB 2002). The existing AAFES shoppette is outdated and is unable to meet customer demand and convenience. In addition, the existing facility cannot be updated to meet current code. The construction of the new facilities would enhance customer services on the Base and would provide AAFES and the Kirtland AFB Morale, Welfare, and Recreation program with additional revenue.

Under the No Action Alternative, AAFES would not construct the new facilities and Kirtland AFB patrons would continue to utilize outdated facilities that have exceeded their useful life and are presently unable to meet customer demand.

This Environmental Assessment (EA) evaluates the Preferred Alternative and the No Action Alternative. Resources evaluated in this EA include: traffic; visual resources/aesthetics; topography, geology and soils; air quality; biological resources; cultural resources; water resources; hazardous materials and waste; socioeconomics; environmental justice; and protection of children. No significant impacts would result from the implementation of the Proposed Action or the No Action Alternative.

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Table of Contents

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| Cover Sheet | iii |
| List of Tables | vii |
| List of Illustrations | vii |
| Acronyms and Abbreviations | ix |
| 1 Purpose and Need for the Action..... | 1-1 |
| 1.1 Introduction and Background | 1-1 |
| 1.2 Purpose and Need for the Proposed Action..... | 1-1 |
| 1.3 Decision to be Made..... | 1-3 |
| 1.4 Applicable Regulatory Requirements | 1-3 |
| 1.5 Organization of the Document | 1-5 |
| 2 Description of the Proposed Action and Alternatives..... | 2-1 |
| 2.1 Description of the Proposed Action | 2-1 |
| 2.2 Alternatives Development Process..... | 2-1 |
| 2.2.1 Site-Selection Criteria | 2-3 |
| 2.2.2 Alternatives | 2-3 |
| 2.2.3 Alternatives Carried Forward for Further Analysis..... | 2-5 |
| 3 Affected Environment and Environmental Consequences..... | 3-1 |
| 3.1 Resources Eliminated From Further Consideration | 3-1 |
| 3.2 Traffic..... | 3-2 |
| 3.3 Visual Resources/Aesthetics | 3-3 |
| 3.4 Topography, Geology, and Soils..... | 3-4 |
| 3.5 Air Quality..... | 3-5 |
| 3.6 Biological Resources..... | 3-9 |
| 3.7 Cultural Resources | 3-10 |
| 3.8 Water Resources..... | 3-10 |
| 3.9 Hazardous Materials and Waste | 3-12 |
| 3.10 Socioeconomics..... | 3-13 |
| 3.11 Environmental Justice | 3-14 |
| 3.12 Protection of Children | 3-15 |
| 3.13 Cumulative Impacts..... | 3-16 |
| 3.14 Unavoidable Adverse Environmental Impacts..... | 3-17 |
| 3.15 Irreversible and Irretrievable Commitment of Resources | 3-18 |
| 4 List of Organizations and Individuals Contacted, Reviewers, and Preparers..... | 4-1 |
| 4.1 Individuals Contacted and Reviewers | 4-1 |
| 4.2 List of Preparers | 4-1 |
| 5 References | 5-1 |

Appendices

- A Fugitive Dust Construction Application
- B Correspondence and Consultation
- C Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under a NPDES General Permit and Notice of Termination (NOT)
- D Newspaper Affidavit
- E Finding of No Significant Impact (FONSI)

List of Tables

| <u>Table</u> | <u>Page</u> |
|--|-------------|
| 1-1 Environmental, Safety, and Health Compliance Requirements | 1-4 |
| 2-1 Comparison of Alternative Sites for the Proposed Action | 2-5 |
| 3-1 Significant Emission Rates | 3-6 |
| 3-2 Global Warming Potentials | 3-6 |
| 3-3 Total Air Emission Estimates Associated with the Proposed Action | 3-7 |
| 3-4 Air Emissions from Gas-Dispensing Operations | 3-8 |
| 3-5 Demographic Breakdown | 3-14 |

List of Illustrations

| <u>Figure</u> | <u>Page</u> |
|---|-------------|
| 1-1 Regional Location Map, Kirtland Air Force Base, Albuquerque, New Mexico | 1-2 |
| 2-1 Alternative Site Locations and Land Use | 2-2 |
| 2-2 Preliminary Site Plan, Kirtland Air Force Base, Albuquerque, New Mexico | 2-6 |

