

**FINAL ENVIRONMENTAL ASSESSMENT
DEMOLITION OF ALPHA RAMP
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA**



JANUARY 2007

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)
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FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)

DEMOLITION OF ALPHA RAMP
Grand Forks Air Force Base, North Dakota

An Environmental Assessment (EA) was prepared to evaluate potential environmental impacts of the Proposed Action and alternatives for demolishing the Alpha Ramp at Grand Forks AFB. The EA is attached to this Finding of No Significant Impact and Finding of No Practicable Alternative document and is incorporated by reference per 40 Code of Federal Regulations (CFR) 1502.21.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Grand Forks Air Force Base (GFAFB) is proposing to demolish its Alpha Ramp (A-Ramp) and associated facilities and buildings (the Proposed Action). The purposes of the project are: to remove the A-Ramp facilities and infrastructure that are no longer needed; to remove excess buildings and utilities that represent sources of potential contamination; and to remove excess buildings and facilities (including walls) that are in the 7:1 flight envelope, clear zone, and 50:1 approach-departure clearance zone and require flight-line waivers.

There are four alternatives for this Proposed Action: the No-Action Alternative, and three Implementation Alternatives for the Proposed Action. The Proposed Action will include mechanical demolition of all A-Ramp buildings, facilities (including the facility wall and security fence), and pavement; regrading of the area for erosion and drainage control; and revegetation of the area to suitable hay grass. After the area has been restored, any future use of the A-Ramp area is as yet undetermined, but the types of construction in the A-Ramp area may be limited because of existing flight-line restrictions. Three implementation alternatives for the Proposed Action were considered. All aspects of the Proposed Action would occur in, or under, the implementation alternatives except for minor variations. Two alternatives involve the reuse of the security wall rather than its demolition as planned for the Proposed Action: reuse of the security walls on base, or sale of the walls for reuse off base. The third implementation alternative involves preserving the A-Ramp Perimeter Road; drainage ditches on either side of the Road would also not be modified except for some minor regrading that would occur northwest of A-Ramp. The No-Action Alternative would involve continued minimal use of A-Ramp buildings and facilities; the unused buildings and facilities would continue to deteriorate.

Based on a review of the alternatives and their potential environmental impacts, the implementation alternative of preserving the A-Ramp Perimeter Road was selected as the preferred alternative.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

The A-Ramp Perimeter Road preservation implementation alternative will have minor short-term (during construction activities) adverse impacts on several resources. Long-term environmental impacts (subsequent to demolition) would be beneficial as noted below. For this Project, the only mitigation measures are required by regulations; there are none required to mitigate significant adverse impacts. The potential impacts of this implementation alternative would be as follows (with minimization measures and best management practices (BMPs) proposed in italics within brackets for each relevant resource element):

Air emissions would increase during demolition but would be less than current levels once the A-Ramp area is converted to a natural area. *[BMPs would be used to reduce fugitive dust emissions, such as daily watering of the disturbed ground and replacement of ground cover in disturbed areas as quickly as possible. These practices would also benefit soils, vegetation, and surface water.]*

Demolition activities and associated traffic would have unavoidable short-term impacts on the noise environment, but the noise generated would be intermittent and occur during daytime hours. *[Standard noise reduction BMPs would be implemented such as limiting construction activities to non-sleeping hours, muffling equipment, locating vehicle and equipment staging areas away from residential areas, and limiting unnecessary idling of equipment.]*

Utility, hazardous material, and hazardous waste removal would result in temporary soil, geology, and water resource impacts, with the potential for minor amounts of contamination being dispersed. Long-term impacts would be beneficial because the removal of existing utilities, hazardous materials, and hazardous waste eliminates potential contamination sources. *[A photoionization detector (PID) meter would be used during pavement removal to detect fuel contamination. Soil sampling and testing would be performed if any contamination was detected, and coordination would occur with the North Dakota Department of Health regarding reuse or disposal options. Dust control measures would be implemented to reduce or eliminate the potential for release of hazardous substances to the environment.]*

Surface hydrology would be altered during construction activities. Although floodplains would not be affected, several wetlands totaling approximately 1.3 acres would need to be filled. Drainage ditches on either side of the A-Ramp Perimeter Road would not be modified except for some minor regrading that would occur northwest of A-Ramp. *[BMPs, as implemented through a General Stormwater Discharge Permit for Construction, would be used to minimize impacts to surface hydrology. Daily inspections of heavy equipment would be performed to ensure that leaks are not releasing contaminants to the environment. Coordination with the U.S. Army Corps of Engineers (USACE) would be performed to determine whether a Section 404 permit would be required for the project. Wetland mitigation, as required by USACE regulations, would be performed to compensate for the filled wetlands.]*

Some benefits for employment would occur during construction activities, but long-term socioeconomic impacts are expected to be negligible. No impacts on environmental justice would occur.

Vegetation, including wildlife habitat, would be disturbed during demolition, but long-term impacts would be beneficial due to conversion to a natural area.

None of the buildings and facilities scheduled for demolition are considered eligible or potentially eligible for listing on the National Register of Historic Places. Construction activities would occur at previously disturbed areas; therefore, the demolition project would have no impact on archaeological resources. Consequently, there would be no effect on cultural resources. *[GFAFB will coordinate with the State Historic Preservation Office prior to demolishing buildings as well as if unknown archaeological resources are uncovered during construction activities.]*

Land use would be modified from industrial to natural and would be consistent with the 20-Year Master Space Plan.

Traffic for the construction activities would increase over the short-term, but a long-term decrease in overall traffic would occur in this area. *[Traffic from construction activities would be limited to use of the South Gate to minimize impacts on traffic flow on the main portion of GFAFB. Movement of security walls would be limited to off-peak hours of traffic to minimize disruption of on-base traffic flow.]*

After demolition, airfield waivers in this area would no longer be needed. *[Airfield operations coordination would be performed during construction activities.]*

A minor increased potential for accidents would result during construction activities. The long-term health and safety in the A-Ramp area would be improved because of the removal of environmental hazards. Flight safety would also be improved because of the removal of flight obstructions. *[The demolition contractor would develop a health and safety plan. Sampling and testing of the mold found in several facilities would be performed to confirm the type of mold and determine any handling precautions. A PID meter would be used to determine whether precautions for exposure to contaminated soils or water are necessary.]*

Demolition debris and waste materials would be generated during the short-term with debris and the materials being properly handled and disposed in accordance with federal, state and local requirements. Environmental management and pollution prevention programs would benefit in the long-term because of the removal of potential contaminant sources.

The A-Ramp Perimeter Road preservation implementation alternative, in conjunction with other planned projects near the A-Ramp area, would not result in or contribute to significantly adverse indirect or cumulative impacts.

PUBLIC REVIEW AND INTERAGENCY COORDINATION

The project will be implemented upon approval and after a public review period. All interested agencies, groups, and persons were invited to submit written comments for consideration by the GFAFB Environmental Office. A copy of the Demolition of Alpha Ramp EA was available for review at the Grand Forks AFB Library and Grand Forks Public Library. The public comment period ended September 5, 2006 with no public comments received. Comments provided by resource agencies are reproduced in Appendix A of the EA and did not require any changes in the planned project approach.

For questions regarding the EA, contact: Public Affairs Officer, 319 ARW/PA, 375 Steen Blvd., Grand Forks AFB, North Dakota 58205-6434, (701) 747-5017; e-mail: PA@grandforks.af.mil.

FINDINGS

Finding of No Practicable Alternative

Executive Order 11990, Protection of Wetlands, provides that if a federal government agency proposes to conduct an activity in a wetland, it will consider alternatives to the action and modify its actions, to the extent feasible, to avoid adverse effects or potential harm. Alternatives have been considered to avoid and minimize impacts on wetlands. Because of the linear extent of the wetlands within the A-Ramp area and their proximity to pavement and other features to be demolished, the project cannot avoid directly impacting wetlands. The Air Force finds that there are no practicable alternatives to construction activities in the wetlands for the Proposed Action. The Air Force further finds that all practicable measures have been taken to minimize harm to wetlands. The implementation alternative for preserving A-Ramp Perimeter Road was derived to minimize wetland impacts and would disturb 3.9 wetland acres less than the Proposed Action. Because there is no practicable alternative to filling wetlands, federal regulations require compensatory mitigation. GFAFB will mitigate the losses at either a wetland mitigation bank or at a suitable location on base.

Finding of No Significant Impact

In accordance with the Council of Environmental Quality regulations implementing the National Environmental Policy Act of 1969, as amended, and Environmental Impact Analysis Process, 32 CFR 989, the Air Force concludes that the A-Ramp Perimeter Road preservation implementation alternative will have no significant impact on the quality of the human environment; thus, an Environmental Impact Statement is not warranted.

SIGNED:



LEONARD A. PATRICK, Colonel, USAF
Director, Installations & Mission Support

30 Jun 07

Date

Attachment: Environmental Assessment

COVER SHEET

**ENVIRONMENTAL ASSESSMENT
DEMOLITION OF ALPHA RAMP
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA**

Responsible Agencies: 319th Air Refueling Wing (ARW), Grand Forks Air Force Base (GFAFB), North Dakota

Affected Locations: GFAFB, Grand Forks County, North Dakota

Proposed Action: Demolition of Alpha Ramp (A-Ramp) and its associated facilities and buildings at GFAFB, North Dakota

Report Designation: Environmental Assessment (EA)

Written comments and inquiries regarding this document should be directed to: The EA Contractor—Brian Goss, HDR Engineering Inc., 8404 Indian Hills Drive, Omaha, Nebraska 68114-4098

Abstract: The 319 ARW is proposing to demolish A-Ramp and its associated facilities and buildings. The purposes of the project are: to remove the A-Ramp facilities and infrastructure that are no longer needed; to remove excess buildings and utilities that represent sources of potential contamination; and to remove excess buildings and facilities (including walls) that are in the 7:1 flight envelope, clear zone, and 50:1 approach-departure clearance zone and require flight-line waivers. Subsequent to removal of the facilities, buildings, roads, and associated utilities within 6 feet of the ground surface, the area would be graded for erosion and drainage control; and revegetated to suitable hay grass. The land would become unimproved hay lease land; any future use of the A-Ramp area is as yet undetermined.

This EA has been prepared to evaluate the Proposed Action, No Action Alternative, and Implementation Alternatives of the Proposed Action. The evaluation of environmental impacts determined that an Environmental Impact Statement was not needed. This EA was made available to the public for review and comment.

Privacy Advisory

Your comments on this EA are requested. Letters or other written comments provided may be published in the EA. Comments will normally be addressed in the EA and made available to the public. Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the EA. However, only the names of the individuals making comments and the specific comments will be disclosed; personal home addresses and phone numbers will not be published in the EA.

EXECUTIVE SUMMARY

ES.1 Introduction

Grand Forks Air Force Base (GFAFB) is considering demolishing its Alpha Ramp (A-Ramp) and associated facilities and buildings (the Proposed Action). GFAFB is located in northeastern North Dakota, approximately 14 miles west of Grand Forks, on U.S. Highway 2. The host organization at GFAFB is the 319th Air Refueling Wing (ARW) of Air Mobility Command (AMC) with 48 KC-135R Stratotanker aircraft. Its mission is to guarantee “global reach,” or to ensure that aircraft are not limited in how far they can travel, by providing air refueling and airlift capability support to United States Air Force (USAF) operations anywhere in the world, at any time.

ES.2 Purpose of and Need for the Proposed Action

The purposes of the project are: to remove the A-Ramp facilities and infrastructure that are no longer needed; to remove excess buildings and utilities that represent sources of potential contamination; and to remove excess buildings and facilities (including walls) that are in the 7:1 flight envelope, clear zone, and 50:1 approach-departure clearance zone and require flight-line waivers.

ES.3 Alternatives

There are four alternatives for this Proposed Action: the No-Action Alternative, and three Implementation Alternatives for the Proposed Action. These four alternatives provide the decision maker with a reasonable range of alternatives from which to choose.

ES.3.1 No-Action Alternative

The No-Action Alternative would involve continued minimal use of A-Ramp buildings and facilities. Currently, most buildings are vacant and most facilities are not being used. No demolition would occur under this alternative, but the unused buildings and facilities would continue to deteriorate.

ES.3.2 Proposed Action

The Proposed Action would include mechanical demolition of all A-Ramp buildings, facilities (including the facility wall and security fence), and pavement; regrading of the area for erosion and drainage control; and revegetation of the area to suitable hay grass. GFAFB plans to conduct A-Ramp demolition (Project JFSD200283) in 2007 during the construction season from March through October (although construction activities sometimes cannot start until April and must end by mid-October). Prior to complete demolition of A-Ramp, part of

the ramp may be used for driver/motorcycle training and a Suspect Vehicle Area for temporary storage.

Restoration of the A-Ramp area to unmaintained hay lease land would be accomplished with the Proposed Action. The 20-Year Master Space Plan shows a potential expansion of the golf course from 9 to 18 holes in the area. However, there could be a future mission that could use the west side of the flight-line access, but the types of construction activities may be limited because of the aforementioned flight-line restrictions.

ES.3.3 Implementation Alternatives of the Proposed Action

Three implementation alternatives for the Proposed Action are being considered. All aspects of the Proposed Action as previously described would occur in, or under, the implementation alternatives except for minor variations as noted below. Two alternatives involve the reuse of the security wall rather than its demolition as planned for the Proposed Action: reuse of the security walls on base, or sale of the walls for reuse off base. The third implementation alternative involves preserving the A-Ramp Perimeter Road; drainage ditches on either side of the Road would also not be modified except for some minor regrading that would occur northwest of A-Ramp.

ES.4 Environmental Consequences

There is the potential for adverse impacts on the human and natural environment as a result of implementing the No-Action Alternative, the Proposed Action, and the Implementation Alternatives. The implementation alternative for preserving the A-Ramp Perimeter Road was selected as the preferred alternative because of its smaller demolition footprint area and magnitude and extent of impacts. The impacts for the selected alternative and No-Action Alternative are presented by resource. The only mitigation measures are required by regulations; there are none required to mitigate significant adverse impacts.

ES.4.1 Air Quality

The selected alternative would have short-term adverse impacts on air quality generated by heavy equipment emissions and the release of particulate matter during demolition. Impacts on air quality would not be significant. Operational emissions would decrease as several temperature-controlled buildings would be demolished and traffic associated with these buildings would cease. The No-Action Alternative would continue to impact air quality at current GFAFB levels.

ES.4.2 Noise

Demolition activities and traffic associated with the selected alternative could have unavoidable short-term impacts on the noise environment but would not be significant because the noise generated would be intermittent and occur during daytime hours. Following demolition, the environment in the A-Ramp area would experience negligibly lower noise levels than current levels because of decreased facility and traffic use; the levels

would be much less than during demolition. Under the No-Action Alternative, noise in the A-Ramp area would continue at existing levels.

ES.4.3 Utilities

The selected alternative would involve removal of aboveground utilities and removal of most subsurface utilities to a depth of 6 feet below ground surface; deeply buried utilities may be sealed and left in place. The demolition activities would disturb utility lines, with the potential for minor amounts of contamination being dispersed during the short-term; this would not be a significant impact. However, long-term impacts would be beneficial because of the removal of potentially contaminated utilities from the A-Ramp area. Under the No-Action Alternative, utilities would remain in the A-Ramp area and would serve as a conduit for potential future contamination.

ES.4.4 Hazardous Wastes, Hazardous Materials, and Stored Fuels

Various hazardous wastes, hazardous materials, and stored fuels would be removed prior to demolition activities at A-Ramp facilities. Hazardous wastes and materials potentially present at the A-Ramp include asbestos-containing material (ACM) and some friable ACM; polychlorinated biphenyl ballasts; ethylene glycol; lead-based paint (LBP); mercury-containing lamps, switches, and thermostats; and fuels. All these wastes and materials would be removed from the A-Ramp area prior to demolition with the exception that LBP and some ACM would remain and become part of the demolition rubble. The rubble would be transported and disposed off base in a suitable landfill. Removal and proper disposal of these materials would be a long-term benefit. Under the No-Action Alternative, continued deterioration of the facilities would occur and increase the potential for releases of hazardous or toxic materials to the environment.

ES.4.5 Water Resources, Floodplains, and Wetlands

Direct impacts on water resources would result primarily from disturbing the ground during demolition activities and from altering surface hydrology, but the impacts would not be significant. Short-term disturbances from demolition activities could cause wind and water erosion, which could lead to increased sedimentation of nearby surface waters, including the West Drainage Ditch. The southernmost portion of the ditch would be filled during grading operations. The area to the east of the A-Ramp would be re-contoured to a more gradual slope with drainage swales to direct drainage to the Southeast Drainage Ditch. The remainder of the area would also be re-contoured to convey surface water runoff to the West Drainage Ditch. The Turtle River and Kellys Slough would not be adversely impacted because they are two or more miles downgradient from the area of the ditches affected by the selected alternative. Implementing best management practices (BMPs) would reduce the potential for erosion and sedimentation and should ensure no significant impacts on the drainage ditches. Floodplains would not be affected under the selected alternative. Wetlands present within the A-Ramp area, as well as those adjacent to the exterior road being demolished, could not be avoided and would need to be filled to allow runoff and prevent ponding of water and creation of a bird/wildlife aircraft strike hazard. Approximately 1.3

acres of wetlands would need to be filled. Under the No-Action Alternative, no new impacts would occur to water resources, floodplains, or wetlands.

ES.4.6 Socioeconomic Resources

Long-term socioeconomic impacts associated with the selected alternative are expected to be negligible. During the short-term, the selected alternative would generate primary employment benefits in the construction industry, with secondary benefits accruing from local expenditures by the construction workers. There would be no impacts on socioeconomic resources under the No-Action Alternative.

ES.4.7 Biological Resources and Federally and State-listed Threatened or Endangered Species

Short-term impacts would result from disturbing vegetation and wildlife habitat within the A-Ramp area. Subsequent to demolition and grading activities, the area would be restored to a natural environment and would benefit the vegetative and wildlife environments. No federally or state-listed threatened or endangered species or state species of concern would be impacted by the selected alternative. The No-Action Alternative would not change the existing environment or current impacts on biological resources.

ES.4.8 Cultural Resources

The A-Ramp project would result in the destruction of buildings and facilities constructed during the Cold War. None of the buildings and facilities scheduled for demolition is considered eligible or potentially eligible for listing on the National Register of Historic Places (NRHP). Consequently, there would be no effect on NRHP-eligible properties. Construction activities would occur at previously disturbed areas; therefore, demolition would have no impact on archaeological resources. There would be no impacts on cultural resources from the No-Action Alternative.

ES.4.9 Land Use

Long-term land use impacts associated with the selected alternative are expected to be negligible, with some increase in arable land. During demolition, adverse, but insignificant, short-term impacts on land use would occur in the immediate vicinity of the A-Ramp. Upon completion of the demolition activities, the area would be graded for erosion and drainage control and revegetated with grass for hay recovery. The change in land use to a natural area is consistent with the 20-Year Master Space Plan, which shows expansion of the golf course with an additional 9 holes in this area. There would be no impacts on land use under the No-Action Alternative.

ES.4.10 Transportation Systems

Impacts on the transportation system at and around GFAFB would result from the movement of demolition equipment and materials and from the increase of traffic from demolition contractor vehicles. These short-term impacts would not be significant. The impact on roads

adjacent to GFAFB also would not be significant. There would be no impacts on transportation resources under the No-Action Alternative.

ES.4.11 Airspace and Airfield Operations

The selected alternative would require coordination during demolition to minimize impacts on airfield operations. Subsequent to demolition, airfield waivers for buildings and facilities within the 7:1 flight envelope, clear zone, and 50:1 approach departure clearance zone would be eliminated, which would be a beneficial impact. The demolition of the buildings and facilities would be a positive effect on flight safety. The No-Action Alternative would require that these waivers be maintained.

ES.4.12 Safety and Occupational Health

The selected alternative would increase the chance of an accident or property damage from construction activities. However, it is not anticipated that any significant impacts on health and safety would occur during the demolition project. Long-term health and safety in the A-Ramp area would be improved because of the removal of flight hazards and environmental hazards. The No-Action Alternative would present a continued risk to exposure of ACM, mercury, and other hazards to users of the facilities.

ES.4.13 Environmental Management, Including Pollution Prevention, Geology, and Soils

Construction activities of the selected alternative would result in a short-term increase in the generation of demolition debris, including environmental contaminants, and disturbance of soils. However, impacts on environmental management are not projected to be significant. The selected alternative would have long-term beneficial effects in relation to environmental management from removing potential contamination sources. The No-Action Alternative would not generate contaminants or debris, nor would it disturb soils.

ES.4.14 Environmental Justice

There would be no environmental justice impacts as a result of the selected alternative or No-Action Alternative.

ES.4.15 Indirect and Cumulative Impacts

There would be no significant adverse indirect or cumulative impacts as a result of the selected alternative or No-Action Alternative.

ES.5 Selection of the Preferred Alternative

The A-Ramp Perimeter Road preservation implementation alternative was selected as the Preferred Alternative after consideration of the potential impacts and the logistics of the project. There is minimal difference in impacts between the Preferred Alternative involving demolition of the security walls or the implementation alternatives for reuse of the walls, but the logistics for transport and reinstallation of the walls have not been reconciled.

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CHAPTER 1

PURPOSE OF AND NEED FOR THE PROPOSED ACTION

CHAPTER 1

PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 Introduction

Grand Forks Air Force Base (GFAFB) is considering demolishing their Alpha Ramp (A-Ramp) and its associated facilities and buildings (the Proposed Action). GFAFB is located in northeastern North Dakota, approximately 14 miles west of Grand Forks, on U.S. Highway 2 (see Figure 1-1). GFAFB is a refueling wing in Air Mobility Command (AMC) and home to 48 KC-135R Stratotanker aircraft. The host organization at GFAFB is the 319th Air Refueling Wing (ARW). Its mission is to guarantee “global reach,” or to ensure that aircraft are not limited in how far they can travel, by providing air refueling and airlift capability support to United States Air Force (USAF) operations anywhere in the world, at any time.

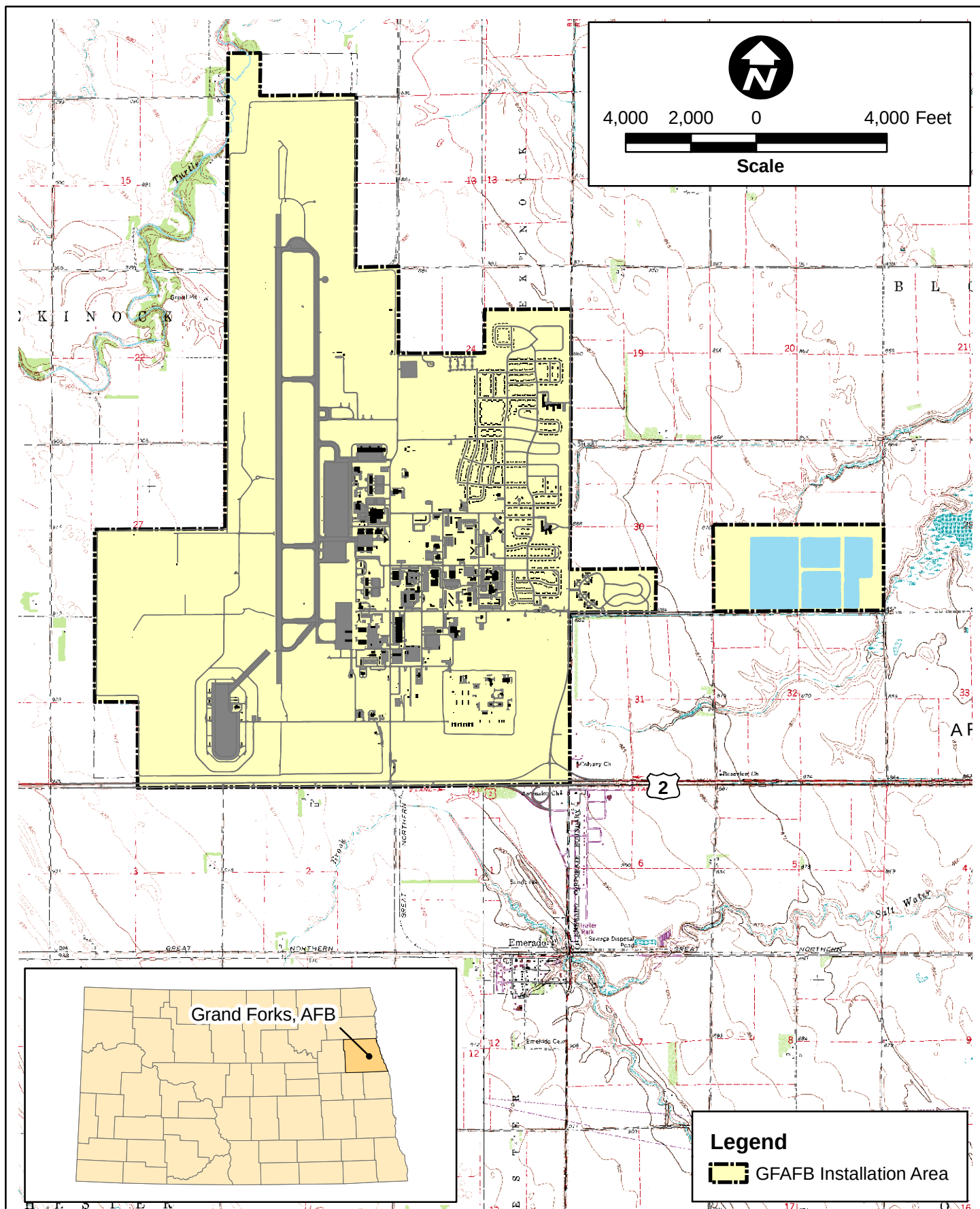
The National Environmental Policy Act (NEPA) of 1969, as amended, requires that federal agencies consider environmental consequences in their decision-making process. The Air Force complies with NEPA through adherence to 40 Code of Federal Regulations (CFR) 1500-1508, Council on Environmental Quality’s [CEQ’s] Regulations for Implementing the Procedural Provisions of NEPA, and 32 CFR 989, Air Force Environmental Impact Analysis Process. Therefore, this Environmental Assessment (EA) examines the potential environmental impacts resulting from implementation of the Proposed Action or an alternative.

This chapter of the EA identifies the need for the action, objectives of the action, the scope of the EA, decisions that must be made, and applicable regulatory and coordination requirements.

1.2 Need for the Action

The purposes of the project are: to remove the A-Ramp facilities and infrastructure that are no longer needed; to remove excess buildings and utilities that represent sources of potential contamination; and to remove excess buildings and facilities (including walls) that are in the 7:1 flight envelope, clear zone, and 50:1 approach-departure clearance zone and require flight-line waivers.

Restoration of the A-Ramp area to unmaintained hay lease land would be accomplished with the Proposed Action. The 20-Year Master Space Plan shows a potential expansion of the golf course from 9 to 18 holes in the area. However, there could be a future mission that could use the west side of the flight-line access, but the types of construction may be limited because of the aforementioned flight-line restrictions.



Location and Vicinity of Grand Forks AFB, North Dakota

Demolition of Alpha Ramp Environmental Assessment

DATE

January 2007

FIGURE

1-1

1.3 Objectives for the Action

The primary objective for the action is to eliminate outdated facilities and free up the area near the flight line for future reuse. Another objective is to eliminate future environmental hazards within the deteriorating buildings.

1.4 Scope of the EA

This EA identifies, describes, and evaluates the potential environmental impacts associated with demolition of the A-Ramp and its associated facilities, buildings, and utilities. This analysis focuses on assessing activities planned under the Proposed Action but also assesses cumulative impacts of the A-Ramp demolition project in addition to other ongoing and planned activities near the A-Ramp area.

