Draft

ENVIRONMENTAL ASSESSMENT:

Access Roads and An Associated Interior Road,
Centennial Estates Lease, Ellsworth AFB, SD

February 2012

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Appendices

Acronyms and Abbreviations

ACC	Air Combat Command
AFI	Air Force Instruction
APE	Area of Potential Effect
28th BW	28th Bomb Wing
BMP	Best Management Practice
CM	Centimeter
CAA	Clean Air Act
CAP	Corrective Action Plan
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CES	Civil Engineer Squadron
CO	Carbon Monoxide
CFR	Code of Federal Regulations
CWA	Clean Water Act
DOD	Department of Defense
DOPAA	Description of Proposed Action and Alternatives
dBA	A-weighted decibels
DNL	Day-Night Average A-weighted Sound Level
EA	Environmental Assessment
EAFB	Ellsworth Air Force Base
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact

1	I-90	Interstate 90
2	IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
3	IRC	Industrial Recycling Center
4	IRP	Installation Restoration Program
5	IRT	In-Situ Reductive Treatment
6	MSDS	Material Safety Data Sheet
7	NAACS	National Ambient Air Quality Standards
8	NHPA	National Historic Preservation Act
9	NRCS	Natural Resources Conservation Service
10	NEPA	National Environmental Policy Act of 1969
11	NO_x	Nitrogen Oxides
12	O_3	Ozone
13	OU	Operable Unit
14	RCRA	Resource Conservation and Recovery Act
15	SD	South Dakota
16	SDDENR	South Dakota Department of Environment and Natural Resources
17	SDSWDS	South Dakota Surface Water Discharge System
18	SIP	State Implementation Plan
19	SO_x	Sulfur Oxides
20	TCE	Trichloroethylene
21	USACE	United States Army Corps of Engineers
22	USAF	United States Air Force
23	USDA	United States Department of Agriculture
24	USEPA	United States Environmental Protection Agency
25	VOCs	Volatile Organic Compounds
26	WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

Introduction

Ellsworth AFB (EAFB) is located within Pennington and Meade Counties and is adjacent to the community of Box Elder, South Dakota. EAFB is located approximately eight miles to the east of Rapid City, South Dakota and consists of approximately 5,420 acres. EAFB is accessed from the south via Liberty Boulevard off of Interstate 90 (I-90).

Hunt Development proposes to construct new access roads and an associated interior road that would provide off-base access to the former base housing as per the requirement of the Ground Lease between Hunt Development and EAFB. The proposed access roads and the associated interior road will provide access to the former base housing known as Centennial Estates. Two access points are requested by the City of Box Elder due to the size of the Centennial Estates development. Currently, 283 military housing units are present at EAFB. Current plans indicate that the new access points and roads for Centennial Estates housing allow base personnel and their families access without passing through base security points.

Centennial Estates was constructed during the early 1990s as part of a lease agreement with Hunt Development and the United States Air Force under the auspices of Public Law 98-115, Section 801, and Public Law 99-167. Eight hundred twenty-eight (828) military housing units were constructed for occupation by active duty military members and their dependents. Military family housing units replaced Korean War era units that did not meet existing Air Force standards. Hunt Development was granted a 40-year lease to construct 828 units. The first twenty years of the 40-year lease required the units to be leased to the Air Force for use as military family housing. During the second twenty years, Hunt Development has the option of operating Centennial Estates as residential units. The lease requires that Hunt Development separate Centennial Estates from EAFB by constructing a fence, obtaining utilities from off-base providers and accessing Centennial Estates from off-base. The initial 20-year lease expired on August 1, 2011.

Purpose and Need

The purpose for the Proposed Action is to meet the lease requirements of separating Centennial Estates from EAFB by providing two access points to the existing on-base housing development without the necessity of entering secure areas of EAFB. In addition, the separation would require a change in the existing security fence boundary as well as the implementation of a security fence and providing utilities to Centennial Estates from off-base commercial providers.

The need for the Proposed Action will be accomplished through the development of access roads and an associated interior road, a re-routing and implementation of a perimeter fence and as well as typical underground and overhead utilities. As per the lease agreement between Hunt Development and EAFB, Hunt Development is allowed to lease the residences to the public. Therefore, the implementation of a

security fence would assure that residents would have an alternative access to Centennial Estates without accessing secure areas of EAFB.

Description of the Proposed Action and Alternatives

Proposed Action:

Prior to the construction of the access road, an easement though the eastern portion of Tract 308 will be granted. In addition, a utility easement along the access road will be granted for the installation of public utilities to supply natural gas, electric, and water services to Centennial Estates. When the access road meets with 224th Place (also known as At County Highway Mc-2), 224th Place will continue to the west onto EAFB property and connect to both Centennial Drive and Dakota Drive.

A new perimeter security fence will also be installed to separate Centennial Estates from EAFB. Interior roads into Centennial Estates will be constructed which will also include the development of utility easements along the access and interior roads. Typical underground utilities and easements as well as standard street lights will also be included with the development of the access road and associated interior roads.

An additional interior road will also be constructed on the northwestern portion of Centennial Estates. The interior road will connect Desmet Court and Verendrye Court. This interior road will also be equipped with typical underground utilities, easements and standard street lights.

This EA has been prepared to facilitate planning, evaluate and determine if there are any potentially significant cumulative impacts, and to clearly communicate to the public the analysis of individual and cumulative impacts. Consistent with the National Environmental Policy Act (NEPA) and Air Force regulations, notice of the availability of this document will be published in the local newspapers, be made available at the local library, and published on the EAFB's website. The EA evaluates the Proposed Action, an alternative action, as well as the no action alternative which are included below:

1. The construction of the access road in its proposed location (the Preferred Alternative),
2. The construction of the access road farther to the east and to the north of the proposed location,
3. The No Action Alternative.

See Figures 2.1, 2.2, and 2.3 for the proposed access road and the interior road locations.

Alternative 2:

An alternative to the Proposed Action (the preferred alternative) consisted of the extension of Tower Road following the EAFB eastern boundary from 225th Street to the north to 224th Place. From this point, 224th Place will continue to the west and connect to both Centennial Drive and Dakota Drive. From the intersection of 224th Place and Tower Road, Tower Road will be extended and will end approximately

1,950 feet to the north. The road will continue approximately 3,000 feet to the west to EAFB. This alternative will cross over private land and will require condemnation from the private landowners.

See Figure 2.4 for the location of the access road requiring condemnation.

No Action Alternative:

The No Action Alternative represents baseline conditions. Under the No Action Alternative, an easement through the eastern portion of EAFB Tract 308 would not be granted for the construction of Tower Road or the construction of Legion Boulevard. The No Action Alternative would also look at impacts of not extending 224th Place, not constructing the connector road between Verendrye Court and Desmet Court, and not relocating the perimeter fence line. This alternative would not be in compliance of the 40-year Centennial Estates lease and the lease would need to be renegotiated between Hunt Development and EAFB.

Mitigation Measures

In accordance with 32 CFR Part 989.22, the Air Force must indicate if any mitigation measures would be needed to implement the proposed action at Ellsworth AFB. For purposes of this EA, to construct access roads and an associated interior road on Ellsworth AFB, no mitigation measures would be needed to arrive at a Finding of No Significant Impact (FONSI).

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

According to the analysis in this EA, implementation of the Proposed Action would not result in long-term adverse or significant impacts to any resource category. Twelve resource categories were investigated and ten; land use, noise, air quality, geological resources, water resources, biological resources, cultural resources, infrastructure, hazardous materials and waste management and safety and occupational health, were thoroughly analyzed to identify potential impacts. Airfield operations and airspace as well as socioeconomics and environmental justice were evaluated and were determined not to be affected by the Proposed Action. According to the analysis in this EA, implementation of the Proposed Action would not result in significant impacts to any resource category. The potential impacts under the Proposed Action and the alternatives are summarized below.

Land Use

Short-term, negligible adverse impacts would be expected from implementing the Proposed Action. Impacts on Alternative 2 would be similar to those generated under the Proposed Action. Under the No-Action Alternative, the access roads and the associated interior road would not be constructed on EAFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Noise

Short-term and long-term, minor adverse impacts would occur as a result of the Proposed Action. Impacts on Alternative 2 would be similar to those generated under the Proposed Action. No changes would be anticipated with the implementation of the No-Action Alternative.

Air Quality

Impacts to air quality associated with construction activities would be short-term, thereby resulting in no adverse impacts to regional air quality. Long-term minor adverse impacts would be expected as a result of the Proposed Action. Impacts on Alternative 2 would be similar to those generated under the Proposed Action. No changes to air quality would be expected under the No-Action Alternative.

Geological Resources

No long-term adverse impacts to geological resources would occur; slight impacts would be short-term resulting in negligible effects under the Proposed Action. Impacts on Alternative 2 would be similar to those generated under the Proposed Action. Under the No-Action Alternative, the access roads and the associated interior road would not be constructed on EAFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Water Resources

Short-term, minor adverse impacts on groundwater and surface water sources would be expected as a result from construction activities associated with the Proposed Action. Long-term, minor adverse impacts on floodplains would be expected and short-term, negligible impact on wetlands would occur as a result of the Proposed Action. Alternative 2 impacts would be similar to those generated under the Proposed Action; however, floodplains would not be impacted under this Alternative. Under the No-Action Alternative, the construction would not take place at EAFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Biological Resources

Short-term, minor adverse impacts on biological resources would be expected. No threatened, endangered, or sensitive species are known to occur on EAFB. Impacts on Alternative 2 would be similar to those generated under the Proposed Action. Under the No-Action Alternative, no changes to existing biological resources would occur since the proposed construction would not take place.

Cultural Resources

Short-term, negligible adverse impacts would be expected as no cultural resources are known to exist within the area of the Proposed Action. Impacts on Alternative 2 would be similar to those generated under the Proposed Action. Under the No-Action Alternative, the construction would not take place at

EAFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Infrastructure

Short-term, negligible adverse impacts on electric, potable water, sewage/wastewater and storm drainage would be expected as part of the Proposed Action. Alternative 2 impacts would be similar to those generated under the Proposed Action. Under the No-Action Alternative, the access roads and the associated interior road would not be constructed on EAFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Hazardous Materials and Waste Management

Short-term, minor adverse impacts to hazardous materials or waste streams would occur. No ERP sites would be disturbed as none are found in the project area. Alternative 2 impacts would be similar to those generated under the Proposed Action. No impacts to the handling of hazardous materials or waste management would occur through implementation of the No-Action Alternative since the access roads and the associated interior road would not be constructed.

Safety and Occupational Health

Short-term, minor adverse impacts on construction and operation safety and exposure to hazardous/toxic materials safety would occur as a result of the Proposed Action. Alternative 2 impacts would be similar to those generated under the Proposed Action. Under the No-Action Alternative, the construction would not take place at EAFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 BACKGROUND

Ellsworth AFB (EAFB) is located within Pennington and Meade Counties and is adjacent to the community of Box Elder, South Dakota. EAFB is located approximately eight miles to the east of Rapid City, South Dakota and consists of approximately 5,420 acres. EAFB is accessed from the south via Liberty Boulevard off of Interstate 90 (I-90).

EAFB was established in 1942 as Rapid City Army Air Base which was originally constructed as a small municipal airport for Rapid City. Rapid City Army Air Base became a major training location for the B-17 Flying Fortress crews in which thousands of pilots, navigators, and other military personnel were trained during World War II. The base was deactivated in September 1946. The base was re-activated in March 1947 and renamed Rapid City Air Force Base. In March 1953, the base was renamed Ellsworth Air Force Base in honor of Brigadier General Richard E. Ellsworth who, in addition to twenty-two others, were killed in an accident in Newfoundland (Air Force, 2010).

The first B-1B bombers arrived on base in 1987, completely phasing out the aging B-52 fleet. The Strategic Air Command activated a third wing at EAFB which provided for advanced aircrew training. In June 1992, EAFB and the 28th Bomb Wing (28th BW) were transferred to the newly activated Air Combat Command (ACC). Soon thereafter, the mission of the 28th BW became worldwide conventional munitions delivery. Since 1999, the 28th BW is the lead wing at EAFB (Air Force, 2010).

Hunt Development proposes to construct new access roads and an associated interior road that would provide off-base access to the former base housing as per the requirement of the Ground Lease between Hunt Development and EAFB. The proposed access roads and the associated interior road will also provide access to the former base housing known as Centennial Estates. Two access points are requested by the City of Box Elder due to the size of the Centennial Estates development. Currently, 283 military housing units are present at EAFB. Current plans indicate that the new access points and roads for Centennial Estates housing allow base personnel and their families access without passing through base security points.

Centennial Estates was constructed during the early 1990s as part of a lease agreement with Hunt Development and the United States Air Force under the auspices of Public Law 98-115, Section 801, and Public Law 99-167. Eight hundred twenty-eight (828) military housing units were constructed for occupation by active duty military members and their dependents. Military family housing units replaced Korean War era units that did not meet existing Air Force standards. Hunt Development was granted a 40-year lease to construct 828 units. The first twenty years of the 40-year lease required the units to be leased to the Air Force for use as military family housing. During the second twenty years, Hunt Development has the option of operating Centennial Estates as residential units. The lease requires that Hunt Development separate Centennial Estates from EAFB by constructing a fence, obtaining utilities

from off-base providers and accessing Centennial Estates from off-base. The initial 20-year lease expired on August 1, 2011.

As part of the lease contract with EAFB, Hunt Development is required to provide off installation access into Centennial Estates. The City of Box Elder is requiring two access points per city code. In addition, easements will be installed that will provide residential homes with utilities. Finally, the access points will necessitate a re-routing of the existing security fence and installing a security fence around Centennial Estates. The agreement between EAFB and Hunt Development is the catalyst for developing this Environmental Assessment (EA).

1.2 PURPOSE FOR AND NEED FOR THE PROPOSED ACTION

The purpose for the Proposed Action is to meet the lease requirements of separating Centennial Estates from EAFB by providing two access points to the existing on-base housing development without the necessity of entering secure areas of EAFB. In addition, the separation would require a change in the existing security fence boundary as well as the implementation of a security fence and providing utilities to Centennial Estates from off-base commercial providers.

The need for the Proposed Action will be accomplished through the development of access roads and an associated interior road, a re-routing and implementation of a perimeter fence and as well as typical underground and overhead utilities. As per the lease agreement between Hunt Development and EAFB, Hunt Development is allowed to lease the residences to the public. Therefore, the implementation of a security fence would assure that residents would have an alternative access to Centennial Estates without accessing secure areas of EAFB.

Prior to the construction of the access road, an easement though the eastern portion of Tract 308 will be granted. In addition, a utility easement along the access road will be granted for the installation of public utilities to supply natural gas, electric, and water services to Centennial Estates. When the access road meets with 224th Place (also known as At County Highway Mc-2), 224th Place will continue to the west onto EAFB property and connect to both Centennial Drive and Dakota Drive.

A new perimeter security fence will also be installed to separate Centennial Estates from EAFB. Interior roads into Centennial Estates will be constructed which will also include the development of utility easements along the access and interior roads. Typical underground utilities and easements as well as standard street lights will also be included with the development of the access road and associated interior roads.

An additional interior road will also be constructed on the northwestern portion of Centennial Estates. The interior road will connect Desmet Court and Verendrye Court. This interior road will also be equipped with typical underground utilities, easements and standard street lights.

This EA has been prepared to facilitate planning, evaluate and determine if there are any potentially significant cumulative impacts, and to clearly communicate to the public the analysis of individual and

cumulative impacts. Consistent with the National Environmental Policy Act (NEPA) and Air Force regulations, notice of the availability of this document will be published in the local newspapers, be made available at the local library, and published on the EAFB's website. The EA evaluates the Proposed Action, alternative actions, as well as the no action alternative which are included below:

1. The construction of the access road in its proposed location (the Preferred Alternative),
2. The construction of the access road farther to the east and to the north of the proposed location,
3. The development and improvement of existing county roads, or
4. The No Action Alternative.

1.3 APPLICABLE REGULATORY REQUIREMENTS AND COORDINATION

This EA has been prepared by Bureau Veritas North America, Inc. (Bureau Veritas) for Hunt Development with oversight by the United States Air Force and the 28th Civil Engineer Squadron (CES) in accordance with the requirements of the National Environmental Policy Act of 1969, (Public Law 91-190, 42 United States Code [USC] 4321-4347), The Council on Environmental Quality (CEQ) Implementing Regulations (40 Code of Federal Regulations [CFR] §§ 1500-1508), and 32 CFR Part 989, et seq, Environmental Impact Analysis Process.

These regulations require Federal agencies to analyze potential environmental impacts of the Proposed Actions and Alternatives and to use these analyses in making decisions on a Proposed Action. All cumulative effects and irretrievable commitment of resources must also be assessed during this process. The CEQ regulations declare that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI) and
- Aid an agency's compliance with NEPA when no environmental impact statement is necessary and facilitates preparation of an EIS, if necessary.

Air Force Instruction (AFI) 32-7061 as promulgated in 32 Code of Federal Regulations (CFR) 989, specifies the procedural requirements for the implementation of NEPA and the preparation of an EA. Other environmental regulatory requirements relevant to the Proposed Actions and Alternatives are also included in this EA.