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Acronyms and Abbreviations

| | |
|-------------------|---|
| AAFES | Army and Air Force Exchange Service |
| AFB | Air Force Base |
| AFI | Air Force Instruction |
| BMP | best management practice |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CH ₄ | methane |
| CO | carbon monoxide |
| CO ₂ | carbon dioxide |
| CO _{2EQ} | carbon dioxide equivalent |
| EA | Environmental Assessment |
| EO | Executive Order |
| EPA | U.S. Environmental Protection Agency |
| FONSI | Finding of No Significant Impact |
| GWPs | Global Warming Potentials |
| HAP | Hazardous Air Pollutants |
| IPCC | Intergovernmental Panel on Climate Change |
| LEED | Leadership in Energy and Environmental Design |
| LOS | level of service |
| MBTA | Migratory Bird Treaty Act |
| N ₂ O | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NC | New Construction |
| NEPA | National Environmental Policy Act |
| NMAC | New Mexico Administrative Code |
| NOI | Notice of Intent |
| NOT | Notice of Termination |
| NO _x | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| O ₃ | ozone |

Environmental Assessment

| | |
|-------------------|--|
| OPS | operations |
| Pb | lead |
| PM ₁₀ | particulate matter 10 microns or less in diameter |
| PM _{2.5} | particulate matter less than 2.5 microns in diameter |
| PSD | Prevention of Significant Deterioration |
| RCRA | Resource Conservation and Recovery Act |
| SO ₂ | sulfur dioxide |
| SPCC | spill prevention, control, and countermeasures |
| SWPPP | stormwater pollution and prevention plan |
| tpy | tons per year |
| U.S.C. | United States Code |
| UFC | Unified Facilities Criteria |
| USAF | United States Air Force |
| VOC | volatile organic compound |