1.4.1 History of the Planning and Scoping Process

Planning for this project began several years ago as part of an ongoing effort to demolish excess facilities on-base and to allow for future reuse. The scoping process for this EA included discussing relevant issues on this project with GFAFB personnel from different offices within the Civil Engineering Squadron as well as the Legal, Safety, and Bioenvironmental offices. In addition, letters were sent to resource management agencies requesting their comments on possible issues of concern related to the Proposed Action and alternatives. Appendix A contains a list of the agencies and copies of the scoping letters sent to them along with agency responses. As is typical for this level of environmental documentation, no formal public scoping meetings were conducted for this Proposed Action.

1.4.2 Related EISs, EAs, and Other Relevant Documents

This EA is not connected with any other on-base NEPA document. There are other ongoing and planned activities near the A-Ramp area that are being or have been addressed in separate NEPA documents; further discussion of these projects is presented in Section 2.5.

1.4.3 Issues Studied in Detail

AMC has identified a list of environmental resources that should be considered for evaluation in a NEPA document. In consideration of the AMC list and environmental issues identified during the scoping process, the following resources were studied in detail in this EA:

- Air quality
- Noise
- Utilities
- Hazardous wastes, hazardous materials, and stored fuels
- Water resources, floodplains, and wetlands
- Socioeconomic resources

- Biological resources, and federally and state-listed threatened or endangered species
- Cultural resources
- Land use
- Transportation systems
- Airspace and airfield operations
- Safety and occupational health
- Environmental management, including pollution prevention, geology, and soils
- Environmental justice

1.4.4 Issues Eliminated from Detailed Study

In consideration of the AMC list and information gathered during the scoping process, all of the AMC-listed resources have been evaluated and none were eliminated from detailed study.

1.5 Decisions That Must be Made

This EA evaluates the environmental consequences of demolishing the A-Ramp area and converting it to unmaintained hay lease land. Based on this information, the Director of Installations and Mission Support at AMC will determine whether a Finding of No Significant Impact (FONSI) should be signed or if an Environmental Impact Statement (EIS) must be prepared. Because wetlands would be affected by the project, the FONSI in conjunction with a Finding of No Practicable Alternative (FONPA) must be prepared for and signed by the Director, Installations and Mission Support. Preparation of an environmental analysis (in this case, an EA) must be completed prior to a final decision regarding the proposed project and must be available to inform decision makers of potential environmental impacts of selecting the Proposed Action or any of the alternatives.

1.6 Applicable Regulatory Requirements and Required Coordination

There are numerous federal and state laws and regulations that may be applicable to the Proposed Action or alternatives. As noted previously, CEQ developed NEPA regulations; this EA was prepared in compliance with those regulations and Air Force implementation guidance. Other environmental regulatory requirements relevant to the Proposed Action and alternatives will be assessed, including, but not limited to, the following:

- Air Force Instruction (AFI) 32-7020, Environmental Restoration Program
- AFI 32-7040, Air Quality Compliance
- AFI 32-7041, Water Quality Compliance
- AFI 32-7042, Solid and Hazardous Waste Compliance
- AFI 32-7063, Air Installation Compatible Use Zone (AICUZ) Program
- AFI 32-7064, Integrated Natural Resource Management

- Archaeological Resources Protection Act of 1979 (ARPA) (16 United States Code [USC] 470a-11 et seq., as amended)
- Clean Air Act (42 USC 7401 et seq., as amended)
- Clean Water Act (CWA) (33 USC 400 et seq.)
- CWA (33 USC 1251 et seq., as amended)
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) (42 USC 9601 et seq.)
- Defense Environmental Restoration Program (10 USC 2701 et seq.)
- Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 USC 11001 et seq.)
- Endangered Species Act of 1973 (ESA) (16 USC 1531-1543 et seq.)
- Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality as Amended by EO 11991
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12372, Intergovernmental Review of Federal Programs
- EO 12898, Environmental Justice
- EO 12989, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
- Hazardous Materials Transportation Act of 1975 (49 USC 1761 et seq.)
- NEPA (42 USC 4321 et seq.)
- National Historic Preservation Act of 1966 (NHPA) (16 USC 470 et seq., as amended)
- The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (Public Law 101-601, 25 USC 3001-3013 et seq.)
- Noise Control Act of 1972 (Public Law 92-574, 42 USC 4901 et seq.)
- North Dakota Air Pollution Control Act (Title 23) and Regulations
- North Dakota Air Quality Standards (Title 33)
- North Dakota Hazardous Air Pollutants Emission Standards (Title 33)
- Occupational Safety and Health Act of 1970 (29 USC 651 et seq.)
- Resource Conservation and Recovery Act of 1976 (RCRA) (42 USC 6901 et seq.)
- Toxic Substances Control Act of 1976 (TSCA) (15 USC 2601 et seq.)

GFAFB has a National Pollutant Discharge Elimination System (NPDES) permit that addresses discharge requirements for base-wide industrial activities. Implementation of the Proposed Action would disturb more than one (1) acre of ground, thus requiring the construction contractor to obtain a separate General Stormwater Discharge Permit for Construction Activities from the North Dakota Department of Health (NDDH). This permit would allow discharge of stormwater runoff until the site is stabilized by the reestablishment of vegetation.

Applicable regulatory requirements and required coordination with the Environmental Engineering Water Program Manager by the Contractor, or GFAFB employees, include a Notification of Demolition and Renovation, Work Clearance Request, Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, Waste Disposal Plan, and/or Erosion and Sediment Control Plan.

If wetlands, or other non-wetland waters of the U.S. (waterways), would be impacted by the Project and are determined to be jurisdictional by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, a permit from USACE would be required to authorize the discharge of dredged or fill material into these areas. It is the responsibility of USACE to coordinate with other resource agencies, as appropriate, to ensure their concerns are met for construction in waters of the U.S.

The Intergovernmental Coordination Act and EO 12372, Intergovernmental Review of Federal Program, 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) was provided to relevant federal, state, and local agencies for their input during the scoping process. USAF considered their input in the planning process; comment letters received are included in Appendix A. Additionally, the EA was made available for a 30-day public comment period to solicit the input of these and other agencies as well as other interested parties. A Notice of Availability for the EA and Draft FONSI/FONPA was published in the *Grand Forks Herald* and the *Grand Forks Air Force Base Leader*; Appendix A includes these notices in addition to agency comment letters on the EA and Draft FONSI/FONPA. The IICEP and public comment effort was performed to solicit agency and public input in the decision-making process.

CHAPTER 2

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

CHAPTER 2

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

This chapter comprises the DOPAA for the Air Force implementation of NEPA requirements specified in 32 CFR 989. This chapter has the following four parts:

- Selection Criteria for Alternatives
- Alternatives Considered but Eliminated from Detailed Study
- Description of Proposed Alternatives
- Description of Past and Reasonably Foreseeable Future Actions Relevant to Cumulative Impacts

2.2 Selection Criteria for Alternatives

Selection criteria used to evaluate the Proposed Action and alternatives include the following:

- A cost-effective method to utilize or eliminate the A-Ramp and its associated buildings and facilities
- Mission requirements, including efficiency, effectiveness, safety, and cost
- Environmental standards, including Occupational Safety and Health Administration (OSHA), Air Force Occupational Safety and Health (AFOSH), National Fire Protection Act (NFPA), AFI, CFR, U.S. Environmental Protection Agency (EPA), U.S. Department of Transportation (U.S. DOT), and North Dakota standards for noise, air, water, safety, hazardous waste and materials, natural resources, cultural resources, geology, soils, and socioeconomic resources

2.3 Alternatives Considered but Eliminated from Detailed Study

One alternative considered was modification of existing buildings and facilities for reuse. However, the A-Ramp area is not near other base buildings and has not been used for several years. Many of the buildings are in disrepair and have mold and other problems because they have not been heated or cooled for several years. In addition, the buildings and facilities were constructed during the Cold War era and are no longer needed. Finally, some of the buildings and facilities are within the 7:1 flight envelope, clear zone, and 50:1 approach departure clearance zone and require flight-line waivers. Therefore, due to the distance of the A-Ramp area from other base buildings and facilities, the condition of the buildings and facilities, and the current excess capacity of buildings at GFAFB, it would not be cost

effective to repair and reuse the A-Ramp area. Consequently, this alternative was eliminated from further consideration.

2.4 Description of Proposed Alternatives

This section describes the activities that could occur under four alternatives for this Proposed Action: the No-Action Alternative, and three Implementation Alternatives for the Proposed Action. These four alternatives provide the decision maker with a reasonable range of alternatives from which to choose. A copy of Air Force (AF) Form 813 is included in Appendix B, and the DD Form 1391 for the project is included in Appendix C.

2.4.1 No-Action Alternative

The No-Action Alternative would involve continued minimal use of A-Ramp buildings and facilities. Currently, most buildings are vacant and most facilities are not being used, with the exception of the following:

- Heating, ventilating, and air-conditioning (HVAC) equipment is stored in Building (Bldg) 851.
- Tools and mobility equipment are stored in Bldg 831, and Security Forces simulator training is performed frequently.
- Security Forces close quarters combat training is held in Bldg 807. The training occurs approximately 4 times per month for about 4 hours per exercise.
- Concrete rubble removed from the runway is hauled to the A-Ramp apron for crushing and temporary storage. The crushed concrete will be moved off base for reuse in a batch plant.

The facilities still in operation are currently being heated with propane. No demolition would occur under this alternative, but the unused buildings and facilities would continue to deteriorate.

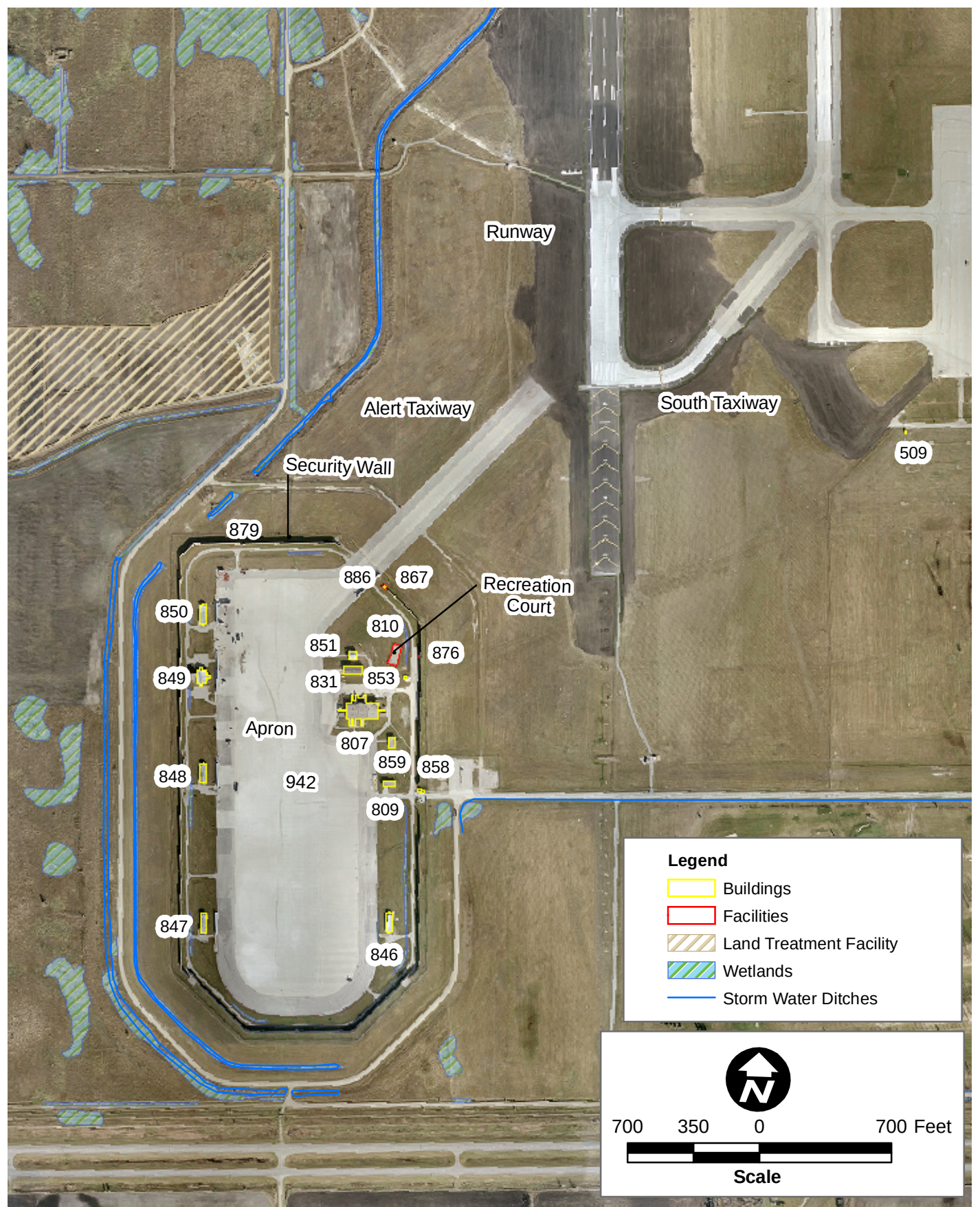
2.4.2 Proposed Action

The Proposed Action would include mechanical demolition of all A-Ramp buildings, facilities (including the facility wall and security fence), and pavement; removal of the exterior (outside the facility wall and security fence) A-Ramp Perimeter Road on the southeast, south, and west sides of the A-Ramp; regrading of the area for erosion and drainage control; and revegetation of the area to suitable hay grass. The grass could be hayed similar to other areas on base where farmers lease the land from the Air Force at fair market value for hay production. Land management rules developed for hay management with the Integrated Natural Resource Management Plan (INRMP) shall be followed. The vegetation must not attract birds or animals due to Bird/Wildlife Aircraft Strike Hazards (BASH). While any vegetation stands to attract wildlife, BASH standards shall be applied to reduce the attractiveness of the area to wildlife where necessary. The flight-line fence would be required to be maintained during and after construction.

Figure 2-1 provides a plan view of the A-Ramp area, showing buildings, facilities, roads, stormwater ditches, and the security wall. Wetlands, surface water drainage, and other environmental resources near the project area are also identified in the figure. Buildings, facilities, and roads to be demolished include the following:

- Squadron Operations (Bldg 807) – 27,163 square feet (SF)
- Reserve Fire Team Facility (Bldg 809) – 2,112 SF
- Recreation Basketball and Tennis Court with two backstops and chain link fence (Facility 810)
- Maintenance Tool Crib and Storage (Bldg 831) – 4,000 SF
- Gymnasium (Bldg 846) – 3,232 SF
- Crew Readiness (Bldg 847) – 3,232 SF
- Crew Readiness (Bldg 848) – 3,232 SF
- Alert Fitness Recreation Center (Bldg 849) – 5,170 SF
- Crew Readiness (Bldg 850) – 3,232 SF
- Aerospace Ground Equipment (AGE) Maintenance (Bldg 851) – 1,600 SF
- Hazard Storage (Bldg 853) – 144 SF
- Security Main Entry Control Building (Bldg 858) – 420 SF
- Electric Power Station Generator Building (Bldg 859) – 1,220 SF
- Taxiway Entry Control Building (Bldg 867) – 48 SF
- Jet Fuel Operating Fuel Aboveground Storage Tank (AST) (Facility 876), 1,000 gallons
- Underground Storage Tanks (USTs): UST 807-1-2 (4,000 gallons), UST 807-2-2 (6,000 gallons), and UST 859-1-2 (2,000 gallons)
- Security Fence Alert Vehicle Barrier Wall (Facility 879) – 6,573 linear feet (LF)
- Pre-Engineered Revetment Concrete Security Barriers (Facility 886) – 55 LF
- Aircraft Apron, Alpha Ramp (Facility 942) – 135,407 square yards (SY)
- Vehicle Parking Lots – 30,750 SF
- A-Ramp Perimeter Road – 5,800 LF

The AST and USTs would be removed from the A-Ramp area. It is possible that some generators could be reused by the Power Production flight at GFAFB. Aboveground power poles, transformers, and electrical lines (including communication cabling) would be removed.



Demolition Alpha Ramp Project Construction Area

Demolition of Alpha Ramp Environmental Assessment

DATE

January 2007

FIGURE

2-1

Subsurface utilities (electrical lines and sanitary sewer, stormwater, and drinking water piping) would be demolished and either removed or sealed in place. One exception would be to maintain a subsurface connection for feeder 1 from the main base to the radar tower, tactical air navigation system (TACAN), and weather stations.

The frost line is approximately 6 feet deep during the winter, and most utilities were buried below the frost line for their protection. It is possible that a combination of removal or sealing in place would occur. Utilities near the surface (within 6 feet) would be removed to improve the opportunities for future reuse of the land.

The wastewater lift station at A-Ramp has been closed in place and reportedly had sand dumped into the system. All the buildings on the west side of A-Ramp and the buildings south of the lift station no longer have wastewater service. However, wastewater service is available in Bldgs 807, 831, and 859 because the piping from these facilities flows downgradient northeast outside the A-Ramp to Bldg 509. The closed sewer line is along the outside perimeter of the apron, starting from Bldg 850 and proceeding around the southern boundary of the apron and north to the lift station near Bldg 846. The sewer line also drained southward from Bldg 807 on the east side of the A-Ramp and connected to the system near Bldg 846. The Proposed Action would involve excavation and removal of the lift station. The piping to Bldg 509 will be cut at the boundary of the A-Ramp construction area, filled with grout, and capped.

Stormwater drains from the ramp area to ditches inside the perimeter of the asphalt road, which in turn drain to ditches and ponds outside the security wall. The ditches outside the security wall west and south of the A-Ramp drain northward approximately 2 to 3 miles through the West Drainage Ditch that discharges to the Turtle River. Two wetlands immediately east of the A-Ramp receive drainage from ditches inside the perimeter of the asphalt road and flow to the Southeast Drainage Ditch. Subsequent to demolition of the buildings, facilities, concrete, and asphalt road, the area would be graded to facilitate the majority of stormwater flow through the West Drainage Ditch to the Turtle River, with some stormwater flowing eastward through the Southeast Drainage Ditch and eventually to Kellys Slough located approximately 9 miles east of the base.

Concrete from the A-Ramp apron and the alert taxiway connecting the A-Ramp to the runway would be removed. As part of the base's recently rebuilt runway project, 230 feet of the A-Ramp taxiway connected to the runway was already removed (Zweifel, 20 January 2006). There was no hydrant refueling system at the A-Ramp; the B-52 aircraft were refueled using trucks offloading fuel transported from Bldg 580. Because fuel may have been spilled or leaked and may have reached the ground surface, the demolition contractor could use a photoionization detector (PID) to check for fuel contamination in the soil when removing the apron and alert taxiway.

The depth to the groundwater table at GFAFB is only a couple of feet below ground surface at some locations. In the fall, the groundwater table drops 5 to 6 feet and subsequently is more than 10 feet deep in some areas. For these reasons, it is likely that dewatering wells

would be necessary. Groundwater from the dewatering wells would be discharged into nearby drainage ditches and swales.

The security wall (Facility 879) surrounds the A-Ramp (except at the alert taxiway leading to the runway), is approximately 20 feet high, and is made up of rectangular sections of concrete connected to anchor poles. The security fence is approximately 8 feet high with barbed wire atop a chain-link fence and is outside the security wall. The wall and fence would both be dismantled and demolished. The pre-cast concrete barriers were used to slow traffic entering the A-Ramp area through the main entry, but have been moved to the parking lot east of the A-Ramp. These barriers can be reused at other locations on base.

The vehicle parking lots east of Bldg 858 would also be demolished. The gravel road around the outside perimeter of the A-Ramp (referred to as A-Ramp Perimeter Road in this document), except for the portion connecting Alert Avenue with the unnamed north-trending road west of the runway, would be demolished and the area graded to facilitate runoff away from the A-Ramp area. Drainage would be re-established for both the area that drains to the West Drainage Ditch (approximately $\frac{2}{3}$ of the A-Ramp area) and to the Southeast Drainage Ditch (approximately $\frac{1}{3}$ of the A-Ramp area). Gravel from the road would be recovered and reused. Concrete from the apron, taxiway, and parking lots would be crushed and reused on base to the maximum extent practicable. Excess concrete would be transported off-base for disposal at a construction and demolition (C&D) landfill.

There are no current hazardous materials storage locations at the A-Ramp, but Bldg 853 was used to store paint and other hazardous materials. GFAFB has been removing containers of chemicals (such as cleaning solutions) from the buildings. Prior to demolition, any remaining hazardous/toxic materials would be removed from buildings. Based on the age of the buildings, the presence of friable asbestos, light ballasts that could contain polychlorinated biphenyls (PCBs), and lead-based paint (LBP) is inferred. The pre-demolition process would involve removal of any asbestos-containing material (ACM) that is friable, light ballasts that could contain PCBs, fluorescent light tubes, and thermostats that could contain mercury. The contractor would bring these materials (except ACM) to the GFAFB accumulation point at the Hazardous Material Pharmacy (HAZMART). The contractor would be responsible for removal and disposal of friable ACM to a facility permitted to accept friable asbestos, such as the City of Grand Forks landfill. If non-friable asbestos is in floor tile, the material would need to be placed in a C&D debris landfill. GFAFB uses the year 1980 as a breakpoint for assuming whether a painting operation used LBP. If cutting operations are used, workers would need to be protected by assuming that the older painted materials contain LBP. The contractor removing the hazardous/toxic materials must follow EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements. The utility systems may include PCB ballasts and mercury switches. Asbestos and LBP may be present in the buildings, and the subsurface piping may include concrete-reinforced piping (CRP) that may have ACM. All of the hazardous and toxic substances would need to be disposed of in accordance with applicable federal, state, and local regulations.

GFAFB plans to conduct A-Ramp demolition (Project JFSD200283) in 2007 during the construction season from March through October (although construction sometimes cannot

start until April and must end by mid-October). Prior to complete demolition of A-Ramp, part of the ramp may be used for driver/motorcycle training and a Suspect Vehicle Area for temporary storage. Demolition work would occur Mondays through Fridays, 0730 to 1700 hours. The gravel road around the facility would be maintained for access to the west portion of the base. Construction equipment could use the South Gate (Contractor Gate) being used for entry by contractors, vendors, and over-sized vehicles. The gate to the south of the A-Ramp is not approved by Security Forces for construction access.

The future use of the A-Ramp area is as yet undetermined. The 20-Year Master Space Plan shows a potential expansion of the golf course from 9 to 18 holes in the area. However, there could be a future mission that could use the west side of the flight-line access, but the types of construction may be limited because of the aforementioned flight-line restrictions.

2.4.3 Implementation Alternatives of the Proposed Action

Three implementation alternatives for the Proposed Action are being considered. All aspects of the Proposed Action as previously described would occur in, or under, the implementation alternatives except for minor variations as noted below. Two alternatives involve the reuse of the security wall rather than its demolition as planned for the Proposed Action: reuse of the security walls on base, or sale of the walls for reuse off base. The third implementation alternative involves preserving the A-Ramp Perimeter Road; drainage ditches on either side of the Road would also not be modified except for some minor regrading that would occur northwest of A-Ramp.

The third implementation alternative was developed as an avoidance and minimization measure due to the presence of delineated wetlands within the periphery of the Proposed Action's footprint. The construction footprint would be smaller than for the Proposed Action and disturb less of the existing environment. In addition, this implementation alternative would preserve the continuity of the existing A-Ramp Perimeter Road, which supports security access in the western portion of GFAFB.

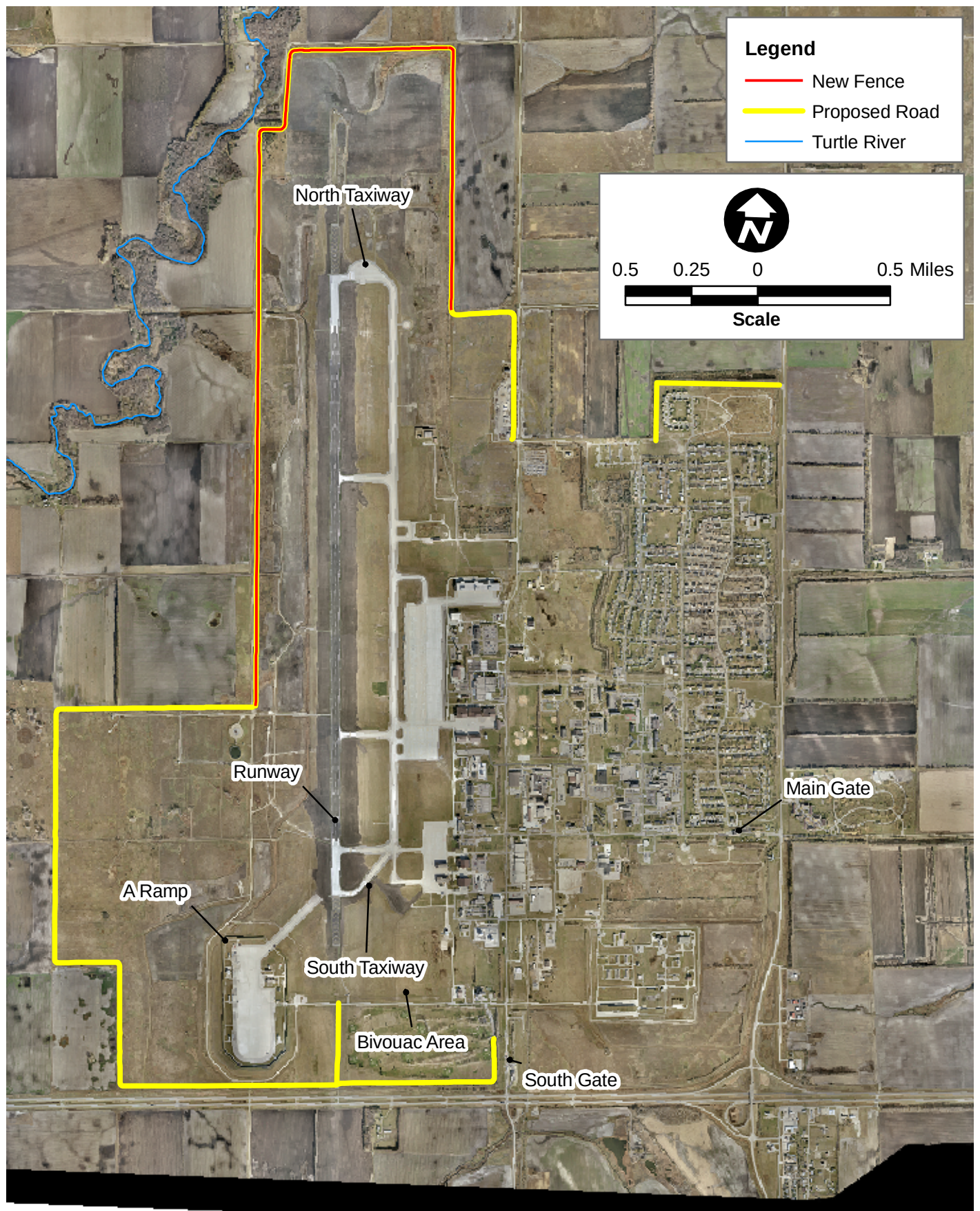
2.5 Description of Past and Reasonably Foreseeable Future Actions Relevant to Cumulative Impacts

The Proposed Action could cause some cumulative impacts in conjunction with other actions at GFAFB. Other current and planned projects in the area are addressed under separate NEPA documents. There are several other C&D projects occurring or planned to occur at GFAFB that would affect a similar area or environmental resource as the A-Ramp project. Table 2-1 lists projects being evaluated for cumulative impacts with the Proposed Action. All projects are planned for GFAFB, with the exception of the North Dakota Department of Transportation (NDDOT) project for Highway 2 identified in the 2006-2008 Statewide Transportation Improvement Plan (STIP) (NDDOT, June 2005).