The Intergovernmental Coordination Action and Executive Order (EO) 12372, Intergovernmental Review of Federal Programs, require federal agencies to cooperate with state and local agencies and to consider their views on implementing a federal proposal. Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is required under AFI 32-7060 for the purpose of agency coordination. The Description of Proposed Action and Alternatives (DOPAA) will be provided to relevant Federal, state and local agencies for their input during the scoping process. United States Air Force (USAF) will consider the input in the planning process and comment letters received will be included in Appendix A. Additionally, the EA will be made available for the 30-day public comment period to solicit comments from

the public and any other interested parties. A copy of the public notice and any comments received will be available in Appendix B.

Executive Order (EO) 11988, Floodplain Management states that if the head of an agency finds that the only practical alternative is development within a floodplain or wetland, the agency shall design or modify its action to minimize potential harm to or within the floodplain or wetland. In accordance with EO 11988 and 32 CFR Part 989, a Finding of No Practicable Alternative (FONPA) must accompany the FONSI stating why there are no practical alternatives other than development within the floodplain. When the only practical alternative is to site within a floodplain, a specific process must be followed to comply with EO 11988. The eight steps are summarized below:

1. Determine whether the action will occur in or stimulate development in a floodplain.
2. Receive public review/input on the Proposed Action.
3. Identify and evaluate practical alternatives to locating within a floodplain, including alternative sites outside of the floodplain.
4. Identify the impacts of the Proposed Action.
5. Develop measures to minimize threats to life, property, and natural and beneficial floodplain values and restore and preserve natural and beneficial floodplain values.
6. Reevaluate alternatives in light of any new information that might have become available.
7. Issue findings and public explanation.
8. Implement the action.

1.4 RELATED EISs AND EAs

An EA was recently prepared for the area that borders the Proposed Action. The EA addresses the privatization of military family housing at EAFB. The Draft EA was published for public comment on the EAFB website in May 2011.

1.5 ORGANIZATION OF THE EA

This EA is organized into seven sections with appendices. The Purpose and Need for the Proposed Action is discussed in Section 1.0. A detailed description of the Proposed Action and Alternatives are provided in Chapter 2.0. Chapter 3.0 describes the existing conditions of various environmental resources that could be affected if the Proposed Action was implemented. It also describes how those resources would be affected by the implementation of the Proposed Action and alternatives. Chapter 4.0 addresses the cumulative effects of the Proposed Action, as well as other recent, past, current, and future action that may be implemented in the area of the Proposed Action. Chapter 5.0 cites the references consulted during the EA process. Chapter 6.0 includes a list of agencies that were provided a copy of the

draft DOPAA and EA. The list of preparers is included in Section 7.0. Appendix A includes the IICEP correspondence and Appendix B includes the public notice and comments.

The scope of this EA includes an evaluation of the affected environment (e.g. land use, noise, air quality, geological resources, water resources, biological resources, cultural resources, infrastructure, hazardous materials and waste management as well as safety and occupational health). Other resources areas and conditions, including airfield operations and airspace as well as socioeconomics and environmental justice, will not be affected by the Proposed Action. The reasons for not addressing these resources are presented in the following paragraphs and are not further discussed in this EA.

Airfield Operations and Airspace

The proposed access roads and the associated interior road are between 1.5 to 2 miles to the west and northwest of the runway of EAFB. The construction of the access roads and associated interior road will not impact airfield operations and/or airspace. Therefore, significant impacts to airfield operations and airspace will not be analyzed in further detail.

Socioeconomics and Environmental Justice

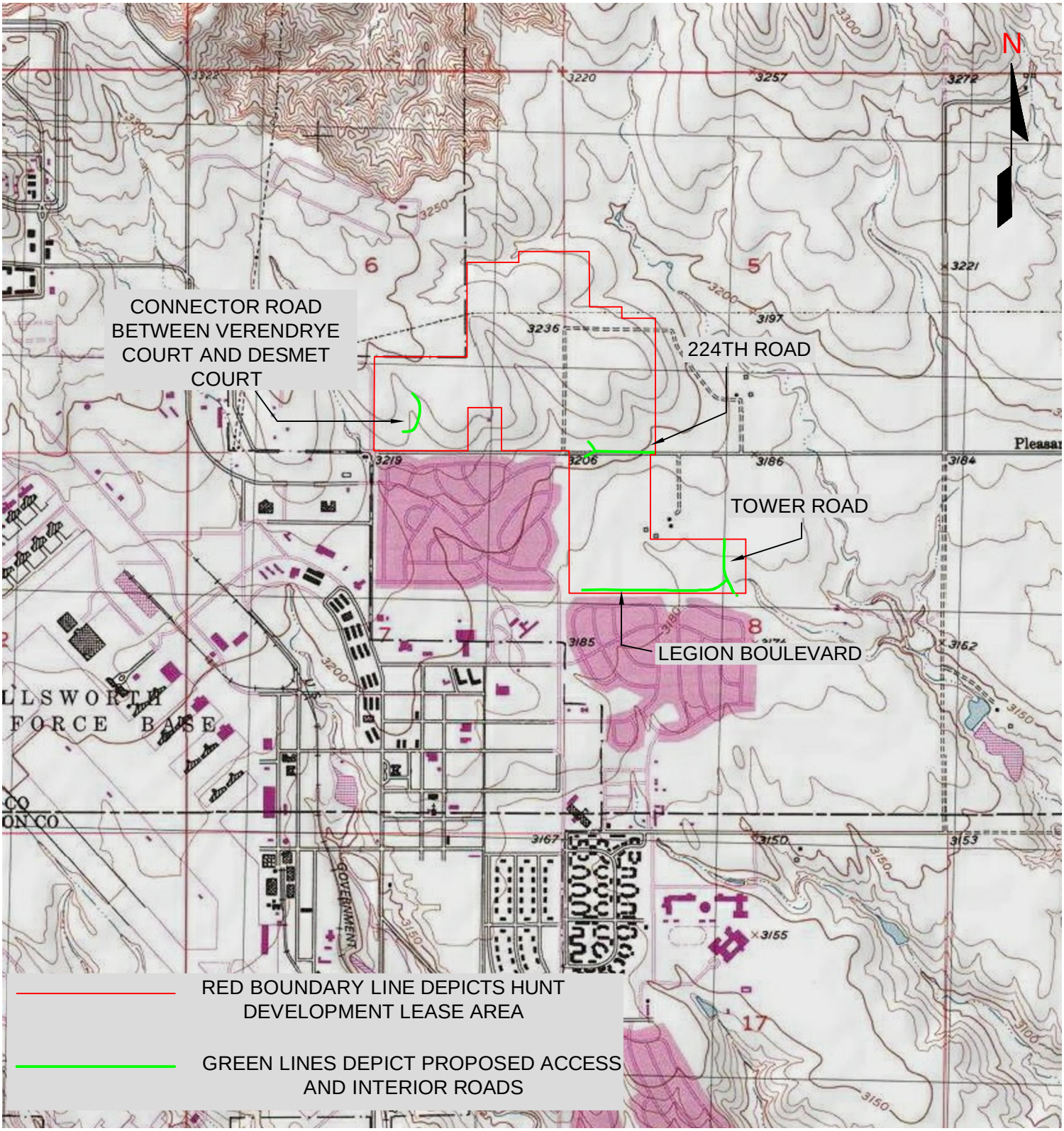
In the short term, implementation of the Proposed Action will employ an estimated 30 people at any given time during the construction of the Proposed Action. Construction managers, engineers, and skilled laborers will be engaged in the project for an approximately four month total construction period; however, the short-term increase in the workforce would not result in a noticeable change in base or regional employment of population.

Taxes and community services are not expected to be impacted by the addition of the access road and associated interior roads.

Property values are not expected to be impacted by the addition of the access roads and associated interior road.

The Proposed Action is not expected to adversely affect or target low income or minority populations. No housing, retail, or recreational areas will be impacted during the construction of the access roads and associated interior road.

For these reasons, significant impacts to socioeconomics and environmental justice are not expected and are not analyzed in further detail.



South Dakota

Quadrangle Location

1:24000

0 1/2 1 Mile

1000 0 1000 2000 3000 Feet

Portion of 7.5-minute Series
Topographic Map
United States Department of the Interior
Geological Survey

Bend, South Dakota
1978

Figure 1.1
Site Location Map

CLIENT

Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE

Proposed Access and Interiors Roads
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 DETAILED DESCRIPTON OF THE PROPOSED ACTION

The Proposed Action includes the granting of an easement through the eastern part of EAFB Tract 308 for the construction of two off-installation access roads to Centennial Estates: Tower Road and Legion Boulevard. In addition, a utility easement along Tower Road will be granted for the installation of public utilities to supply natural gas, electric, and water services to Centennial Estates.

The Proposed Action also includes the extension of 224th Place (also known as County Highway Mc-2) approximately 1,000 feet to the west onto EAFB property, connecting to Centennial Drive within Centennial Estates and the construction of a small section of road that would connect Centennial Drive and Dakota Drive.

In addition, a pedestrian/bicycle path will be installed along Tower Road. An additional interior road will also be constructed on the northwestern portion of Centennial Estates. The interior road will connect Desmet Court and Verendrye Court. This interior road will also be equipped with typical underground utilities with easements and standard street lights.

Finally, a security fence will be constructed along the perimeter of the newly proposed Hunt Development lease area boundary. See Figure 2.6 for the existing Hunt Development lease boundary and the proposed lease boundary.

See Figures 2.1, 2.2, and 2.3 for the proposed access roads and the associated interior road locations.

2.2 ADDITIONAL ALTERNATIVE THAT SHOULD BE CONSIDERED

2.2.1 Access Road Requiring Condemnation Alternative

An alternative to the Proposed Action (the preferred alternative) consisted of the extension of Tower Road following the EAFB eastern boundary from 225th Street to the north to 224th Place. From this point, 224th Place will continue to the west and connect to both Centennial Drive and Dakota Drive. From the intersection of 224th Place and Tower Road, Tower Road will be extended and end approximately 1,950 feet to the north. The road will continue approximately 3,000 feet to the west to EAFB. This alternative will cross over private land and will require condemnation from the private landowners. See Figure 2.4 for the location of the access road requiring condemnation.

2.3 NO ACTION ALTERNATIVE

The No Action Alternative represents baseline conditions. Under the No Action Alternative, an easement through the eastern portion of EAFB Tract 308 would not be granted for the construction of Tower Road or the construction of Legion Boulevard. The No Action Alternative would also look at impacts of not extending 224th Place, not constructing the connector road between Verendrye Court and Desmet Court, and not relocating the perimeter fence line. This alternative would not be in compliance of the 40-year

Centennial Estates lease and the lease would need to be renegotiated between Hunt Development and EAFB.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

As part of the NEPA process, all alternatives to the Proposed Action must be considered when preparing an EA. For all alternatives to be considered reasonable, the alternative must fulfill the purpose and the need of the Proposed Action. The following set of selection criteria was developed to assess reasonable alternatives:

- As part of the 40-year lease agreement, Hunt Development is required to provide off-installation access to Centennial Estates and provide utilities for servicemembers which would require a change in the existing perimeter fencing. Alternatives will need to meet and maintain compliance with the 40-year Centennial Estates lease.
- Due to the size of Centennial Estates, the City of Box Elder has a two entrance/exit requirement for fire response services. Alternatives will need to meet the City of Box Elder fire response requirements.
- The proposed access and interior roads will need to be routed so that community members are able to access nearby schools and the added vehicles do not cause excessive delay to the surrounding transportation system.

2.4.1 Development and Improvement of Existing County Roads Alternative

Under this alternative, existing county roads would be improved to provide two points of access to Centennial Estates. In this case, 150th Avenue would be improved from 225th Street to 224th Place (also known as At County Highway Mc-2). From this point, 224th Place will continue to the west and connect to both Centennial Drive and Dakota Drive. From the intersection of 150th Avenue and 224th Place, 150th Avenue would be improved and continue to the north approximately 0.5 miles to the north to Antelope Flats Drive. Note: At 224th Place, 150th Avenue becomes 150th Place. Approximately 0.5 miles to the west from the intersection of Antelope Flats Drive and 150th Place, Antelope Flats Drive terminates at a private road. Under this alternative, the Antelope Flats Drive would be extended to the west to Borglum Court. Borglum Court is near the northeastern boundary of EAFB. This alternative would have crossed over an Installation Restoration Program (IRP) site. Due to this reason, this alternative was abandoned. See Figure 2.5 for the existing county road alternative location.

2.5 COMPARISON OF THE ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION AND ALTERNATIVES

A comparison of the environmental effects of the Proposed Action and the No Action Alternative is included in Sections 3.0 and 4.0.

Figure 2.1
Tower Road & Legion Boulevard Location Map

SCALE (FEET)
300 150 0 300

*PHOTOGRAPH COURTESY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

Figure 2.2
Proposed 224th Place
Location Map

SCALE (FEET)
200 100 0 200

*PHOTOGRAPH COURTESY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

Figure 2.3
Proposed Connector Road Location Map

SCALE (FEET)

200 100 0 200

*PHOTOGRAPH COURTESY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

Figure 2.4
Alternative Requiring Condemnation

SCALE (FEET)

550 275 0 550

*PHOTOGRAPH COURTESEY OF EAFB

CLIENT: Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE: Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

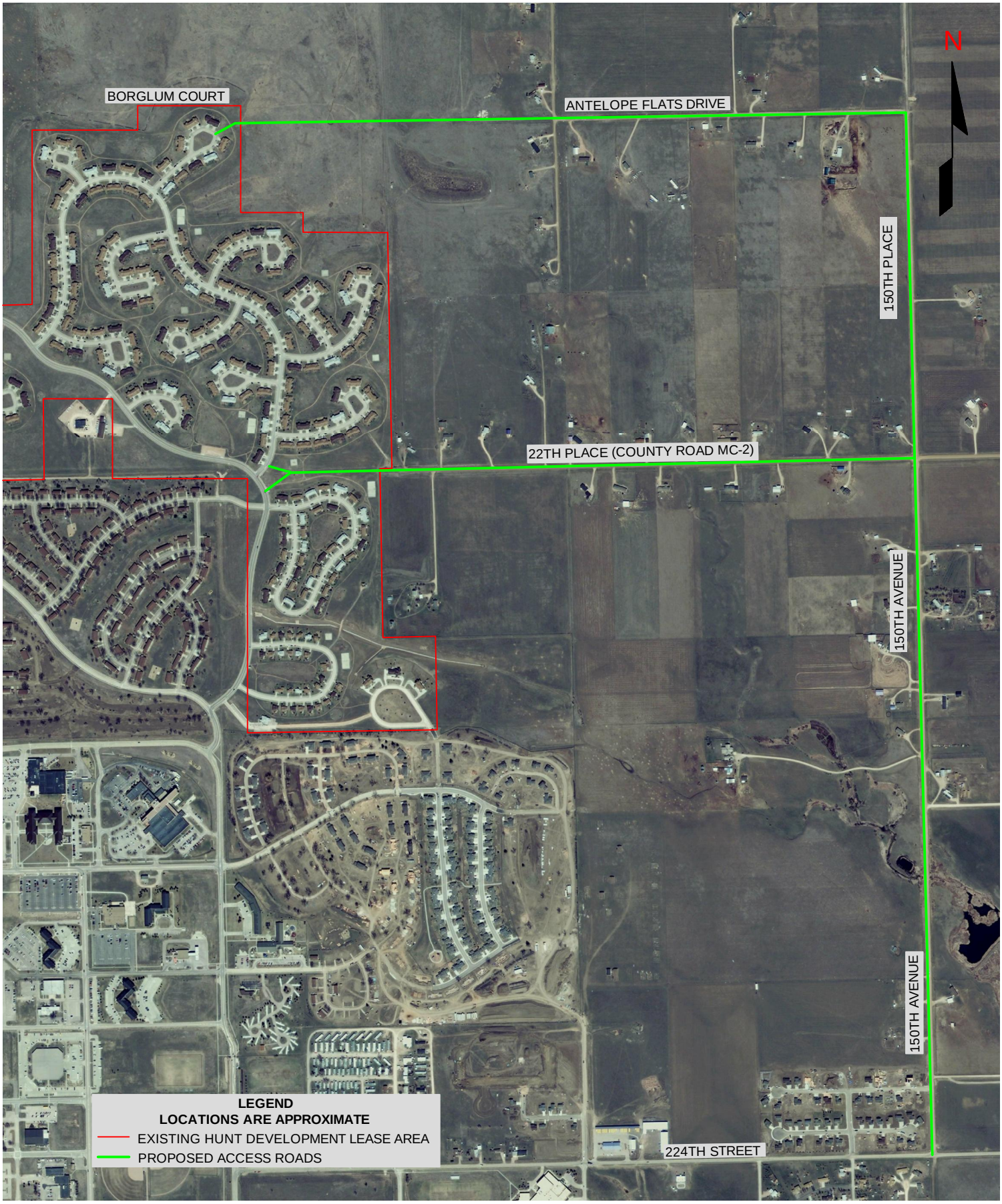


Figure 2.5
Existing County Road Alternative

SCALE (FEET)

1000 500 0 1000

*PHOTOGRAPH COURTESEY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

Figure 2.6

Existing Hunt Development
Lease Boundary & Proposed
Lease Boundary Locations

LEGEND

EXISTING HUNT DEVELOPMENT LEASE BOUNDARY LINE

PROPOSED FENCE AND PROPOSED LEASE BOUNDARY LINE

NOTE: BOUNDARY LOCATIONS ARE APPROXIMATED

SCALE IN FEET

0 300 600 1200

* Photograph courtesy of EAFB

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3.0 DESCRIPTION OF AFFECTED ENVIRONMENT

3.1 ANALYSIS APPROACH

NEPA requirements state that the areas and resources potentially affected by a Proposed Action or alternative should be analyzed. It also provides that an EA should consider, but not analyze in detail, those areas or resources not potentially affected by the Proposed Action. Therefore, an EA should be succinct. NEPA also requires a comparative analysis that allows decision makers and the public to differentiate among the alternatives; therefore, this EA focuses on those resources that would be affected by the proposed construction of a new access road and associated interior roads that would provide to two access points to Centennial Estates.