1 Purpose and Need for the Action

1.1 Introduction and Background

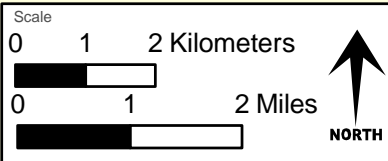
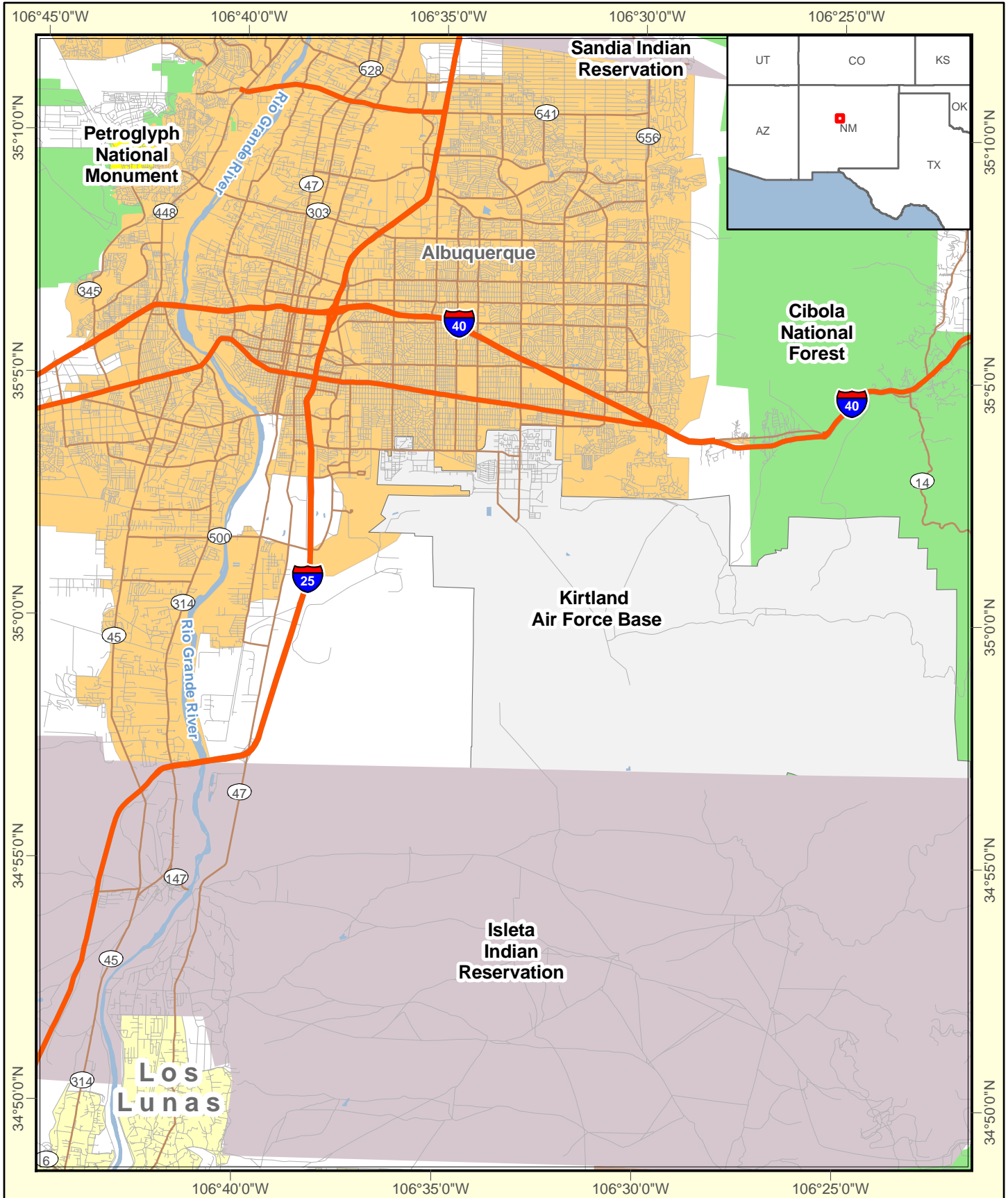
The Army and Air Force Exchange Service (AAFES) proposes to construct and operate a shopette/gas station facility at Kirtland Air Force Base (Kirtland AFB) in Albuquerque, Bernalillo County, New Mexico (Figure 1-1). This Environmental Assessment (EA) addresses the potential impacts related to the construction and operation of the new facilities and the associated permit requirements. In addition, this report identifies mitigation measures to minimize the potential environmental consequences associated with the implementation of the Proposed Action. This EA does not address the final disposition of the existing AAFES facility (Building 471); however, at this time, it is understood that operations at the existing facility will cease upon the transfer to the new shopette/gas station facility (Parker 2008).

Kirtland AFB is the third-largest U.S Air Force Base, encompassing 51,588 acres. The 377th Air Base Wing of the Air Force Materiel Command is the host unit, whose mission is to provide world-class nuclear surety, expeditionary forces, and support to base operations. The 377th Air Base Wing hosts more than 76 federal government and 100 associate units.

1.2 Purpose and Need for the Proposed Action

The purpose of the action is to better serve the needs of the military community through the improvement of shopping and other services. The existing AAFES facility (Building 471) was constructed in 1954 and is unable to adequately satisfy the Base demand for gasoline and retail services. The age of the existing facility is such that building upgrades cannot be accomplished to meet current building standards. Construction of a new shopette/gas station facility would increase the size and improve the condition of the current facility, as well as increase the value to potential customers. A new gas station would improve the existing infrastructure while also increasing services to customers. Further, Base personnel would benefit from the additional contribution to the Base's Morale, Welfare, and Recreation program budget from the increased AAFES revenues.

The need for this action is to provide consolidated, centrally located facilities on Kirtland AFB where authorized customers can obtain multiple services at a single location. This would reduce the need to travel off-Base and allow customers to make a single stop for multiple services on the Installation. In addition, building improvements would increase energy efficiency and reduce overall operational costs.



**Figure 1-1: Regional Location Map
Kirtland Air Force Base
Albuquerque, New Mexico**

Source: ESRI, 2005
ecology and environment, inc.
International Specialists in the Environment

1.3 Decision to be Made

The United States Air Force (USAF) must decide, based on the analyses contained herein, whether a finding of no significant impact (FONSI) is applicable or whether the preparation of an Environmental Impact Statement is required or if no action will be taken.