Table 2-1
Projects Near the Project Area or Affecting the Same Resources

Project	Project Number	Project Description	Status
Demolish Existing Runway and Construct New Runway	JFSD200350	Demolish existing 300-foot-wide runway, remove rubble, and construct a new 150-foot-wide runway.	Construction of the runway was completed in October 2005 to allow plane operations in November 2005, and final grooming of the runway occurred in spring 2006.
Construction of Base Perimeter Road and Security Fence	JFSD200428	Install 4.2 miles of new fence and improve entire Base Perimeter Road.	Construction of the Base Perimeter Road is complete, but the security fence portion of the project was not funded and will not likely be completed.
Main Gate Improvement	JFSD200327	Reconstruct the Main Gate to meet current security requirements.	The project was completed by fall of 2005.
Commercial (South) Gate Improvement	JFSD200339B	Reconstruct the South Gate to meet current security requirements.	The project was completed by fall of 2005.
Repair North Taxiway	JFSD200350D	Perform repairs on North Taxiway.	The project is awaiting approval and funding. It is scheduled to commence in 2007 or later.
Hot Bituminous Pavement	651 and 652	Repave U.S. Highway 2 west of base to the City of Grand Forks.	The projects are planned for 2007 in the NDDOT 2006-2008 STIP.
Repair South Taxiway	JFSD200350C	Perform repairs on South Taxiway.	The project is awaiting approval and funding. It is scheduled to commence in 2007 or later.
Bivouac Training Area	In-house project	Develop Bivouac Training Area.	The project is ongoing and is scheduled for completion when funding becomes available for additional concrete tent pads.

The runway project and construction of the Base Perimeter Road have been completed prior to the start of the A-Ramp project; they will be evaluated for cumulative impacts because they would affect the same drainage area as the Proposed Action. The taxiway projects would also affect the runway area and drainage to the Turtle River. Improvements to the Main Gate and Commercial (South) Gate were done to meet new security requirements. Cumulative impacts to gate and road traffic during construction of the A-Ramp will be addressed. Construction for the Bivouac Training Area project would likely be occurring during A-Ramp demolition, and the site is adjacent to the Proposed Action. Figure 2-2 shows the A-Ramp project area relative to the other mentioned projects.



Location of Demolition Alpha Ramp Project and Other Relevant Projects

Demolition Alpha Ramp Environmental Assessment

DATE

January 2007

FIGURE

2-2

2.6 Summary Comparison of Alternatives

A summary comparison of the effects of all alternatives on the project objectives and on the relevant environmental resources is provided in Table 2-2, below. Short-term impacts are those that occur during the timeframe of the construction project (approximately 7 months in 2007), and long-term impacts occur subsequent to the completion of construction.

2.7 Identification of Preferred Alternative

The A-Ramp Perimeter Road preservation implementation alternative of the Proposed Action was selected as the Preferred Alternative after consideration of the potential impacts and the logistics of the project. There is minimal difference in impacts between the Preferred Alternative involving demolition of the security walls or the implementation alternatives for reuse of the walls, but the logistics for transport and reinstallation of the walls have not been reconciled.

Table 2-2
Summary Comparison of Alternatives

Resource	Proposed Action	Implementation Alternatives	No-Action Alternative
Air quality	There would be a short-term, but not significant, increase in air emissions during demolition, and there would be long-term improvement on air quality.	Security wall related impacts would be similar to those of the Proposed Action, with slightly higher levels of vehicular emissions for transporting and reinstalling the walls. Lower levels of particulate matter and vehicular emissions would be produced due to the A-Ramp Perimeter Road alternative's smaller project footprint and construction duration.	There would be no change in current level of air emissions.
Noise	There would be short-term, but not significant, impacts on noise because the noise generated would be intermittent and would occur during daytime hours. Long-term impacts would negligibly lower noise levels.	Security wall alternative impacts would be similar to those of the Proposed Action, with additional noise during wall transportation and installation. The A-Ramp Perimeter Road alternative would involve fewer noise impacts due to a smaller project scope.	Noise in the A-Ramp area would continue at existing levels.

Resource	Proposed Action	Implementation Alternatives	No-Action Alternative
Utilities	There would be short-term, but not significant, impacts during the removal of utilities. Long-term beneficial impacts would occur because of the removal of utilities, which are potential contamination sources.	Security wall alternative impacts would be similar to those of the Proposed Action, with verification that emplacement of the walls would not impact existing utilities. The A-Ramp Perimeter Road alternative would involve impacts identical to the Proposed Action.	Utilities in the A-Ramp area would be undisturbed by the No-Action Alternative and would remain as conduits for potential future contamination.
Hazardous wastes, hazardous materials, and stored fuels	There would be short-term insignificant adverse impacts from handling and disposal of hazardous and toxic materials. There would be a long-term benefit from removal of potential contamination sources.	Security wall alternative impacts would be similar to those of the Proposed Action, with a small potential of a release of hazardous materials from the vehicles used to transport and erect the walls. The A-Ramp Perimeter Road alternative would have a decreased likelihood of construction equipment contaminant spills, compared to the Proposed Action, and would not require reuse of the gravel on the existing Perimeter Road.	Continued deterioration of the facilities would increase the chance of future contamination due to release of mercury and other hazardous or toxic materials.
Water resources, floodplains, and wetlands	There would be short-term impacts during construction, but no adverse impacts on groundwater. Long-term impacts would benefit local groundwater quantity and quality from removal of potential contaminant sources. Potential impacts on surface water (West Drainage Ditch) would be minimized by best management practices (BMPs).	Security wall alternative impacts would be similar to those of the Proposed Action, with an increased risk of spills associated with the transportation and reinstallation of the walls. By staying primarily on existing roads and not placing the walls in floodplains and wetlands, no additional impacts are anticipated. Impacts to surface water would be similar to, but less than, those associated with the Proposed Action.	There would be no impact on water resources.

Resource	Proposed Action	Implementation Alternatives	No-Action Alternative
Water resources, floodplains, and wetlands, continued	There would be minor short-term impacts from reconfiguration of stormwater drainage of the A-Ramp area. Adverse impacts from filling of wetlands would be mitigated by wetland replacement. The short-term potential for surface water or groundwater contamination during demolition is low. There would be no impact on drinking water. There would be no effect on FEMA-designated floodplains.	The A-Ramp Perimeter Road Alternative would involve less disturbance and fewer impacts than the Proposed Action. The A-Ramp Perimeter Road Alternative would affect fewer acres of wetlands than the Proposed Action.	
Socioeconomic resources	There would be short-term benefits in the construction industry, with secondary benefits accruing from local expenditures by the construction workers. There would be long-term negligible impacts.	Impacts related to all of the implementation alternatives would be similar to those of the Proposed Action.	There would be no impact on socioeconomic resources.
Biological resources and federally and state-listed threatened or endangered species	Vegetation would be disturbed in the short-term, but the area would be restored with additional vegetation. Minor short-term impacts on wildlife associated with the demolition and debris removal are anticipated. No impacts on threatened or endangered (T&E) species would occur.	Security wall alternative impacts would be similar to those of the Proposed Action, with minor potential increases in disturbance of vegetation during reinstallation of the walls. The A-Ramp Perimeter Road alternative would convert slightly less area to hay grass area than the Proposed Action, maintain an interruption in potential wildlife habitat that could result in wildlife and automobile collisions, and conserve wetlands adjacent to the Perimeter Road.	Biological resources would continue to be impacted at current levels.

Resource	Proposed Action	Implementation Alternatives	No-Action Alternative
Cultural resources	There would be no effect on significant (NRHP-eligible) historic or archaeological properties.	There would be no effect on cultural resources as a result of any of the implementation alternatives (assuming the reinstallation of the security walls did not occur at historic or archaeological properties).	There would be no effect on cultural resources.
Land use	There would be short-term, but insignificant, adverse impacts on land use during demolition and long-term negligible impacts, with some increase in natural environment.	Impacts of all the implementation alternatives would be similar to those of the Proposed Action. Proper analysis of project-related impacts would be required at the time of reinstallation of the walls.	There would be no impacts on land use.
Transportation systems	There would be a short-term, but not significant, increase in the peak-hour traffic volumes during construction activities and no long-term impact on traffic flow.	Impacts would be similar to those of the Proposed Action, with additional traffic from transporting and reinstalling the walls. The A-Ramp Perimeter Road alternative would have similar impacts to the Proposed Action, but would also maintain the gate, south of the A-Ramp, that provides emergency access to Highway 2.	There would be no impacts on transportation systems.
Airspace and airfield operations	There would be no significant adverse effects. Removal of the obstructions in the flight path would have a beneficial impact on airspace and airfield operations, improving flight safety.	Impacts of all of the implementation alternatives would be similar to those of the Proposed Action, with additional precautions for using cranes to reinstall the walls.	Airspace and airfield operations would continue at current levels with the requirement to maintain airspace waivers for obstructing buildings and facilities.
Safety and occupational health	There would be no significant adverse effects. There would be a slight increased chance of an accident or property damage from construction activities.	Impacts of all of the implementation alternatives would be similar to those of the Proposed Action, with additional minor health and safety risks due to transportation and reinstallation of the walls.	Continued deterioration of the facilities would increase the chance of impacts on negative effects on health and safety.

Resource	Proposed Action	Implementation Alternatives	No-Action Alternative
Environmental management, including pollution prevention, geology, and soils	There would be short-term, but not significant, impacts on environmental management due to soil disturbance and long-term beneficial effects on environmental management from removing potential contamination sources.	Security wall impacts would be similar to those of the Proposed Action, with additional impacts due to soil disturbance during reinstallation of the walls. The A-Ramp Perimeter Road alternative would generate less demolition rubble and fewer grassy acres than the Proposed Action. Vehicular traffic would still be able to access the area; therefore, the potential for contaminant spills would remain.	Impacts on pollution prevention efforts, geology, and soils would remain at their current levels.
Environmental justice	There would be no impacts on environmental justice.	There would be no impacts on environmental justice.	There would be no impacts on environmental justice.

CHAPTER 3

AFFECTED ENVIRONMENT

CHAPTER 3

AFFECTED ENVIRONMENT

3.1 Introduction

This chapter describes the relevant environment at GFAFB, providing baseline information to allow the evaluation of potential environmental impacts that could result from the No-Action Alternative or the Proposed Action. As stated in 40 CFR 1508.14, the human environment includes natural and physical resources and the relationship of people to those resources. The environmental baseline resource areas described in this chapter were selected after identifying the potential issues and concerns related to the No-Action Alternative and the Proposed Action. Only relevant resource areas are described; resource areas that would not be impacted (such as wild and scenic rivers or coastline resources, because there are none present in this area) are not described in this chapter, nor are they evaluated in Chapter 4. The Proposed Action would not adversely affect socioeconomic resources and environmental justice. Consequently, these two resources are only briefly described in this chapter.

The chapter begins with a discussion of the resource areas that may be impacted by the No-Action Alternative or the Proposed Action. These include air, noise, utilities, hazardous materials and wastes, water resources (including floodplains and wetlands), socioeconomic resources, biological resources (including threatened or endangered species), cultural resources, land use, transportation systems, airspace and airfield operations, safety and occupational health, environmental management (including pollution prevention, geology, and soils), and environmental justice.

3.2 Air Quality

Air resources include climate and meteorology, regional air quality, and sources of air emissions.

3.2.1 Climate and Meteorology

The climate in northeastern North Dakota is typical of the Northern Great Plains, with cold, snowy winters, warm summer days, and cool summer nights. Each winter, cold waves and blizzards may be expected. In a normal winter, there are approximately 60 days with below-zero temperatures. In the summer, hot, humid days are rare. July is the warmest month, with temperatures averaging 70° F. The annual average precipitation is approximately 20 inches, with over 50 percent of the precipitation occurring during the months of May, June, July, and August.

The average wind speeds are approximately 10 miles per hour throughout the year. Prevailing winds are from the north or northwest during November through May and from the south or southwest from June to October (USAF, June 2001).

3.2.2 Regional Air Quality

The National Ambient Air Quality Standards (NAAQS), established by EPA, define the maximum allowable concentrations of pollutants that may be reached, but not exceeded, within a given time period. These standards were selected to protect human health with a reasonable margin of safety. Standards are not to be exceeded more than once per year except for ozone (O₃) and particulate matter equal to or less than 10 microns in diameter (PM₁₀), which are not to be exceeded more than an average of 1 day per year. Areas not meeting NAAQS are designated as nonattainment areas for specified pollutants regardless of nonattainment classification. North Dakota has adopted a more stringent set of standards, termed the North Dakota Ambient Air Quality Standards (NDAAQS).

Six “criteria” pollutants are regulated by the NAAQS. The criteria pollutants are O₃, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and particulate matter. Particulate matter has been further defined by size. There are standards for PM₁₀ and for particulate matter equal to or less than 2.5 microns in diameter (PM_{2.5}). Generally, criteria pollutants directly originate from mobile and stationary sources. Tropospheric O₃ is an exception because it is rarely directly emitted from sources. Most O₃ forms as a result of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) reacting with sunlight. Table 3-1 presents the current NAAQS and NDAAQS for the six criteria pollutants. In addition to the six criteria pollutants, North Dakota also has standards for hydrogen sulfide (H₂S).

Prevention of significant deterioration (PSD) regulations (40 CFR 52.21) define air quality levels that cannot be exceeded by major stationary emission sources in specified geographic areas. Major stationary sources are usually sources that emit more than 100 tons per year (tpy) of a specific pollutant. PSD regulations establish limits on the amounts of SO₂ and total suspended particulates (TSP) that may be emitted above a premeasured amount in each of three class areas. Class I areas are pristine areas and include national parks and wilderness areas. There are no Class I areas located within 100 kilometers (approximately 62 miles) of GFAFB. All other areas in the United States are Class II areas, where moderate, well-controlled industrial growth could be permitted. GFAFB is located in a PSD Class II area. Any change that results in the addition of a major source or in a significant increase in emissions from stationary sources would be subject to limits under PSD regulations. A significant increase in emissions would include 100 tpy of CO; 40 tpy of NO_x, VOCs, or sulfur oxides (SO_x); or 15 tpy of PM₁₀. These limits do not include emissions from mobile sources during construction of the facilities (USAF, June 2001).

Table 3-1
National and North Dakota Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS $\mu\text{g}/\text{m}^3$ (ppm) ¹		NDAAQS $\mu\text{g}/\text{m}^3$ (ppm) ¹
		Primary ²	Secondary ³	
O ₃	1 hour (hr)	None	None	235 (0.12)
	8 hr	157 (0.08)	Same	None
CO	1 hr	40,000 (35)	None	40,000 (35)
	8 hr	10,000 (9)	None	10,000 (9)
NO ₂	AAM ⁴	100 (0.053)	Same	Same
SO ₂	1 hr	None	None	715 (0.273)
	3 hr	None	1,300 (0.5)	None
	24 hr	365 (0.14)	None	260 (0.099)
	AAM	80 (0.03)	None	60 (0.023)
Pb	¼ year	1.5	Same	Same
PM ₁₀	AAM	50	Same	Same
	24 hour	150	Same	Same
PM _{2.5}	AAM	15	Same	None
	24 hour	65	Same	None
H ₂ S	1 hr	None	None	280 (0.20)
	24 hr	None	None	140 (0.10)
	3 months	None	None	28 (0.02)
	Instantaneous Ceiling	None	None	14,000 (10)

Notes:

¹ $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; ppm = parts per million

² National Primary Standards establish the level of air quality necessary to protect the public health from any known or anticipated adverse effects of a pollutant, allowing a margin of safety to protect sensitive members of the population.

³ National Secondary Standards establish the level of air quality necessary to protect the public welfare by preventing injury to agricultural crops and livestock, deterioration of materials and property, and adverse impacts on the environment.

⁴ AAM = Annual Arithmetic Mean

Sources: 40 CFR 50; North Dakota Administrative Code (NDAC) 33-15.

3.2.3 Air Pollutant Sources

Air pollutants include the seven criteria pollutants discussed previously. Particulate matter (PM₁₀ and PM_{2.5}) is generated during ground-disturbing activities and during combustion. The principal source of CO and SO₂ is combustion. The precursors of O₃ (VOC and NO₂) are also primarily emitted from combustion.

NDDH conducted an Air Quality Monitoring Survey for calendar year 2003 (NDDH, April 2004). NDDH operated eight ambient and two special-purpose air quality monitoring sites as well as eight industry-operated source-specific air quality monitoring sites; none of these are in Grand Forks County. The data from these sites indicated that the quality of the ambient air in North Dakota is generally good. The entire North Dakota Air Quality Control Region (including Grand Forks County) is in attainment status for all criteria pollutants. There were no O₃, NO₂, or particulate matter exceedances of either the federal or state ambient air quality standards measured during the year.

GFAFB conducts a regulated emissions report for each calendar year, with the most recent survey conducted in 2004 (USAF, 11 March 2005). Installation-wide air pollutant emissions for 2001 (the most recent year for potential-to-emit determinations) are shown in Table 3-2. GFAFB has a Title V permit issued by NDDH. GFAFB is a major stationary source, as the potential to emit NO_x and SO_x is more than 100 tpy.

Table 3-2
2001 Air Pollutant Emissions (tpy) at GFAFB

Emissions	PM ₁₀	NO _x	SO _x	CO	VOC	HAP ¹
Actual Stationary Sources	1.4	29.8	1.4	12.7	18.8	2.2
Potential to Emit	33.3	422.0	31.6	132.0	77.0	6.6

Note:

¹ HAP = hazardous air pollutants

Source: USAF, 2002.

The A-Ramp includes several emission sources, most of which are insignificant sources (such as small USTs and boilers) and do not require permits. The only active permitted source is 859-1, an internal combustion generator that is a back-up source for A-Ramp lighting. 807-1 is a permitted generator but has been deactivated. As part of a runway replacement project, runway rubble is being placed on the apron of the A-Ramp, and a crushing operation is reducing the size of the rubble and causing particulate emissions.

3.3 Noise

Noise is defined as any unwanted sound that interferes with normal activities or in some way reduces the quality of the environment. Ambient noise levels vary greatly in magnitude and character from one location to another, depending on the normal activities conducted in the area. In general, noise levels around USAF installations result primarily from aircraft operations.

3.3.1 Noise Descriptors

Community response to noise is not based on a single event, but on a series of events over the course of a day. Factors that have been found to affect the subjective assessment of the daily noise environment include the noise levels of individual events, the number of events per day, and the time of day at which the events occur. Most environmental descriptors of noise are based on these three factors, although they may differ considerably in the manner in which the factors are taken into account.

A decibel (dB) is the physical unit commonly used to describe sound levels. Sound measurement is further refined by using an A-weighted decibel (dBA) scale that emphasizes the audio frequency response curve audible to the human ear. Thus, the dBA measurement more closely describes how a person perceives sound. For example, typical noise levels include quiet urban nighttime (40 dBA) and an air conditioner operating 100 feet

away (55 dBA). Project-related noise levels might include heavy equipment moving 50 feet away (85 dBA) or a jet plane overhead at 500 feet (115 dBA).

Equipment noise is normally measured over an 8-hour time period using the equivalent sound level (L_{eq}). The L_{eq} is obtained by averaging dBA sound levels over a selected time period. Another descriptor of a noise environment over extended periods of hours or days is the day-night average sound level (L_{dn}). To compute an L_{dn} , single noise events are measured using an A-weighted scale, with corrections added for the number of events and the time of day. A 10-dB penalty is added for noise that occurs between the hours of 10:00 p.m. and 7:00 a.m. because nighttime noise events are considered more annoying than noise occurring during daytime. The L_{dn} descriptor is accepted by several agencies, including USAF, as a standard for estimating noise impact and establishing guidelines for compatible land uses.

Noise generated near the ground generally attenuates 6 dB for each doubling of distance from a noise source; trees and terrain would further increase attenuation. Noise generated further above ground (above 50 feet) generally attenuates about 2 dB for every doubling of distance from a source.

3.3.2 Existing Noise Conditions

Most noise generated at GFAFB is from fixed wing aircraft operating in and out of the airfield, vehicles operating in and out of the deployment area, and construction activity.

Noise produced by fixed wing aircraft during takeoff and landing operations produces more noise impacts than ground traffic. These noises fall into a broad range of “transient” noises, which come and go in a finite period of time. Dependent primarily on the type of aircraft, type of operations, and distance from the observer to the aircraft, the maximum flyover noise levels will vary widely in magnitude ranging from levels undetectable in the presence of other background noise, to levels sufficiently high to create feelings of annoyance, or to levels that interfere with speech or sleep. The duration of the noise will also vary depending on the proximity of the aircraft, speed, and orientation with respect to the observer.

GFAFB hosts KC-135R aircraft as a part of the 319th ARW. The number of daily aircraft operations directly affects the level of noise in the vicinity of GFAFB. USAF examined the effects of aircraft noise and accidents on communities near USAF installations and developed the Air Installation Compatible Use Zone (AICUZ) Program. AFI 32-7063 (USAF, 17 April 2002) outlines the objectives of the AICUZ program, which are to protect USAF installations from incompatible land use and to assist local, state, and federal officials in protecting and promoting public health, safety, and welfare by providing information on aircraft accident potential and noise. The current AICUZ study was released in September 1995 (USAF, 1995) and was recently revalidated in 2003. GFAFB occupies 5,422 acres, of which approximately 900 acres are within the 65-dBA AICUZ contour.

Measures are taken to keep noise levels on GFAFB at a minimum by continuously evaluating aircraft operations. Engine runups are directed into blast deflectors or occur in designated areas to minimize people’s exposure to noise. As a result of these measures, GFAFB

receives few noise complaints. Because of the high flight altitudes of KC-135R aircraft, most noise generated at GFAFB is from takeoff, touch-and-go operations, and landings (USAF, June 2001).

3.3.3 Noise-Sensitive Receptors

A noise-sensitive receptor is commonly defined as the occupants of any facility where a state of quietness is a basis for use, such as a residence, hospital, or church. The project area is in the southwest corner of the base and is surrounded by various land use types, including aircraft operations and maintenance, outdoor recreation, and open space. No noise-sensitive receptors occur within 1,000 feet of the project area.

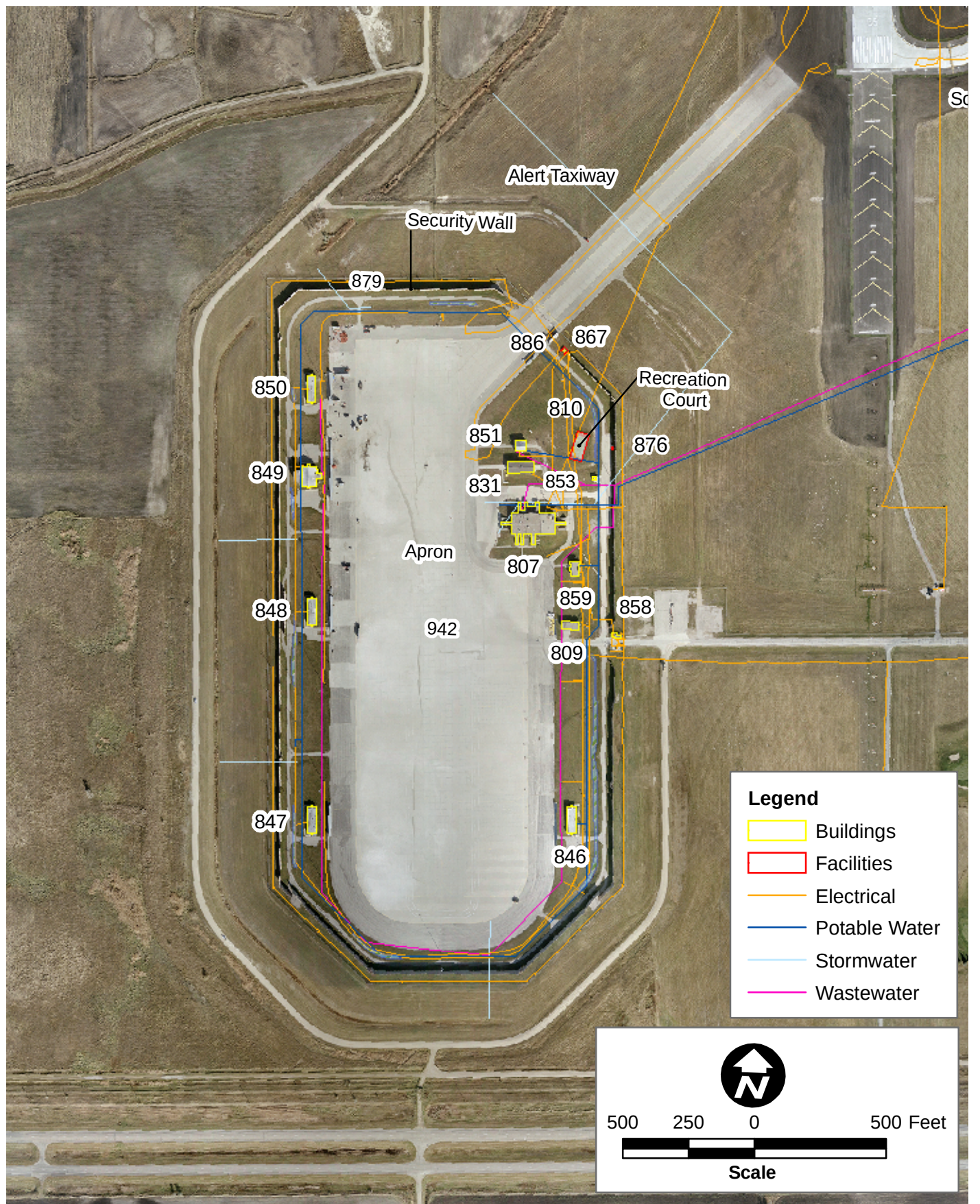
3.4 Utilities

Utility lines were constructed during and subsequent to construction of the A-Ramp apron. Potable water, electrical, gas, stormwater, and wastewater lines were installed to provide services to buildings and facilities in the A-Ramp area. Most utilities were placed below the frost line (approximately 6 feet deep) for protection (Zweifel, 3 August 2005). Figure 3-1 shows the location of the utility lines within and around the A-Ramp area. A gas line was previously located at the A-Ramp but has since been removed.

Potable water, electricity, and wastewater services have limited availability at the A-Ramp area. Potable water is available at Bldgs 831 and 851. Electricity is provided at Bldgs 807, 859, 831, and 851. Wastewater service is available in Bldgs 807, 831, and 859 because the piping from these facilities flows downgradient northeast outside the A-Ramp to Bldg 509. There are no operating sanitary sewer facilities in the A-Ramp area except for an operating toilet at Bldg 831. The sewer line is along the outside perimeter of the apron, starting from Bldg 850, proceeding south to a lift station near Bldg 846, and then running east-northeast toward the south end of the runway. The sewer line also drained southward from Bldg 807 on the east side of the A-Ramp and connected to the system near Bldg 846. The wastewater lift station has been closed in place and reportedly had sand dumped into the system. Minor contamination (e.g., leaked wastewater) might be present near the sewer line.

3.5 Hazardous Wastes, Hazardous Materials, and Stored Fuels

Substances such as asbestos, pesticides, or solid waste may cause risks to human health or the environment if improperly managed. A material is considered hazardous if it can cause or contribute to illness or death or otherwise pose a substantial threat to human health or the environment. When a hazardous material is spilled, spent, or contaminated to the extent that it is not able to be used for its original purpose, or cannot be converted to a usable product, it becomes a hazardous waste. Hazardous wastes are defined in 40 CFR 261.3. Hazardous wastes can be generated on a continual basis as well as being generated if a spill of a hazardous material occurs. For example, improperly stored fuels may become a hazardous waste. Solid (that is, non-hazardous) wastes are also discussed in this section, as demolition activities can generate large quantities of debris that must be handled and properly disposed.