CEQ regulations (40 CFR Parts 1500-1508) for NEPA also require an EA to discuss impacts in proportion to their significance and present only enough discussion of other than significant issues to show why more study is not warranted. The analysis in this EA considers the current conditions of the affected environment and compares those to conditions that might occur should either of the alternatives be implemented.

Affected Environment

Evaluation and analysis of the Proposed Action indicate that resources generally subject to ground disturbing activities have the highest potential to be affected. For this EA, the potentially affected environment focuses on the proposed construction locations.

Resources Analyzed

This section presents the results of the process of identifying resources to be analyzed in this EA. This assessment evaluates land use; noise; air quality; geological resources; water resources; biological resources; cultural resources; infrastructure; hazardous materials and waste management as well as safety and occupational health. These resources are analyzed because they may be potentially affected by implementation of the Proposed Action.

This section analyzes the impacts that the Proposed Action would have to the resources listed in Table 3-1.

Table 3-1 Environmental Impacts for the Proposed Action and Alternatives

Environmental Resource	Alternative 1 (Proposed Action)	Alternative 2	Alternative 3 (No-Action Alternative)
Land Use	Short-term, negligible adverse impacts	Alternative 2 impacts would be similar to those generated under the	No impacts under the No-Action Alternative.

Table 3-1 Environmental Impacts for the Proposed Action and Alternatives			
Environmental Resource	**Alternative 1 (Proposed Action)**	**Alternative 2**	**Alternative 3 (No-Action Alternative)**
		Proposed Action.	
Noise	Short-term and long-term, minor adverse impacts	Alternative 2 impacts would be similar to those generated under the Proposed Action.	No impacts under the No-Action Alternative.
Air Quality	Short-term and long-term, minor adverse impacts	Alternative 2 impacts would be similar to those generated under the Proposed Action.	No impacts under the No-Action Alternative.
Geological Resources	Short-term, minor adverse impacts	Alternative 2 impacts would be similar to those generated under the Proposed Action.	No impacts under the No-Action Alternative.
Water Resources	Short-term, minor adverse impacts on groundwater and surface water. Long-term, minor adverse impacts on floodplains. Short-term, negligible impacts on wetlands.	Alternative 2 impacts would be similar to those generated under the Proposed Action. Floodplains would not be impacted under the Alternative.	No impacts under the No-Action Alternative.
Biological Resources	Short-term, minor adverse impacts on sensitive and protected species, vegetation, and wildlife.	Alternative 2 impacts would be similar to those generated under the Proposed Action.	No impacts under the No-Action Alternative.
Cultural Resources	Short-term, negligible adverse impacts	Alternative 2 impacts would be similar to those generated under the	No impacts under the No-Action Alternative.

Table 3-1 Environmental Impacts for the Proposed Action and Alternatives

Environmental Resource	Alternative 1 (Proposed Action)	Alternative 2	Alternative 3 (No-Action Alternative)
		Proposed Action.	
Infrastructure	Short-term, negligible adverse impacts on electric, potable water, sewage/wastewater, and storm drainage.	Alternative 2 impacts would be similar to those generated under the Proposed Action.	No impacts under the No-Action Alternative.
Hazardous Materials and Waste Management	Short-term, minor adverse impacts	Alternative 2 impacts would be similar to those generated under the Proposed Action.	No impacts under the No-Action Alternative.
Safety and Occupational Health	Short-term, minor adverse impacts on construction and operation safety and exposure to hazardous/toxic materials safety.	Alternative 2 impacts would be similar to those generated under the Proposed Action.	No impacts under the No-Action Alternative.

3.2 LAND USE

3.2.1 Definition of the Resource

Land use generally refers to human modification of land, often for residential or economic purposes. It also refers to the use of land for preservation or protection of natural resources such as wildlife habitat, vegetation, or unique features. Land uses also include residential, commercial, industrial, agricultural, and recreational. Unique natural features are often designated as national or state parks, forests, wilderness areas, or wildlife refuges.

Attributes of land use include general land use and ownership, land management plans, and special use areas. Land ownership is a categorization of land according to the type of owner. Major land ownership categories in South Dakota include Federal, state, Native American, and private. Federal lands are further defined by the managing agency, which may include agencies such as the United States Fish and Wildlife Service (USFWS), United States Forest Service (USFS), or Department of Defense (DoD). Land uses are frequently regulated by management plans, policies, ordinances, and regulations that determine

the types of activities that are allowed or that protect specially designated or environmentally sensitive uses.

3.2.2 Existing Conditions

EAFB is located within both Pennington and Meade Counties as it encompasses approximately 5,420 acres (USAF-EAFB, 2010). However, the Proposed Action is located entirely within Meade County. Meade County is primarily agricultural with hay, haylege, grass silage, greenchop, and wheat as the major crops. Livestock inventory primarily consists of horses and ponies as well as cattle and other livestock (USDS-NASS, 2007).

Established in 1897 as the Black Hills Forest Reserve, the Black Hills National Forest is located approximately 15 miles to the west and comprises at least 1.2 million acres of public lands for recreational opportunities due to the presence of 11 reservoirs, 30 campgrounds, 1,300 miles of streams, and over 450 miles of trails.

Badlands National Park and Buffalo Gap National Grassland are located approximately 60 and 65 miles to the southeast of EAFB, respectively. Recreational activities such as hiking, camping, and bicycling among others are all performed at the national areas.

Mount Rushmore National Monument, Custer State Park, Wind Cave National Park, Jewel Cave National Monument, and Bear Butte National Wildlife Refuge are located within a short distance from EAFB. No natural areas, greenways, or parks are located within five (5) miles of EAFB.

Of the approximate 5,420 acres managed by the installation commander, 2,265 acres are developed as airfields, restricted areas, children's playgrounds, housing and administrative areas, and sports complexes. Approximately 3,150 acres of EAFB are undeveloped lands (USAF-EAFB, 2010).

The area of the Proposed Action is designated as Housing (Accompanied). Implementation of the Proposed Action would not change the area of the Proposed Action.

3.2.3 Environmental Consequences

Alternative 1 (Proposed Action)

Construction of the proposed access roads at their respective routes would not be inconsistent with the current land use. The land use in the area of the Proposed Action would not change.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under this alternative, the proposed access roads would not be constructed on EAFB at this time. The existing Open Space land use designation would remain unchanged with implementation of the No-Action Alternative.

3.3 NOISE

3.3.1 Definition of the Resource

Noise is often defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, diminishes the quality of the environment, or is otherwise annoying. Responses to noise vary, depending on the type and characteristics of the noise, the expected level of noise, the distance between the noise source and the receptor, the receptor's sensitivity, and the time of the day. Noise can be intermittent or continuous, steady or impulsive, and it may be generated by stationary or mobile sources. Sound levels are expressed in decibels (dB), usually weighted for human hearing.

3.3.2 Existing Conditions

EAFB is the headquarters of the 28th Bomb Wing (28th BW). The 28th BW is the host unit at EAFB and provides all essential base operating supporting services. The airfield at EAFB is composed of one (1) runway (Runway 13/31), multiple B-1B aircraft hangers, three (3) run-up locations, and the air traffic control tower. Aircraft operating at EAFB utilize Runway 13 approximately 30 percent of the time (i.e., they depart to the south and arrive from the north) and Runway 31 approximately 70 percent of the time (i.e., they depart to the north and arrive from the south).

EAFB is located approximately six (6) miles northwest of the Rapid City Regional Airport. Although EAFB is a private-use military airport, and Rapid City Regional Airport is a public use airport, they have a shared Class D airspace. Maintenance engine run-ups occur approximately five (5) times per day at EAFB. Most of the engine run-ups occur at the north end of the ramp in front of the hangers. Test cells, used to perform aircraft engine checks where the engine is run at higher power to check operating condition and performance of the engine for maintenance purposes, have not been used in more than six (6) years at EAFB.

Using the NOISEMAP program, the DoD produces noise contours showing the noise exposure levels generated by EAFB aircraft operations. NOISEMAP was used to visually create continuous contours that connect all points of the same noise exposure levels, in much the same way as ground contours on a topographic map visually represent lines of equal elevation. The cumulative Day-Night Average A-weighted Sound Level (DNL) is expressed in A-weighted decibels (dBA). These noise contours are drawn in five (5) dBA increments from the airfield, ranging from a DNL of 65 dBA up to 80 dBA, and are overlaid on a map of the airport vicinity. The noise level where land used planning recommendations begin is 65 dBA and noise levels below 65 dBA are normally considered acceptable in suitable living environments.

Table 3-2 below lists the sound levels of some familiar sources:

Table 3-2
Sound Levels of Various Sources

Source	Sound Level (dB)
Near jet plane at takeoff	140
Gun muzzle blast	140
Threshold of pain	120
Loud music	115
Car horn	115
Thunder	110
Chainsaw	100
Lawn mower	90
Jack hammer	88
Dozer	85
Backhoe	80
Alarm clock	75
Normal conversation	60
Light traffic	50
Refrigerator	40
Rustle of leaves	20
Normal breathing	10

Noise contours have been prepared for flight operations at EAFB, and were released to the public in December 1977 in the Air Installation Compatible Use Zone (AICUZ) report. The most recent AICUZ for the EAFB was released in December 2008. The proposed construction areas are located below 65 dBA and therefore, no special construction requirements are needed.

3.3.3 Environmental Consequences

Alternative 1 (Proposed Action)

Construction of the proposed access roads would involve the movement of workers and construction equipment and would result in some temporary increases in noise levels near the project area. Although noise levels would be highest during construction, these noise levels would not be expected to extend far beyond the proposed project sites. The increase in noise from activities and construction employees would be negligible. Construction activities would be noticeable, but unlikely to increase in noise above current levels and increases would be minor, short term and temporary. Typically, the noise level for vehicle operations would range from 50 dB (for light traffic) to 80 dB for diesel trucks. Initially, construction noise could exceed standards with the operation of construction equipment and material handling. Higher noise levels are expected to be contained within the construction areas. Appropriate hearing protection programs to minimize noise impacts on workers would need to include the use of administrative controls, engineering controls and personal hearing protection equipment. Baseline noise levels on EAFB would not be expected to change through implementation of the Proposed Action.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under this alternative, the proposed access roads would not be constructed on EAFB at this time. The No-Action Alternative would not impact noise generation at EAFB.

3.4 AIR QUALITY

3.4.1 Definition of the Resource

Air quality in a given location is described by the concentration of various pollutants in the atmosphere. A region's air quality is influenced by many factors including the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions.

The 1970 Clean Air Act (CAA) and its subsequent amendments established the National Ambient Air Quality Standards (NAAQS) for seven "criteria" pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 and 2.5 microns (PM10 and PM2.5), and lead (Pb). These standards represent the maximum allowable atmospheric concentrations that may occur while ensuring protection of public health and welfare, with a reasonable margin of safety. The CAA requires each state to develop a State Implementation Plan (SIP) to use as its primary mechanism for ensuring that the NAAQS are achieved and maintained within that state.

Designated state and local agencies implement regulations to control sources of criteria pollutants. The CAA provides that Federal actions in nonattainment and maintenance areas will not hinder future attainment with the NAAQS and must conform to the applicable SIP (i.e., South Dakota SIP).

In addition to the ambient air quality standards for criteria pollutants, national standards exist for hazardous air pollutants (HAPs). Examples of HAPs include benzene, which is found in gasoline; perchlorethlyene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper. Examples of other listed air toxics include dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds. The majority of HAPs are volatile organic compounds (VOCs).

3.4.2 Existing Conditions

The South Dakota Department of Environment and Natural Resources (SDDENR) Air Quality Program operates a comprehensive air monitoring network to determine the quality of South Dakota's ambient (i.e., outside) air. This network consists of meteorological, gaseous, particle and air toxics monitors mandated by the United States Environmental Protection Agency (USEPA) in 40 CFR, Part 58 as part of the South Dakota SIP. The data from these monitors are used to demonstrate attainment with the NAAQS, to provide the public with real-time air quality measurements, track air quality trends and to assist in the development of air pollution abatement strategies. One monitor is located within Rapid City, South Dakota, and is utilized to monitor particulate matter, O_3, SO_2, and nitrogen oxides (NO_X). Concentrations exceeding the national standard have been recorded in Rapid City due to high winds and dry soil conditions (SDDENR-AQP, 2011).

EAFB is characterized by long arid summers and long dry winters, with short but distinct spring and fall seasons. The highest average temperature is in July at 71° F (21° C), while the lowest average temperature is in January at 22° F (-5° C); however, winds can warm temperatures above 50° F (10° C) (NOAA, 2011). Summer temperatures typically exceed 85° F (29° C), and winter temperatures can drop well below 0°F (-18 °C) (NOAA, 2004). Average monthly precipitation ranges from less than 1 to 3 inches (0 to 7 centimeters [cm]), with the heaviest occurring during the late spring and early summer months. Snowfall, which normally occurs from October to April, ranges from 1 to 9 inches (2.5 to 22 cm) per month.

3.4.3 Environmental Consequences

Alternative 1 (Proposed Action)

The area of the Proposed Action is not currently considered a source for particulate matter, sulfur oxides (SO_X), CO, O_3, or Pb air emissions. During construction activities, air emissions are expected to be generated from heavy duty diesel construction equipment exhaust (e.g. trucks, dozers, and rollers) utilized onsite, in the form of NO_X, CO, SO_X, and VOCs. Once construction reaches completion, emissions from commuting vehicles will commence.

Impacts to air quality associated with construction would be short-term and contribute low emissions to the regional air quality; therefore, not contributing significant impacts to regional air quality. During construction, fugitive dust would be minimized through implementation of dust control measures (e.g. routine site watering).

To conclude, construction and usage of the proposed access roads will not have significant impacts to air quality if the Proposed Action were implemented. Construction would last approximately four to six months and effects to air quality would be negligible.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No Action Alternative, the access roads and associated interior roads would not be constructed. Impacts to air quality would not be expected since baseline conditions would remain unchanged.

3.5 GEOLOGICAL RESOURCES

3.5.1 Definition of the Resource

Geological resources consist of the Earth's surface and subsurface materials. Geology is the study of the Earth's composition and the processes by which it evolves. Field analysis based on observations of the surface and borings identify soil composition. Soils are the unconsolidated materials overlying bedrock or other parent material.

3.5.2 Existing Conditions

EAFB is located in the Unglaciated Missouri Plateau of the Great Plains Physiographic Region of South Dakota. The general area is characterized by gentle southeast-dipping plateaus with broad ridge tops and slight to moderately dipping side slopes. Elk Creek is located approximately four (4) miles to the north of EAFB and Box Elder Creek is located approximately ½ mile to the south of EAFB, respectively. Elk Creek and Box Elder Creek join the Cheyenne River which ultimately drains into the Missouri River system. Elevations at and around the proposed project areas range from 3,180 to 3,215 feet above mean sea level (USGS, 1978). Soil types within the proposed project area were determined using the United States Department of Agriculture (USDA) Soil Conservation Service, Soil Survey of Meade County, Southern Part (USDA-NRCS, 2010).

According to the soil survey, the proposed project areas are primarily underlain by Nunn Clay Loam, 0 to 2 percent and 2 to 6 percent slopes. The Nunn Clay Loam series are generally located on fans and terraces and consists of well-drained soil formed from alluvium. Permeability is very low to moderate with a high available water capacity (USDA-NRCS, 2010).

EAFB is located in an area consisting of a series of thick beds of sandstone, limestone, and shale. The proposed project areas are underlain by the Pierre Shale. A band of over 1,000 feet thick of marine shale with intermittent sandstone and limestone beds extend to the surface at EAFB. According to well logs, the thickness of the Pierre Shale is reportedly approximately over 850 feet thick at EAFB (USAF-EAFB, 2010).

3.5.3 Environmental Consequences

Alternative 1 (Proposed Action)

Because the Proposed Action would not involve excavation that would change the underlying strata of the land, with the exception of the near surface soils, geology is not anticipated to be impacted as a result of the Proposed Action.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No-Action Alternative, the access roads and associated interior roads would not be constructed. Baseline conditions would remain unchanged and there would be no impacts to soils at EAFB if the Proposed Action were not implemented.