Under the National Environmental Policy Act (NEPA), federal agencies are required to consider the environmental consequences of proposed actions during the decision-making process. The intent of NEPA is to foster and promote general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans. The Council on Environmental Quality (CEQ) was established under NEPA to guide the implementation of the NEPA process and, in 1978, issued regulations towards this end. (Title 40 Code of Federal Regulations [CFR] Parts 1500-1508).

1.4 Applicable Regulatory Requirements

The NEPA of 1969 (Public Law 91-190, 42 United States Code [U.S.C.] §4321 et. seq.) is a federal agency mandate for a systematic, interdisciplinary approach to environmental planning and decision making. The intent of NEPA is to minimize adverse impacts to the human environment through information availability, the development of alternative actions, and the implementation of mitigation measures.

This EA was prepared in accordance with NEPA; the CEQ regulations implementing NEPA (40 CFR §§1500-1508); and the Department of the Air Force “Environmental Impact Analysis Process” (Air Force Instruction [AFI] 32-7061 as promulgated by 32 CFR Part 989).

Other environmental regulatory requirements relevant to the Proposed Action include, but are not limited to the following:

- Archeological Protection Act, 16 U.S.C 470 et. seq.;
- Clean Air Act, 42 U.S.C. 7401 et. seq.;
- Clean Water Act, 33 U.S.C. 1251 et. seq.;
- Endangered Species Act, 16 U.S.C. 1531 et. seq.;
- Energy Independence and Security Act, H.R.6. P.L. 110-140
- Migratory Bird Treaty Act, 16 U.S.C. 703 et. seq.;
- National Historic Preservation Act, 16 U.S.C 470 et. seq.;
- Noise Control Act, 42 U.S.C 4901 et. seq.;
- Occupational Safety and Health Act, 29 U.S.C. 651 et. seq.;

- Pollution Prevention Act, 42 U.S.C. 13101 et. seq
- Resource Conservation and Recovery Act, 42 U.S.C. 6901 et. seq.; and
- Toxic Substances Control Act, 15 U.S.C. 2601 et. Seq.

In addition, the Proposed Action must comply with a number of Executive Orders (EOs) to include the following:

- EO 11514, Protection and Enhancement of Environmental Quality;
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations;
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks;
- EO 13175, Consultation and Coordination with Indian Tribal Governments; and
- EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds.

| Table 1-1 Environmental, Safety, and Health Compliance Requirements | | |
|---|-------------------------------------|---|
| Source | Responsible Entity | Requirement |
| Kirtland Air Force Base (AFB), Comprehensive Plan - General Plan | Kirtland AFB | Consistency |
| Kirtland AFB Architectural Compatibility Plan | Kirtland AFB | Consistency |
| Kirtland AFB Hazardous Waste Management Plan | Kirtland AFB | Consistency |
| Kirtland AFB Spill Prevention Control and Countermeasures (SPCC) Plan | Kirtland AFB | Consistency |
| Kirtland AFB Integrated Natural Resources Management Plan | Kirtland AFB | Consistency |
| Kirtland AFB Integrated Cultural Resources Management Plan (includes compliance with the Kirtland AFB inadvertent discovery procedures) | Kirtland AFB | Consistency |
| Kirtland AFB Prairie Dog Management Program | Kirtland AFB | Consistency |
| National Pollutant Discharge Elimination System (NPDES) Construction General Permit | Army and Air Force Exchange Service | Preparation and Submittal of Notice of Intent (NOI), preparation of a Stormwater Pollution Prevention Plan (SWPPP), and a Notice of Termination (NOT) |
| City of Albuquerque Environmental Health Department, Air Quality Division | Army and Air Force Exchange Service | Preparation and Submittal of a Fugitive Dust Control Permit within 10 business days prior to construction. No active operations shall commence until a department manager, supervisor, scientist, field operations officer or health specialist signs the fugitive dust |

| Table 1-1 Environmental, Safety, and Health Compliance Requirements | | |
|--|-------------------------------------|--|
| Source | Responsible Entity | Requirement |
| | | control construction permit and a copy of the signed permit is available at the site of active operations ^(a) |
| City of Albuquerque Environmental Health Department, Air Quality Division | Army and Air Force Exchange Service | The Authority to Construct Permit (20.11.41 NMAC) must be obtained prior to work commencing. |
| New Mexico Petroleum Storage Tank Regulations | Army and Air Force Exchange Service | New and Upgraded Storage Tank Systems: Design, Construction and Installation |

Notes:

(a) See Appendix B of this Environmental Assessment (EA).