Demolition Alpha Ramp Project Area Utilities

Demolition of Alpha Ramp Environmental Assessment

DATE

January 2007

FIGURE

3-1

3.5.1 Hazardous Wastes

Hazardous and universal wastes are generated throughout GFAFB. Hazardous wastes may consist of solvent-contaminated fuels, oil-soaked rags, and other waste streams. Universal wastes include fluorescent light tubes, batteries, and mercury-containing devices. These materials are collected and stored at satellite locations until a certain amount of hazardous or universal waste, such as a drum or can, has been generated.

GFAFB no longer has a Defense Reutilization and Marketing Office (DRMO) presence on base and relies on the HAZMART, described in Section 3.4.2, below, to dispose of hazardous waste streams. Upon receipt at the HAZMART, wastes are tested, marked, manifested, and properly disposed with assistance from the GFAFB Environmental Flight and the DRMO Riley hazardous waste disposal contractor. All disposal records are retained for documentation and reporting purposes.

3.5.2 Hazardous Materials

Hazardous materials are used throughout GFAFB and are acquired and distributed primarily through the HAZMART. The HAZMART is a pollution prevention initiative used throughout USAF, designed to reduce the amount of hazardous materials stored at the various facilities. Hazardous materials are dispensed to users from the HAZMART, using GFAFB personnel as transporters. Transporters are persons engaged in the offsite transportation of hazardous materials or wastes by air, highway, or water. All hazardous materials are tracked through the HAZMART. The tracking system gathers the information necessary to optimize the use of hazardous materials and reduce waste and provides the information needed for EPCRA reporting. HAZMART facilities are located at the main warehouse (Bldg 408) on GFAFB. Corrosive, flammable, and combustible materials and compressed gases are stored at this location.

All personnel who work with hazardous materials have initial and updated training in Hazardous Communication (HAZCOM), which enables them to identify the hazards associated with the materials. Material Safety Data Sheets (MSDS) are provided with materials or can be obtained from the HAZMART or the Bioenvironmental Engineering Services office. Spill response is conducted by the Fire Protection Flight, and inspections of facilities are conducted by the Fire Protection Flight, Safety Flight, and Bioenvironmental Engineering Services.

GFAFB maintains a Final Spill Prevention, Control, and Countermeasure Plan (USAF, October 2003). The plan provides guidance and assigns responsibilities to prevent and respond to oil discharges on GFAFB and associated properties.

3.5.2.1 Asbestos

Asbestos is a regulated substance because it is a carcinogen and a cause of asbestosis, a lung disease. Asbestos is a designated hazardous air pollutant under the Clean Air Act. To ensure compliance with the Clean Air Act, EPA issued NESHAP regulations and has delegated compliance with the Clean Air Act to each state in the U.S. Therefore, North Dakota has

issued regulations under NDAC 33-15-13, Emission Standards for Hazardous Air Pollutants. These regulations are enforced by the NDDH Asbestos Control Program. OSHA also provides for worker protection for employees who work around or abate ACM. Friable ACM, which can be pre-existing or generated during a demolition or renovation activity, is any material containing more than 1 percent asbestos that can be crumbled, pulverized, or reduced to powder when dry by using hand pressure or similar mechanical pressure.

When asbestos poses a health danger from the release of airborne fibers, which can occur when it is in a friable state, Air Force policy is to remove or isolate it (USAF, 22 March 1994). NDDH requires that personnel be certified before renovating (which involves encapsulation, enclosure, or removal activities) or demolishing a facility containing friable Regulated ACM (RACM) of more than 3 square feet or 3 linear feet (NDAC 33-15-13-02(16)(a)). NDDH must be notified if any demolition is to occur, whether or not ACM is present. GFAFB maintains trained and certified asbestos abatement personnel and requires that contractors provide certified personnel if needed.

At GFAFB, ACM waste is generated during abatement operations conducted for building renovation or demolition. The removal of ACM from facilities generates waste that is disposed at a solid waste management facility permitted by the state to accept ACM waste; Grand Forks Municipal Landfill is the closest permitted facility to GFAFB. Facilities on GFAFB were surveyed in 1993 and 1994 for ACM. Facilities that are to be renovated or demolished are surveyed for RACM prior to construction activities and the RACM is abated when necessary. The Environmental Management Flight, Civil Engineer Operations, and Bioenvironmental Engineering Services manage most aspects of asbestos abatement. GFAFB maintains an Asbestos Operating Plan and Asbestos Operation Plan, asbestos work orders, notification records, bulk and air sampling results, asbestos registry, training and certification records, and disposal documents.

Facilities in the A-Ramp area may contain ACM (Braun, 5 April 2005). Several of the facilities were renovated in the mid-1980s during the replacement of boilers (gas to electric), plumbing, walls, ceiling tiles, floor tiles, mastic, carpeting, tunnel entrances, and other facilities. However, asbestos may remain in flooring materials (mastics and tape), ceiling tiles, pipe wrap, subsurface piping, sealants, tunnel walkways, and other coatings.

3.5.2.2 Polychlorinated Biphenyls

PCBs are suspected human carcinogens. Improperly handling items containing PCBs or releases of PCBs could have adverse effects on human health and the environment.

PCBs must be handled, stored, and disposed in accordance with regulations (40 CFR 761) promulgated under the Toxic Substances Control Act (TSCA). The action limit for TSCA-regulated materials is 50 parts per million (ppm). Materials containing in excess of 50 ppm must be treated at a TSCA-approved facility. Materials having a PCB concentration between 5 ppm and 50 ppm are considered PCB-containing materials and can be disposed of in Subtitle C landfills. Concentrations less than 5 ppm are considered non-PCB and can be disposed of as a solid waste. Personnel from the Environmental Management Flight,

Bioenvironmental Engineering Services, and the Exterior Electric offices manage PCBs. Documents and files are maintained at GFAFB, including PCB documentation for the past 3 years. All known PCB-containing transformers, hydraulic systems, heat transfer components, and other items have been removed from GFAFB to fulfill a USAF requirement.

PCBs were often used in filters and switching circuits to protect critical equipment against electrical surges or arcing. Although testing of this equipment found only negligible amounts of PCBs (that is, below action levels), all equipment that may contain PCBs is removed from the buildings during the removal of environmental materials (safing) process prior to demolition. Light ballasts suspected of containing PCBs are to be removed on an as-needed basis. Light ballasts present in the A-Ramp facilities may contain PCBs. Unless clearly identified as non-PCB, or manufactured prior to 2 July 1979, the ballast will be removed and considered as containing PCBs. Based on the amount of PCB liquid in a light ballast (4 to 5 ounces), a quantity of 10 or more ballasts is considered to be a reportable quantity. Because GFAFB generates in excess of 10 ballasts, ballasts that are removed from service are collected and disposed of properly as a TSCA waste.

3.5.2.3 Ethylene Glycol

Ethylene glycol is used as a coolant medium for air-conditioning systems, diesel generators, aerospace ground equipment (AGE), and deicing activities. There are several existing diesel and electric generators at the A-Ramp. Recycled ethylene glycol is a non-RCRA waste and is not considered a RCRA hazardous waste unless it has been contaminated with a hazardous substance. The compound is mobile in soils and water and at high concentrations can kill aquatic organisms.

Glycols used in deicing activities at GFAFB (including the A-Ramp area) conducted during winter months historically were not recovered or contained, and ethylene glycol was allowed to percolate into the soils, expansion joints, and cracks in the pavement or to evaporate. GFAFB has since converted to using propylene glycol to deice aircraft. Propylene glycol is much more environmentally friendly.

3.5.2.4 Lead-Based Paint

LBP can be hazardous when dust or chips are generated from deteriorating paint or during removal, such as in sanding off old paint. Lead exposure, which can result from ingesting paint dust or chips or from inhaling lead vapors from torch cutting operations, can affect the human nervous system at low levels. Lead is especially hazardous to children under 6 years old due to their size and developing nervous system. USAF policy (USAF, undated letter) states that workers subjected to prolonged or repeated exposure to airborne LBP dust are working in a hazardous environment.

GFAFB personnel manage LBP identification and remediation in accordance with all USAF guidance and have designated the Environmental Management Flight, Base Housing Office, and Medical Group as being responsible for LBP management. An LBP inspection of child-occupied facilities and target housing was performed in 1994 at GFAFB. The A-Ramp facilities are not considered child-occupied facilities or target housing.

Facilities and buildings in the A-Ramp area have not been inspected for the presence of LBP. Therefore, all facilities and buildings in the A-Ramp built prior to 1980 are assumed to contain LBP somewhere in unknown quantities and concentrations. Removal of LBP is not required for demolition. The demolition contractor would be made aware of this fact and should appropriately protect his workers. Demolition debris can be disposed of in an inert (construction or demolition debris) solid waste facility.

3.5.2.5 Pesticides

Pesticides are a group of biological or chemical materials that include herbicides and insecticides. Pesticides vary greatly in toxicity and can pose a threat to human health and the environment if improperly managed. Pesticides have been used to control weed and plant growth (herbicides) and insect pests (insecticides) at the A-Ramp facilities and GFAFB.

The management of pesticides at GFAFB is conducted by the Pest Management staff (319th Civil Engineer Squadron [CES]/CEOHB), who maintain the ground and buildings at GFAFB, and by the golf course staff (319th Services Squadron [SVS]/SVBG), who maintain the golf course. Personnel applying pesticides are certified, and the GFAFB pesticide facility (Bldg 518) is a state-of-the-art facility. GFAFB also contracts for some pesticide applications.

Pesticide use at GFAFB has been reduced in compliance with USAF goals. For example, the golf course no longer uses liquid pesticides. Other insecticide use at GFAFB has declined as well; the current primary activity is selective fogging and larvacide to control mosquitoes. Other control techniques include spot controls or electronic traps of various types, such as Skeeter Magnets®. There has also been aerial application of pesticides for mosquitoes. When pesticides have been applied, the application rates on the pesticide labels have been followed, or pesticides have been applied at reduced rates. In addition, various herbicides have been used since the early 1960s to suppress weed growth. Weed control at GFAFB is required by the North Dakota Department of Agriculture, Noxious Weeds Division.

3.5.2.6 Mercury

Mercury and its compounds are generally highly toxic to living organisms. Because of its toxicity, mercury has been phased out of most industrial and other uses. However, mercury may have been used in switches for diesel fuel day tanks, float switches, light switches, thermostats, mercury vapor lamps, and fluorescent light tubes.

3.5.2.7 Stored Fuels and Oils

The primary heating fuel for the A-Ramp facilities was converted from gas to electric in the mid-1980s. GFAFB has two diesel USTs for emergency power production and one heating oil UST in the A-Ramp. The power production tanks are regulated by Subtitle I of RCRA (the UST Program) and the requirements of the North Dakota Underground Storage Tank Regulations (Chapter 10); the heating oil UST is excluded from UST regulations because it is not considered a UST by definition. All three tanks have been defueled and are ready for

removal. Facility 876 is an AST that contains jet petroleum (JP)-8 for use by ground support or AGE.

Uncontaminated diesel fuel is a hazardous material that can be reused for other applications. If the fuel is contaminated with oil, the fuel can be reused for heating or similar purposes. If the fuel is contaminated with another hazardous substance (for example, a solvent), the fuel is considered a hazardous waste. Diesel fuel that is contaminated with a hazardous substance is removed from the tank and placed in properly labeled 55-gallon drums for disposal as a hazardous waste. Fuel-contaminated soil as a result of a spill or leak is properly handled and disposed of as a regulated waste in accordance with NDDH requirements. GFAFB has a landfarm facility for handling fuel-contaminated soil which could be used if contaminated soils are found during demolition activities.

Alert aircraft were fueled and, if necessary, maintained on the A-Ramp. Aircraft believed to have been fueled on the A-Ramp include the B-52H/G, B1-B, KC-135A/R, KC-10, SR-71, F-101B, F-106, F-15, and F-16. Jet fuels including JP-4, JP-7, and JP-8 were used. Spills may have occurred during fueling or maintenance activities. In addition, a B-52 plane engine caught fire and burned for approximately 4 hours during one event on the A-Ramp. No other documented fires or crashes occurred on the A-Ramp (Crouse, 10 May 2005). The potential exists for fuels to have seeped under the A-Ramp area through pavement cracks, expansion joints, or grassy areas due to spills or leaks from aircraft, vehicles, or equipment.

3.6 Water Resources, Floodplains, and Wetlands

Water resources include groundwater and surface water sources, water quality, stormwater, floodplains, and wetlands. The hydrologic cycle results in the transport of water into various media, such as air, ground surface, and subsurface. Natural and human-induced factors determine the quality of water resources.

3.6.1 Groundwater

The groundwater below GFAFB exists in relatively shallow glacial drift aquifers and deeper bedrock aquifers, primarily Lower Cretaceous and Ordovician formations. GFAFB overlies the Emerado Aquifer, which covers about 10 square miles. The aquifer is approximately 50 to 75 feet below ground surface and 70 feet above the bedrock. The Emerado Aquifer is confined above and below by glacial till, composed primarily of clay (USAF, June 2001). The principal bedrock aquifer in the area of GFAFB is the Dakota Aquifer. This aquifer consists of Lower Cretaceous formations, primarily the Fall River and Lakota formations. The Dakota Aquifer is approximately 200 feet below ground surface near GFAFB and is under confined pressure. Wells generally yield between 2 and 50 gallons per minute (North Dakota Geological Survey [NDGS], 1970). Recharge is from areas of higher elevation in the western part of the county.

There are several minor glacial drift aquifers in the GFAFB area that include Lake Agassiz beach deposits and Lake Agassiz silt deposits. These minor aquifers each produce approximately 1,000 to 2,000 gallons per day (NDGS, 1970). The beach deposits are long,

narrow mixtures of sand and gravel overlying till or lake clay. These deposits are generally oriented from northwest to southeast, running the length of the county, and are 0.1 to 0.2 mile wide and about 10 feet thick. Some of these aquifers produce good-quality water. The silt deposits occur in the deepest waters of former Lake Agassiz. The silt deposits are approximately 10 feet thick, like the beach deposit, but yield a generally poor quality of water (USAF, July 1998). The recharge area for these aquifers is generally 10 to 20 square miles, with the small aquifers having only a 3- to 4-square-mile area (USAF, April 1999). The recharge is from the downward movement of water from various sources, such as precipitation and snowmelt. Generally, the water table is high in and around GFAFB, varying from 1 to 10 feet below the groundwater surface (USAF, January 2000).

3.6.2 Surface Water

GFAFB lies within the Red River of the North Drainage Basin, also referred to as the Red River of the North, which covers 40,000 square miles. GFAFB drains into the Turtle River as part of a 714-square-mile watershed (U.S. Geological Survey [USGS], 2001). The Turtle River is a fourth-order tributary within the basin, accounting for only 1.5 percent of the total discharge into the Red River of the North (USAF, January 2000). The Turtle River crosses the northwest corner of the GFAFB property boundary.

Surface runoff for the majority (approximately $\frac{2}{3}$) of the project area drains northward to the Turtle River, via the West Drainage Ditch (located approximately 200 feet west and south of the A-Ramp), and discharges into the Turtle River near the northwest corner of GFAFB. The eastward portion of the A-Ramp area (approximately $\frac{1}{3}$) drains to two wetland areas southeast of the entrance off of Alert Avenue; these wetlands drain to the Southeast Drainage Ditch, which exits the base at the South Gate and eventually flows into Kellys Slough National Wildlife Refuge (NWR) which also drains to the Turtle River. See Section 3.6.4, Stormwater, for further discussion on drainage patterns in the project area.

3.6.3 Water Quality

According to the *North Dakota Water Quality Assessment* (NDDH, 2000), 69 percent of assessed North Dakota rivers and streams have good water quality that fully supports aquatic life uses. 97 percent of surveyed North Dakota lakes have good water quality that fully supports aquatic life uses, and 79 percent of the surveyed acres fully support swimming.

Conversely, groundwater quality surrounding GFAFB is variable. Due to generally high salinity, groundwater from the Dakota Aquifer is unusable for domestic or industrial purposes. Portions of the Dakota and Pierre aquifers with lower salinity are used for agriculture. Water quality of the bedrock aquifers is considered poor, exceeding EPA limits of 500 milligrams per liter (mg/L) of total dissolved solids (TDS) and 250 mg/L of both chloride and sulfate. Water from the glacial drift aquifers is hard, consisting of the calcium carbonate or calcium sulfate type; these aquifers produce the best quality of water at their highest elevations.

The Emerado Aquifer and Lake Agassiz silt deposits both produce poor-quality water that is not considered suitable for municipal use (NDGS, 1970). The Emerado Aquifer groundwater

is generally of low quality due to the upward leakage of poor-quality water from the underlying bedrock aquifers (USAF, January 2000). The Lake Agassiz beach deposits generally produce good-quality water for municipal use. Generally, groundwater is too saline for domestic use, while surface waters are usable during periods of medium to high flow.

GFAFB receives potable water from the City of Grand Forks and in emergencies from Lake Agassiz Water Users Incorporated. The city recovers its water from the Red River of the North and Red Lake River, while Lake Agassiz Water Users Incorporated provides water recovered from well systems within glacial drift aquifers (USAF, April 1999). The water received at GFAFB is tested daily for fluoride and chlorine by the 319th CES. GFAFB personnel also collect monthly bacteriological samples that are analyzed at the state lab.

3.6.4 Stormwater

Four ditches (Northwest Drainage Ditch, West Drainage Ditch, Southeast Drainage Ditch, and Northeast Drainage Ditch) convey stormwater from a variety of individual, on-base outlets. The ditches are man-made and discharge to receiving waters in the immediate vicinity. The combined installation discharge is authorized under NPDES General Permit No. NDR02-0314. Based on the definition of the General Stormwater Permit Part VI, general GFAFB activities have the potential to emit “significant materials” including deicing materials (ethylene glycol, propylene glycol, and urea), fuels (jet fuel, diesel, and motor vehicle gasoline), oils and lubricants, used oils, and hazardous chemicals under CERCLA Section 101 (14) into stormwater.

West Drainage Ditch collects drainage from the majority of the airfield runway and taxiway areas (including associated pavement underdrain systems), the two largest aircraft parking aprons (including A-Ramp), the area around the now-closed Explosive Ordnance Detonation Area (EODA), and the western perimeter area of GFAFB. West Drainage Ditch also discharges into the Turtle River (USAF, April 2005).

The Southeast Drainage Ditch collects stormwater from industrial facilities, recreational facilities, and the southern section of base housing (USAF, January 2005). Runoff from the vehicle parking lot and the eastern portion of the A-Ramp area that drains into wetlands FLS-16 and FLS-17 eventually drains eastward along Alert Road to the Southeast Drainage Ditch. The Southeast Drainage Ditch eventually drains into Kellys Slough NWR approximately 2 miles east and downstream of GFAFB.

In order to assure stormwater compliance, the 319th CES Environmental Compliance Flight has implemented numerous stormwater remedial measures. GFAFB maintains four 50,000-gallon oil/water separators, one of which is located along the West Ditch drainage course, in addition to several smaller oil/water separators. Two oil/water separators are in the south portion of the base and discharge to the Southeast Drainage Ditch (USAF, April 2005).

3.6.5 Floodplains

The Red River Valley floodplain is poorly defined, and floods are frequent. The Red River has several basin characteristics that make it susceptible to flooding, including an undersized main channel, a small main channel gradient, and a northerly flow that synchronizes flooding with the northerly progression of spring thaw. Floods typically occur during late spring

resulting from quick temperature rises, spring rains, snowmelt, and soil-moisture content held over from fall. Flooding is usually brief because of a vast network of drainage ditches and channelized streams. However, floods in the Red River Valley can be severe, such as one in early 1997, which caused the evacuation of the entire city of Grand Forks (USAF, April 2005).

Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map (FIRM) Community Panel Number 380033 0007 B indicates that a small portion of the Turtle River's 100-year designated floodplain crosses the extreme northwest corner of the GFAFB property boundary. The project area is in the southwest portion of GFAFB, a significant distance from the FEMA-designated floodplain.

3.6.6 Wetlands

Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328). Wetlands determined to be jurisdictional (as determined by the USACE) are regulated by USACE under Section 404 of the Clean Water Act. A permit from USACE is required to authorize the discharge of dredged or fill material into waters of the U.S.

About 246,900 acres in the county are drained wetland Type I (wet meadow) to Type V (open freshwater). Approximately 59,500 acres of wetland Types I to V are used for wetland habitat. Wetland Types IV and V include areas of inland saline marshes and open saline water. Kellys Slough NWR occupies a wide, marshy floodplain with a poorly defined stream channel approximately 2 miles east and downstream of GFAFB. Kellys Slough NWR is the most important regional wetland area in the Grand Forks vicinity.

Wetlands on GFAFB are primarily within drainageways, low-lying depressions, and prairie potholes. The GFAFB Wetland Assessment and Summary Report identified 191 wetlands comprising 300 acres (USAF, December 2004). The majority of the wetlands are less than an acre in size. Wetlands are highly concentrated in drainageways leading from the wastewater treatment lagoons to Kellys Slough NWR. The majority of wetland areas occur in the northern and central portions of the base, near the runway, while the remaining areas are near the eastern boundary and southeastern corner of the base. Palustrine wetlands (including emergent marsh, scrub-shrub, forested, and one emergent marsh with lacustrine characteristics) compose the majority of all wetland types. In the northwest corner of the base, approximately 3 acres of wetlands associated with the Turtle River are classified as a riverine wetland. Development in or near these areas must include coordination with the ND State Water Commission and USACE. To help preserve wetlands, the North Dakota, Grand Forks County regional office of the Natural Resources Conservation Service recommends a 100-foot vegetated (grass) buffer with a perimeter filter strip.

The A-Ramp area includes several wetlands (most are identified by numbers used in the Wetland Assessment Summary Report): two emergent marsh-type wetlands (FLS-16 and

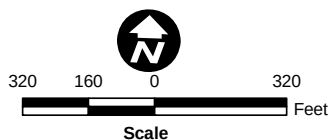
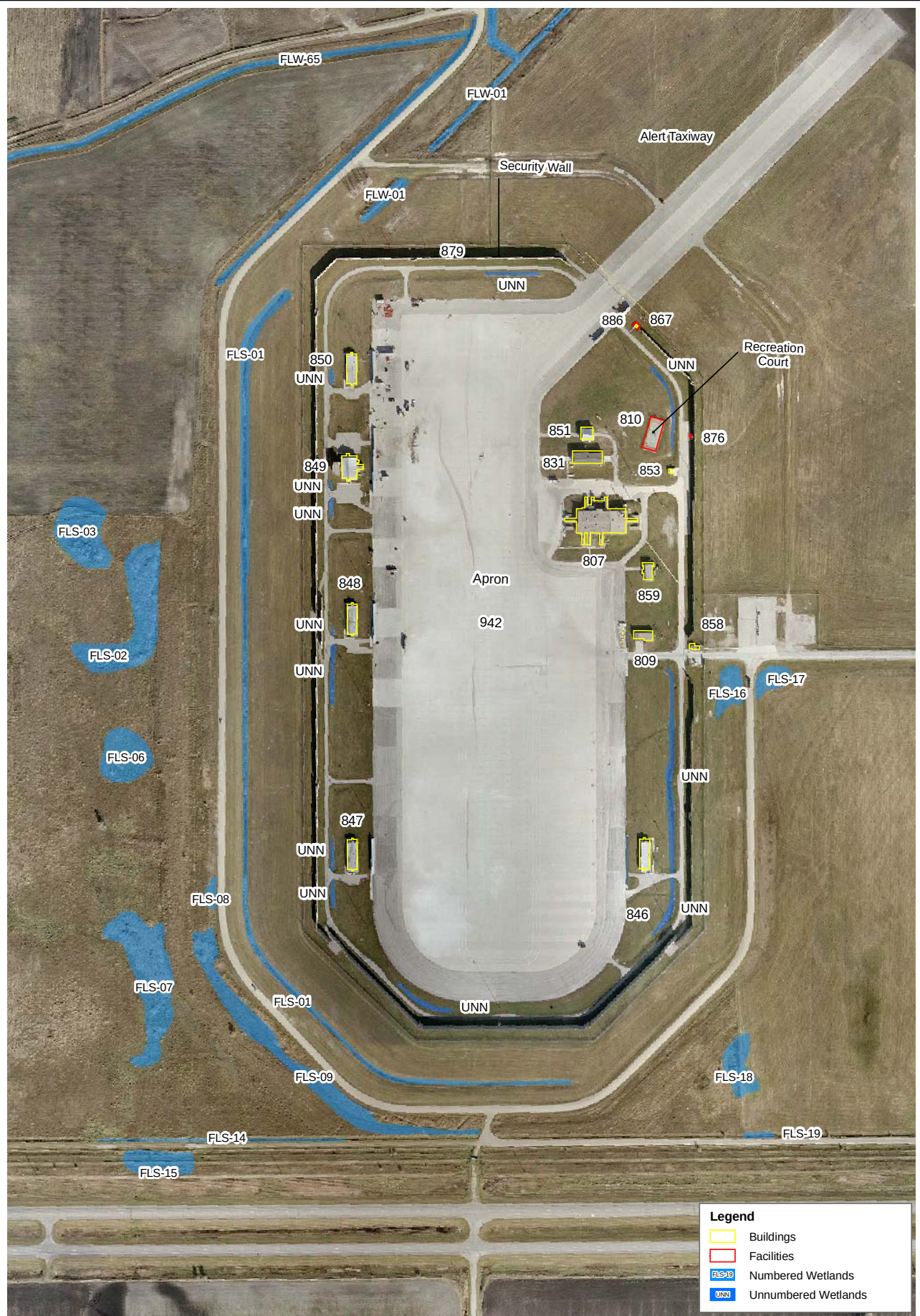
FLS-17) immediately east of the entrance along Alert Avenue, a wetland (FLS-01) in a drainage ditch between A-Ramp Perimeter Road and the A-Ramp security wall (starting south of the A-Ramp) that drains around the west side of the area and northward connecting to the drainage ditch with a wetland (FLW-01) west of the runway, and wetlands along drainageways (currently unnumbered because they were identified subsequent to the Wetland Assessment Summary Report) adjacent to the road inside the A-Ramp security wall (see Figure 3-2). FLW-65 is a ditch wetland northwest of the A-Ramp area. FLS-08 and FLS-09 are located immediately outside A-Ramp Perimeter Road that is located approximately 150 feet outside the security wall. Slightly outside the A-Ramp project area, there are also prairie pothole (poorly drained and frequently flooded depressions with soil types and geographic locations) wetlands (FLS-02, FLS-03, FLS-06, and FLS-07) west of A-Ramp Perimeter Road and four isolated (lacking a surface water connection to other wetlands or surface waters) wetlands (FLS-14, FLS-15, FLS-18, and FLS-19) near the south perimeter fence.

The wetlands in this area function primarily to convey drainage and also serve as a filter of runoff. Other benefits of wetlands include improvement of water quality, floodwater and stormwater retention (including the reduction in flooding potential within the watershed), essential habitat for wildlife, and biodiversity of the ecosystem.

3.7 Socioeconomic Resources

Socioeconomic resources are described using employment, income, and demographic measures. Economic and demographic elements are key factors influencing changes in demand for goods and services within a local economy. Because there are no personnel changes associated with the Proposed Action, the local housing market, schools, community services, and infrastructure will not be discussed in this EA.

GFAFB is located west of the City of Grand Forks, North Dakota, and lies within Grand Forks County. The socioeconomic region of influence (ROI) for an analysis of this type is generally defined by the residence patterns of current GFAFB personnel, the value of any construction associated with the Proposed Action, and other factors specific to the Proposed Action. For this analysis, the ROI is Grand Forks County, where an estimated 80 percent of GFAFB personnel reside and shop, thus affecting the county's employment and population. A high proportion (21.4 percent) of employment within the county occurs in the governmental sector. The construction industry provides 7 percent of all jobs, and the remaining industries account for even less (U.S. Census Bureau, 2000). In April 2005, unemployment was 3.1 percent in Grand Forks County, 3.5 percent in North Dakota, and 5.2 percent in the U.S. (North Dakota Job Service, 2005). GFAFB construction projects and other expenditures for supplies and services also contribute to the county's regional economy.