3.6 WATER RESOURCES

3.6.1 Definition of the Resource

Water resources are natural and man-made sources of water that are available for use by and for the benefit of humans and the environment. Water resources include surface and subsurface water which

can include ponds, lakes, streams, and rivers as well as floodplains and wetlands within a watershed affected by existing and potential soil erosion and runoff from the installation.

Subsurface water, also known as groundwater, is typically found in areas known as aquifers. Groundwater is typically recharged during precipitation events and is withdrawn for domestic, agricultural, and industrial purposes.

Waters of the United States are defined within the Clean Water Act (CWA), as amended, and jurisdiction is addressed by the USEPA and the U.S. Army Corps of Engineers (USACE). The CWA of 1972 is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters.

Wetlands are subject to regulatory authority under Section 404 of the CWA and Executive Order 11990 *Protection of Wetlands* as they are considered to be special category sensitive habitats and include jurisdictional and non-jurisdictional wetlands. Jurisdictional wetlands are those defined by the U.S. Army Corps of Engineers (USACE) and USEPA as those areas that meet all the criteria defined in the USACE's 1987 *Wetlands Delineation Manual* and under the jurisdiction of the USACE (USACE, 1987).

3.6.2 Existing Conditions

Surface water

Surface water resources generally consist of wetlands, lakes, rivers and streams. Surface water is important for its contribution to the economic, ecological, recreational, and human health of a community of local. A water body can be deemed impaired if water quality analyses conclude that the exceedances of water quality standards established by the CWA occur. Construction activities, such as clearing, grading, trenching, and excavating, disturb soils and sediment. If not managed properly, disturbed soils and sediments can easily be washed into nearby water bodies during storm evens, where water quality is reduced.

EAFB is within the Missouri River Basin. Three (3) major streams are located near EAFB, including Elk Creek, Box Elder Creek and Rapid Creek. Elk Creek and Rapid Creek are perennial streams and Box Elder Creek is an ephemeral stream. Storm water from industrial areas at the installation drains into seven (7) defined watersheds. The outfalls from these watersheds are permitted by Surface Water Discharge System (SWD) permit number SD-0000281 issued by the South Dakota Department of Environment and Natural Resources (SDDENR) and is valid through September 2014 (SDDENR, 2010).

Four (4) of the seven (7) outfalls drain into unnamed tributaries of Box Elder Creek while the other three (3) outfalls drain into unnamed tributaries of Elk Creek. Both Box Elder Creek and Elk Creek are tributaries of the Cheyenne River, which meets the Missouri River at Lake Oahe (USAF-EAFB, 2010). Treated wastewater effluent from the EAFB's wastewater treatment plant (WWTP) is carried through Outfall 005; however, the effluent is discharged into Outfall 006 rather than directly out of EAFB.

The area drained by Outfall 001 consists of approximately 646 acres in the southwestern corner of EAFB (immediately to the southwest of the Alert Apron). In addition to storm water, Outfall 001 may also receive up to 58,000 gallons per day from the groundwater treatment system. Approximately 63 percent

of this drainage is grass-covered; the remaining 37 percent is hard surface consisting of runways, taxiways, maintenance buildings and aircraft parking aprons. Minor aircraft maintenance and aircraft deicing occur on parking aprons in this drainage. Outfall 001 also receives runoff from OU-1, OU-2, OU-4, and OU-12, which consist of a former fire protection training area, and three (3) former landfills, as well as runoff from the flightline Corrective Action Plan (CAP) area (USAF-EAFB, 2010).

The drainage area for Outfall 002 consists of approximately 299 acres and is located at the southwestern corner of EAFB (immediately to the southeast of the Alert Apron). Outfall 002 receives intermittent storm water runoff from industrial areas due to rainfall and snowmelt as well as runoff from OU-12 and the flightline CAP area. Water from industrial areas in this drainage flow through a pond equipped with an OWS before combining with sheet flow from other portions of the drainage area. Approximately 36 percent of this watershed is grass-covered and the remaining 64 percent is hard surface. Water leaves EAFB through a culvert crossed by the boundary fence (USAF-EAFB, 2010).

Water from Outfall 003 leaves EAFB through an open channel crossed by the western boundary fence. The drainage area is approximately 803 acres of which approximately 85 percent is grass-covered. Hard surfaces in this drainage consist of runways, taxiways, maintenance buildings and aircraft parking aprons. Minor aircraft maintenance is performed on parking aprons but deicing is not allowed unless the deicing fluid is recovered with vacuum sweepers. This outfall also receives runoff from OU-10 and the flightline CAP area (USAF-EAFB, 2010).

Outfall 005 discharges treated wastewater effluent from the installation's WWTP (located in the southeastern corner of EAFB). All sanitary sewer lines at EAFB are ultimately routed to the WWTP, which serves to provide primary and secondary wastewater treatment. Treated wastewater effluent from the WWTP discharges to the Outfall 006 Drainage Area which ultimately discharges to an unnamed tributary of Box Elder Creek.

Located in the southeastern corner of EAFB, Outfall 006 is a 60-inch culvert under LeMay Boulevard. In addition to receiving intermittent storm water runoff, this outfall also receives approximately 120,000 gallons per day from the groundwater treatment system and approximately 800,000 gallons per day of treated wastewater from the WWTP. Runoff in this drainage area flows through the constructed wetland system of Bandit Lake, Heritage Lake, Gateway Lake, and the Golf Course ponds. The drainage area for Outfall 006 is composed of approximately 1,572 acres of which 35 percent is hard surfaces including maintenance and office buildings, roads and parking lots. Also included in this drainage are several fuel storage areas, the golf course, and OU-6, OU-7 and OU-9 (USAF-EAFB, 2010).

The drainage area for Outfall 007 consists of about 202 acres all of which are grass or soil covered. In addition, sedimentation ponds are located within the drainage. This outfall is located on the northeastern edge of EAFB, north of the Explosive Ordnance Disposal Range. Outfall 007 receives runoff from OU-3 and OU-8 (USAF-EAFB, 2010).

Outfall 008 is located on the north side of EAFB to the northeast of the Munitions Storage Area (MSA). The drainage area consists of about 25 acres and is completely grass-covered. Outfall 008 receives intermittent storm water runoff from closed landfill OU-5, which was remediated as part of EAFB's ERP. Remediation included capping with a layer of soil a minimum of three (3) feet thick, planting vegetation in

the soil to prevent erosion, and contouring the ground to direct runoff away from the landfill. Closed landfill OU-5 has been properly closed and no industrial operations are currently conducted in this area; therefore, Outfall 008 is considered non-industrial (USAF-EAFB, 2010).

The final outfall, Outfall 009 is a non-industrial outfall located on the north side of EAFB to the north of the MSA. The drainage area consists of about 36 acres and is grass or soil-covered. Outfall 009 receives intermittent storm water runoff from a closed rubble landfill site. The landfill has been closed, capped, and seeded. Monitoring of erosion controls is continuing. Since the landfill has been properly closed and no industrial operations are currently conducted in this area, Outfall 009 is also to be considered nonindustrial (USAF-EAFB, 2010).

Groundwater

Groundwater is water that exists in the saturated zone beneath the earth's surface, and includes underground streams and aquifers. Groundwater typically can be described in terms of depth from the surface, aquifer or well capacity, water quality, recharge rate, and surrounding geologic formations.

Groundwater occurs under confined and unconfined conditions under EAFB. The installation is underlain by three (3) confined aquifers and one (1) shallow unconfined aquifer.

The Department of Defense (DoD) requires each installation to identify, investigate and clean up hazardous waste disposal or release sites. The EAFB began its Environmental Restoration Project (ERP) in May 1985. Further site assessments and investigations from the late 1980s to the 1990s brought the total number of ERP sites to twenty (20) plus two (2) Areas of Concern (AOC). The ERP at EAFB addresses contamination from past installation operations in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and if applicable, the Resource Conservation and Recovery Act (RCRA). Sites in the ERP include storage tanks, landfills, drainage areas, fire-training areas, spill areas, and radioactive sites. Major contaminants identified in soil and water include fuels, waste solvents, dissolved phase fuels and solvents, and low-level radiation waste. Cleanup and management of these sites is expected to last through 2028. The two AOCs are closed as No Further Response Action Planned (NFRAP) (USAF-EAFB, 2010).

EAFB developed a groundwater monitoring plan in 2006. In 2007, full-scale implementation in-situ reductive treatment (IRT) for chlorinated solvent contamination in groundwater began. As stipulated in the groundwater monitoring plan, EAFB is conducting monitoring activities that include measurement of groundwater levels and free product thickness, groundwater and seep sampling and off-site laboratory analysis; and landfill inspections. Contaminated or potentially contaminated areas on EAFB are divided into twelve (12) Operable Units (OUs). Groundwater at EAFB was transferred to one (1) OU (OU-11) on July 7, 2005 (USAF-EAFB, 2010). OU-11 is ERP Site OT-20 and that status is listed as Remedial Action/Operation (RA-O). OU-11 is a defined plume under EAFB that exceeds the groundwater standard for trichloroethylene (TCE).

No drinking water on EAFB is obtained from on-installation groundwater wells. Off-installation wells obtain water from confined aquifers below strata where contamination is present or from gallery wells along Rapid Creek to the south of EAFB. Drinking water for EAFB is delivered by the Rapid City Water

Division via a 16-inch water main. Drinking water for EAFB is obtained from the Pactola Reservoir, which is located to the west of Rapid City in the Black Hills (USAF-EAFB, 2010). Sources for this water system include three (3) infiltration galleries along the Rapid Creek alluvium. EAFB previously used groundwater wells as a source of potable water; however, these wells have since been abandoned. There are 22 on-installation monitoring points that are sampled at the rate of eleven (11) points each month (USAF-EAFB, 2010).

OU-11 is located approximately 275 feet to the south of proposed 224th Place. The USAF administers a waiver process for construction at or near ERP sites. If an ERP is the best of only possible alternative location for a proposed construction project, the installation must request a waiver to construct on the site from ACC prior to proceeding with construction activities. The intent of the waiver process is to minimize impacts on human health and the environment through a notification process to construction workers of potential hazards.

Wetlands

Wetlands perform several hydrological functions, including water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, storm water attenuation and storage, sediment detention, and erosion protection. Wetlands are protected as a subset of waters of the United States under Section 404 of the CWA. The USACE defines wetlands as “those areas that are inundated or saturated with ground or surface water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated conditions. Wetlands generally include swamps, marches, bogs and similar areas” (33 CFR Part 320).

According to an update to the 1994 installation-wide wetlands survey, there are approximately 44.6 acres of jurisdictional wetlands including drainage channels, impoundments and swales. The majority of these wetlands occur in five (5) geographic regions of EAFB including the main base drainage, fire training area drainage, alert apron drainage, west boundary drainage and munitions storage area drainage. Wetlands on miscellaneous impoundments and swales at EAFB were also identified (USAF-EAFB, 2010). These regions not located within the proposed project areas.

Floodplains

Floodplains are areas of low-level ground present along rivers, stream channels, or coastal waters. The living and nonliving parts of natural floodplains interact with each other to create dynamic systems in which each component helps to maintain the characteristics of the environment that support it. Floodplain ecosystem functions include natural moderation of floods, flood storage and conveyance, groundwater recharge, nutrient cycling, water quality maintenance, and diversification of plants and animals. Floodplains provide a broad area to spread out and temporarily store floodwaters. Floodplains are subject to period or infrequent inundation due to rain or melting snow. Risk of flooding typically hinges on local topography, the frequency or precipitation evens, the side of the watershed above the floodplain and upstream development.

Flood potential is evaluated by the Federal Emergency Management Agency (FEMA), which defines the 100-year floodplain as an area within which there is a one (1) percent chance of inundation by a flood

event in a given year. Federal, state, and local regulations often limit floodplain development to passive uses, such as recreational and preservation activities, to reduce the risks to human health and safety. Floodplain management requires Federal agencies to determine whether a Proposed Action would occur within a floodplain. This determination typically involves consultation of FEMA Flood Insurance Rate Maps (FIRMs), which contain enough general information to determine the relationship of the project area to nearby floodplains.

According to a 1996 floodplain study, 262 acres of EAFB property are within a 100-year floodplain. Floodplains lie along the main installation drainage, and along several of the creek drainages on the northern and southern portion of the installation. The proposed roads, Legion Boulevard and 224th Place, are located within the 100-year floodplain (USAF-ACC, 2011). See Figures 3.1 and 3.2 for the location of the floodplain areas within the proposed roads.

3.6.3 Environmental Consequences

Alternative 1 (Proposed Action)

Surface Water

Surface water is not anticipated to be impacted as a result of the Proposed Action.

Groundwater

The Proposed Action has the potential for short-term, minor adverse impacts on groundwater. The potential for groundwater contamination would increase as various underground utilities (e.g., electric, water) are installed. However, the installation of various underground utilities is not expected to affect OU-11, as appropriate best management practices (BMPs) will be implemented during construction activities to reduce the potential for adverse impacts. All fuels and other potentially hazardous materials would be contained and stored appropriately.

OU-11 is located approximately 275 feet to the south of the proposed 224th Place road. The USAF administers a waiver process for construction at or near ERP sites. If an ERP is the best of only possible alternative location for a proposed construction project, the installation must request a waiver to construct on the site from ACC prior to proceeding with construction activities. The intent of the waiver process is to minimize impacts on human health and the environment through a notification process to construction workers of potential hazards. No other sensitive groundwater areas are present in the area of the Proposed Action. Groundwater contamination associated with OU-11 is not expected to impact the Proposed Action.

Figure 3.1
Proposed Tower Road and
Legion Boulevard Location
Map with Flood Zones

SCALE (FEET)

300 150 0 300

*PHOTOGRAPH COURTESY OF EAFB

CLIENT

Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE

Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
November 2011

Figure 3.2
Proposed 224th Place
Location Map with Flood
Zones

SCALE (FEET)
200 100 0 200
*PHOTOGRAPH COURTESY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
November 2011

Wetlands

A formal wetland delineation of the project sites with a jurisdictional determination was not conducted as a part of this EA; however, wetlands are not expected to occur based on site observations and past wetland surveys. No adverse impacts on wetlands are expected from the Proposed Action.

Floodplains

Floodplains will be affected as part of the Proposed Action. The proposed roads, Legion Boulevard and 224th Place, are located within the 100-year floodplain. The proposed road designs must include culverts and other features to maintain the drainage across the tract of land that will be affected as part of the Proposed Action. Per FEMA requirements, Meade County Ordinance No. 9, *Regulations for Flood Damage Prevention*, and City of Box Elder Ordinance No. 491, *Flood Damage Prevention Regulations*, any structures must be constructed at least one (1) foot above the base flood elevation in accordance with FEMA standard requirements.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No-Action Alternative, the access roads and associated interior roads would not be constructed. Baseline conditions would remain unchanged and there would be no impacts to water resources at EAFB if the Proposed Action were not implemented. No significant impacts to wetlands or floodplains would occur with implementation of the No-Action Alternative.

3.7 BIOLOGICAL RESOURCES

3.7.1 Definition of the Resource

Biological resources include the various plants and animal species and their habitats in which they are found. Plants are typically referred to as vegetation while animals are referred to as wildlife. Habitat is defined as an ecological area where the resources and conditions are present that allow a vegetation and/or wildlife. Biological resources include vegetation and wildlife found at EAFB in the vicinity of the Proposed Action. http://en.wikipedia.org/wiki/Habitat - cite_note-2

Vegetation includes the terrestrial plant communities and wildlife includes all vertebrates animals with the exception of those identified as sensitive and protected species.

3.7.2 Existing Conditions

Sensitive and Protective Species

No known resident federally or stated threatened or endangered species occur on EAFB (USAF-EAFB, 2010). The Federal and State Threatened and Endangered Species that have been recorded in Meade County include the Whooping crane (*Grus americana*), Least tern (*Sterna antillarum*), and Sprague's pipit (*Anthus spragueii*) (USFWS, 2011).

The South Dakota Natural Heritage Program (SDNHP) tracks rare, threatened, and endangered animal species throughout South Dakota. Eight (8) animal species are tracked and recorded on EAFB and include the silver-haired bat (*Lasionycteris noctivagans*), common loon (*Gavia immer*), great blue heron (*Ardea herodias*), bufflehead (*Bucephala albeola*), Swainson's hawk (*Buteo swainsoni*), ferruginous hawk (*Buteo regalis*), burrowing owl (*Athene cunicularia*), and common poorwill (*Phalaenoptilus nuttallii*) (USAF-EAFB, 2010).

According to a biological study conducted at EAFB in 2007, *U.S. Air Force – Ellsworth Air Force Base SD, Comprehensive Biological Surveys 2006-2007*, three (3) bird species and one (1) mammal species were found on EAFB that are classified as sensitive species by the SDNHP (USAF-EAFB, 2007). The SDNHP states that the species require special attention; however, their populations do not warrant listing on the Federal or state threatened or endangered species list. The species are the burrowing owl, the Swainson's hawk, the loggerhead shrike (*Lanius ludovicianus*), and the silver-haired bat (USAF-EAFB, 2007). According to EAFB's INRMP, three (3) species on EAFB that warrant special attention are the burrowing owl, the Swainson's hawk, and the silver-haired bat.