Key:

NMAC = New Mexico Administrative Code.

1.5 Organization of the Document

This EA follows the format established in 32 CFR Part 989, the USAF guidelines for implementing the CEQ regulations (40 CFR §1502). Section 1 presents the purpose and need for the action. The alternatives, including the consideration of alternative sites for the Proposed Action, are described in Section 2. The affected environment and environmental consequences are detailed in Sections 3. Section 4 presents the distribution of the EA and a list of document preparers. Section 5 provides a list of references utilized in the preparation of this EA. Other documents and resources used to supplement this EA are provided as appendices to this report.

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2 Description of the Proposed Action and Alternatives

This section describes the Proposed Action, the site selection process, alternatives, and the Preferred Alternative. The No Action Alternative is carried forward for analysis as a baseline to which all other alternatives are compared in accordance with NEPA Part 1502.14(d). Alternatives that do not support the purpose and need for the action as described in Section 1 are not considered to be valid options.

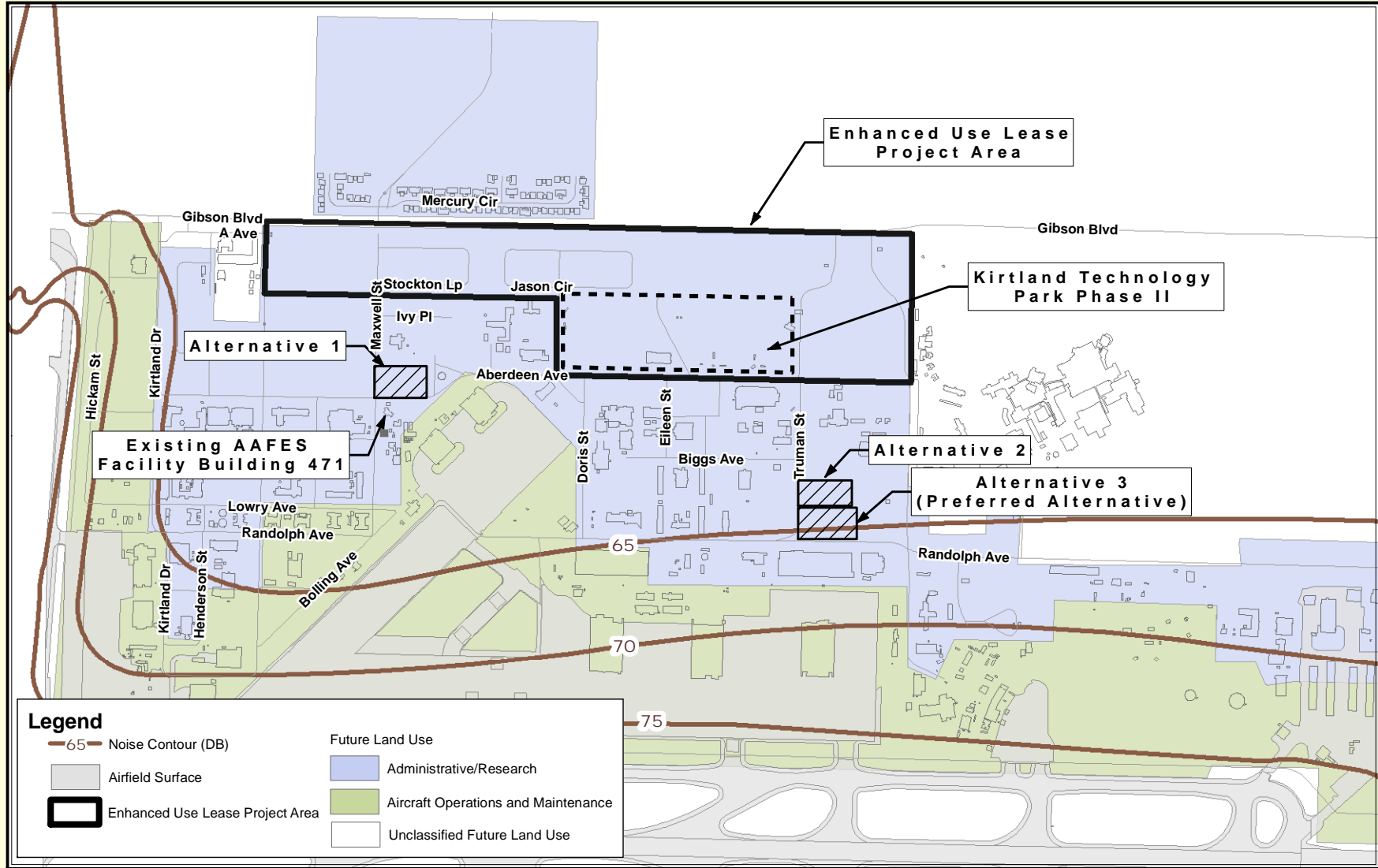
2.1 Description of the Proposed Action

AAFES proposes to construct and operate a new 4,940-square-foot shoppette/gas station facility on a 3.0 acre undeveloped site located on the northeast corner of the Truman Street and Randolph Avenue intersection (Figure 2-1).

Construction would consist of a reinforced concrete slab/foundation with steel or concrete framing, including complete mechanical, electrical, and life/safety systems. The proposed facility would be designed in accordance with Leadership in Energy and Environmental Design (LEED)-New Construction (NC) standards. However, AAFES does not intend to pursue certification for this facility. The proposed facilities would connect to existing utility services and communications systems and would provide for pavement, walks, curbs, gutters, storm drainage, retention walls, and other site improvements, as necessary. These collocated facilities would include retail gasoline sales through the installation of two 12,000-gallon vaulted tanks; four multi-product dispensers with eight pumps; a canopy roofing system; and 32 parking spaces for use by authorized patrons at Kirtland AFB. New construction would be in accordance with all applicable Department of Defense Unified Facilities Criteria (UFC) provisions. Construction is expected to last approximately eight months.