Demolition Alpha Ramp Project Area Wetlands

Demolition of Alpha Ramp Environmental Assessment

DATE
January 2007

FIGURE
3-2

3.8 Biological Resources and Federally and State-listed Threatened or Endangered Species

Biological resources include native or naturalized plants and animals and their habitats. Wetlands are also biological resources, but they were addressed in Section 3.6. Plant and animal species may be federally or state-listed as threatened or endangered (T&E) species. Federal T&E species are protected under the Endangered Species Act of 1973 (ESA), as amended (16 USC 1531 et seq.), and the U.S. Fish & Wildlife Service (USFWS) has the authority of the federal government to administer the protection of such species. USFWS maintains a list of candidate species that receive no statutory protection under the ESA but are still considered as important for warranting protection. Biological resources addressed in this section include vegetation, wildlife, and T&E species. No fish have been documented on GFAFB.

3.8.1 Vegetation

Initial construction of GFAFB in the mid-1950s involved conversion of much of the area to a standard mixture of grasses, including smooth brome (*Bromus inermis*) and Kentucky blue grass (*Poa pratensis*) (USAF, 2004b). Both of these grasses are still predominant throughout GFAFB, especially in the semi-improved areas, including the A-Ramp area. Portions of unimproved areas at GFAFB have been used to support active cultivation of grass and alfalfa hay, and other areas are undergoing rehabilitation for future haying operations. Any cropping practices, including haying, that attract wildlife should be kept at least 1,000 feet away from the runway centerline (USAF, 1 February 2004). Proposed hay fields are located to the west of the A-Ramp area. The A-Ramp area consists of maintained grasses and lacks trees and other natural communities except wetlands, as noted in Section 3.5.6. The *Final Biological Survey Update* (USAF, 2004a) indicated that the grasslands on the west portion of GFAFB provide important habitat and should be managed and conserved; these grasslands are located adjacent to and west of the A-Ramp area.

3.8.2 Wildlife

Terrestrial and aquatic habitats are limited at GFAFB because of extensive development throughout most of the GFAFB area. Although fish are not known to occur at GFAFB, the available habitat supports a variety of mammals, birds, amphibians, and reptiles. In the Integrated Natural Resource Management Plan (USAF, 2004b), Table 4.5.2-1 lists wildlife that have the potential to occur in the Grand Forks area; the table is incorporated by reference into this report per 40 CFR 1502.21. Bird surveys, performed on GFAFB in 2005, have expanded the number of known bird species to approximately 150 (Rundquist, 2006). Of the 150 total bird species known to occur on GFAFB, the 2005 surveys determined that 24 migratory species occur in close proximity to the A-Ramp. Additionally, 21 bird species were determined to be breeding in close proximity to the A-Ramp (several species are represented on both the migratory and breeding species counts).

The western, less developed, portions of GFAFB (including the A-Ramp area) appear to support larger species, such as deer and fox, compared to the more developed and manicured areas in the central and eastern portions of GFAFB. Nuisance wildlife species at GFAFB include Richardson's ground squirrel (*Spermophilus richardsonii*) and whitetail jackrabbit (*Lepus townsendi*). During field review of the A-Ramp area, two great horned owl (*Bubo virginianus*) carcasses and a raptor carcass were found. The raptor had a band on its leg and was reported with a request for its identity (Rundquist, 2005); the bird was banded in Milwaukee, Wisconsin on May 22, 2003.

3.8.3 Threatened or Endangered Species

There are no federally listed T&E species known to reside on GFAFB (USAF, 2004b). However, the bald eagle (*Haliaeetus leucocephalus*) and gray wolf (*Canis lupus*) are federally listed (as well as state-listed) threatened species known to occur in Grand Forks County. A bald eagle was observed in flight over an area west of the flightline and north of the A-Ramp area during the winter of 2003 to 2004 (USAF, 2004b). No nesting habitat of the bald eagle or other federally listed T&E species exists on GFAFB. No critical habitat for federally listed T&E species has been designated in Grand Forks County.

The presence of state-listed species¹ was documented on GFAFB during three field surveys. The small yellow lady's slipper (*Cypripedium parviflorum*) was found in several locations, and one specimen of large yellow lady's slipper (*Cypripedium calceolus*) was north of the A-Ramp area in June 2004 during a biological inventory update. The green heron (*Butorides virescens*), pileated woodpecker (*Drycopus pileatus*), and white-throated sparrow (*Zonotrichia albicollis*) were also observed on GFAFB. In addition, three state species of concern² were documented during the 2005 GFAFB bird surveys. They are Le Conte's sparrow (*Ammodramus leconteii*), Swainson's hawk (*Buteo swainsoni*), and upland sandpiper (*Bartramia longicauda*). Lastly, the ferruginous hawk (*Buteo regalis*) and upland sandpiper (*Bartramia longicauda*) have been historically documented to occur on GFAFB and are also state species of concern. No other state-listed species or species of concern were documented as occurring near the A-Ramp area.

Of the bird species determined to either migrate or breed in close proximity to the A-Ramp (see Section 3.8.2 for the discussion of species determination based on the 2005 GFAFB bird surveys), nine of these species are on the GFAFB Bird Conservation Species Management List (USAF, 2006). Table 3-3 details the listed species determined to occur near the A-Ramp and annotates additional species conservation lists on which they appear.

¹ State-listed species are those species listed on the Natural Heritage Inventory for North Dakota with a state rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) (Dirk, 2003).

² State-listed species of concern are those species listed on the Natural Heritage Inventory for North Dakota with a state rank of S4 (apparently secure), S5 (secure), or S? (unranked) (Dirk, 2003).

Table 3-3
GFAFB Bird Conservation Species

Common Name	Scientific Name	BCC 2002	State SC	PIF	State CWCS
Bobolink	<i>Dolichonyx oryzivorus</i>	--	--	X	X
Clay-colored sparrow	<i>Spizella pallida</i>	--	--	X	--
Le Conte's sparrow	<i>Ammodramus leconteii</i>	X	X	X	X
Mallard	<i>Anas platyrhynchos</i>	--	--	X	--
Northern harrier	<i>Circus cyaneus</i>	X	--	X	X
Sedge wren	<i>Cistothorus platensis</i>	--	--	X	X
Swainson's hawk	<i>Buteo swainsoni</i>	X	X	X	X
Upland sandpiper	<i>Bartramia longicauda</i>	X	X	X	X
Wilson's phalarope	<i>Phalaropus tricolor</i>	X	--	X	X

Note:

BCC 2002 = Birds of Conservation Concern (USFWS, 2002)

State SC = North Dakota Species of Concern (North Dakota National Heritage Inventory, 2005).

PIF = Partners in Flight Bird Conservation Plan for the Northern Tallgrass Prairie (Partners in Flight, August, 1998).

State CWCS = Comprehensive Wildlife Conservation Strategy, 100 Species of Conservation Priority (NDGFD, July 2004).

3.9 Cultural Resources

Cultural resources are archaeological, historic, architectural, and Native American items, places, or events considered important to a culture, community, tradition, religion, or science. Section 106 of the NHPA requires Federal agencies to determine whether their undertakings would have adverse impacts on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Historic properties include historic structures and archaeological sites. Therefore, historic and archaeological resources were identified to determine whether the Project would affect any potential or existing Section 106 properties.

USAF conducted an inventory of GFAFB in 1996 to identify Cold War resources important to GFAFB's history. All facilities were considered for potential historic significance during the early phases of the survey. Those not associated with GFAFB's Cold War mission and those having experienced substantial physical alteration were eliminated from detailed evaluation (Headquarters [HQ] AMC, 1996). The inventory of 242 facilities determined that Bldg 714 is eligible for listing on the NRHP, and the State Historical Society of North Dakota (SHSND) concurred. USAF determined that Bldgs 306 (subsequently demolished), 313, 606, 703, 704, 705, 706, and 707 were not eligible for listing on the NRHP; however, SHSND did not concur. Pending agreement between USAF and SHSND, or pending a decision by the Keeper of the NRHP, seven of these eight buildings will be considered potentially eligible for listing on the NRHP for management purposes (USAF, January 2004). To meet mitigation requirements for demolition of Bldg 306 specified in a Memorandum of Agreement (MOA), GFAFB has prepared and dedicated a Cold War display.

Because none of these buildings are near the project area, there will be no further analysis regarding these potentially eligible Cold War facilities. No facilities within the A-Ramp area were determined potentially eligible.

No archaeological sites eligible for listing on the NRHP are located at GFAFB. Surveys have identified six archaeological sites and six isolated find spots on GFAFB; none are eligible for listing on the NRHP, and none of these sites are near the A-Ramp area. The A-Ramp area was heavily disturbed during construction of the Cold War facilities, and the surrounding area has been characterized as having a low to medium potential for archaeological resources (USAF, January 2004).

Although there is no evidence of Native American burial grounds or other culturally sensitive areas on GFAFB, GFAFB has initiated contact with Native American groups to ascertain whether GFAFB has any locations of importance to Native Americans that fall under the provisions of the American Indian Religious Freedom Act (AIRFA). To date, no response has been received. GFAFB will continue to consult with local tribes to determine whether there are any Native American areas of concern on GFAFB (USAF, January 2004).

3.10 Land Use

Land use in Grand Forks County consists primarily of cultivated crops, including spring wheat, barley, sunflowers, potatoes, and sugar beets. Uncultivated lands are generally used for pasture and hay, urban development, recreation, and wildlife habitat.

The main area of GFAFB encompasses 5,422 acres and includes owned land, easements, and licensed and permit areas. Improved grounds, consisting of all covered areas (under buildings and sidewalks), land surrounding GFAFB buildings, the golf course, recreational ball fields, and the family housing area, encompass 1,120 acres. Semi-improved grounds, including the airfield, fence lines and ditch banks, skeet range, and riding stables, account for 1,390 acres. The remaining acreage of the main area of GFAFB consists of unimproved grounds. Unimproved grounds are comprised of woodlands, open space, and wetlands; approximately 1,040 of these unimproved lands are out-leased for agricultural use (USAF, April 2005). The base sewage lagoons are 320 acres of owned land not included in the main area of GFAFB.

Specifically, the A-Ramp consists of 13 buildings totaling 54,805 square feet, a sports recreation complex, one 1,000-gallon AST, three USTs totaling 12,000 gallons, the security fence alert vehicle barrier wall totaling 6,573 linear feet, pre-engineered revetment concrete security barriers totaling 55 linear feet, and the A-Ramp aircraft apron totaling 135,407 square yards (see Section 2.4.2, Proposed Action, for more details on individual facilities).

The A-Ramp is southwest of the runway. The northeastern portion of the area is within the clear zone, and the southeastern portion of the area is within Accident Potential Zone (APZ) I (USAF, 2002), both of which affect future land use. The 20-Year Master Space Plan shows the expansion of 9 more holes of the golf course in the A-Ramp area.

3.11 Transportation Systems

Transportation systems facilitate the movement of people, goods, and materials on the ground, on the water, or through the air. For transportation systems to be adequate, users must be able to reach their destination within reasonable time, cost, and convenience. The Proposed Action would impact only ground transportation; other modes of transportation are not assessed as part of this EA. Although the project would occur near the runway, air operations would not be affected. The transportation system discussed in this EA includes a network of roads and the two gates providing daily access to GFAFB.

The average capacity for urban arterial roads is 1,500 vehicles per hour per lane. Thus, a four-lane arterial has a capacity of 6,000 vehicles per hour, while a two-lane arterial has a capacity of 3,000 vehicles per hour. If the number of vehicles per hour on a road segment is compared to the capacity of the road, the quality of traffic flow can be assessed. GFAFB has relatively good traffic flow, even during the peak traffic periods of 6:00 to 8:00 a.m. and 4:00 to 6:00 p.m. The roadways adjacent to GFAFB are capable of accommodating existing traffic flows (USAF, 1997).

GFAFB has two gates: the Main Gate is open 24 hours, while the South Gate is open on a limited basis. The Main Gate is located off County Road B-3, about 1 mile north of U.S. Highway 2. Steen Boulevard provides access to GFAFB from the Main Gate. Steen Boulevard is the primary east-west arterial of the GFAFB roadway system. Eielson Street acts as the primary north-south arterial and provides access to GFAFB from the South Gate. The South Gate is located off U.S. Highway 2, about 0.75 mile west of County Road B-3.

Inbound volumes at the Main Gate and South Gate are 3,300 and 275 vehicles per day, respectively, with peak volumes slightly exceeding capacity (Transportation Engineering Agency, June 2002). Both gates were updated for security and improved access in 2005. Traffic engineering studies are ongoing for improving access from U.S. Highway 2 to the South Gate, and providing a new perimeter road from the South Gate to County Route 3.

3.12 Airspace and Airfield Operations

GFAFB has one 12,350-foot-long runway that was demolished and rebuilt in 2005; it was reopened for operations in November. The only tenant unit at GFAFB is the 319th ARW, which consists of a fleet of KC-135 aircraft. The KC-135s and a small, sporadic number of transient aircraft, ranging from jet fighters to C-5 transports, account for approximately 18,000 landings and takeoffs per year at GFAFB (USAF, April 2005).

3.13 Safety and Occupational Health

The discussion of safety includes that of both workers and the general public, including USAF personnel. Safety issues include injuries or deaths, which are usually the result of one-time accidents. Injuries include impacts on a human that directly result from an exposure to toxic concentrations, radiant heat, crushing impacts from equipment or materials, or overpressures from accidental release or explosions (such as flying debris) and that require medical treatment or hospitalization. Health issues result from activities where people may

be impacted over a long period of time rather than immediately (chronic versus acute). Health and safety issues that are related to specific hazardous materials, such as asbestos, PCBs, LBP, and mercury, are discussed in Section 3.4.2, Hazardous Materials.

Several facilities at the A-Ramp area contain mold that is black in color in both interior and exterior areas. Testing has not been conducted on these materials to determine the presence of black mold, also known as *Stachybotrys chartarum* (*atra*), and NDDH does not regulate the removal of this material. *Stachybotrys* is a greenish-black toxic mold that could affect occupational health of exposed individuals. Health risks associated with exposure to *Stachybotrys* are currently considered as short-term effects. However, most health organizations consider exposure to *Stachybotrys* mold as a health hazard. In the future, *Stachybotrys* mold may be regarded with the same cautions, response, and liability concerns as those attributed to asbestos and LBP.

Contractors must submit a safety plan and are responsible for all aspects of the safety and health of their employees. Explosive or mechanical demolition of the A-Ramp area and facilities associated with the Alert Area on GFAFB can present a danger to the health and safety of workers and USAF personnel. Contractors doing such work must provide a background of their past experience and must be licensed and bonded. Blasting plans, worker protection plans, and contingency plans must be developed and followed.

The GFAFB Safety Office reviews safety issues. Other offices, such as the Bioenvironmental Engineering Office (319th AMDS/SGPD) also ensure safe operations by providing services such as sampling of indoor air, water, and unknown materials or wastes. USAF has a mandatory reporting system for identifying and preventing safety-related problems. USAF facilities are regularly inspected to ensure compliance with safety criteria.

During demolition activities, there is a possibility to encounter and release hazardous substances. Additional environmental concerns include potential unregulated materials such as black mold. NDDH requires that all necessary measures be taken to minimize fugitive dust emissions created during demolition activities and to minimize the disturbance of any ACM and prevent any asbestos fiber release episodes. Any friable asbestos must be removed prior to demolition activities in accordance with Section 33-15-13-02 of the North Dakota air pollution control regulations (NDDH, 4 August 2005).

All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse, and/or recycle waste materials are strongly encouraged by the State of North Dakota (NDDH, 4 August 2005).

3.14 Environmental Management, Including Pollution Prevention, Geology, and Soils

Environmental management programs at GFAFB include pollution prevention (discussed below), as well as several others such as environmental restoration. There are no Environmental Restoration Program (ERP) sites or Areas of Concern (AOC) at the A-Ramp area, and there are no historic reported spills or leaks. Section 3.5.2.7 reported a past fire of a

B-52 engine on the A-Ramp. However, the event timeframe and magnitude was not of a significant level to warrant evaluation of the A-Ramp as an AOC. The old explosive ordnance disposal (EOD) range (OT-05) is the closest ERP site and is located approximately 1,500 feet northwest of the A-Ramp security wall. The land treatment area for land farming of petroleum-contaminated soil is located east of OT-05, approximately 750 feet northwest of the A-Ramp security wall (see Figure 2-1). This section also addresses the geology and soils of the local area.

3.14.1 Pollution Prevention

The pollution prevention (P2) program at GFAFB sets objectives for the reduction of air, land, surface water, and groundwater pollution on base. The GFAFB P2 Plan focuses on eight subject areas: ozone-depleting chemicals, EPA-17 Industrial Toxic Pollutants, hazardous waste, municipal solid waste, affirmative procurement of environmentally friendly products, energy conservation, air and water pollutant reduction, and training.

Some of the P2 strategies presented to achieve these objectives include source reduction (defined by the federal Pollution Prevention Act of 1990 [42 USC 133] as any practice that reduces the amount of any hazardous substance, pollutant, or contaminant released into the environment prior to recycling, treatment, and disposal) and waste recycling (defined as minimizing the generation of waste by recovering usable products that might otherwise become waste) (USAF, April 2005).

3.14.2 Physiography and Topography

GFAFB is within the physiographic province known as the Central Lowlands and is within the Red River Valley physiographic subregion. The topography of the Red River Valley is largely a result of the former glacial Lake Agassiz, which existed in the area during the melting of the last glacier about 12,000 years ago. GFAFB lies in the shore deposits of Lake Agassiz, which extend westward to the Pembina Escarpment in the western portion of Grand Forks County. The escarpment separates the Lake Agassiz Plain District from the Drift Plain District to the west. Prominent physiographic features of the Lake Agassiz Plain District are remnant lake plains, beaches, inter-beach areas, and delta plains. Strandline deposits associated with fluctuating lake levels are also present and are indicated by narrow ridges of sand and gravel that typically trend northwest-southeast in Grand Forks County. GFAFB is located along Emerado Beach, with shoreline deposits on the east of this beach and ground moraine deposits to the west (NDGS, 1970).

The elevation of the Lake Agassiz Plain District ranges from about 1,160 feet above mean sea level (MSL) along the escarpment to about 800 feet above MSL in the northeast corner of the county. The lake plain is generally level, with local relief being less than 40 feet. Land at GFAFB is relatively flat, with elevations ranging from 880 to 915 feet above MSL and averaging about 890 feet above MSL (USAF, June 2001). The land slopes to the northeast at less than 12 feet per mile. The project area is about 905 feet above MSL, with a slope of less than 1 percent.

3.14.3 Geology

GFAFB is located on the eastern flank of the Williston Basin, a broad area of downfolded rock extending from eastern North Dakota to Montana and from Canada to South Dakota (NDGS, 1970). The Williston Basin is a downfolded area of granite and other igneous rocks that formed part of the continental shield of North America. Several layers of sedimentary rocks of Cretaceous Age were deposited into the basin over the ages. These layers (from deepest to shallowest) include the Dakota Shale and Sandstone Group, the Colorado Shale and Limestone Group, and Pierre Shale. The Colorado Group and Pierre Shale occur only in western Grand Forks County and are not present in the vicinity of GFAFB. Eastern North Dakota was affected by continental glaciers advancing out of Canada thousands of years ago. These glaciers scraped off the uppermost geologic layers in many areas and deposited layers of sediments ranging from boulders and gravel to clay. As the glaciers retreated northward, meltwaters formed glacial Lake Agassiz (USAF, June 2001).

Surficial deposits at GFAFB are composed of late Wisconsin glacial drift and are approximately 225 feet thick beneath GFAFB. These deposits consist of a mix of clay, silt, sand, and gravel glacial deposits (USAF, January 2000; NDGS, 1970). A test hole drilled by USAF near this site indicated clay to a depth of 15 feet, underlain by 2 feet of dry gravel, 43 feet of glacial till (composed of clay), 10 feet of gummy lacustrine clay, 25 feet of sand (progressively coarser with depth), and 25 feet of till with much gravel (NDGS, 1970). The glacial deposits are underlain by the sandstones, siltstones, and shales of the Lower Cretaceous Fall River and Lakota formations (part of the Dakota Group), which are unconformably³ underlain by the limestones and dolomites of the Ordovician Red River Formation. The oldest and deepest rocks underlying the area are Precambrian igneous and metamorphic granites, schists, and greenstones. The depth to these rocks is several hundred feet in the vicinity of GFAFB (USAF, June 2001).

GFAFB is in a zone of low seismicity, with only slight damage anticipated if an earthquake were to occur (USAF, October 1992). Earthquakes of 4.5 or less on the Richter Scale (VI or less on the Modified Mercalli Scale) could occur from distant faults. There are no major faults on or near GFAFB. The topography and relief present no slumping hazards in the project area.

3.14.4 Soils

The majority of the soils in the project area (the north and east portions of the A-Ramp area) consist of the Gilby loam series. This series consists of deep, level, somewhat poorly drained, moderately slowly permeable soils on broad flats in areas between old glacial beaches. These soils formed in glaciolacustrine deposits overlying till. They are medium to moderately fine textured. Soil textures throughout a representative soil profile include loam from 0 to 7 inches, silt loam from 12 to 26 inches, loam from 26 to 32 inches, and clay loam from 32 to 60 inches.

³ Unconformable layers result from erosion and/or tilting of the original layer prior to deposition of a subsequent layer.

Another prevalent soil in the project area is the Antler-Tonka silt loam series, located in the south central portion of the A-Ramp area. This series consists of deep, level soils in areas between old glacial beaches. The somewhat poorly drained Antler soil is on broad flats, and the poorly drained Tonka soil is in depressions. Antler soils formed in glaciolacustrine deposits overlying till; Tonka soils formed in medium textured and moderately fine textured colluvium overlying till. Soil textures throughout a representative Antler soil profile include silt loam from 0 to 18 inches, silty clay loam from 18 to 29 inches, silt loam from 29 to 42 inches, and clay loam from 42 to 60 inches. Soil textures throughout a representative Tonka soil profile include silt loam from 0 to 19 inches, silty clay loam from 19 to 34 inches, silty clay loam from 25 to 34 inches, and clay loam from 34 to 60 inches.

The Svea soil series comprises an area in the southeast portion of the project area. This series consists of deep, level and nearly level, moderately well drained soil on till plans and in areas between old glacial beaches. These soils formed in medium textured and moderately fine textured till and glaciolacustrine deposits overlying till. Soil textures throughout a representative Svea soil profile include loam from 0 to 17 inches, and clay loam from 17 to 60 inches.

Table 3-4
Soil Properties

Soil Series	Wind Erodibility	Hydric Soil ¹	Shrink-Swell ²	Excavation	Fill Suitability
Gilby	4L	Yes	Low/Moderate	Severe-Wetness	Poor-Strength
Antler-Tonka	4L	Yes	Low/Moderate/High	Severe-Wetness	Poor-Strength
Svea	6	Yes	Low/Moderate	Moderate-Wetness	Poor-Strength

Notes:

¹ Hydric soils are saturated or inundated for a period of the growing season sufficient to develop anaerobic conditions in the upper part of the soil. Inclusions are small areas within a soil series that are hydric. Hydric soils are capable of supporting wetlands.

² Shrink-swell is the change in volume in a soil when soil moisture changes markedly (the tendency to shrink when dry and swell when wet).

Source: USDA, 1981.

3.15 Environmental Justice

EO 12898, Federal Actions To Address Environmental Justice in Minority and Low-Income Populations, requires each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low income populations” (59 FR 7629). According to CEQ, a minority population can be described as being composed of the following population groups: American Indian or Alaskan Native, Asian or Pacific Islander, Black, not of Hispanic origin, or Hispanic. In addition, a minority population is defined as an area where the minority population exceeds 50 percent of the population in an area or where the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population.

The U.S. Census Bureau defines the national poverty thresholds, which are measured in terms of household income dependent upon the number of persons within the household. Individuals falling below the poverty threshold (\$17,524 for a household of four in 2000) are considered low-income individuals. Census tracts where at least 20 percent of the residents are considered poor are known as poverty areas (U.S. Census Bureau, 1995).

Census tract data indicate that there are no concentrations of minority or low-income populations near the boundaries of GFAFB and that there are very few residences located near the project area (U.S. Census Bureau, 2000). Grand Forks County has a slightly higher proportion of minorities than surrounding counties, due in part to the presence of GFAFB.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

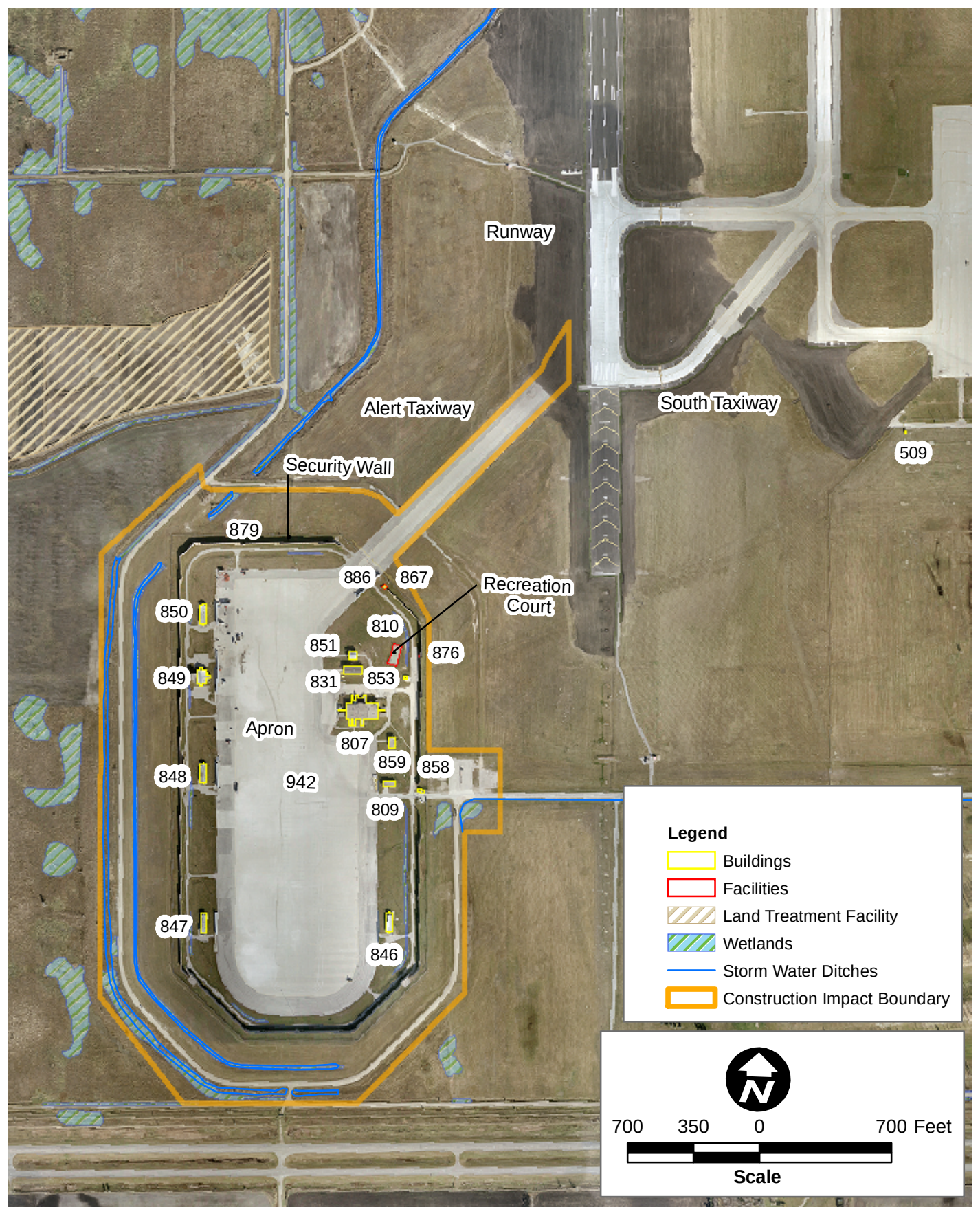
CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

This chapter discusses the potential for significant impacts on the human and natural environment as a result of implementing the No-Action Alternative, the Proposed Action, and the Implementation Alternatives, which are reuse of the security walls on base, sale of the walls for off base reuse, and preservation of the existing A-Ramp Perimeter Road that surrounds the A-Ramp. As defined in 40 CFR 1508.14, the human environment includes natural and physical resources and the relationship of people with those resources. Accordingly, this analysis focuses on identifying types of impacts and estimating their potential significance. Impacts can be direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action but occur later in time or are farther removed in distance but are still reasonably foreseeable, as defined by 40 CFR 1508.8. Impacts can also be permanent or long-lasting (long-term) or of short duration (short-term). Short-term impacts occur during construction activities or immediately afterward. Although short in duration, such impacts may be obvious and disruptive. For this project, short-term impacts are defined as those lasting about 7 months (the timeframe for completing the Proposed Action) or less, while long-term impacts last more than 7 months, extending beyond the construction period. The construction impact area for the Proposed Action is approximately 133 acres and extends outside most of the A-Ramp Perimeter Road outside the A-Ramp security walls (see Figure 4-1). The construction impact area for the implementation alternative that preserves the A-Ramp Perimeter Road is approximately 105 acres (see Figure 4-2).