Habitat for Swainson's hawk and the silver-haired bat do not occur in the areas of the Proposed Action.

Habitat for the burrowing owl includes prairie dog colonies that are reportedly present near the proposed Tower Road and Legion Boulevard. Burrowing owls generally use abandoned prairie dog burrows and may be present at EAFB between February 15 to August 15 (USAF-EAFB, 2010).

Vegetation

Due to the developed nature of EAFB, ground cover primarily consists of Kentucky bluegrass (*Poa pratensis*) interspersed with invasive and exotic "weedy species" such as field bindweed (*Convolvulas arvensis*), common dandelion (*Taraxacum officinale*), hairy crabgrass (*Digitaria sanguinalis*) as well as others (USAF-EAFB, 2010).

In 1999, a tree survey was conducted at EAFB in which a total of 60 different tree species were recorded. Combining approximately 3,190 deciduous trees and 1,190 evergreen trees makes an approximate total of 4,390 trees planted at EAFB. Trees planted on EAFB consist of the American Elm (*Ulmus americana*), white spruce (*Picea glauca*), green ash (*Fraxinus pennsylvanica*), thornless honeylocost (*Gleditsia triacanthos inermis*), ponderosa pine (*Pinus ponderosa*), eastern cottonwood (*Populus deltoides*), Siberian elm (*Ulmus pumila*), hackberry (*Celtis occidentalis*), Colorado spruce (*Picea pungens*), Russian olive (*Elaeagnus angustifolio*), flowering crabapple (*Malus varieties*), and Rocky Mountain juniper (*Juniperus scopulorum*) (USAF-EAFB, 2010). Since 1999, the Russian olive has proliferated and been spreading to other areas on EAFB (USAF-EAFB, 2010).

Wildlife

Wildlife on EAFB consists of various species of birds, reptiles, amphibians, and mammals that are typically found within the Great Plains Region. Two (2) wildlife surveys have been conducted on EAFB, one in 1994 and another in 2007. During these surveys, common species recorded included mule deer (*Odocoileous hemionus*), striped skunk (*Mephitis mephitis*), black-tailed prairie dog (*Cynomus ludovicianus*), red-tailed hawk (*Buteo jamaicensis*), killdeer (*Charadrius vociferus*), and mourning dove

(*Zenaida macroura*). Approximately 110 vertebrate species were recorded during the surveys including 16 mammals, 69 birds, 7 reptiles, 6 amphibians, and 11 fishes (USAF-EAFB, 2010).

3.7.3 Environmental Consequences

Alternative 1 (Proposed Action)

Residential development adjoins on all sides of the proposed project area; therefore, species anticipated to use the area as habitat would predominantly be wildlife species typical of suburban habitats. No Federally or state-listed threatened or endangered species are known to occur on EAFB; therefore, the Proposed Action will have no significant adverse impact to sensitive and protection species, vegetation and other wildlife species. However, if prairie dog colonies are present in the area of Tower Road and Legion Boulevard, burrowing owls may be present and BMPs outlined below for migratory birds should be implemented.

The Migratory Bird Treaty Act (MBTA), as amended, and EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds,* require Federal agencies to minimize or avoid impacts on migratory birds listed in 50 CFR 10.13. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, either eggs, parts, and nests except when specifically authorized by the Department of Interior. "Take" is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb". "Disturb" means to agitate or bother a migratory bird to a degree that causes, or is likely to cause 1) injury, 2) a decrease in its productivity, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

The following BMPs are recommended for reduction or avoidance of impacts on migratory birds that could occur within the proposed project areas:

- Inspect vegetation for active nests prior to clearing. Clear vegetation outside the migratory bird nesting season. Any groundbreaking construction activities should be performed before migratory birds return to EAFB after all young have fledged to avoid incidental take.
- If construction is scheduled to start during the period in which migratory bird species are present, steps should be taken to prevent migratory birds from establishing nests in the potential impact areas. These steps could include covering equipment and structures and use of various exclusionary devises or dispersal methods. Birds can be harassed to prevent them from nesting within the proposed project areas. Once a nest is established, they should not be harassed until all young have fledged and have left the nest site.
- If construction is scheduled to start during the period when migratory birds are present, a site-specific survey for nesting migratory birds should be performed starting at least 2 weeks prior to site clearing.
- If nesting birds are found during the survey, buffer areas should be established around nests. Construction should be deferred in buffer areas until birds have left the nest. Confirmation that all young have fledged should be made by a qualified biologist.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No-Action Alternative, the access roads and associated interior roads would not be constructed. Baseline conditions would remain unchanged and there would be no impacts to biological resources at EAFB if the Proposed Action were not implemented. No impacts to protected species, vegetation, and wildlife would occur with implementation of the No-Action Alternative.

3.8 CULTURAL RESOURCES

3.8.1 Definition of the Resource

The existing cultural resources at EAFB include historic sites, structures, artifacts, or any other physical evidence of human activities considered important to a culture or community for traditional, religious, scientific, or other reasons. The area of focus within the Area of Potential Effect (APE) is the proposed project areas. Section 106 of the NHPA of 1966, as amended, requires Federal agencies to take into account the effects of their actions on historic properties. Federal agencies must allow the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on any Federal undertakings affecting cultural resources. The Section 106 process is part of the Air Force's EIAP, a program that implements NEPA.

Federal agencies are required by Section 110 of the NHPA to assume responsibility for identifying, evaluating, nominating, and protecting historic properties under their control. Historic properties are cultural resources that are listed in, or eligible for listing in, the National Register of Historic Places (NRHP). Impacts to cultural resources may be considered adverse if the resources have been determined eligible for listing in the NRHP or have significance for Native American groups.

3.8.2 Existing Conditions

In 1994, a comprehensive archaeological survey was completed for EAFB and no significant resources were found at EAFB (USAF-EAFB, 2010). Three (3) sites were found during the 1994 survey that included a modified natural spring, an isolated lithic flake, and segments of the original installation railroad from World War II (USAF-EAFB, 2010). These sites did not meet criteria for inclusion on the National Register of Historic Places (NRHP) (USAF-EAFB, 2010).

During this assessment, a Level III Cultural Resource Inventory* conducted by Mr. Brad Noisat, Principal Investigator of Niwot Archaeological Consultants, Inc. was completed for the Proposed Action areas. According to the cultural resources report, a previous Level III survey was completed for EAFB in 1989. During the Level I Cultural Resource Inventory**, it was discovered that four (4) sites were inventoried, including the three previously mentioned sites, as well as an U.S. Army anti-aircraft protection area (Site 39MD0310). The site consists of a foundation and a gravel cul-de-sac and is listed as Not Eligible to the NRHP under Criteria A-D. The site does not intersect the proposed project areas which are referred to as

the Direct Effects APE. The other previously recorded sites are also located outside of the proposed project areas.

In addition, according to the most-recent cultural resources report, the EAFB Railroad (the previously mentioned as the original installation railroad), Site 39MD2043/39PN2043, is listed as Eligible to the NRHP. The railroad extends through both Pennington and Meade Counties; however, the portion of the railroad that is located within Meade County is located more than one kilometer (approximately 3,280 feet) from the proposed project areas.

Thirteen (13) buildings and structures located on EAFB have been recorded and evaluated as Eligible to the NRHP due to the construction time frame of 1942-1955. The buildings include the administration building, the SAC barracks-20 bay building, EAFB's chapel, the auto shop building, the maintenance shop building, the mess and administration building, the steam plant building, well house no 1, the P.X. service station, and the bowling alley. The nearest building to the proposed project areas is the steam plant building which is located approximately 375 meters (approximately 1,230 feet) from the proposed secondary emergency access road, Legion Boulevard.

*Level I inventory consists of preliminary research that identifies: (1) known NRHP-eligible or listed sites that might be affected by the proposed undertaking; (2) previous inventories and previously recorded cultural resources within the Direct Effects APE; and (3) previous inventories and previously recorded cultural resources within one mile of the Direct Effects APE [per State of South Dakota SHPO requirements]. In addition to identifying known NRHP-eligible or listed sites, the Level I inventory provides important information about the kinds and distribution of cultural resources that may be encountered in the project area and establishes baseline historic contexts for evaluation. The primary source of information about previous inventories and previously recorded cultural resources in the project area is the State SHPO records [in this case, the records of the State Archaeological Research Center of South Dakota, Rapid City], but other information sources pertinent to the project area such as published historical literature, local historical expert consultation, and online resources are also consulted.

**Level III inventory is a systematic, intensive, pedestrian field survey of the Direct Effects APE of the project. Standards for intensive field survey are established by state and federal agencies. For linear APEs, the Level III standard is a 100 ft corridor, or 50 ft to either side of the centerline. For block areas, the standard is a field survey to the project boundaries using systematic transects spaced no more than 30 m apart. During a Level III inventory, newly found and previously recorded cultural resources are identified, mapped, recorded, and evaluated for NRHP eligibility. Potential adverse effects of the proposed undertaking to cultural resources recommended or listed as NRHP-eligible are identified, and cultural resource management recommendations are presented to mitigate those adverse effects.

3.8.3 Environmental Consequences

Alternative 1 (Proposed Action)

No cultural resources were discovered within the Direct Effects APE during the Level III inventory. In addition, based on the current and previous archaeological work in the area, the potential for significant

buried cultural resources with the APE is considered low (Niwot, 2011). Cultural resource clearance for the Proposed Action is recommended.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No Action Alternative, the access roads and associated interior roads would not be constructed. No significant adverse impacts to cultural resources at EAFB are anticipated if the Proposed Action were not implemented.

3.9 INFRASTRUCTURE

3.9.1 Definition of the Resource

Infrastructure consists of the systems and physical structures that enable a population in a specified area to function. Infrastructure is wholly human-made, with a high correlation between the type and extent of infrastructure and the degree to which an area is characterized as "urban" or developed. The availability of infrastructure and its capacity to support growth are generally regarded as essential to the economic growth of an area.

3.9.2 Existing Conditions

The infrastructure of EAFB includes the utility systems (electrical, potable water, sewage/wastewater, and storm drainage). Implementation of the Proposed Action would involve construction of a new road and associated interior roads that would connect to two (2) additional access points which will enter Centennial Estates.

Electrical Distribution

EAFB purchases power from the Black Hills Power Cooperative. The Proposed Action would require relatively small quantities of electricity. The Proposed Action would not result in significant impacts to the electrical distribution system.

Potable Water

Drinking water for EAFB is delivered by the Rapid City Water Division via a 16-inch water main. Drinking water for EAFB is obtained from the Pactola Reservoir, which is located to the west of Rapid City in the Black Hills (USAF-EAFB, 2010). Sources for this water system include three (3) infiltration galleries along the Rapid Creek alluvium. The potable water system at EAFB is cable of supporting the Proposed Action. The Proposed Action would not result in significant impacts to potable water resources.

Sewage/Wastewater

EAFB discharges domestic and industrial wastewater to an on-installation WWTP and is currently operated by a contractor (Optech Monette). The contractor is responsible for managing the WWTP and

specific systems in a manner that is safe, effective and efficient. The wastewater treatment plan consists of a biological treatment system employing the trickling filter process to achieve advanced secondary treatment levels. The WWTP utilized primary and secondary treatment processes. The plant has two (2) anaerobic digesters. The effluent discharge is monitored at three (3) outfalls and at the WWTP. A belt press is used for de-watering sludge generated at EAFB. De-watered sludge is disposed of at the Rapid City landfill. Prior to disposal, sludge has to pass a paint filter test. The contractor processes more than 150 tons of dewatered sludge annually. The Proposed Action would not increase the number of people at EAFB. Therefore, no increase would be expected to overall demands on the sanitary sewer system/wastewater treatment plant as a result of construction.

Storm Drainage

EAFB is within the Missouri River Basin. Three (3) major streams are located near EAFB, including Elk Creek, Box Elder Creek and Rapid Creek. Elk Creek and Rapid Creek are perennial streams and Box Elder Creek is an ephemeral stream. Storm water from at the installation drains into seven (7) defined watersheds. The outfalls from these watersheds are permitted by SWD permit number SD-0000281 issued by the SDDENR and is valid through September 2014 (SDDENR, 2005). The Proposed Action would not result in significant impacts to the storm drainage system.

All infrastructure systems at EAFB have the capacity to handle increased demands imposed during the construction of the Proposed Action.

3.9.3 Environmental Consequences

Alternative 1 (Proposed Action)

Because the Proposed Action would not involve an increase to overall demands on electrical distribution, potable water, sewage/wastewater treatment or storm drainage, the Proposed Action would not result in significant impacts to the infrastructure.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No-Action Alternative, the access roads and associated interior roads would not be constructed. Baseline conditions would remain unchanged and there would be no impacts to infrastructure resources at EAFB if the Proposed Action were not implemented. No impacts to infrastructure resources would occur with implementation of the No-Action Alternative.

3.10 HAZARDOUS MATERIALS AND WASTE MANAGEMENT

3.10.1 Definition of the Resource

Hazardous materials are identified and regulated under CERCLA; the Occupational Safety and Health Act (OSHA); and the Emergency Planning and Community Right-to-Know Act (EPCRA). RCRA defines

hazardous waste as any solid, liquid, contained gaseous or semisolid waste, or any combination of waste that could or do pose a substantial hazard to human health or the environment. Waste may be classified as hazardous because of its toxicity, reactivity, ignitability or corrosiveness. In addition, certain types of waste are "listed" or identified as hazardous in Code of Federal Regulations at 40 CFR Part 261. Executive Order 12088, *Federal Compliance with Pollution Control Standards*, ensures that necessary actions are taken for the prevention, management, and abatement of environmental pollution from hazardous materials or hazardous waste due to federal activities.

3.10.2 Existing Conditions

The Hazardous Waste Management Plan (HWMP) provides personnel at EAFB with policies and procedures for the management of hazardous wastes generated during installation operations. The Plan covers the implementation of the USEPAs "cradle to grave" philosophy for managing hazardous materials and waste. The control and magement from the point at which it becomes a waste to the point of ultimate disposal involves a series of tasks that must be performed in order to comply with applicable Federal, state, local and USAF regulations. The HWMP establishes specific procedures which must be followed while performing waste management activities such as generation, classification, containerization and packaging, labeling, transportation and accumulation.

The hazardous materials used by the Air Force and contractor personnel at EAFB are controlled through an Air Force pollution prevention process called HAZMART. This process provides centralized management of the procurement, handling, storage, and issuing of hazardous materials and turn-in, recovery, reuse, recycling, or disposal of hazardous materials. The HAZMART process includes review and approval by Air Force personnel to ensure users are aware of exposure and safety risks. HAZMART conducts sampling, manages turn-in, 90-day accumulation, and transportation of wastes. HAZMART also operates the Hazardous Materials Pharmacy, the Industrial Recycling Center (IRC) and the Household Hazardous Material Recovery Program, and provides compliance assistance for the generators at EAFB.

Nearly every daily activity at EAFB, from industrial shops to administrative offices, some form of waste is generated. EAFB ships all hazardous wastes off-site before the end of the maximum allowable 90-day accumulation period; therefore; there are no permitted waste storage facilities at EAFB.

EAFB is a Large Quantity Generator (LQG) of hazardous wastes (EPA ID #SD2571924644). As defined by RCRA, a LQG generates more than 1,000 kilograms of hazardous waste each month or more than one kilogram of acutely hazardous waste each month. A variety of operations at EAFB use and store hazardous materials and petroleum products and generate hazardous waste. Examples of hazardous materials used at EAFB include solvents, fuels, lubricants, etching compounds, batteries, pesticides, and refrigerants. Used oil generated at EAFB should be managed according to the Used Oil Management Plan.

The significance of potential impacts associated with hazardous materials and waste management is based on the toxicity, transportation, storage, and disposal of these substances. Hazardous materials and hazardous waste management impacts are considered significant if the storage, use, transportation, or disposal of these substances substantially increases the human health risk or environmental exposure.

Any increase in the quantity or toxicity of hazardous materials and/or hazardous waste handled by a facility may also signify a potentially significant impact, especially if a facility was not equipped to hand the new waste streams.

3.10.3 Environmental Consequences

Alternative 1 (Proposed Action)

Construction of the access roads and associated interior roads may require the use of hazardous materials such as paints, adhesives, sealants and petroleum products by construction personnel. In addition, the Proposed Action would require consumption of limited amounts of materials typically associated with construction (e.g. metal, asphalt and fuel). In accordance with EAFB's HAZMART procedure, copies of the Material Safety Data Sheets (MSDSs) must be provided to EAFB and maintained on the construction site. Construction personnel would comply with Federal, State and local environmental laws. Storage and use of hazardous materials would continue to be part of the daily activities of EAFB. Hazardous waste will be temporarily accumulated at defined areas prior to disposal off-base. These areas should be enclosed or covered. No adverse environmental impacts related to hazardous materials and waste management would be expected under the Proposed Action.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No-Action Alternative, the access roads and associated interior roads would not be constructed. Baseline conditions would remain unchanged and there would be no impacts to hazardous materials and waste management at EAFB if the Proposed Action were not implemented. No impacts to hazardous materials and waste management would occur with implementation of the No-Action Alternative.