2.2 Alternatives Development Process

Proposed sites were identified according to the size of the parcel and the ability of the site to meet the alternatives selection criteria. Kirtland AFB planners and AAFES staff identified the following three alternatives (Figure 2-1) as potentially suitable for the development of the Proposed Action.



Legend

| | |
|---------------------------------|--|
| 65 Noise Contour (DB) | Future Land Use Administrative/Research |
| Airfield Surface | Aircraft Operations and Maintenance |
| Enhanced Use Lease Project Area | Unclassified Future Land Use |

Scale



Figure 2-1: Future Land Use and Alternative Site Locations Kirtland Air Force Base Albuquerque, New Mexico

Source: Kirtland AFB, 2008

2.2.1 Site-Selection Criteria

In accordance with 32 CFR Part 989.8(c), the development of site-selection criteria is an effective mechanism for the identification, comparison, and evaluation of reasonable alternatives. The following site-selection criteria were developed to be consistent with the purpose and need for the action and to address pertinent environmental, safety, and health factors. These site-selection criteria were used to evaluate alternative sites for the Proposed Action (Table 2-1) and to identify reasonable alternatives for evaluation in this EA:

- **Must Be Consistent with AAFES Mission.** AAFES aims to provide adequate services to Base personnel in a timely and efficient manner through the establishment of central, collocated facilities with high visibility. The site must be located in a highly visible and accessible area of Kirtland AFB.
- **Must Have Adequate Space and Infrastructure to Accommodate New Facilities.** The site must provide adequate space (approximately 3.0 acres of land) to accommodate the Proposed Action. In addition, the site location must provide safe and efficient connectivity to existing infrastructure (i.e., utilities and transportation).
- **Must Be in Compliance with the Kirtland AFB Comprehensive Plan – General Plan.** Construction of the new AAFES facility must not conflict with the long-range development plans of Kirtland AFB. New development must be consistent with the General Plan, giving adequate consideration to the existing functional relationships that support the mission.
- **Must Provide for Safe and Efficient Traffic Flow.** The site must allow for safe vehicular access and provide minimal impacts on existing traffic flow at Kirtland AFB.