The concept of “significance” used in this assessment includes consideration of both the context and the intensity or severity of the impact, as defined by 40 CFR 1508.27. Severity of an impact could be based on the magnitude of change, the likelihood of change, the potential for violation of laws or regulations, the context of the impact (both spatial and temporal), degrees of adverse effect on specific concerns such as public health or endangered species, and the resilience of the resource. The basis for determining the significance of impacts on a particular resource is provided when the impacts are discussed. Adverse impacts of a proposed activity are identified as significant or not significant. Significant impacts are effects that are most substantial and should receive the greatest attention in decision making. No impact is specified in cases in which a resource would not be affected because certain resource elements are not present in the area of the Proposed Action. No impact could also occur under the No-Action Alternative if there were no changes to the existing environment. Improved conditions are not characterized as to their level of significance. If a resource would be measurably improved by a proposed activity, a beneficial impact was noted.



Demolition Alpha Ramp Project Construction Area for Proposed Action

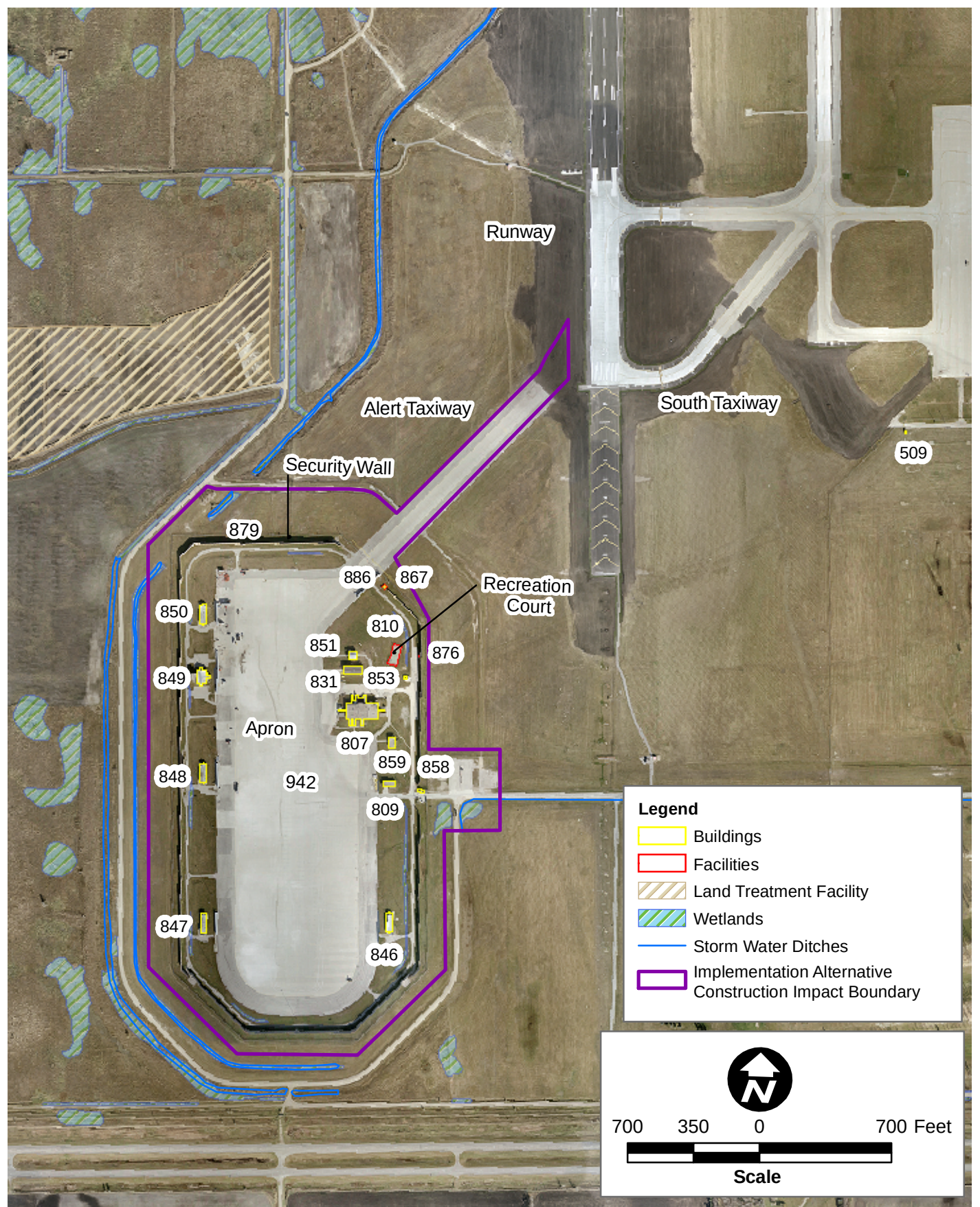
Demolition of Alpha Ramp Environmental Assessment

DATE

January 2007

FIGURE

4-1



Demolition Alpha Ramp Project Construction Area for Perimeter Road Preservation Implementation Alternative

Demolition of Alpha Ramp Environmental Assessment

DATE

January 2007

FIGURE

4-2

Significant adverse impacts can be addressed through avoidance, minimization, remediation, reduction, or compensation, and certain mitigations are required by law. For example, wetland impacts are mitigated in accordance with USACE regulations. Within the discussion of each resource area in this document, any mitigation identified during the analysis, along with best management practices (BMPs) that are necessary or useful to minimize environmental impacts, are presented. Mitigations and BMPs assist the project proponents in maintaining compliance with environmental regulations.

This chapter is organized by resource element in the same order as discussed in Chapter 3. Each section provides a general discussion of the environmental impacts on that resource as well as a description of the analysis methods and the specific potential impacts of the No-Action Alternative, Proposed Action, and Implementation Alternatives of the Proposed Action. In addition, each section discusses suggested BMPs, if applicable, and any necessary mitigation measures. For this Project, the only mitigation measures are required by regulations; there are none required to mitigate significant adverse impacts. In accordance with 40 CFR 1502.16, this chapter concludes with an evaluation of cumulative impacts; discussion of the compatibility of the Proposed Action with objectives of federal, state, and local land use plans, policies, and controls; evaluation of the relationships between short-term uses of the environment and long-term productivity; and identification of irreversible and irretrievable commitments of resources.

4.2 Air Quality

The Proposed Action and implementation alternatives would have short-term adverse impacts on air quality generated by heavy equipment emissions and the release of particulate matter during demolition. Impacts on air quality would not be significant. Operational emissions would decrease under the Proposed Action as several temperature-controlled buildings would be demolished and traffic associated with these buildings would cease.

The No-Action Alternative would continue to impact air quality at current GFAFB levels.

4.2.1 No-Action Alternative

The No-Action Alternative would continue to generate criteria pollutants and HAPs from the use of energy at A-Ramp facilities and from the automobile traffic associated with these facilities. Active sources of emissions would continue to cause air emissions. Therefore, air quality would continue to be impacted at current GFAFB levels.

4.2.2 Proposed Action

Under the Proposed Action, demolition and grading activities would have an unavoidable short-term impact on air quality as there would be increased emissions from the use of heavy equipment and worker vehicles during demolition activities. Heavy demolition and earth-moving equipment (such as bulldozers, graders, dump trucks, cranes, excavators, a water truck, and other smaller trucks) would generate the most emissions, with CO, NO_x, and VOCs as the main constituents of exhaust. Equipment used to crush the concrete would also

generate emissions. Demolition and subsequent grading would generate fugitive dust (measured as PM₁₀ and PM_{2.5}).

A portion of the A-Ramp was used for pulverizing concrete from the GFAFB runway replacement project; consequently, particulate matter emissions from the runway project would not occur during the A-Ramp demolition project. A similar operation is proposed to remove and recycle concrete needed for GFAFB from the A-Ramp. The volume of concrete to be recycled would be less than the runway replacement project. Given the similar timeframe (approximately 7 months for the majority of the activities) of the two projects, particulate matter emissions from the concrete-crushing activities would be less for the A-Ramp demolition project than for the runway replacement project. The runway replacement project was evaluated for environmental impacts and a FONSI was prepared. Consequently, since no significant impacts air quality impacts occurred for the runway project, no significant impacts would occur during the A-Ramp demolition project.

Although construction/demolition-related emissions are generally exempt from federal regulatory review, EPA still requires that such activities not exceed the NAAQS. Sections 4.5.2 and 4.5.4 discuss impacts and mitigations for removal of utilities with hazardous components that would cause air emissions. NDDH indicated that all necessary measures must be taken to minimize fugitive dust emissions for the demolition project (see NDDH letter in Appendix A, Early Coordination and Agency Correspondence).

Air quality is considered good in the North Dakota Air Quality Control Region, which is in attainment for all criteria pollutants. The existing meteorological conditions would disperse pollutants generated by the Proposed Action, and no air quality standards would be violated. Impacts on air quality would not be significant.

In the long-term, the demolition of the A-Ramp would result in lower pollutant emissions than are currently generated by the active facilities. The reduction would not be substantial but would improve air quality at GFAFB and the surrounding area.

4.2.3 Implementation Alternatives of the Proposed Action

One implementation alternative, reuse of the security walls on base, would result in a lower volume of particulate emissions than the Proposed Action from not demolishing the walls and slightly higher levels of vehicular emissions than the Proposed Action for transporting and installing the walls on base. Impacts associated with this type of project would not significantly affect the air quality of GFAFB and the surrounding area.

Another implementation alternative, sale of the walls for disassembly and transport off base for reuse, would entail small amounts of additional vehicular emissions compared to the Proposed Action. The total emissions would be similar to the reuse of the security walls on base, with slightly more dispersal because of the transport and reuse of walls off base. These emissions would be short-term and would not significantly impact the air quality of GFAFB and the surrounding area.

The third implementation alternative, preservation of the A-Ramp Perimeter Road, would generally result in less impact to air quality than the Proposed Action because the implementation alternative's footprint is smaller. The abbreviated footprint would require less grading and no disturbance to the existing gravel road; therefore, less particulate matter would be generated. Also, the smaller footprint may result in a slightly reduced construction duration; this would result in fewer emissions produced by on-site construction equipment.

4.2.4 Avoidance, Minimization, and Mitigation

No air mitigation measures are required. BMPs to reduce fugitive dust emissions, such as daily watering of the disturbed ground and replacing ground cover in disturbed areas as quickly as possible, should be implemented to the maximum extent possible to reduce the amount of these emissions.

4.3 Noise

Demolition activities and traffic associated with the Proposed Action and implementation alternatives could have unavoidable short-term impacts on the noise environment but would not be significant because the noise generated would be intermittent and occur during daytime hours. Following demolition, the environment in the A-Ramp area would experience negligibly lower noise levels than current levels because of decreased facility and traffic use; the levels would be much lower than during demolition.

Under the No-Action Alternative, noise in the A-Ramp area would continue at existing levels.

4.3.1 No-Action Alternative

No new impacts would occur from the No-Action Alternative as noise levels in the A-Ramp area would remain at current levels.

4.3.2 Proposed Action

Normal background noise levels average 65 dBA on GFAFB. The northeastern portion of the A-Ramp area is within the 65 dBA contour identified in the GFAFB AICUZ study (USAF, 1995); the remainder of the A-Ramp area experiences average noise levels slightly lower than 65 dBA.

Demolition activities would occur over a 7-month period (or slightly longer), and the noise generated would be a short-term and intermittent impact. In general, demolition would be limited to daytime weekday hours. During demolition, additional vehicle trips would be generated in and around the A-Ramp by vehicles transporting workers, material, and equipment to the project area. The effects of additional demolition-related traffic on GFAFB would not create any significant noise impacts. Typical noise emissions at 50 feet from multiple pieces of construction equipment (such as bulldozers, graders, dump trucks, cranes, excavators, a water truck, and other smaller trucks) would be approximately 90 dBA (U.S.

Army, January 1978). This level would decrease to about 84 dBA at 100 feet, 78 dBA at 200 feet, and 66 dBA at 800 feet. These are the outdoor noise levels; within a building, the noise levels would be attenuated by 20 to 25 dBA and would not result in significant short-term demolition noise impacts. In addition, there are no sensitive noise receptors within 1,000 feet of the Proposed Action area, so no sensitive receptors would be impacted.

Subsequent to completion of demolition, noise levels in the A-Ramp area would negligibly decrease from current levels because of the lack of USAF activities in the area. Aircraft operations using the runway are the dominant noise-producing activity affecting the A-Ramp area, so elimination of A-Ramp activity noise would negligibly affect the noise environment.

4.3.3 Implementation Alternatives of the Proposed Action

For the implementation alternative involving reuse of the security walls on base, less noise would be generated from crushing activities if the security walls are reused, but there would be additional noise emissions associated with construction and installation of the security walls at different locations on GFAFB. This installation would likely involve short-term, minor increases in noise emissions due to heavy equipment. Impacts associated with this type of project would not significantly affect the noise environment of GFAFB and could potentially decrease noise from air operations or ground activities if the walls are placed as sound barriers between noise producers and noise receptors.

For the implementation alternative involving sale of the walls for disassembly and transport off base for reuse, less noise would be generated from crushing activities if the walls are reused, but there would be additional truck traffic through GFAFB to transport the walls to an off-base location, which would produce additional traffic noise. The truck traffic would be short-term and would not significantly impact the noise environment of GFAFB and the surrounding area.

The implementation alternative involving the preservation of the A-Ramp Perimeter Road would generally produce similar noise impacts as the Proposed Action; however, due to the implementation alternative's smaller footprint, the construction duration and associated noise impacts would be slightly reduced.

4.3.4 Avoidance, Minimization, and Mitigation

No noise mitigation measures are required. Although demolition noise impacts would be temporary, the following standard BMPs are recommended to minimize such impacts:

- Whenever possible, limit operation of heavy equipment and other noisy procedures to non-sleeping hours.
- Install and maintain effective mufflers on equipment.
- Locate equipment and vehicle staging areas as far from residential areas as possible.
- Limit unnecessary idling of equipment.

4.4 Utilities

The Proposed Action and implementation alternatives would involve removal of aboveground utilities and removal of most subsurface utilities to a depth of 6 feet below ground surface; deeply buried utilities may be sealed and left in place. The demolition activities would disturb utility lines, with the potential for minor amounts of contamination being dispersed during the short-term; this would not be a significant impact. However, long-term impacts would be beneficial because of the removal of potentially contaminated utilities from the A-Ramp area.

Under the No-Action Alternative, utilities would remain in the A-Ramp area and would serve as a conduit for potential future contamination.

4.4.1 No-Action Alternative

Utilities in the A-Ramp area would be undisturbed by the No-Action Alternative. Potential future disruptions in the existing limited service could occur based on the continued aging of the systems. The utility lines would also serve as a conduit for potential future contamination migration.

4.4.2 Proposed Action

Aboveground power poles, transformers, and electrical lines (including communication cabling) would be removed. One exception would be to maintain a subsurface connection for feeder 1 from the main base to the radar tower, TACAN, and weather stations. Subsurface utilities (electrical lines and sanitary sewer, stormwater, and drinking water piping) would be demolished and either removed or sealed in place. Utilities are proposed to be removed to a depth of 6 feet below ground surface, with deeper utilities being sealed as appropriate and left in place. The sanitary sewer line from A-Ramp to Bldg 509 would be cut within the A-Ramp Demolition Project limits, and the remnant line to Bldg 509 would be grouted and capped.

The demolition activities would disturb utility lines, with the potential for minor amounts of contamination being dispersed during the short-term; this would not be a significant impact. Sections 4.5.2 and 4.5.4 discuss impacts and mitigation for removal of utilities with hazardous components. However, long-term impacts would be beneficial because of the removal of potentially contaminated utilities from the A-Ramp area.

4.4.3 Implementation Alternatives of the Proposed Action

For the implementation alternatives involving reuse of the security walls, the only potential new impact is the need for ensuring that emplacement of the walls would not impact existing utilities.

The preservation of the A-Ramp Perimeter Road implementation alternative would result in impacts similar to the Proposed Action, except less subsurface pipe would be removed because the construction footprint would be smaller.

4.4.4 Avoidance, Minimization, and Mitigation

No mitigation measures are required for utility impacts. If soil contamination is encountered, based on visual or olfactory observance, during excavation of utilities, the contaminated soil would be sampled and tested to determine if the concentrations of any contaminants are above action levels. Coordination with NDDH would occur to determine suitable disposal or reuse options for the contaminated soil.

4.5 Hazardous Wastes, Hazardous Materials, and Stored Fuels

Under the Proposed Action and implementation alternatives, various hazardous wastes, hazardous materials, and stored fuels would be removed prior to demolition activities at A-Ramp facilities. Hazardous wastes and materials potentially present at the A-Ramp include ACM and some friable ACM; PCB ballasts; ethylene glycol; LBP; mercury-containing lamps, switches, and thermostats; and fuels. All these wastes and materials would be removed from the A-Ramp area prior to demolition with the exception that LBP and some ACM would remain and become part of the demolition rubble. The rubble would be transported and disposed off base in a suitable landfill.

Under the No-Action Alternative, continued deterioration of the facilities would occur and increase the potential for releases of hazardous or toxic materials to the environment.

4.5.1 No-Action Alternative

Although fuels associated with three USTs and the AST would be removed regardless of the A-Ramp project, friable asbestos, PCB ballasts, LBP, mercury-containing lamps and thermostats, and fuels (propane stored in tanks) would continue to exist at the A-Ramp. There is a potential for release of stored fuels during the UST and AST removal action. Continued deterioration of the facilities would increase the chance of future contamination due to release of mercury and other hazardous or toxic materials.

4.5.2 Proposed Action

The USTs and AST would be removed per North Dakota requirements. Fuel leakage resulting in petroleum hydrocarbon concentrations above 100 ppm would be addressed under the removal action and could be stored at the land treatment facility.

Removal of hazardous and toxic materials would be carried out prior to demolition activities at the A-Ramp. The glycols from air-conditioning systems and diesel generators would be removed and recycled prior to demolition activities. Oils from transformers would be removed. The mercury switches and thermostats would be removed and taken to GFAFB Hazmart for disposal during the environmental safing process. All light tubes and mercury-containing lamps would be removed and disposed as a universal waste. Other activities would include the removal of friable asbestos (per North Dakota air pollution rules), PCB ballasts, and fuel from generator day tanks; propane tanks would also be removed for reuse.

Lead from LBP and asbestos from ACM (including flooring materials, ceiling tiles, pipe wrap, subsurface piping, sealants, tunnel walkways, and other coatings) may be released to

the atmosphere as dust if appropriate dust control procedures are not followed during demolition activities (see Section 4.5.4, below, for further information). Subsurface piping with ACM to be removed at depths of less than 6 feet below ground surface would likely be wetted because of the shallow groundwater. Removal of the piping with minimal breakage would be recommended to minimize the potential for release of asbestos fibers. The piping could then be collected, transported, and disposed of at a C&D landfill. NDDH requires certification of personnel who remove more than 3 square feet or 3 linear feet of ACM; amounts of ACM smaller than this may be removed by non-registered personnel. NDDH must be notified prior to demolition of a facility whether or not ACM is present.

Concrete that can be reused from the A-Ramp apron, taxiway, and parking lots would be crushed and recycled for use at GFAFB. The remaining concrete would be removed and transported off-base for disposal at a C&D landfill. Rubble generated from the demolition activities would also be collected and disposed off base. Testing of a representative sample of the rubble would be performed using EPA's TCLP to ensure that heavy metal concentrations are below those requiring disposal in a hazardous waste landfill (regulated under RCRA Subtitle C). Based on past sampling of demolition rubble, it is likely that the TCLP metal levels are below action levels and allow disposal of the rubble in an inert solid waste landfill. All solid waste materials would be managed and transported in accordance with North Dakota solid and hazardous waste rules.

As noted in Section 3.5, Hazardous Wastes, Hazardous Materials, and Stored Fuels, deicing and refueling activities occurred on the A-Ramp apron. These activities commenced prior to the requirement of reporting spills of hazardous materials based on their type and quantity. The alert taxiway may also have experienced leakage of hazardous material fluids from the planes. Consequently, there is a potential to contact residual ethylene glycol and fuels during removal of the apron and taxiway. The demolition contractor would use visual and olfactory observations as well as a PID to check for fuel contamination in the soil when removing the apron and alert taxiway. If soil petroleum hydrocarbon concentrations above 100 ppm are detected, coordination with NDDH would occur to determine the proper course of action.

Pesticides were used to control vegetation and insects in the A-Ramp area. Amounts and toxicity of approved pesticides have decreased over their years of use. Pesticides degrade over time, and the currently used types of pesticides degrade rapidly. Consequently, no significant residues of pesticides likely remain that would affect demolition activities.

There is a short-term insignificant adverse impact from the proper handling and disposal of hazardous and toxic materials such as asbestos, PCBs, and mercury. In the long-term, the A-Ramp area would benefit from the removal of the hazardous and toxic materials. Use of fuels at GFAFB would negligibly decrease due to eliminating the A-Ramp facilities.

4.5.3 Implementation Alternatives of the Proposed Action

Under either of the two security wall reuse implementation alternatives, the only applicable difference to the Proposed Action is the small potential of a release of hazardous materials

from the vehicles used to transport and erect the walls. Any releases would be addressed in compliance with NDDH requirements.

Under the A-Ramp Perimeter Road implementation alternative, impacts associated with hazardous materials would generally be the same as those outlined for the Proposed Action. This alternative would have a decreased likelihood of construction equipment spill release compared to the Proposed Action because the duration of construction activities would be less. Also, this alternative would not involve excavation, transportation, and reuse of the gravel on the existing road.

4.5.4 Avoidance, Minimization, and Mitigation

No mitigation measures are required. The demolition contractor would be notified of the potential for contamination beneath the apron and taxiway. Visual inspection for glycol contamination and use of a PID meter for fuel contamination would be performed.

Appropriate dust control would be conducted to reduce or eliminate the potential for release of hazardous substances to the environment. The demolition contractor would take all necessary measures to minimize the disturbance of ACM and prevent asbestos fiber release. Friable ACM, mercury in thermostats and switches, and PCBs in light ballasts would be removed prior to building demolition in accordance with North Dakota air pollution rules. All solid waste materials would be managed and transported in accordance with North Dakota solid and hazardous waste rules. Efforts to reduce, reuse, and recycle waste materials are strongly encouraged by NDDH.

4.6 Water Resources, Floodplains, and Wetlands

The Proposed Action would directly impact water resources primarily from disturbing the ground during demolition activities and from altering surface hydrology, but the impacts would not be significant. Short-term disturbances from demolition activities could cause wind and water erosion, which could lead to increased sedimentation of nearby surface waters, including the West Drainage Ditch. The southernmost portion of the ditch would be filled during grading operations. The area to the east of the A-Ramp would be re-contoured to a more gradual slope with drainage swales to direct drainage to the Southeast Drainage Ditch. The remainder of the area around the A-Ramp would also be re-contoured to convey surface water runoff to the West Drainage Ditch. Implementing BMPs would reduce the potential for erosion and sedimentation and should ensure no significant impacts on the drainage ditches, Kellys Slough, and the Turtle River. Floodplains would not be affected under the Proposed Action. Wetlands present within the A-Ramp area, as well as those adjacent to the A-Ramp Perimeter Road could not be avoided by the Proposed Action and would need to be filled. Preservation of the A-Ramp Perimeter Road would reduce impacts to water resources and wetlands because the construction footprint would be smaller than for the Proposed Action. Drainage ditches on either side of the Road would also not be modified except for some minor regrading that would occur northwest of A-Ramp.

Under the No-Action Alternative, no new impacts would occur to water resources, floodplains, or wetlands.

4.6.1 No-Action Alternative

The No-Action Alternative would have no impact on water resources. Water resources would continue to be impacted at current levels.

4.6.2 Proposed Action

Potential impacts on groundwater, surface water, water quality, stormwater, floodplains, and wetlands are discussed in the following sections.

4.6.2.1 Groundwater

The depth to the shallow, unconfined water table in the A-Ramp area is less than 10 feet, and it is even shallower during wet seasons. During construction activities, excavation for removal of utilities (water, wastewater, and electrical) within the A-Ramp area would likely result in interception of the water table, which would require pumping of the excavations and discharge of water to drainage ditches. Discharge to the ditches normally occurs during storm events, so no adverse impacts are anticipated.

After completion of demolition and regrading, the Proposed Action would likely result in a long-term benefit to local groundwater quantity and quality. The demolition of the A-Ramp would transfer approximately 50 acres of paved, maintained ground to an unimproved field; this represents an increase of 0.8 percent of the Emerado Aquifer's 10-square-mile recharge area. The local quality of groundwater would also be improved by removing sources of potential contamination.

4.6.2.2 Surface Water

The Proposed Action would impact the West Drainage Ditch, which is located approximately 200 feet west of the A-Ramp. The southernmost portion of the ditch south of the A-Ramp extending to the northwest corner of the A-Ramp (see Figure 4-1) would be filled during grading operations. The area to the east of the A-Ramp would be re-contoured to a more gradual slope with drainage swales to direct drainage to the Southeast Drainage Ditch. The remainder of the area around the A-Ramp would also be re-contoured to convey surface water runoff to the West Drainage Ditch. The Turtle River and Kellys Slough would not be adversely impacted because they are two or more miles downgradient from the area of the drainage ditches affected by the Proposed Action. The demolition phase could potentially increase sedimentation in the downstream portion of the ditch from surface flow and airborne dust. However, BMPs would be used to minimize potential impacts (see Section 4.6.4, below, for more information).

4.6.2.3 Water Quality

Assuming BMPs including silt traps, revegetation, and watering of disturbed, dry soils are used, impacts on surface water quality would not be significant. In the short-term, the

potential for surface water or groundwater contamination during demolition is low as the demolition contractor would be required to quickly clean up any spill. As the area is converted from maintained utilized space to a revegetated area used for hay recovery, groundwater quality may be improved due to a decrease in exposure to potential contaminants associated with facility maintenance (such as pesticides, herbicides, solvents, and fuels) and vehicle traffic (such as motor gasoline (MOGAS), JP-8, diesel, and freon). Regardless, the demolition would have no impact on GFAFB sources for drinking water because it comes from the Red River and Glacial Drift Aquifers.