3.11 SAFETY AND OCCUPATIONAL HEALTH

3.11.1 Definition of the Resource

Construction and operations safety as well as exposure to hazardous/toxic materials are addressed in this section. Since the Proposed Action is not within portions of the airfield space, this section will not include safety of flight issues associated with airfield operations. Short-term safety risks are associated with any construction activities, especially activities that are a part of the Proposed Action. Construction personnel will adhere to standard safety practices to minimize potential risks.

3.11.2 Existing Conditions

Construction Safety

Effects to safety and occupational health in relation to construction activities would be minimal and no different from standard, on-going activities occurring at EAFB. During construction, typical industrial

safety standards will be followed. Increased airborne dust, noise, and diesel fumes are expected during the construction phase of the Proposed Action. These air pollutants may cause a momentary irritation to individuals in close proximity to the construction, but it is not expected to residually affect the health of the community.

Operations Safety

The Proposed Action is the construction of an access road and associated interior roads. The long term use of the roads is not expected to significantly increase noise, emissions, or discharges; therefore, there would be limited increase of impacts to human health.

Exposure to Hazardous/Toxic Materials Safety

There are no planned uses or storage of hazardous materials that will present a significant threat to the safety and health of the neighboring population.

3.11.3 Environmental Consequences

Alternative 1 (Proposed Action)

The Proposed Action does not penetrate EAFB's airfield imaginary surfaces. There are no specific aspects of the Proposed Action's construction operations that would create any unique or extraordinary safety issues.

Alternative 2

Alternative impacts would be similar to those generated under the Proposed Action.

Alternative 3 (No-Action Alternative)

Under the No Action Alternative, the access roads and associated interior roads would not be constructed. No significant adverse impacts to safety and occupational health resources at EAFB are anticipated if the Proposed Action were not implemented.

4.0 CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

4.1 CUMULATIVE EFFECTS ANALYSIS

This section provides (1) a definition of cumulative effects, (2) a description of past, present, and reasonably foreseeable actions relevant to cumulative effects, (3) an assessment of the nature of interaction of the Proposed Action and the No-Action Alternative and, (4) an evaluation of cumulative effects potentially resulting from these interactions.

4.2 DEFINITION OF CUMULATIVE EFFECTS

Cumulative impacts are defined by the CEQ in 40-CFR 1508.7 as the "…impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." The following will present the impacts of reasonably foreseeable future actions that are considered pertinent to the analysis of cumulative impacts due to the construction of the access roads.

The first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the Proposed Action and alternatives. The scope of the cumulative effects analysis involves both timeframe and geographic content in which effects could be expected to occur, as well as a description of what resources could potentially be cumulatively affected.

To identify cumulative effects, an EA must address the following questions:

1. Will the Proposed Action interact with elements of future actions?
2. If one or more of the effects of the Proposed Action and another action could be expected to interact, would the Proposed Action be affected by impacts of the other action?
3. If there is a correlation between the Proposed Action and a future action, will there be any potential significant impacts not identified when the Proposed Action is considered alone?

An effort has been made to identify actions that are being considered at this time and these actions are considered in this cumulative analysis which will allow an evaluation the environmental consequences of the Proposed Action.

4.3 POTENTIAL CUMULATIVE EFFECTS

Annexation of Ellsworth AFB:

The City of Box Elder has been seeking to attract new businesses to the area to provide dining and other economic services to servicemen and their families living on and off-installation; however, due to Box Elder's low population census, businesses have declined. In 2009, the City of Box Elder annexed portions of residential areas of EAFB increase their tax revenues and population numbers. In addition,

other residential areas of EAFB will be converted to mixed-use development. The City of Box Elder is also seeking to move temporary housing to more compatible areas.

Regional Wastewater Treatment Plant:

Due to an aging EAFB WWTP and more stringent South Dakota Surface Water Discharge System (SDSWDS) limits, EAFB will be faced with upgrading their individual WWTP. A feasibility study concluded that it would be more cost-effective if a new WWTP was constructed to service both EAFB and the City of Box Elder together versus using individual systems (USAF-EAFB, 2011d). In addition, the community of Box Elder as well as the surrounding region is expected to grow thus requiring a larger facility. The proposed Regional WWTP (RWWTP) would be constructed adjacent to the current lagoon wastewater treatment facility in Box Elder. The existing EAFB WWTP will be decommissioned by 2014.

South Dakota Air and Space Museum Expansion:

The museum is planning to expand their display and facilities area to the north of their current location which is to the south of an existing housing area (USAF-EAFB, 2011d).

4.4 ANALYSIS OF CUMULATIVE IMPACTS

Analysis of the Proposed Action when considered with past, present, and/or future actions would not result in any adverse and/or significant impacts to land use; noise; air quality; geological resources; water resources; biological resources; cultural resources; socioeconomics; infrastructure; hazardous materials and waste management; and safety and occupational health.

Land Use

Land use would be consistent with its current land use. No significant adverse cumulative effects expected.

Noise

Impacts to noise would be short-term and limited in the proposed project areas during the construction of the access and associated interior roads, the demolition of the existing WWTP and the construction of the RWWTP, and the construction of the South Dakota Air and Space Museum Expansion. No significant adverse cumulative effects expected.

Air Quality

Construction of the access and associated interior roads, the demolition of the existing WWTP and the construction of the RWWTP, and the construction of the South Dakota Air and Space Museum Expansion would not cumulatively affect air quality in the region. No significant adverse cumulative effects expected.

Geological Resources

The limited scope of these cumulative actions does not combine to create significant impacts to geological resources when considered individually or cumulatively. No significant adverse cumulative effects expected.

Water Resources

Impacts to water resources would be short-term and limited in the proposed project areas during construction of the access and associated interior roads, the construction of the RWWTP, and the South Dakota Air and Space Museum Expansion. Implementation of BMPs during construction would minimize impacts and significant adverse cumulative effects are not expected.

Biological Resources

Short-term and minor impacts to biological resources would occur during the construction of the access and associated interior roads, the demolition of the existing WWTP and the construction of the RWWTP, and the construction of the South Dakota Air and Space Museum Expansion. No significant adverse cumulative effects expected.

Cultural Resources

No significant archaeological resources are present on EAFB and few significant historic properties occur on-installation; therefore, no significant adverse cumulative effects expected.

Infrastructure

Long-term, beneficial effects from upgrading aged and inefficient utilities and infrastructure are expected. No significant adverse cumulative effects expected.

Hazardous Materials and Waste Management

Hazardous material and waste management would increase as a result of future actions. However, no significant adverse cumulative effects expected.

Safety and Occupational Health

Following completion of the construction of the access and associated interior roads, the demolition of the existing WWTP and the construction of the RWWTP, and the construction of the South Dakota Air and Space Museum Expansion, safety risks would cease. No significant adverse cumulative effects expected.

4.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitment of resources which would be involved should the Proposed Action be implemented. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that this could have on future generations. Irreversible effects primarily result from the use or destruction of specific resources (e.g. energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments typically apply to the use or consumption of the resource when it is neither renewable not recoverable for future use such as loss of production, harvest, or use of natural resources.

In the event of the Proposed Action, most resource commitments are neither irreversible nor irretrievable. Most environmental consequences are short-term and temporary, such as air emissions from construction operations. The construction of the access road and associated interior roads will require consumption of a limited amount of materials typically associated with road construction (e.g. asphalt, gravel, sand, road base). The amount of these materials used is not expected to significantly decrease the availability of these resources either locally or globally. Based on this analysis, implementation of the Proposed Action would not result in adverse impacts to the environment or to the health and safety of neighboring communities.

5.0 REFERENCES CITED

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6.0 PERSONS AND AGENCIES CONTACTED

The Honorable Governor Dennis Daugaard
State of South Dakota
Office of the Governor
500 E Capitol Avenue
Pierre, SD 57501

The Honorable John Thune
1313 West Main Street
Rapid City, SD 57701

The Honorable Tim Johnson
405 East Omaha Street, Suite B
Rapid City, SD 57701

The Honorable Kristi Noem
343 Quincy Street
Rapid City, SD 57701

Mr. Mark Merchen, Manager of Economic Development
Legislative and Public Afffairs
PO Box 3486
Rapid City, SD 57709

The Honorable Mayor Al Dial
City of Box Elder
520 N Ellsworth Road, #9C
Box Elder, SD 57719

The Honorable Mayor Sam Kooiker
City of Rapid City
300 Sixth Street
Rapid City, SD 57701

Mr. Brett Limbaugh
Community and Planning Coordinator
City of Rapid City
300 Sixth Street
Rapid City, SD 57701

Major General Steven Doohen, Secretary
South Dakota Department of Military & Veterans Affairs
Soldiers & Sailors Memorial Building
425 E Capitol Avenue
Pierre, SD 57501-5070

Mr. Pete Gober, Field Supervisor
U.S. Fish and Wildlife Service
South Dakota Ecological Services Field Office
420 S Garfield Avenue, Suite 400
Pierre, SD 57501-5408

Mr. Joe Nadenicek
Staff Attorney
SD Department of Environmental and Natural Resources
523 E Capitol Avenue
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Mr. John Miller
Surface Water Quality Program
SD DENR
PMB 2020
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Mr. Mike Kintigh
Regional Supervisor
South Dakota Game, Fish and Parks
3305 W South Street
Rapid City, SD 57702

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Director
South Dakota Department of Transportation
Office of Aeronautics
700 E Broadway Avenue
Pierre, SD 57501-2586

Ms. Paige Hoskinson Olson
Review and Compliance Coordinator
Department of Tourism and State Development
711 E Wells Avenue
Pierre, SD 57501-3369

Mr. Michael McMahon
Planning & Zoning Coordinator
City of Box Elder
520 N Ellsworth Road, #9C
Box Elder, SD 57719

Pennington County Commissioners
315 Saint Joseph Street, Ste. 156
Rapid City, SD 57701

Mr. Dan Jennissen
Planning Director
Pennington County
315 Saint Joseph Street, Ste. 118
Rapid City, SD 57701

Mr. Doug Wells, Director
Pennington County Housing
1805 W. Fulton Street, Suite 101
Rapid City, SD 57702

Meade County Commissioners
1425 Sherman Street
Sturgis, SD 57785

Mr. Bill Rich
Planning Director
Meade County
1425 Sherman Street
Sturgis, SD 57785

Intergovernmental Coordination for Environmental Planning (IICEP) Coordination

In November 2011, Bureau Veritas sent IICEP letters in interested local and state governmental agencies to solicit comments or issues regarding the Proposed Action in the above list. A copy of the IICEP coordination letter and responses are included in Appendix A.

7.0 LIST OF PREPARERS AND REVIEWERS

Amanda Cushing
Project Manager
Bureau Veritas North America
165 South Union Blvd, Suite 310
Lakewood, Colorado 80228

Brad Noisat
Principle Archaeologist
Niwot Archaeological Consultants
20139 Ridgefield Loop
Spearfish, South Dakota 57783

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Manager of Due Diligence and Site Assessments
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Melissa Valentine
Project Manager
Bureau Veritas North America
165 South Union Blvd, Suite 310
Lakewood, Colorado 80228

APPENDIX A

INTERAGENCY AND INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING CORRESPONDANCE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 28TH MISSION SUPPORT GROUP (ACC)
ELLSWORTH AIR FORCE BASE SOUTH DAKOTA

NOV 3 2011

MEMORANDUM FOR DISTRIBUTION

FROM: 28 CES/CEA
2125 Scott Dr
Ellsworth AFB SD 57706-4709

SUBJECT: A Description of Proposed Action and Alternatives (DOPAA) for Easement

1. Bureau Veritas North America, Inc. for Hunt Development with oversight by the United States Air Force and the 28th Civil Engineer Squadron is preparing an Environmental Assessment addressing elements pertaining to the construction of a proposed access road and associated interior roads.

2. The proposed action includes granting an easement through the eastern part of Ellsworth AFB Tract 308 for the construction of two off-installation access roads to Centennial Estates: Tower Road and Legion Boulevard. The proposed action also includes the extension of 224th Place onto EAFB property, connecting to Centennial Drive within Centennial Estates, and the construction of a small section of road that would connect Centennial Drive and Dakota Drive. An additional interior road will also be constructed on the northwestern portion of Centennial Estates. The interior road will connect DeSmet Court and Verendrye Court. The DOPAA is included with this correspondence.

3. The environmental impact analysis process for the proposed action and the no action alternative is being conducted by Ellsworth AFB in accordance with guidelines from the Council on Environmental Quality (CEQ), pursuant to the requirements of the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we request your participation by reviewing the attached DOPAA and solicit your comments concerning the proposal and any potential environmental consequences. Also enclosed is the distribution list of those Federal, state, and local agencies that have been contacted. If there are any additional agencies that you feel should review and comment on the proposal, please include them in your distribution of this letter and attached materials.

4. Please provide any comments or information directly to Ms. Melody Jensen, 25 CES/CEAON, 2125 Scott Drive, Ellsworth AFB, SD 57706-4709 within 30 days of the date shown on this letter.

MARK A. HOWARD, GS-13, DAF
28 CES Asset Management Flight Chief

Attachments:
1. DOPAA
2. Distribution List

DEPARTMENT OF GAME, FISH, AND PARKS
3305 West South Street
Rapid City, SD 57702
605.394.2391

Ms. Melody Jensen
25 CES/CEAON
2125 Scott Drive
Ellsworth AFB, SD 57706-4709

Nov. 14, 2011

Dear Ms. Jensen

I have received a 'Memorandum For Distribution' from the Department of the Air Force concerning a 'Description of Proposed Action and Alternatives (DOPAA) for Easement' dated October 3rd, 2011.

The project describes some road construction adjacent to EAFB in and around some base housing. After review of the documents attached, South Dakota Game, Fish & Parks has no direct concerns or comments.

I did notice that delivery of the documents took a considerable amount of time and my reply may actually reach you after the 30 day deadline indicated on the cover letter. It would appear that delivery was delayed due to the use of an old mailing address. Please update your contact information for SD Game, Fish & Parks to include our new address below – so that we may offer timely comments in the future if necessary.

South Dakota Game, Fish & Parks
4130 Adventure Trail
Rapid City, SD 57702 – 0303

Phone: 605.394.2391
Fax: 605.394.1793

Sincerely,

Mike Kintigh
Regional Supervisor
SD GFP

SOUTH DAKOTA
STATE HISTORICAL SOCIETY
DEPARTMENT OF TOURISM

November 14, 2011

Ms. Melody Jensen
28CES/CEAON
2125 Scott Drive
Ellsworth AFB, SD 57706-4711

PRE-SECTION 106 PROJECT CONSULTATION
Project: 111108003F – A Description of Proposed Action and Alternatives (DOPAA) for Easement at Ellsworth Air Force Base
Location: Meade County
(DOD)

Dear Ms. Jensen:

Thank you for the opportunity to comment on the above referenced project. The South Dakota Office of the State Historic Preservation Officer (SHPO) has the following recommendations for fulfilling the requirements of Section 106 of the National Historic Preservation Act of 1966 (as amended).

On November 8, 2011, we received Mr. Mark A. Howard's letter and the document entitled "Access Road and Associated Roads Environmental Assessment". The information indicates the proposed action is the type of activity with the potential to cause effects on historic properties. In order for my office to provide meaningful comment as to the effect of the project on historic properties, your agency will need to provide documentation consistent with the documentation standards outlined in 36 CFR part 800.11, the implementing regulations for Section 106 of the National Historic Preservation Act.

To aid you in providing complete information I have enclosed 36 CFR part 800.11 (documentation standards), and form entitled "Information Need for Section 106 Project Review." The submission of documentation that fulfills the requirements of 36 CFR 800.11 will help to ensure that adequate information has been supplied for my office to concur with your agency's determination of effect.

Should you require any additional information, please contact Paige Olson at (605) 773-6004. Your concern for the non-renewable cultural heritage of our state is appreciated. The full text of 36 CFR part 800 is available on the Advisory Council on Historic Preservation's web page at www.achp.gov.

Sincerely,

Jay D. Vogt
State Historic Preservation Officer

P. Olson

Paige Olson
Review and Compliance Coordinator

November 28, 2011

Ms. Paige Olson
Review and Compliance Coordinator
South Dakota State Historical Society
900 Governors Drive
Rapid City, SD 57501

Project No. 10011-011029.00

Subject: **Submittal of Requested Information for the Ellsworth Air Force Base Environmental Assessment addressing the granting of an easement for the construction of an off-base access road into Centennial Estates, construction of interior roads, and installation of perimeter fencing at Ellsworth Air Force Base, South Dakota**

Dear Ms. Olson:

In accordance with Section 106 of the National Historic Preservation Act of 1966 (as amended) and documentation standards established in 36 CFR Part 800, Bureau Veritas North America, Inc. (Bureau Veritas) is submitting the requested information for the Ellsworth Air Force Base (Ellsworth AFB) Environmental Assessment. The requested information is outlined below.

Name of Federal Agency [800.1]:
Ellsworth AFB 28 CES/CEAON is assisting in the project.