2.2.2 Alternatives

The following sections introduce the alternative site locations and summarize each siting alternative against the site-selection criteria. In general, Alternatives 1 and 2 do not meet all the proposed site evaluation criteria and will not be considered in subsequent sections of this analysis. Only Alternative 3 meets all the site evaluation criteria, therefore only Alternative 3 and the No Action Alternative will be considered further in the remaining sections of this document.

Alternative 1

The proposed site is approximately 2.6 acres. The existing land use for the site is designated as Administrative/Research in the Kirtland AFB General Plan (Kirtland AFB 2002). The site is vacant and is located on the northeast corner of the intersection of Aberdeen Avenue and Maxwell Street, north of the existing AAFES facility (Building 471).

Evaluation of Alternative 1 against the site-selection criteria concluded that this alternative fails to comply with several of the site-selection criteria as described above. More specifically, this

site does not provide enough space to accommodate all facilities and the desired number of parking spaces, traffic flow patterns would be less than optimal, and existing utility lines on the property would need to be relocated to incorporate the proposed facility. Therefore, Alternative 1 will not be evaluated further in this EA.

Alternative 2

The proposed site is approximately 1.7 acres. This proposed site is situated on Aircraft Operations and Maintenance and Administrative/Research as designated in the Kirtland AFB General Plan. The site is vacant and is located adjacent to, and north of, the Preferred Alternative site (Alternative 3 site) on Truman Street.

Evaluation of Alternative 2 against the site-selection criteria concluded that this alternative meets all except one of the site-selection criteria. This site offers a central location desired by AAFES and Base personnel, access to infrastructure required by the project, and would be consistent with Kirtland AFB General Plan. However, this property lacks the space necessary for the construction of the proposed facility and the site would be accessible only from Truman Street, creating traffic flow and safety concerns for customers and vendors. Therefore, Alternative 2 will not be evaluated further in this EA.

Alternative 3

The proposed site is approximately 3.0 acres. The existing land use for the site is designated Aircraft Operations and Maintenance in the Kirtland AFB General Plan. The site is vacant and is bounded by a large vacant property to the north, an existing parking lot to the east, Randolph Avenue to the south beyond which is Building 1010, and Truman Street to the west

Evaluation of Alternative 3 against the site-selection criteria concluded that this alternative meets all the site-selection criteria. As such, this site would provide the central location desired by AAFES and Base personnel, would be in compliance with the land use compatibility, and would be compatible with other current and future projects. In addition, the facility site location would provide connectivity to existing utility services. Further, the site is accessible from both Truman Street and Randolph Avenue, which would minimize traffic flow and safety concerns while allowing flow-through traffic for customers and deliveries. This alternative is discussed in detail in subsequent sections.

**Table 2-1
 Comparison of Alternative Sites for the Proposed Action**

| Alternative Site Locations | Selection Criteria | | | Safe and Efficient Traffic Flow |
|----------------------------|-----------------------------------|--------------------------|----------------------|---------------------------------|
| | High Visibility and Accessibility | Space and Infrastructure | Land Use Consistency | |
| Alternative 1 | No | No | Yes | No |
| Alternative 2 | Yes | No | Yes | No |
| Alternative 3 | Yes | Yes | Yes | Yes |

2.2.3 Alternatives Carried Forward for Further Analysis

Description of the Preferred Alternative

The Proposed Action evaluated in this EA is to construct a new 4,940-square-foot shoppette/gas station facility on the Preferred Alternative site location (Alternative 3), as determined in Section 2.2 and illustrated on Figure 2-2.

No Action Alternative

The CEQ Regulations implementing NEPA require that a No Action Alternative be evaluated. Under this alternative, there would be continued use of the existing facility (Building 471), which is located on Aberdeen Avenue between Carlisle and Truman Gates (Figure 2-1). This facility contains two gasoline pumps (four dispensers) and 10 parking spaces and a small retail facility (2,476 sf). Land use is designated as Administrative and Research as depicted in the *Kirtland AFB General Plan*.