4.6.2.4 Stormwater

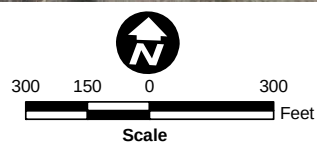
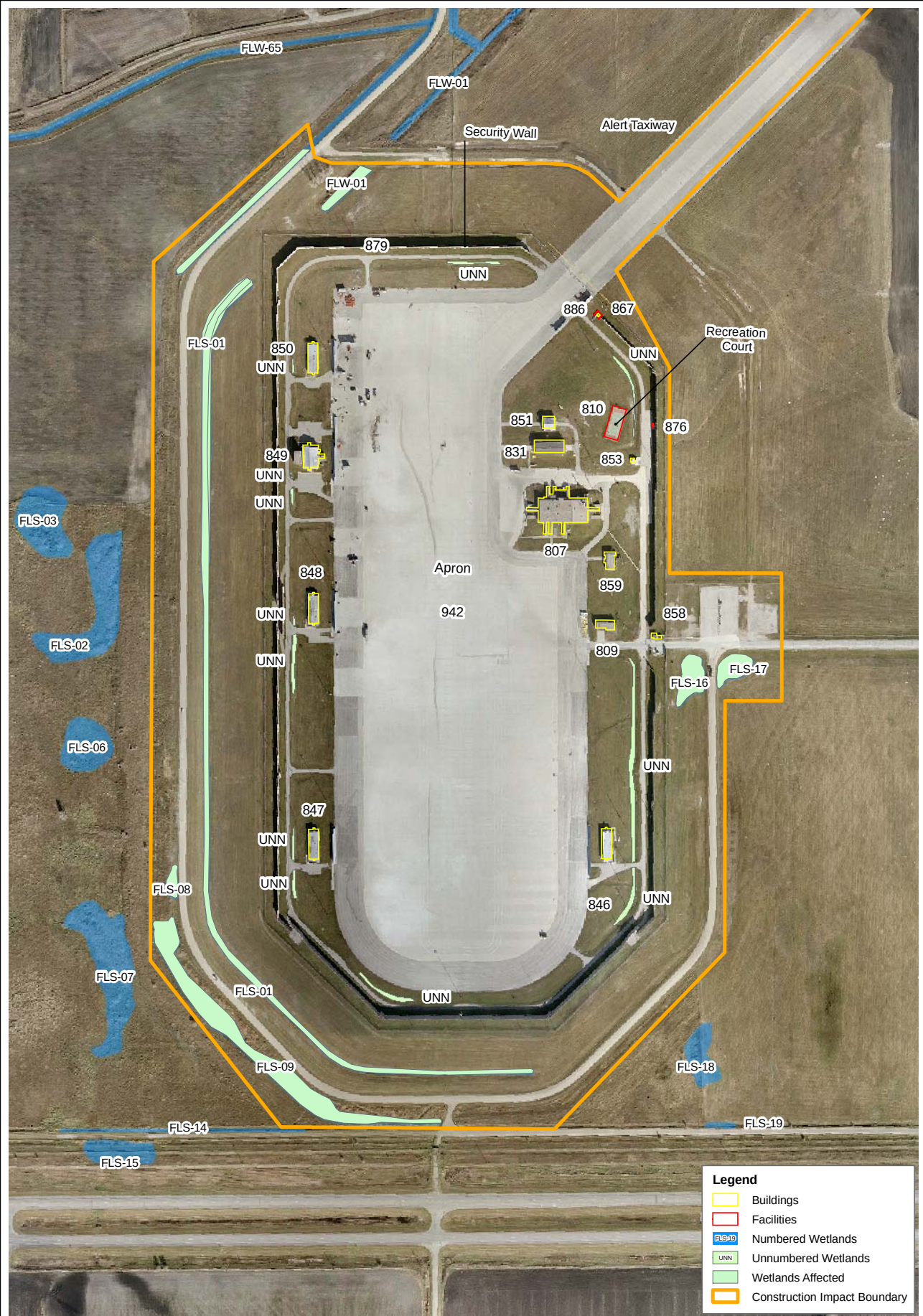
The Proposed Action would affect drainage of the A-Ramp area. Buildings, facilities, pavement, and roadway (graveled and impervious surfaced) would be removed, and the area would be revegetated. Stormwater currently runs off the hardened surfaces and is conveyed outside the area in a series of drainage channels and culverts. As noted in Section 3.6, Water Resources, Floodplains, and Wetlands, stormwater from the A-Ramp drains to either the West Drainage Ditch or the Southeast Drainage Ditch. Once the area has been regraded after demolition, similar drainage would be re-established using a series of swales. Because the area affected would be more than 1 acre, a stormwater construction permit would be required (see Sections 4.6.2.6 and 4.6.4, below, for more information).

4.6.2.5 Floodplains

The only FEMA-designated floodplain on GFAFB occurs adjacent to the Turtle River in the extreme northwest corner of the GFAFB property boundary, a significant distance from the A-Ramp. EO 11988, Floodplain Management, requires federal agencies to evaluate the potential effects of actions on floodplains and avoid adverse floodplain impacts wherever possible (42 FR 26951). Proposed A-Ramp demolition activities would not modify floodplains nor affect the flooding potential of the site.

4.6.2.6 Wetlands

As noted in Section 3.6.6, Wetlands, wetlands are present along a drainage ditch between the apron and road within the perimeter wall; there is 0.59 acre of eight delineated linear wetlands in this area (unnumbered in Figure 4-3). In addition, there are three ditch wetlands (2.7 acres within FLS-01 and portions of FLW-01 and FLW-65) and four depressional wetlands (1.9 acres within FLS-08, FLS-09, FLS-16, and FLS-17) adjacent to the A-Ramp Perimeter Road that would be removed as part of the project. Consequently, approximately 5.2 acres of wetlands would be affected by the Proposed Action. Wetlands are also present in depressions outside the A-Ramp project area; see FLS-18, FLS-07, FLS-06, FLS-02, and FLS-03 in Figure 4-3. These prairie pothole wetlands would not be affected by the project. Prairie pothole wetlands probably existed in this area of the installation and were filled prior to creation of the A-Ramp in 1957. Although any pre-existing wetlands within the project's construction activity footprint would have been destroyed, others were eventually created through construction of conveyance ditches to discharge stormwater to low areas adjacent to the A-Ramp area. USACE has made jurisdictional determinations on wetlands identified in the Wetland Assessment Summary Report (USAF, December 2004) and indicated that



HDR

Demolition Alpha Ramp Project Construction Area Affected Wetlands Under Proposed Action

Demolition of Alpha Ramp Environmental Assessment

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FIGURE
4-3

FLS-01, FLS-08, FLS-09, FLS-16, and FLS-17 as well as FLW-65 are not jurisdictional wetlands (USAF, June 2005). Jurisdiction determinations of the unnumbered wetlands has not yet been requested from USACE but would be sought prior to wetland permitting and construction (Rundquist, January 18, 2006). USACE will review the unnumbered wetlands for their jurisdiction based on their connection to existing waters of the U.S. However, given their location, they are probably not jurisdictional.

EO 11990, Protection of Wetlands, directs federal agencies to avoid to the extent practicable the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands (42 FR 26961). If wetlands would be impacted, a FONPA must be prepared and submitted for review and approval by the Director, Installations and Mission Support prior to implementing the impacting activity.

Because of the linear extent of the wetlands within the A-Ramp area and their proximity to pavement and other features to be demolished and removed, the project cannot avoid directly impacting wetlands. After removal of pavement, buildings, facilities, utilities, and most of the A-Ramp Perimeter Road, the area would be graded to maintain the majority (approximately $\frac{2}{3}$) of drainage to the West Drainage Ditch (Zweifel, 3 August 2005). The eastern portion of the A-Ramp (including the vehicle parking lot) currently drains to wetlands east of the A-Ramp, then to the Southeast Drainage Ditch. Grading operations would create drainage swales to have a similar portion (approximately $\frac{1}{3}$) of the former A-Ramp area draining to the Southeast Drainage Ditch. The area would be re-contoured to a more gradual slope with drainage swales to convey surface water runoff. Stormwater runoff to drainage ditches would be less than current runoff because the removal of the apron would allow percolation into the subsurface. The drainage swales could eventually support a wetland environment.

4.6.3 Implementation Alternatives of the Proposed Action

Assuming appropriate BMPs are implemented during the re-installation of the security walls, for the implementation alternative involving reuse of the security walls on base, potential issues related to water resources including sedimentation and exposure to contaminants would not be significant. It is assumed that the security walls would not be relocated for placement within a 100-year floodplain or in an area that would require fill of jurisdictional wetlands.

The implementation alternative involving sale of the walls for disassembly and transport off base for reuse would require additional truck traffic through GFAFB to transport the walls to an off-base location and would increase the potential for contaminant spills associated with the increased truck traffic. The truck traffic would be short-term and, assuming the transport contractor would continually check for vehicle leaks/spills, would not significantly impact water resources at GFAFB. The transport contractor would exit GFAFB at the South Gate via Alert Avenue and Eielson Street. By staying on existing roads, no impacts on water resources are anticipated. It is assumed that the security walls would not be relocated for placement within a 100-year floodplain or in an area that would require fill of jurisdictional wetlands.

The A-Ramp Perimeter Road preservation implementation alternative would involve significantly decreased wetland impacts (1.3 acres), when compared to the Proposed Action (5.2 acres). This 3.9 acre impact reduction would not impact wetlands FLS-01, FLS-08, FLS-09, or FLW-65 (see Figure 4-4). This implementation alternative would also cause less impact to the West Drainage Ditch than would occur under the Proposed Action; the ditch would not be modified except for some minor regrading northwest of A-Ramp.

4.6.4 Avoidance, Minimization, and Mitigation

No mitigation for significant impacts is required, although mitigation would be performed for wetland impacts as required by law. An NPDES General Stormwater Discharge Permit for Construction would be acquired for the project. Specific sediment, erosion control, and spill prevention measures would be developed during detailed design and would be included in the plans and specifications. Potential measures could include silt fences and traps, detention basins, buffer strips, or other features used in various combinations.

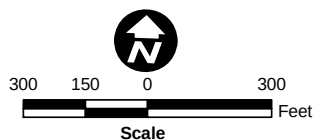
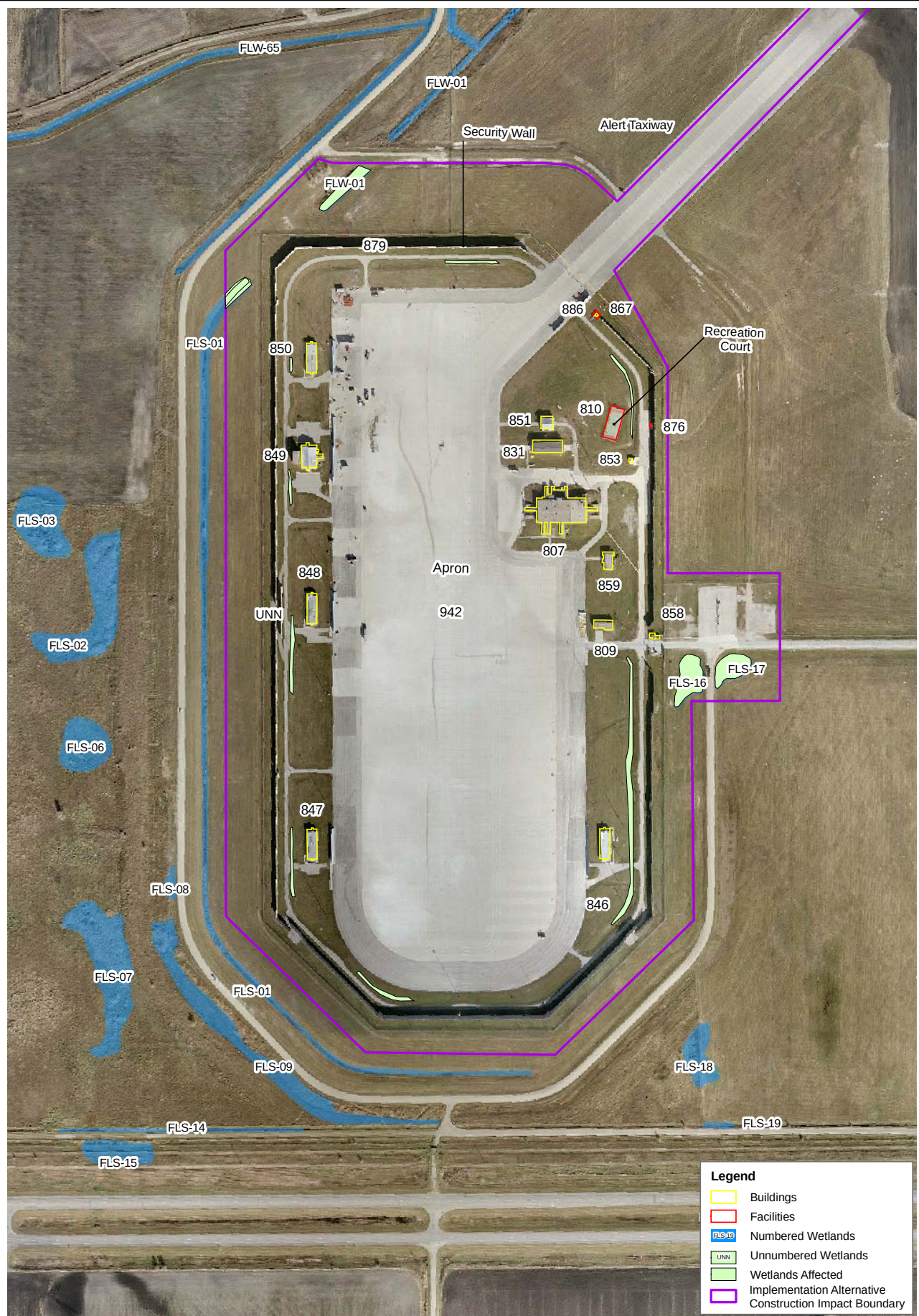
During demolition, BMPs should include daily inspection of heavy equipment to ensure that no leaks are present and no contaminants are leaching into the soil/groundwater. BMPs including watering disturbed, dry soil should be incorporated to minimize fugitive dust. Assuming BMPs are used, impacts on surface waters would not be significant.

USACE would make a determination as to whether a Section 404 Permit and Section 401 Water Quality Certification are required for the project. If a Section 404 Permit is required, a permit application would be provided to USACE explaining the project design and the effect on wetlands; an alternatives analysis, avoidance and minimization, and mitigation concept would also be included in the application. If all of the approximately 5.2 acres of wetlands impacted by the project under the Proposed Action, or 1.3 acres of wetlands under the A-Ramp Perimeter Road preservation implementation alternative, are determined to be non-jurisdictional, a Section 404 Permit would not be required. However, coordination would be performed with the North Dakota Department of Health regarding Section 401 Water Quality Certification for the project.

Because there is no practicable alternative to filling wetlands, federal regulations require compensatory mitigation. Mitigation would involve construction of new wetlands or restoration of former wetlands that have been altered by agricultural or other drainage activities. GFAFB would mitigate the losses of jurisdictional wetlands at either a wetland mitigation bank or a suitable location on base. A formal mitigation plan would be developed during final design of the demolition of the A-Ramp.

4.7 Socioeconomic Resources

Long-term socioeconomic impacts associated with the Proposed Action and implementation alternatives are expected to be negligible. During the short-term, the Proposed Action would generate primary employment benefits in the construction industry, with secondary benefits accruing from local expenditures by the construction workers. There would be no impacts on socioeconomic resources under the No-Action Alternative.



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Affected Wetlands Under Perimeter Road
Preservation Implementation Alternative**

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FIGURE
4-4

4.7.1 No-Action Alternative

Under the No-Action Alternative, current expenditures and local employment would not change. The A-Ramp does not generate any current socioeconomic impact on the local economy. Therefore, no socioeconomic impacts would occur at GFAFB.

4.7.2 Proposed Action

The Proposed Action would result in employment within the construction industry. Laborers would be needed to perform the demolition work and to restore the site to grasses. These beneficial impacts would be short-term, limited to the time of construction activities. The Proposed Action would involve no change in personnel at GFAFB. Therefore, there would be no impacts on permanent employment in the area. Although it is unlikely that all of the expenditures and impacts would occur within Grand Forks County, the project would still provide a beneficial impact on local income. Long-term impacts on employment (following construction activities) would not be significant.

4.7.3 Implementation Alternatives of the Proposed Action

The implementation alternatives for reuse of the security walls could involve a slightly different mix of laborers and equipment than the Proposed Action. Cranes and trucks would be needed for disassembly, transport, and reassembly of the walls. The short-term and long-term impacts of the implementation alternative would be similar to the Proposed Action and not significant.

The A-Ramp Perimeter Road preservation alternative would involve slightly decreased short-term economic benefits when compared to the Proposed Action. The abbreviated project footprint would negligibly reduce the construction hours required to complete the demolition; therefore, demolition contractor profit and worker spending, in the surrounding areas, would be slightly decreased. Long-term socioeconomic impacts would be similar to those associated with the Proposed Action.

4.7.4 Avoidance, Minimization, and Mitigation

No specific avoidance, impact minimization, or mitigation measures for socioeconomic impacts are proposed.

4.8 Biological Resources and Federally and State-listed Threatened or Endangered Species

Under the Proposed Action and implementation alternatives, short-term impacts on biological resources would result from disturbing vegetation and wildlife habitat within the A-Ramp area. Subsequent to demolition and grading activities, the area would be restored to a natural environment and would benefit the vegetative and wildlife environments. No federally or state-listed T&E species or state species of concern would be impacted.

The No-Action Alternative would not change the existing environment or current impacts on biological resources.

4.8.1 No-Action Alternative

The No-Action Alternative would have no impact on existing native or naturalized plants and animals and their habitats. Biological resources would continue to be impacted at current levels. Species listed as T&E by the federal government or North Dakota would not be affected by the No-Action Alternative.

4.8.2 Proposed Action

Potential impacts on vegetation, wildlife, and T&E species are discussed in the following sections.

4.8.2.1 Vegetation

Vegetation in the A-Ramp area would be disturbed in the short-term under the Proposed Action, but the area would be restored with more vegetation than is currently present. Demolition activities, including excavation of utilities, removal of pavement, and loading and transportation of demolition debris, would disturb vegetation. Although the demolition of the A-Ramp and its associated facilities would result in the loss of some vegetative cover in the project area, this disturbance would be limited to areas that have been previously disturbed and that consist mainly of introduced grass species. The grasslands west of the A-Ramp area that provide important wildlife habitat would not be affected by the Proposed Action. In addition, disturbed areas outside of the road bed would be reseeded with suitable hay grass after construction activities are completed. Grass seed mixtures shall be compliant with INRMP and BASH regulations.

The demolition and removal of A-Ramp facilities with subsequent regrading of the area would convert the area to that more suitable for a natural vegetation community. The conversion of the A-Ramp to an unmaintained hay lease land would be accomplished with the Proposed Action. After it has been revegetated, any future use of the A-Ramp area is as yet undetermined. The restoration of the area would enhance the natural value of the plant community by returning the area to conditions that are similar to the native grasslands existing in the area prior to the construction of GFAFB in the 1950s. Therefore, there would be a minor long-term beneficial impact on vegetation as a result of implementing the Proposed Action.

4.8.2.2 Wildlife

The plant and wildlife species found within GFAFB are common for the region. The A-Ramp area has non-native grassed areas to the east that are maintained and therefore have minimal plant species diversity and a low carrying capacity for wildlife. Native grasses and prairie pothole wetlands are located west of the A-Ramp area and have a higher carrying capacity for wildlife. Avian species frequent the wetlands in and around GFAFB. The western, less developed portions of GFAFB (including the A-Ramp area) appear to support

larger species, such as deer and fox, compared to the more developed and manicured areas in the central and eastern portions of GFAFB.

Minor impacts associated with the demolition and debris removal from the A-Ramp are anticipated. The presence of people and heavy equipment, in addition to the associated noise, has the potential to disperse wildlife from the project area. However, wildlife are accustomed to some noise associated with aircraft operations and maintenance as well as other on-base construction activities. Dispersed species might relocate to areas where competition with other species for resources, such as food and cover, is higher. This short-term impact is not significant because the quality of wildlife habitat associated with a developed and maintained area is significantly lower than the suitable wildlife habitat located in the surrounding area. In addition, removal of buildings, fences, and walls would remove perches for birds. However, the increase in habitat area would support additional prey for raptors. The North Dakota Game and Fish Department (NDGFD) indicated that “After review of the project with the provided information, no identifiable conflict with wildlife or wildlife habitat is foreseen” (see Section 6.1, Agency Coordination, and Appendix A, Early Coordination and Agency Correspondence).

After demolition activities (including removal of demolition debris) have been completed, the A-Ramp area shall be graded and seeded with a suitable hay grass mixture compliant with the INRMP and BASH regulations. The addition of restored grassland would result in a long-term beneficial impact on wildlife.

Although wetlands would be filled, the area in and around GFAFB includes many other wetlands; Kellys Slough NWR contains extensive wetlands. Wetland mitigation would also occur to compensate for the loss of jurisdictional wetlands at the A-Ramp area. Consequently, avian species using the wetlands would not be adversely affected.

4.8.2.3 Threatened or Endangered Species

No federally listed T&E species are known to reside on GFAFB; consequently, no impacts on federally listed T&E species would occur as a result of the Proposed Action and implementation alternatives. Two state-listed species (small yellow lady’s slipper and large yellow lady’s slipper) are north of the A-Ramp taxiway. Construction activities would be occurring along a narrow corridor on and immediately adjacent to the taxiway.

State-listed birds (green heron, pileated woodpecker, and white-throated sparrow) and state species of concern (Le Conte’s sparrow, Swainson’s hawk, ferruginous hawk, and upland sandpiper) have been observed on GFAFB. The green heron and upland sandpiper were observed near the West Ditch, north of the A-Ramp area, during a July 2003 bird survey (USAF, 2004a). During the 2005 bird surveys, Swainson’s hawk was observed migrating, while Le Conte’s sparrow and upland sandpiper were observed breeding at the same survey location west of the A-Ramp. Additionally, upland sandpiper was also observed breeding north of the A-Ramp during the same 2005 surveys. The project would not affect the migratory nature of these species and sufficient, similar habitat exists surrounding the A-Ramp to accommodate potential breeding birds. Consequently, no impacts are projected to occur on the state species of concern. USFWS indicated that “The project as described will

have no significant impact on fish and wildlife resources” (see Section 6.1, Agency Coordination, and Appendix A, Early Coordination and Agency Correspondence).

4.8.3 Implementation Alternatives of the Proposed Action

Reuse of the security walls on-base or off-base would not adversely affect biological resources. The reconstructed walls could be used as temporary perches for birds.

Preservation of the A-Ramp Perimeter Road would slightly decrease the acreage of area that would be converted to hay grass area. It would also maintain an interruption in what would become expansive wildlife habitat. The opportunity for wildlife and automobile collisions would remain; although, the likelihood of this occurrence would decrease as automobile traffic would lessen following A-Ramp demolition. Conversely, preserving the A-Ramp Perimeter Road would allow the avoidance of impacts to 3.9 acres of wetlands. Wetlands support a higher biological diversity than hay grass fields, and are less common in the areas surrounding GFAFB. Therefore, the preservation of wetlands would more than offset the loss of hay grass area associated with preserving the A-Ramp Perimeter Road.

4.8.4 Avoidance, Minimization, and Mitigation

No specific avoidance, impact minimization, or mitigation measures for additional protection of biological resources are proposed.

4.9 Cultural Resources

Cultural resources are limited, nonrenewable resources with values that may easily be diminished by physical disturbances. The Proposed Action and implementation alternatives would result in the destruction of buildings and facilities constructed during the Cold War. None of the buildings and facilities scheduled for demolition are considered eligible or potentially eligible for listing on the NRHP. Consequently, there would be no effect on NRHP-eligible properties. Construction activities would occur at previously disturbed areas; therefore, demolition would have no impact on archaeological resources.

There would be no impacts on cultural resources from the No-Action Alternative.

4.9.1 No-Action Alternative

For the No-Action Alternative, current conditions would not change and no impacts on cultural resources would occur at GFAFB. In future years, buildings and facilities in the A-Ramp area that were constructed in the late 1950s would reach the 50-year timeframe for consideration as historic properties.

4.9.2 Proposed Action

The oldest buildings remaining on GFAFB were constructed in 1957 (USAF, January 2004). The first building constructed along with the tanker alert apron in the A-Ramp area was Bldg 807, which was completed in 1959 but was heavily modified through subsequent additions. The alert apron was also substantially altered, inclusive of multi-building

additions. Other buildings in the A-Ramp area were constructed from 1973 to 1991, and the barrier wall was constructed from 1988 to 1990 in preparation for the late Cold War housing of alert B-1 bombers (HQ AMC, 1996). Bldg 807, with its associated alert apron, was evaluated for its eligibility for listing on the NRHP, and it was interpreted to be not eligible based on the substantial alterations. The other buildings in the A-Ramp area were also interpreted to be not eligible for listing on the NRHP. Bldg 714, which is potentially eligible for listing on the NRHP, is not in the A-Ramp area and would not be disturbed as part of the Proposed Action. The project would result in no effect on historic properties—those listed on or eligible for listing on the NRHP. The SHSND State Historic Preservation Office (SHPO) concurred with a no effect determination (SHSND, January 17, 2006) (see SHSND letter in Appendix A, Early Coordination and Agency Correspondence).

No known archaeological resources have been identified in the A-Ramp area. Because this area was previously disturbed due to construction of the A-Ramp apron and its associated buildings and facilities, demolition activities in this area are not anticipated to unearth resources of any importance. Consequently, the project would result in no effect on significant (NRHP-eligible) archaeological properties. Should unknown archaeological resources be uncovered during construction activities, USAF would follow procedures described in AFI 32-7065, Cultural Resources Management Program, for coordination with SHSND and the Advisory Council on Historic Preservation.

4.9.3 Implementation Alternatives of the Proposed Action

For the implementation alternative involving reuse of the security walls on base, consideration for known cultural resource sites, or potential sites, would be required when selecting areas for wall installation. Relocation of the walls would be planned to not adversely affect NRHP-eligible (Bldg 714) and potentially eligible (Bldgs 313, 606, 703, 704, 705, 706, and 707) historic resources and known archaeological sites.

The implementation alternative involving sale of the walls for disassembly and transport off base for reuse is expected to have no impact on cultural resources as disassembly would occur in a previously disturbed area that is not expected to contain archaeological resources, and transport vehicles would use existing roads to move the walls to an off-base location.

The A-Ramp Perimeter Road preservation implementation alternative would have no impact on historic resources. Additionally, the chance of this alternative unearthing something of archaeological significance would be less than that of the Proposed Action because less earthwork would be required.

4.9.4 Avoidance, Minimization, and Mitigation

No mitigation measures are required for cultural resources. GFAFB would follow its standard practice of coordinating with SHPO prior to demolition of buildings at GFAFB. The Draft EA was provided to SHPO for review and concurrence.

4.10 Land Use

Long-term land use impacts associated with the Proposed Action and implementation alternatives are expected to be negligible, with some increase in arable land. During demolition, adverse, but insignificant, short-term impacts on land use would occur in the immediate vicinity of the A-Ramp. Upon completion of the demolition activities, the area would be graded for erosion and drainage control and revegetated with grass for hay recovery.

There would be no impacts on land use under the No-Action Alternative.

4.10.1 No-Action Alternative

Under the No-Action Alternative, current land use conditions would not change; therefore, no impacts on land use would occur at GFAFB.