Consultant Contact Person:
Bureau Veritas
Amanda Cushing
165 South Union Boulevard, Suite 310
Lakewood, Colorado 80228
amanda.cushing@us.bureauveritas.com
303.218.3510

Project Description [800.4]:
The Proposed Action includes the granting of an easement through the eastern part of Ellsworth AFB Tract 308 for the construction of two off-installation access roads to Centennial Estates: Tower Road and Legion Boulevard. In addition, a utility easement along Tower Road will be granted for the installation of public utilities to supply natural gas, electric, and water services to the housing development, Centennial Estates.

The Proposed Action also includes the extension of 224th Place (also known as County Highway Mc-2) approximately 1,000 feet to the west onto Ellsworth AFB property, connecting to Centennial Drive within Centennial Estates and the construction of a small section of road that would connect Centennial Drive and Dakota Drive.

In addition, a pedestrian/bicycle path will be installed along Tower Road. An additional interior road will also be constructed on the northwestern portion of Centennial Estates. The interior road

will connect Desmet Court and Verendrye Court. This interior road will also be equipped with typical underground utilities with easements and standard street lights.

Finally, a security fence will be constructed along the perimeter of the newly proposed Hunt Development lease area boundary. See Figure 2.6 for the existing Hunt Development lease boundary and the proposed lease boundary.

See Figures 2.1, 2.2, and 2.3 for the proposed access road and the associations interior road locations.

Project Location:
The proposed project's locations are within an unaddressed area within the boundaries of Ellsworth Air Force Base, Box Elder, Meade County in portions of Sections 5, 6, and 8, Township 2 North, Range 9 East (see Attachment 1 for the *Bend, South Dakota* (1978) topographic map). Specifically, the new roads defining the proposed Areas of Direct Effects are situated within four (4) proposed project areas (see Attachment 2), including:

- **Area E, Desmet/Verendrye Connector:** W1/2, SW1/4, SE1/4, Section 6.

- **Area G, 224th Street Extension:** S1/2, SW1/4, SW1/4, SW1/4, Section 5; south boundary line, SW1/4, SW1/4, Section 5 (north boundary line, NW1/4, NW1/4, Section 8); and N1/2, NW1/4, NW1/4, NW1/4, Section 8.

- **Areas H and I:** Tower Road Extension and Secondary Access, West and East: N1/2, S1/2, NW1/4 and SW1/4, SE1/4, NE1/4, NW1/4, Section 8.

Proposed Project's Area of Potential Effect (APE) [800.4 (a)(1) and 800.16(d)]:
As noted herein, Bureau Veritas retained Niwot Archaeological Consultants, Inc. (Niwot) to conduct an assessment of the proposed project's direct and visual APEs (see Attachment 1). Niwot also described the steps taken to identify the APE, and justified the boundaries chosen.

During the Level I inventory, Niwot conducted a one-mile buffer around the proposed project area as this the standard practice in South Dakota. The idea behind this approach is that sites are identified in the Level I inventory data that may be just beyond the proposed project area boundary. Therefore, if a site adjacent to the proposed project area boundary is discovered, the Level I inventory data would show if that site is actually a continuation of a previously recorded site just outside proposed project area boundary.

In addition, the Level I inventory one-mile buffer is required to identify applicable historic contexts for evaluation for any new sites found. In this case, the historic contexts have to do with: (a) 39MD2043/39PN2043 railroad; (b) historic buildings associated with Ellsworth AFB; and (c) miscellaneous and poorly understood prehistoric sites and ranchland structures, etc. Since the proposed project consists of new road construction, a Visual Effects APE applicable to known significant sites is not really at issue relative to the historic contexts cited above.

The Direct Effects APE was defined by Hunt Development as far as 'limits of the roads' go. The proposed access roads and associated interior roads end at fences or barriers on property lines. The roads themselves were Level III-inventoried in standard fashion: 100-foot wide, 50-foot to either side of the centerline. The 100-foot corridor is standard in South Dakota. That APE includes the finished two-lane wide road, gutters/sidewalks, and any buried utility line routes that

might be placed within adjacent ditches or berms during construction. These would not exceed a 100-foot wide corridor.

Identification of Historic Properties [800.4(b)(1)]:
In addition, Niwot also identified historic properties through a Level I inventory for the proposed project areas (see red line polygon on Attachment 1) and a one-mile buffer beyond the proposed project area boundaries using shapefile data supplied by Ms. Sheena Harms of the Archaeological Research Center of South Dakota (ARC) in Rapid City, South Dakota. The Level I inventory area identifies known National Register properties that might be directly or indirectly affected by the proposed undertaking. See attached Niwot's report for information obtained through the Level I inventory.

Niwot also conducted an on-the ground survey which included photographs of the proposed project areas. See attached Niwot's report for information obtained through the Level III inventory. As described in the attached report, Niwot has concluded that the proposed project will not affect known cultural resources.

Determination of Effect [800.16 (i)]:
No Historic Properties Affected. No historic properties are present and the proposed undertaking will have no effect upon historic properties as defined in Sec. 800.16 (i).

Bureau Veritas respectfully requests your concurrence with our assessment. We thank you in advance for a prompt, written response to our submittal. Please contact either of the undersigned at 303.988.2585 or by e-mail at amanda.cushing@us.bureauveritas.com or at melissa.valentine@us.bureauveritas.com if you have any questions. Thank you very much.

Sincerely,

Amanda Cushing
Project Manager
Rocky Mountain Region

Melissa D. Valentine
Project Manager
Rocky Mountain Region

Attachment: *Level III Cultural Resource Inventory: Proposed Road Expansion at Ellsworth Air Force Base, Meade County, South Dakota* prepared by Niwot Archaeological Consultants, Inc., Spearfish, South Dakota dated April 8, 2011.

Figure 2.6

Existing Hunt Development
Lease Boundary & Proposed
Lease Boundary Locations

LEGEND

EXISTING HUNT DEVELOPMENT LEASE BOUNDARY LINE

PROPOSED FENCE AND PROPOSED LEASE BOUNDARY LINE

NOTE: BOUNDARY LOCATIONS ARE APPROXIMATED

SCALE IN FEET

0 300 600 1200

* Photograph courtesy of EAFB

CLIENT

Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE

Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 11011-011029.00

Last Revision
October 2011

Figure 2.1
Tower Road & Legion Boulevard Location Map

SCALE (FEET)
300 150 0 300

*PHOTOGRAPH COURTESY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

Figure 2.2
Proposed 224th Place
Location Map

SCALE (FEET)
200 100 0 200

*PHOTOGRAPH COURTESY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

Figure 2.3
Proposed Connector Road Location Map

SCALE (FEET)

200 100 0 200

*PHOTOGRAPH COURTESY OF EAFB

CLIENT
Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE
Centennial Estates
Ellsworth Air Force Base
Box Elder, South Dakota

Project No. 10011-011029.00

Last Revision
October 2011

Level III Cultural Resource Inventory: Proposed Road Expansion at Ellsworth Air Force Base, Meade County, South Dakota

by
Brad Noisat, Principal Investigator
Niwot Archaeological Consultants, Inc., Spearfish, South Dakota
www.niwotarchaeology.com

signed: Bradley A. Noisat

April 8, 2011

Abstract

On April 7, 2011, Brad Noisat, Principal Investigator of Niwot Archaeological Consultants, Inc., performed a Level III Inventory of approximately 0.9 linear miles for proposed new roads on lands owned by the U.S. Air Force, Ellsworth AFB outside the community of Box Elder in Meade County, South Dakota. The proposed road expansion will provide improved access to existing and new AFB housing developments. No previously known cultural resources occur within the proposed Areas of Direct Effects (APEs) of the project. No new cultural resources were found during the Level III field inventory of the Direct Effects APEs. Cultural resource clearance for the proposed undertaking is recommended.

Project Description

Hunt Companies, Inc. of El Paso, Texas proposes to construct 0.9 miles of new roads adjacent to existing off-base residential neighborhoods housing Ellsworth Air Force Base (AFB) personnel. The new roads constructed for the U.S. Air Force will improve access to the various neighborhoods. Attachment 1 shows the project area on the USGS 7.5' Bend, South Dakota (1978) quadrangle. The red polygon in Attachment 1 shows the federally-owned project area boundary under consideration. Green lines represent the proposed new roads. Attachment 2 shows the project design plans plotted on an aerial view of the project vicinity. The proposed new road construction occurs in Meade County in portions of Sections 5, 6, and 8, T2N-R9E. Specifically, the new roads defining the proposed Areas of Direct Effects are situated within four proposed work areas, including:

- Area E, Desmet/Verendrye Connector: W1/2, SW1/4, SE1/4, Section 6.

- Area G, 224th Street Extension: S1/2, SW1/4, SW1/4, SW1/4, Section 5; south boundary line, SW1/4, SW1/4, Section 5 (north boundary line, NW1/4, NW1/4, Section 8); and N1/2, NW1/4, NW1/4, NW1/4, Section 8.

- Areas H and I: Tower Road Extension and Secondary Access, West and East: N1/2, S1/2, NW1/4 and SW1/4, SE1/4, NE1/4, NW1/4, Section 8.

The total 0.9 mile (1.4 km) APEs were inventoried as a 100 ft wide corridor, 50 ft to either side of the centerline. This yields a Level III Inventory project area of 10.9 acres (4.41 ha). The proposed new roads will be asphalt-paved thoroughfares crowned and ditched with curbs and gutters per SDDOT standards. The Tower Road extension will have three lanes; all others will be two-lane roads. Pedestrian sidewalks/bike paths will be also be added to the roads. Construction will involve shallow subsurface bulldozing and blading. No significant above-ground structures will be built and the new roads will follow natural contours; hence, visual effects are not at issue.

The subject property is owned by the U.S. Air Force and is the home of 28th Bomb Wing assigned to Air Combat Command, Twelfth Air Force. The community of Box Elder is located three miles south of the project area on I-90. Rapid City is ten miles southwest of the project area.

The project area is situated within the South Fork Cheyenne Archaeological Region of South Dakota. National Register of Historic Places (NRHP) historic contexts applicable to archaeological sites within this region are listed in Winham and Hannus (1991: 28-1 to 28-5). Historic contexts applicable to historic period sites in the project area are listed in South Dakota State Historical Society (2011).

Environmental Setting

The project area is located on a gentle southeast-dipping plateau between the valleys of Elk Creek (north) and Box Elder Creek (south), tributaries of the Cheyenne River. Ridge tops are broad with slight to moderately dipping side slopes, and lowlands are broad and generally level. Underlying bedrock is Upper Cretaceous Pierre Shale; surfaces are formed from Pleistocene terrace gravel and alluvial fan deposits (USGS 2009). As shown in Attachment 3, the proposed new roads intersect three soil complexes: Nunn clay loam, 0-2% slopes; Nunn clay loam, 2-6% slopes; and Onita clay loam, 0-4% slopes (NRCS 2010). The surface layer in all three complexes is characterized by clay loam extending to 7 inches (Nunn soils) or 11 inches (Onita soils) below the surface. Subsoil consists of clay, clay loam, and silty clay loam, which becomes gravelly and sandy (Nunn soils) or silty clay loam and silt loam (Onita soils) at greater depths.

Attachment 3 also delineates ecological systems within the project area. The project area mainly consists of light to medium intensity development and designated open space. The native ecological system of the project area, Northwestern Great Plains Mixedgrass Prairie, intersects outer portions of the project area including segments of the proposed new roads (USGS n.d.). This ecological system is dominated by xerix-mesic graminoids including: western wheatgrass, green needlegrass, needle and thread, sideoats grama, little bluestem, prairie sandreed, and sand dropseed. Mammals commonly associated with this ecological system include: white-tailed deer, mule deer, pronghorn, coyote, foxes, bobcat, cougar, skunk, badger, ferrets and weasels, black-tailed prairie dog, and jackrabbits and cottontails (Natureserve.org 2010). Bison ranged into the project area prior to historic settlement.

Level I Inventory

On March 29, 2011, a Level I inventory was performed for the project area (red line polygon) and a one-mile buffer beyond the project area boundary using shapefile data supplied by Sheena Harms of the Archaeological Research Center of South Dakota (ARC) in Rapid City. The Level I inventory area identifies known National Register properties that might be directly or indirectly affected by the proposed undertaking.

ARC records show that the entire project area including the proposed Direct Effects APEs was Level III inventoried in 1989 by Jeff Buechler (1989) during project AMD-0048. One site was found within the 1989 project area during that inventory. Site 39MD0310 is a U.S. Army anti-aircraft protection facility dating to the 1940s. The site consists of a foundation and a gravel cul-de-sac. Site 39MD0310 is listed as Not Eligible to the NRHP under Criteria A-D. Site 39MD0310 does not intersect the proposed Direct Effects APEs. No other previous inventories intersect the project area boundary.

One outlying site is currently listed as Eligible to the NRHP. Site 39MD2043/ 39PN2043 is the (active) Ellsworth AFB Railroad. On the Pennington County side the railroad parallels HWY 14/16 through the town of Box Elder in Section 7 and then extends northwest into the southwestern portion of Section 18. That segment was constructed in 1942. The Meade County side of the railroad, constructed in 1952-1954, occurs in Section 1, T2N-R8E. This segment of the railroad grade is located more than 1 km from the proposed access roads. Other previously recorded sites in the outlying area include: 39MD0416 (Unevaluated), a developed spring; 39MD0417 (Not Eligible), a prehistoric unifacially modified red chert flake; and 39PN3236 (Not Eligible), a concrete foundation.

Numerous military base buildings and structures have been recorded on the grounds of Ellsworth AFB. Thirteen dating to 1942-1955 have been evaluated as Eligible to the NRHP, including: administration building, SAC barracks-20 bay building, base chapel, auto shop building, maintenance shop building, mess and administration building, steam plant building, well house no. 1, P.X. service station, and bowling alley. The nearest among these to the project area is the steam plant building, located 375 m southwest of the western terminus of the proposed Area H, Secondary Access, West road.

Level III Inventory

The Direct Effects APEs of the project were inventoried by the author on April 7, 2011. The project area was snow-free, and the proposed roads were staked. The 100 ft wide road corridors were pedestrian surveyed using sinuous transects spaced no more than 10 m apart. The proposed roads passed over mowed grasslands. Rodent burrows and moderately deflated surfaces adjacent to shallow drainages provided indications of subsurface cultural potential. Soil surfaces are mixed with chert and quartzite pebbles. Average ground visibility was 25%. Surrounding single-family and multi-family residential homes are constructed in contemporary styles dating to ca. 1990. The residential neighborhoods are part of a planned development including parks, hiking paths, playgrounds, and open space. The subject property is enclosed within a security fence.

Attachment 4 provides photographic views of the Direct Effects APEs of the project. The Tower Road Extension and Secondary Access, East road segments in Area I pass over open space used by the local neighborhoods for ground water discharge (Attachment 4, page 1 images and page 2, top image). The Secondary Access, West segment in Unit H utilizes an existing paved road on its east end, but then extends over a grassland between a deciduous shelter belt (buried utility ROW) and a playground and open space area (Attachment 4, page 2, bottom images and page 3 images). The 224th Street Extension segment in Unit G is bounded on its west end by a paved drive and concrete barriers on its east end. The road bed will traverse across an inter-drainage flat between two housing developments. A playground currently served by a crushed rock hiking trail occurs on the west side of the proposed ROW (Attachment 4, page 4 images and page 5, top image). The Desmet/Verendrye Connector in Unit E will pass across surface drainage open space between two duplex-house neighborhoods (Attachment 5, page 5, bottom image and page 6 images).

No cultural resources were observed within the Direct Effects APEs of the project area. Based on current and previous archaeological work in the area, potential for significant buried cultural deposits within the APEs is considered low. The only obvious cultural resource observed in the surrounding area is a historic farmstead consisting of a two-story frame home, a three-story barn with aluminum/wood siding and a cupola, a small metal shed, and a contemporary manufactured home. That unrecorded site is located on private land between Areas G and I (see Attachment 1).

Recommendations

Based on the Level III inventory results, no cultural resources occur within the Direct Effects APEs of the proposed Hunt Companies, Inc. road expansion project. Cultural resource clearance for the proposed undertaking is recommended. If subsurface cultural resources are uncovered during construction, these should be reported immediately to the Archaeological Research Center of South Dakota, Rapid City.

References Cited

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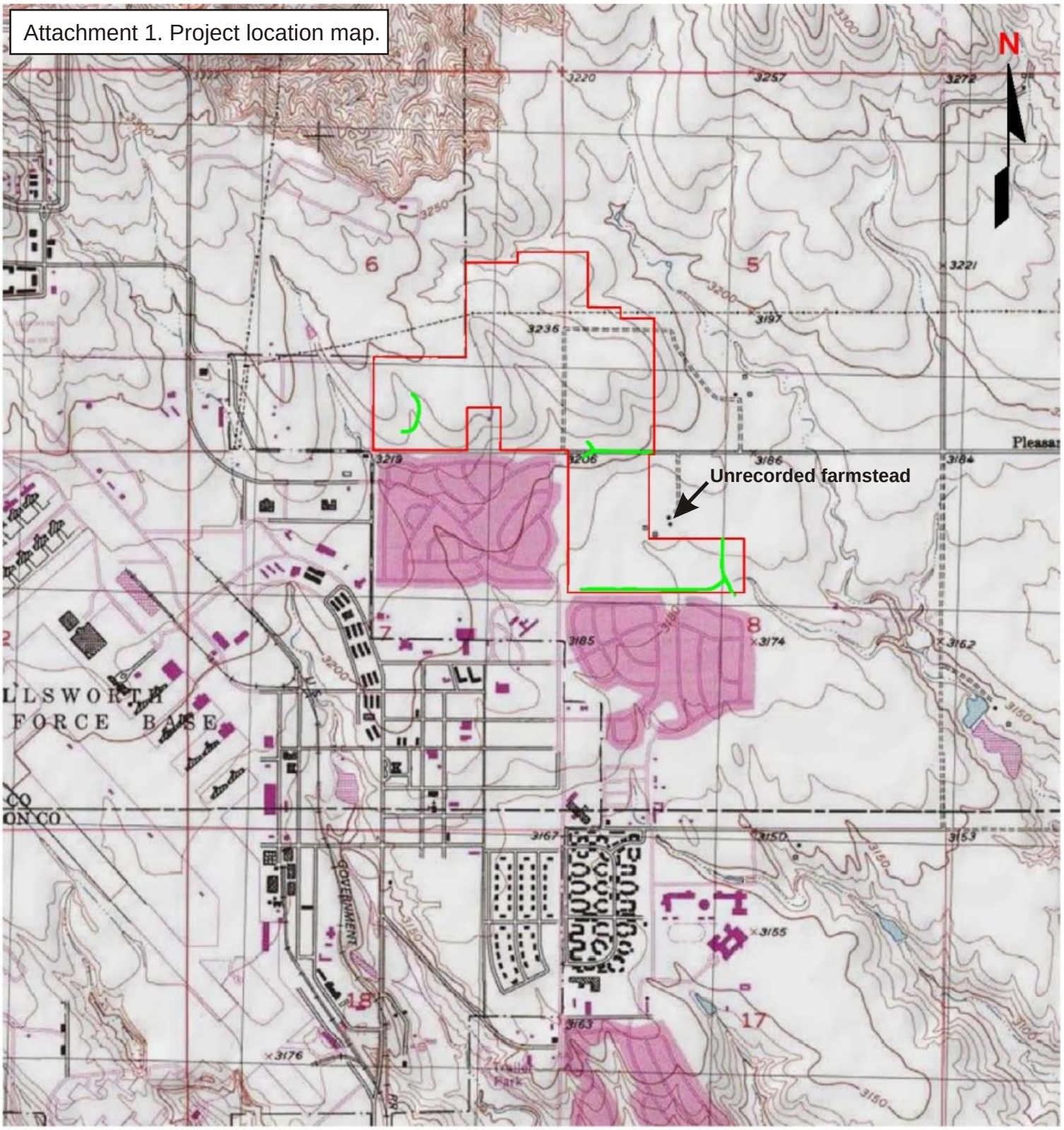
Winham, R. Peter, and L. Adrien Hannus
1991 South Dakota State Plan for Archaeological Resources, Electronic document, http://history.sd.gov/Preservation/NatReg/ArchaeologyStatePlan.pdf, accessed March 27, 2011.

Attachment 1. Project location map.



South Dakota

Quadrangle Location

1:24000

0 1/2 1 Mile

1000 0 1000 2000 3000 Feet

Portion of 7.5-minute Series
Topographic Map
United States Department of the Interior
Geological Survey

Bend, South Dakota
1978

Figure 1
Site Location Map

Bureau Veritas North America, Inc.
Health, Safety, and Environmental Services
165 South Union Blvd., Suite 510
Lakewood, Colorado 80228
303-988-2585 Telephone
303-988-2583 Fax

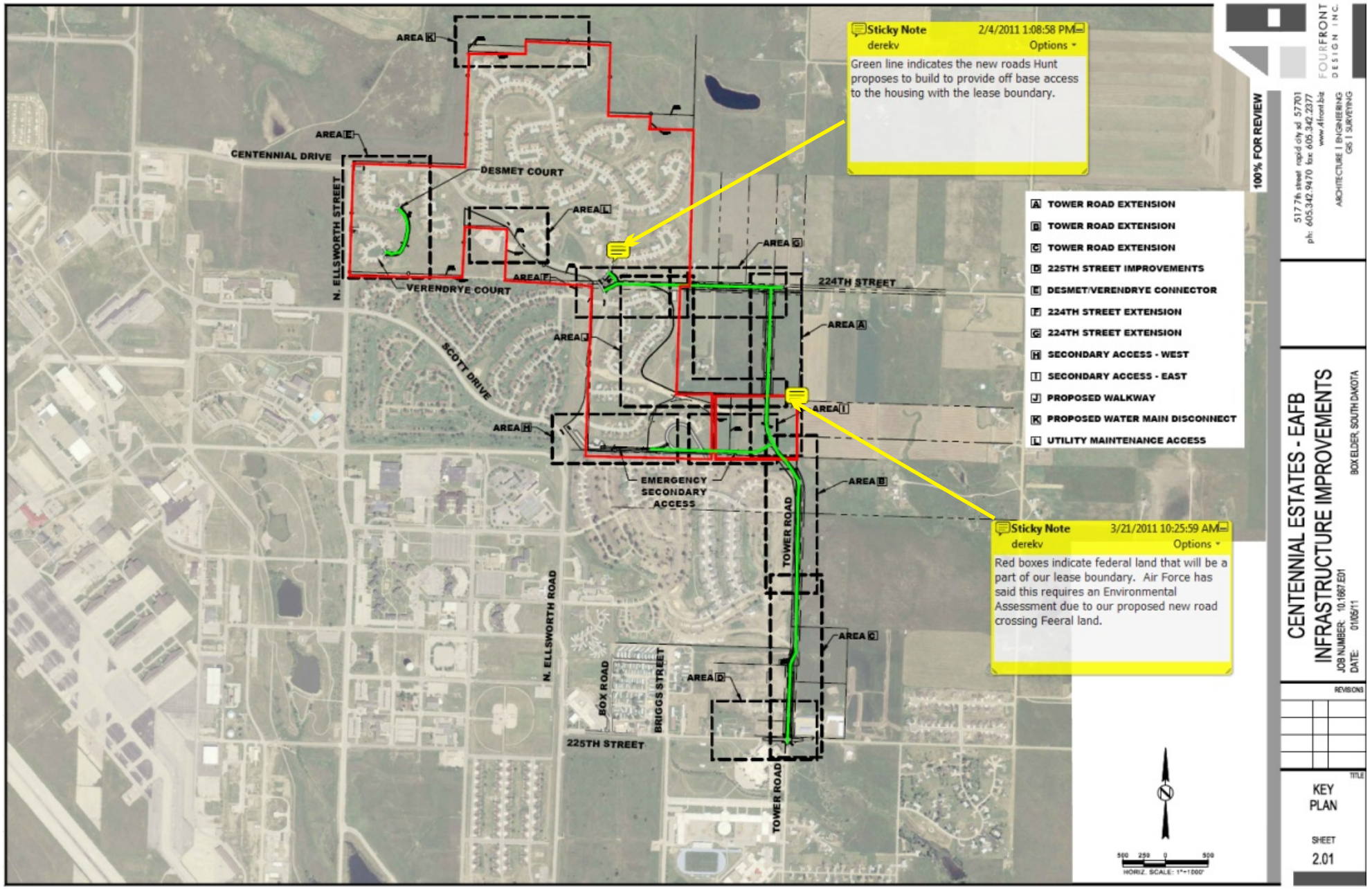
CLIENT: Hunt Development Group
4401 North Mesa Street
El Paso, Texas

SITE: Proposed Access Road Extensions
Ellsworth Air Force Base
Box Elder, South Dakota

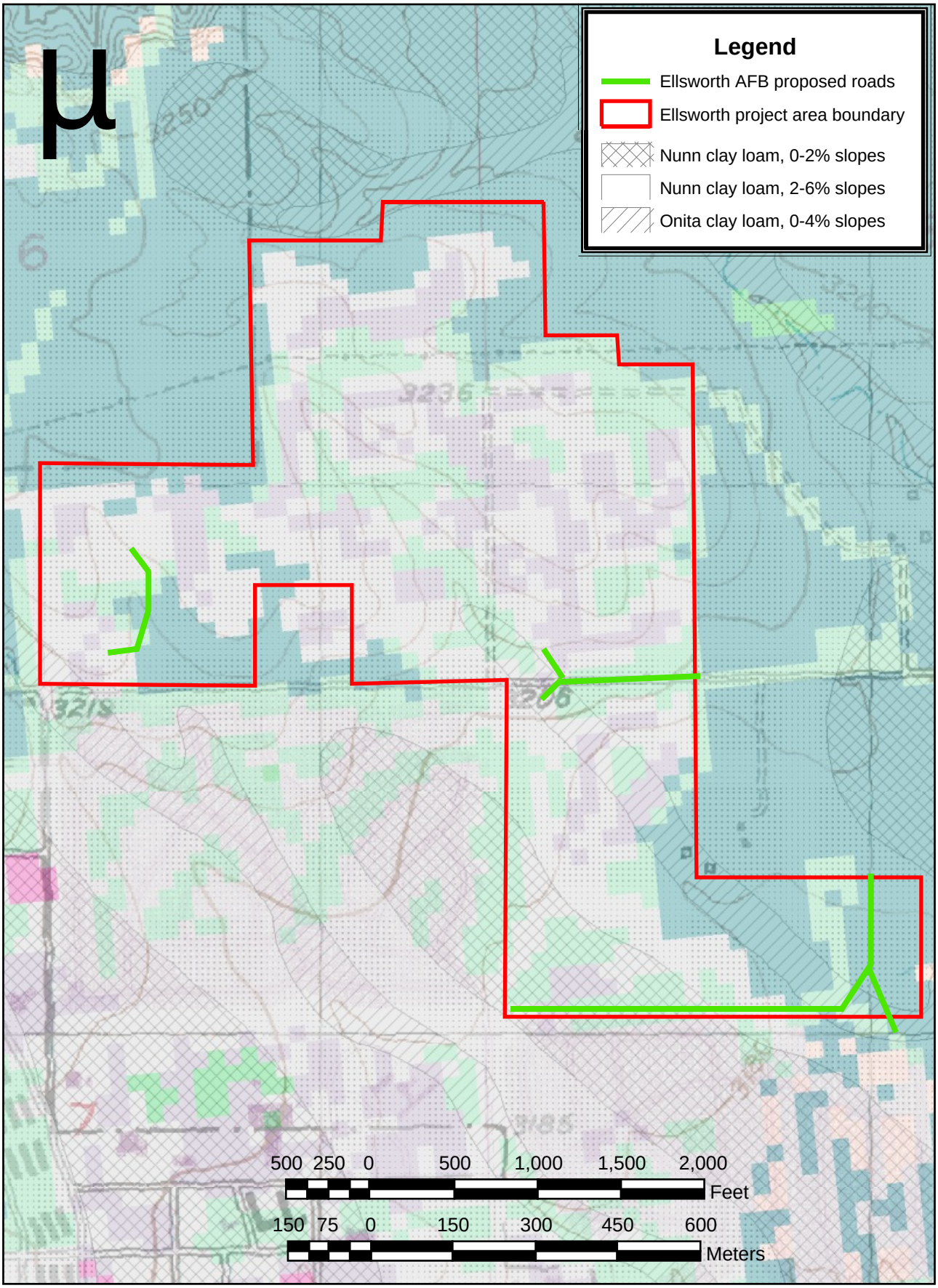
Project No. 10011-011029

Last Revision
March 2011

Attachment 2. Project design plans.



Attachment 3. Ecological systems and soils in the project area (dark bluish-green represents native Northwestern Great Plains Mixedgrass Prairie; lighter colors represent areas of medium to light development and open space).



View of Tower Road Extension from south end facing north.

View of Tower Road Extension from north end facing south.

View of “Y” on south end of Tower Road Expansion (foreground) and Secondary Access East, facing west.

View of the Secondary Access, West facing west from east end.

View of Secondary Access, West facing west from bend in paved street.

View of Secondary Access, West facing east from the west end.

View of “Y” area on west end of 224th Street Extension, facing south.

View of 224th Street Extension facing east from west end.

View of 224th Street Extension facing west from east end.

View of Desmet/Verendrye Connector facing south from Verendrye Ct.

View of Desmet/Verendrye Connector turning point midway along route, facing southwest.

View of Desmet/Verendrye Connector facing east from Desmet Ct.

City of Box Elder

520 N Ellsworth Rd, Ste 9C
Box Elder, SD 57719
Phone: (605) 923-1404
Fax: (605) 923-4264
www.boxelder.us

November 21, 2011

EAFB 28 CES/CEAON
Attn: Melody Jensen
2125 Scott Dr
EAFB, SD 57706-4709

Dear Ms. Jensen:

Please accept this letter of comment on the Centennial Estates EA in response to the letter from Mark Howard of November 3, 2011. I wish to express my support for the proposed action to provide necessary access routes to the Centennial Estates housing area. I do not expect any significant impacts to result from the proposed construction of access roads, installation of necessary utilities, or installation of the new fence between the Base and the housing area.

Thank you for this opportunity to provide my comments.

Sincerely,

Michael McMahon
Planning Coordinator

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 28TH MISSION SUPPORT GROUP (ACC)
ELLSWORTH AIR FORCE BASE SOUTH DAKOTA

This constitutes a report of the Department of the Interior prepared in accordance with the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.). We have reviewed and have NO OBJECTION to this proposed project.

11/21/11 Date — Supervisor

OCT 3 2011

MEMORANDUM FOR DISTRIBUTION

FROM: 28 CES/CEA
2125 Scott Dr
Ellsworth AFB SD 57706-4709

SUBJECT: A Description of Proposed Action and Alternatives (DOPAA) for Easement

1. Bureau Veritas North America, Inc. for Hunt Development with oversight by the United States Air Force and the 28th Civil Engineer Squadron is preparing an Environmental Assessment addressing elements pertaining to the construction of a proposed access road and associated interior roads.

2. The proposed action includes granting an easement through the eastern part of Ellsworth AFB Tract 308 for the construction of two off-installation access roads to Centennial Estates: Tower Road and Legion Boulevard. The proposed action also includes the extension of 224th Place onto EAFB property, connecting to Centennial Drive within Centennial Estates, and the construction of a small section of road that would connect Centennial Drive and Dakota Drive. An additional interior road will also be constructed on the northwestern portion of Centennial Estates. The interior road will connect DeSmet Court and Verendrye Court. The DOPAA is included with this correspondence.

3. The environmental impact analysis process for the proposed action and the no action alternative is being conducted by Ellsworth AFB in accordance with guidelines from the Council on Environmental Quality (CEQ), pursuant to the requirements of the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we request your participation by reviewing the attached DOPAA and solicit your comments concerning the proposal and any potential environmental consequences. Also enclosed is the distribution list of those Federal, state, and local agencies that have been contacted. If there are any additional agencies that you feel should review and comment on the proposal, please include them in your distribution of this letter and attached materials.

4. Please provide any comments or information directly to Ms. Melody Jensen, 25 CES/CEAON, 2125 Scott Drive, Ellsworth AFB, SD 57706-4709 within 30 days of the date shown on this letter.

MARK A. HOWARD, GS-13, DAF
28 CES Asset Management Flight Chief

Attachments:
1. DOPAA
2. Distribution List

APPENDIX B

PUBIC NOTICE AND COMMENTS

NOTICE OF AVIALABILITY

PUBLIC NOTICE
United States Air Force

Notice of Availability
Environmental Assessment: Access Roads and an Associated Interior Road, Centennial Estates Lease, Ellsworth AFB, SD

An Environmental Assessment (EA) was prepared to evaluate potential environmental impacts of granting an easement for the construction of off-base access roads and interior roads to the former Ellsworth Air Force Base (EAFB) military housing area known as Centennial Estates. Centennial Estates was constructed during the early 1990s as part of a lease agreement with Hunt Development and the United States Air Force under the auspices of Public Law 98-115, Section 801, and Public Law 99-167. Hunt Development was granted a 40 year lease to construction housing units. The first 20 years of the 40 year lease required the units to be leased to the Air Force for use as Military Family Housing. During the second 20 years of the lease, Hunt has the option of operating Centennial Estates as residential rentals. The lease requires that Hunt Development separate Centennial Estates from EAFB by constructing a fence, obtaining utilities from off-base providers, and access Centennial Estates from off-base. The initial 20 year lease expired on August 1, 2011.

The analysis considered, in detail, potential environmental effects of the Proposed Action, an alternative, and the No Action Alternative. The results, as found in the EA, show that the Proposed Action would not have a significant adverse impact on the environment, indicating that a Finding of No Significant Impact/Finding of No Practicable Alternative (FONSI/FONPA) would be appropriate. An Environmental Impact Statement would not be necessary to implement the Proposed Action.

Copies of the Draft EA showing the analysis will be available for review at the following library:

Rapid City Public Library
610 Quincy Street
Rapid City, SD 57701

The document will also be available online at http://www.ellsworth.af.mil.

Written comments on the Draft EA are invited and will be received for 30 days from the publication of this notice. Comments and inquiries on this document should be provided in writing to:

Ms. Melody Jensen
28 CES/CEAON
2125 Scott Drive
Ellsworth AFB, SD 57706-4711
605.385.2685
melody.jensen@ellsworth.af.mil