4.10.2 Proposed Action

Land use would be significantly altered following demolition, although not adversely. Demolition of the A-Ramp area would relieve GFAFB of unused buildings and facilities and the associated maintenance costs. Upon completion of the demolition activities, the area would be graded for erosion and drainage control and revegetated with grass. The conversion activity would increase the amount of natural environment on GFAFB. The grass could be hayed similar to other areas on base where farmers lease the land from USAF at fair market value. Although long-term reuse is undetermined, a possible expansion of the existing 9-hole golf course to 18 holes has been proposed in the Base Comprehensive Plan (USAF, 1997) and the 20-Year Master Space Plan.

4.10.3 Implementation Alternatives of the Proposed Action

For the implementation alternative involving reuse of the security walls on base, it is anticipated that reuse of the security walls would be in areas currently used for GFAFB operations and would not alter existing land use on GFAFB. If the walls are installed in an on-base area in which land use would be significantly altered, proper analysis of project-related impacts would be required at that time.

The implementation alternative involving sale of the walls for disassembly and transport off base for reuse is expected to have no impacts on GFAFB land use. Transport vehicles would use existing roads to move the walls to an off-base location.

The implementation alternative involving the preservation of the A-Ramp Perimeter Road would have similar affects on land use to those associated with the Proposed Action. A slightly smaller area would be converted to grass field because the road and adjacent land would remain unchanged. If the area were ever used to expand the existing 9-hole golf course, the existence of the A-Ramp Perimeter Road would have to be re-evaluated to determine if it could be implemented into course design.

4.10.4 Avoidance, Minimization, and Mitigation

No specific avoidance, impact minimization, or mitigation measures for land use impacts are proposed.

4.11 Transportation Systems

Impacts on the transportation system at and around GFAFB caused by the Proposed Action or implementation alternatives would result from the movement of demolition equipment and materials and from the increase of traffic from demolition contractor vehicles. These short-term impacts would not be significant. The impact on roads adjacent to GFAFB also would not be significant.

There would be no impacts on transportation resources under the No-Action Alternative.

4.11.1 No-Action Alternative

Under the No-Action Alternative, the transportation system on GFAFB would remain unchanged, and current traffic conditions would continue. Therefore, there would be no impacts on transportation systems under the No-Action Alternative.

4.11.2 Proposed Action

Construction activities related to the Proposed Action could temporarily increase the peak-hour traffic volumes at the gates to GFAFB during construction activities. Considering current traffic flows and gate improvements, these impacts would not be significant. In addition, no damage to GFAFB roadways due to vehicle traffic is anticipated. Heavy construction vehicles would access the A-Ramp from Highway 2, entering the South Gate, then turning left onto Alert Avenue, and reversing the path to exit GFAFB. Traffic volume and flow for this project would be similar to that occurring for the runway demolition project, which has not adversely affected GFAFB traffic.

The Proposed Action would include removal of the A-Ramp Perimeter Road on the southeast, south, and west sides of the A-Ramp, and would cut off vehicular access to the gate, south of the A-Ramp, that provides access to Highway 2. The existing road along the north-northeast quadrant of the A-Ramp area would be retained to maintain access from Alert Avenue to the western portion of the base. The loss of the pavement within the A-Ramp security walls would not affect GFAFB traffic flow. Consequently, no long-term impact on traffic flow would result from the Proposed Action.

4.11.3 Implementation Alternatives of the Proposed Action

For the implementation alternative involving reuse of the security walls on base, the current transportation situation on GFAFB could potentially be impacted if the reuse of the security walls impeded existing roadways/traffic or altered access to specific GFAFB facilities. It is anticipated that traffic analysis would be performed prior to the installation of the security walls to ensure that no significant impacts on transportation resources would result.

Short-term impacts may also result from vehicles moving and reinstalling the walls. These impacts would result in temporary increases in traffic volumes but would not be significant due to current good traffic flows.

During the demolition period, the implementation alternative involving sale of the walls for disassembly and transport off base for reuse would result in slightly increased traffic volumes due to transport vehicles moving the disassembled security walls to an off-base location. The impacts related to this implementation alternative would be short-term and not significant.

Compared to the Proposed Action, the A-Ramp Perimeter Road implementation alternative would provide beneficial affects to transportation facilities on GFAFB. This alternative would maintain the current transportation facilities in the A-Ramp area, including the gate south of the A-Ramp that provides emergency access to Highway 2 and serves as another GFAFB entrance option during heavy traffic periods (e.g. public air shows).

4.11.4 Avoidance, Minimization, and Mitigation

No mitigation measures are required for transportation systems. Traffic from construction activities would be limited to use of the South Gate to minimize impacts on traffic flow on the main portion of GFAFB. Movement of security walls would be limited to off-peak hours of traffic to minimize disruption of on-base traffic flow.

4.12 Airspace and Airfield Operations

The Proposed Action and implementation alternatives would require coordination during demolition to minimize impacts on airfield operations. Subsequent to demolition, airfield waivers for buildings and facilities within the 7:1 flight envelope, clear zone, and 50:1 approach departure clearance zone would be eliminated, which would be a beneficial impact. The demolition of the buildings and facilities would be a positive effect on flight safety.

The No-Action Alternative would require that these waivers be maintained.

4.12.1 No-Action Alternative

Under the No-Action Alternative, the proposed A-Ramp demolition would not occur. Therefore, airspace and airfield operations would continue at current levels and would experience no significant impacts. Several existing buildings and facilities at the A-Ramp (including the security walls) are in the 7:1 flight envelope, clear zone, 50:1 approach-departure clearance zone and require flight-line waivers. These waivers would need to be maintained.

4.12.2 Proposed Action

The Proposed Action would have no significant adverse effects on airspace and airfield operations at GFAFB. During demolition activities, use of tall construction equipment, such as cranes, would need to be coordinated with the Operations Group and tower. Cranes may be operated during daylight hours, but Base Operations must be notified. During the hours of

darkness, cranes must be lowered to a height of less than 40 feet. There are four light poles in the Alpha Parking Ramp that have operating obstruction lights. These lights must remain in operation until the light poles are lowered (Crouse, 20 January 2006).

Subsequent to construction activities, the waivers for flight-line restrictions could be eliminated. Removal of the obstructions in the flight path would be a beneficial impact on airspace and airfield operations.

4.12.3 Implementation Alternatives of the Proposed Action

For the implementation alternative involving reuse of the security walls on base, it is assumed that the selected location for the on-base security wall reuse would not inhibit current airspace and airfield operations at GFAFB.

The other two implementation alternatives would have impacts comparable to the Proposed Action and generate no significant adverse effects on airspace and airfield operations at GFAFB.

4.12.4 Avoidance, Minimization, and Mitigation

No mitigation measures are required for airspace and airfield operations. Coordination with the Operations Group would be conducted during construction activities to minimize impacts on airfield operations.

4.13 Safety and Occupational Health

The Proposed Action and implementation alternatives would increase the chance of an accident or property damage from construction activities. However, it is not anticipated that any significant impacts on health and safety would occur during the demolition project. Long-term health and safety in the A-Ramp area would be improved because of the removal of environmental hazards and flight hazards.

The No-Action Alternative would present a continued risk to exposure of ACM, mercury, and other hazards to users of the facilities.

4.13.1 No-Action Alternative

The condition of buildings and facilities at the A-Ramp would continue to deteriorate. Use of facilities is currently limited, but use of Bldg 807 for Security Forces training would present a continued risk for exposure to ACM, mercury in thermostats and fluorescent light tubes, and other hazards.

4.13.2 Proposed Action

The Proposed Action would increase the chance of an accident or property damage from construction activities. However, it is not anticipated that any significant impacts on health and safety would occur during the demolition project.

The demolition contractor must submit and follow an approved safety plan prior to conducting demolition activities. Materials that present a health risk, such as thermostats that contain mercury and capacitors that contain PCBs, are to be removed prior to demolition activities. However, the contractor may come across several locations contaminated with fuels, glycol, or other hazardous substances due to past usage, spills, or leaks from equipment. Several of the buildings appear to contain *Stachybotrys* (black mold); this material has not been tested and definitively identified. Additional precautions may be required due to the presence of black mold.

Subsequent to the completion of the Proposed Action, long-term health and safety in the A-Ramp area would be improved because of the removal of environmental hazards and buildings and facilities that present flight hazards.

4.13.3 Implementation Alternatives of the Proposed Action

The implementation alternatives for reuse of the security walls present additional minor health and safety risks due to transport and re-installation of the walls.

Risks associated with the A-Ramp Perimeter Road implementation alternative would be similar to those associated with the Proposed Action. The overall risks would be slightly less because the construction footprint would be smaller and require fewer construction hours.

4.13.4 Avoidance, Minimization, and Mitigation

No mitigation measures are required for safety and occupational health. The demolition contractor is required to submit a health and safety plan to address potential issues in performing demolition activities. Testing of the mold found in several facilities should be performed to confirm the type of mold and determine if any precautions for handling of the material is required. In addition to olfactory and visual observation for contamination, use of a PID meter to check for fuel contamination during removal of the apron and other pavement should be performed to determine whether precautions for exposure to contaminated soils or water is necessary.

4.14 Environmental Management, Including Pollution Prevention, Geology, and Soils

Construction activities of the Proposed Action and implementation alternatives would result in a short-term increase in the generation of demolition debris, including environmental contaminants, and disturbance of soils. However, impacts on environmental management are not projected to be significant. The Proposed Action would have long-term beneficial effects in relation to environmental management.

The No-Action Alternative would not generate contaminants or debris, nor would it disturb soils.

4.14.1 No-Action Alternative

Under the No-Action Alternative, the proposed A-Ramp demolition would not occur, and impacts on pollution prevention efforts, geology, and soils would remain at their current levels.

4.14.2 Proposed Action

The Proposed Action would have long-term beneficial effects in relation to environmental management. The transition from existing A-Ramp conditions to an unmaintained hay field would result in lessened soil exposure to potential contaminants associated with buildings, facilities, and transient vehicles. Although soils disturbed during the project would temporarily be subject to increased runoff and erosion, appropriate BMPs for erosion control and sedimentation would be implemented to minimize impacts. Furthermore, the shallow excavation associated with the Proposed Action is not likely to penetrate an existing fill layer brought in during initial A-Ramp construction. Mapped soils, noted in Chapter 3, likely occur below the construction fill and would not likely be affected by the Proposed Action. A-Ramp demolition activities would not affect the underlying geological structure of the area.

Impacts on GFAFB's pollution prevention program would also be beneficial as fewer developed acres on GFAFB would decrease the amount of potential pollutants to be managed. If petroleum-contaminated soils are found during demolition activities, they could be excavated and transported to the land treatment facility northwest of the A-Ramp for landfarming. Site OT-05, Explosive Ordnance Detonation Area, is a closed ERP site and is distant from the A-Ramp and would not be affected by the Proposed Action.

4.14.3 Implementation Alternatives of the Proposed Action

The security wall reuse implementation alternatives would generate less demolition rubble and reduce the total waste stream compared to the Proposed Action. No impacts on geology are anticipated from reuse of the walls. Some soil disturbance would occur during re-installation of the walls, but BMPs would be used to prevent significant impacts on soils.

The implementation alternative involving A-Ramp Perimeter Road preservation would produce similar amounts of demolition rubble than the Proposed Action; however, this alternative would allow fewer grassy acres than the Proposed Action because the existing gravel road would remain and be maintained. Vehicular traffic would still be able to traverse the area; therefore, the potential for contaminant spills from vehicles would remain.

4.14.4 Avoidance, Minimization, and Mitigation

No mitigation measures are required. The use of BMPs such as the use of silt fences, occasional watering of disturbed soils, and revegetation subsequent to grading activities would minimize impacts on soils.

4.15 Environmental Justice

There would be no impacts on environmental justice as a result of the Proposed Action, implementation alternatives, or the No-Action Alternative.

4.15.1 No-Action Alternative

Under the No-Action Alternative, there would be no impacts on environmental justice populations.

4.15.2 Proposed Action

The Proposed Action would occur within the confines of GFAFB. Although the proportion of minorities on base is likely higher than the surrounding area, there are no low-income or minority populations living near the GFAFB boundaries. No environmental justice impacts would occur because the Proposed Action would not cause disproportionately high and adverse environmental effects on minority or low-income populations.

4.15.3 Implementation Alternatives of the Proposed Action

The implementation alternatives involving on-base reuse of the security walls and A-Ramp Perimeter Road preservation would not result in an impact on environmental justice because there are no low-income or minority populations living near the GFAFB boundaries.

The implementation alternative involving sale of the walls for disassembly and transport off-base for reuse is expected to have no impact on environmental justice populations because of the low proportion of minorities and low-income populations in Grand Forks County. Although no location has been identified for reuse of the walls, the farther they are transported from the base, the higher the transportation costs. Consequently, it is not likely that there would be any environmental justice populations affected by reuse of the wall.

4.15.4 Avoidance, Minimization, and Mitigation

No specific avoidance, impact minimization, or mitigation measures for environmental justice populations are proposed.

4.16 Indirect and Cumulative Impacts

Impacts can be direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action but occur later in time or are farther removed in distance but are still reasonably foreseeable, as defined by 40 CFR 1508.8. Indirect impacts “may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems...” (40 CFR 1508.8).

The CEQ regulations state that the cumulative effects analysis in an EA should consider the potential environmental impacts resulting from “the incremental impacts of the action when

added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7).

Cumulative effects are likely to arise when a relationship exists between a Proposed Action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in proximity to the Proposed Action would be expected to have more potential for a relationship than those more geographically separated. Similarly, actions that coincide in time would tend to offer a higher potential for cumulative effects. Therefore, the scope of the cumulative effects analysis involves both the geographic extents of the effects and the timeframe in which the effects could be expected to occur. Actions occurring within or adjacent to the region are considered relevant for cumulative effects analysis. Because many NEPA documents had not been considering past actions that may have modified the environment, CEQ recently clarified that environmental effects of past actions must be addressed as part of the cumulative effects analysis (CEQ, 24 June 2005).

Table 2-1 identified some recently completed projects in the area of the A-Ramp as well as reasonably foreseeable future activities. Projects considered for cumulative impacts include:

- Demolish Existing Runway and Construct New Runway
- Construction of Base Perimeter Road and Security Fence¹
- Main Gate Improvement
- Commercial (South) Gate Improvement
- Repair North Taxiway
- Hot Bituminous Pavement
- Repair South Taxiway
- Bivouac Training Area

No indirect impacts of a significant nature are projected to occur under the Proposed Action, Implementation Alternatives, or the No-Action Alternative.

The Proposed Action would result in construction activities occurring during the spring through fall of 2007. Based on a review of past, present, and reasonably foreseeable future projects, there should be no significant cumulative impacts resulting from proceeding with the Proposed Action or the Implementation Alternatives. The No-Action Alternative would not cause significant cumulative impacts at or near GFAFB.

4.16.1 No-Action Alternative

The No-Action Alternative would not alter current GFAFB mission-related impacts on localized GFAFB resources or regional resources. Current and reasonably foreseeable future

¹ As noted in Table 2-1, the Base Perimeter Road has been constructed, but the Security Fence component of the project was not funded or constructed.

projects, and their associated impacts, would occur regardless of whether or not the A-Ramp demolition project were implemented. The past disturbance of the natural environment to construct the A-Ramp would not change. Runoff would continue to be controlled by pavement and constructed drainage channels.

4.16.2 Proposed Action

The potential adverse impacts of the Proposed Action on resources of interest in this EA are short-term and minor. Indirect impacts of the Proposed Action would include the eventual expansion of the base golf course to an additional 9 holes. Without the project, the golf course would have minimal area for potential expansion. Another potential indirect impact would be a slight change in drainage to the Turtle River. Approximately $\frac{2}{3}$ of the A-Ramp area drains into ditches that connect to the West Drainage Ditch that discharges to the Turtle River. Given that the distance to the Turtle River along grass-lined drainage swales is approximately 3.5 miles, no adverse indirect impacts on the Turtle River are likely during or subsequent to construction activities.

Recent, current, and future projects in the area of the A-Ramp (identified in Chapter 2, Table 2-1 and in Section 4.16, above) were considered when planning the A-Ramp demolition project. The Demolish Existing Runway and Construct New Runway project was completed in October 2005, and the crushed concrete has been removed from the A-Ramp area. The Main Gate Improvement and South (Commercial) Gate Improvement projects were recently completed and will aid traffic flow for the A-Ramp project. The Repair North Taxiway and Repair South Taxiway projects may occur during the same timeframe as the A-Ramp project. The physically impacted areas associated with the Repair North Taxiway project and the A-Ramp project are in different portions of GFAFB. Runoff from this taxiway project would affect a different drainage area than the A-Ramp project. The Repair South Taxiway project is in the same general area as the A-Ramp project, and both could occur during the same timeframe. They would affect the same drainage area, and construction vehicles would also expect to use a portion of Alert Avenue. Because of the requirements for control of runoff from both projects, it is not anticipated that any significant cumulative impacts on the West Drainage Ditch system would occur.

Construction vehicle traffic at the South Gate would be heavier than normal if the Repair South Taxiway project occurred at the same time as the Proposed Action, but project coordination and staging of traffic for the projects should not result in significantly adverse traffic impacts. Worker demand in the construction industry might be high if more than one major construction project would occur concurrently at GFAFB. However, the Grand Forks area can support an influx of construction workers if needed for multiple projects.

Repaving of Highway 2 is currently planned subsequent to the A-Ramp project and consequently would not affect construction vehicle traffic. The Bivouac Training Area project, even if it occurred during the same timeframe as the Proposed Action, is small in scope and would not result in adverse cumulative impacts on runoff and drainage in the West Drainage Ditch.

The area proposed for the A-Ramp project was disturbed in the past, so temporary impacts from construction activities to remove buildings and facilities would further disturb the area. However, cumulative impacts on the area would be beneficial from restoring a natural environment.

Although long-term reuse for the area is undetermined, the 20-year plan shows the potential expansion of the 9-hole golf course to 18 holes. Additional utilization of the Emerado Aquifer for irrigation would likely be required if a portion of former A-Ramp land was eventually converted to several golf course holes. Planning for the conversion would need to consider the availability of water for golf course irrigation.

The analysis for this EA indicates that the Proposed Action would not result in, or contribute to, significant negative cumulative impacts on the resources of the region.

4.16.3 Implementation Alternatives of the Proposed Action

None of the implementation alternatives would result in any significant indirect or cumulative impacts. They represent minor modifications to activities planned for the Proposed Action, and actually result in less demolition. Consequently, since no significant cumulative impacts are projected for the Proposed Action, none are anticipated for the implementation alternatives.

4.16.4 Avoidance, Minimization, and Mitigation

No specific avoidance, impact minimization, or mitigation measures for indirect or cumulative impacts are proposed.

4.17 Unavoidable Adverse Impacts

4.17.1 No-Action Alternative

Long-term, unavoidable adverse impacts are likely to occur if the No-Action Alternative is implemented. If the A-Ramp is not demolished, unavoidable adverse impacts on resources such as air, noise, hazardous waste, hazardous materials, and the economic burden of maintaining unused facilities would continue at current levels. In addition, unavoidable adverse impacts would increase for safety and occupational health as these Cold War era facilities continue to age and degrade, presenting safety issues for GFAFB personnel who perform occasional duty on the A-Ramp.

4.17.2 Proposed Action

The Proposed Action would have unavoidable adverse impacts on air quality, wetlands, soils, water resources, the noise environment, and the transportation infrastructure. These impacts would be short-term and are negligible in comparison to the long-term benefits of implementing the Proposed Action.

4.17.3 Implementation Alternatives of the Proposed Action

The implementation alternative involving reuse of the security walls on base would extend the exposure of GFAFB resources to the unavoidable adverse impacts associated with the Proposed Action. The additional on-base construction associated with reinstalling the security walls would present a lengthened timeframe of unavoidable air quality, noise, and transportation impacts due to construction equipment. Assuming careful siting selection is considered and no major, unforeseen impacts arise, these impacts would be short-term and negligible.

The implementation alternative involving sale of the walls for disassembly and transport off base for reuse would result in fewer unavoidable adverse impacts compared to on-base reuse because no additional construction would occur. Additional transport vehicles would be required to move the walls to an off-base location and would temporarily contribute unavoidable adverse impacts on the air quality, noise, and transportation resources in the local area including GFAFB.

The A-Ramp Perimeter Road preservation implementation alternative would result in fewer unavoidable adverse impacts than the Proposed Action and the other implementation alternatives. The demolition footprint area, and coincidentally the construction duration, of this alternative would be less than the Proposed Action. This implementation alternative would result in less impact to air quality and the noise environment because hours of equipment operation would be fewer. In addition, a smaller area of excavation would result in less soil disturbance. Transportation facilities would remain intact, and access to the emergency gate (south of the A-Ramp) would be maintained. Finally, significantly less area of wetlands and drainage ditches would be disturbed compared to the Proposed Action because many in the A-Ramp area occur parallel and adjacent to the A-Ramp Perimeter Road.

4.18 Compatibility of the Proposed Action with Objectives of Federal, State, and Local Land Use Plans, Policies, and Controls

The Proposed Action would be compatible with the existing federal, state, and local land use plans, policies, and controls. The Proposed Action would occur on base and is consistent with GFAFB plans, which are coordinated with federal, State, and local agencies. A possible expansion of the existing 9-hole golf course to 18 holes has been proposed in the Base Comprehensive Plan and the 20-Year Master Space Plan. Consequently, the conversion to a natural area is consistent with future re-use as a component of the golf course. If the implementation alternative for reuse of security walls is adopted, the new location of the walls would be coordinated with the relevant agencies to ensure that their use meets any land use policies or controls. The implementation alternative for the preservation of A-Ramp Perimeter Road could potentially still allow future expansion of the golf course into the former A-Ramp area.

4.19 Relationship Between Short-term Uses and Enhancement of Long-term Productivity

Balancing the local short-term uses of the human environment with the maintenance and enhancement of long-term productivity is an important consideration in planning a project. For the purposes of this project, short-term uses of the environment include direct construction-related disturbances occurring over the projected 7-month timeframe (or slightly longer) for the project. Long-term uses of the human environment include those impacts occurring after construction activities are completed. If the project was not constructed, existing uses would likely continue.

Several kinds of activities could result in short-term resource uses that compromise long-term productivity. Filling of wetlands or loss of other especially important habitat and consumptive use of high-quality water at nonrenewable rates are examples of actions that affect long-term productivity.

Under the Proposed Action and the Implementation Alternatives of the Proposed Action, there is the potential for short-term effects on air, noise, transportation, surface water, vegetation, and soils, but only for the duration of the construction activities. It is anticipated that these resources would recover from any realized impacts following the completion of construction activities. Long-term productivity of the A-Ramp area would be enhanced by restoration to a natural environment. The pavement and other surface facilities would be removed, and the area would be graded and revegetated. Wildlife would likely use the restored natural area, and hay recovery operations could occur. Wetlands that could not be avoided would be filled, and mitigation for jurisdictional wetlands would be performed off-site.

4.20 Irreversible and Irretrievable Commitment of Resources

An irretrievable effect would result from the use of resources that cannot be replaced within a reasonable time or loss of resources that cannot be restored as a result of the Proposed Action.

The use of energy, labor, and fuel for operation of demolition equipment would represent an irretrievable commitment of resources. The amount of fuel used during construction activities is negligible when compared to the amount of fuel that is used during normal operations at GFAFB. Financial resources would also be committed to the demolition project.

The project would reverse a previous long-term conversion of a natural area to an aircraft facility.

CHAPTER 5

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CHAPTER 5 LIST OF PREPARERS

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CHAPTER 6

LIST OF AGENCIES AND PERSONS CONSULTED AND/OR PROVIDED COPIES

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This chapter includes a summary of agency coordination and public involvement that has occurred during the development of this EA. Future public involvement efforts that are planned for the project are also discussed. Appendix A contains agency coordination letters received during the NEPA process for the project.

6.1 Agency Coordination

Early agency coordination commenced on October 14, 2004, through letters to several Federal and state government agencies to announce the initiation of the Demolition of Alpha Ramp project and to solicit feedback from agencies on their relevant areas of expertise. The following entities were contacted as part of the early coordination efforts:

Federal Agencies

- U.S. Fish & Wildlife Service (USFWS) – North Dakota Field Office

State Agencies

- North Dakota Department of Health (NDDH)
- North Dakota Game and Fish Department (NDGFD)
- State Historical Society of North Dakota (SHSND)
- North Dakota Division of Community Services

Letters from agencies are provided in Appendix A. Comments received are summarized as follows:

NDDH

- Fugitive dust emission from demolition activities must be minimized.
- Minimize degradation to waterways by replacement and revegetation of any disturbed area as soon as possible after work has been completed. A stormwater permit is required if more than one acre would be disturbed. Check with local officials to address any local stormwater management considerations.
- Take all necessary measures to minimize the disturbance of ACM and prevent asbestos fiber release. Remove friable ACM in accordance with North Dakota air pollution rules. All solid waste materials must be managed and transported in accordance with North Dakota solid and hazardous waste rules. Efforts to reduce, reuse, and recycle waste materials are strongly encouraged.

USFWS

- No endangered or threatened species are known to occupy the project area. The project as described will have no significant impact on fish and wildlife resources.

NDGFD

- After review of the project with the provided information, no identifiable conflict with wildlife or wildlife habitat is foreseen.

North Dakota Department of Commerce

- Clearance is given to the project (State Application Identifier Number ND050725-0401) only with respect to the information provided in the DOPAA. If there are changes in the project's duration, scope, description, budge, location, or area of impact, it is necessary to submit a revised application.

SHSND

- Based on the information provided, a no-effect determination is confirmed for impacts on demolition of the A-Ramp buildings and facilities.

The EA was distributed to the agencies that were involved with early coordination, as well as the following agencies:

Federal Agencies

- U.S. Environmental Protection Agency
- U.S. Department of Interior
- U.S. Army Corps of Engineers (USACE) – St. Paul District Office and Bismarck Regulatory Office
- Federal Aviation Administration

State Agencies

- North Dakota State Water Commission

Appendix A includes the letter sent to the North Dakota Division of Community Services requesting review of the EA, with the distribution list of all agencies that received a similar letter. Agency comment letters on the Draft EA and FONSI/FONPA and a teleconference summary with USACE are also provided in Appendix A. Comments received are summarized as follows (with USAF response in brackets):

USACE

- A recent U.S. Supreme Court decision on wetlands may affect whether wetlands impacted by the project would be jurisdictional. If an area identified as jurisdictional by USACE would be affected by the project, prepare and submit a permit application (Nationwide Permit or Section 404 Permit as appropriate). [Mitigation for wetlands will only be performed if required as part of the 404 permitting process.]

SHSND

- The SHSND concurs with a “No Historic Properties Affected” determination, provided the project is of the nature specified and takes place in the legal description outlined and mapped in the EA.

North Dakota State Water Commission

- The project is not located in, and is believed to not affect an, identified floodplain. Waste material associated with the project must be disposed of properly and not placed in identified floodplain areas. No sole-source aquifers would be affected by this project because none have been designated in North Dakota.

NDDH

- The Department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. The same recommendations made through their early coordination response were reiterated. Methods to reduce noise levels of construction equipment and activities were also recommended.
- If a Section 404 Permit would be needed through USACE, a water quality certification by NDDH may be required.

NDGFD

- The Department does not believe the project will cause any significant adverse effects on wildlife or wildlife habitat, including endangered species, provided the approximately 5.2 acres of wetlands slated to be filled are mitigated in kind during or in advance of construction. [The preservation of A-Ramp Perimeter Road implementation Alternative, which is the selected alternative for this project, would only affect approximately 1.3 acres of wetlands; Grand Forks AFB would mitigate for the loss of these wetlands if required as part of the Section 404 permitting process.]

USFWS

- The Project as described will have no significant impact on fish and wildlife resources. No endangered or threatened species are known to occupy the project area. Please submit plans for review if project design changes are made.

6.2 Public Involvement

The Draft EA was made available to the public through notification in the *Grand Forks Herald* and Grand Forks AFB Leader, and a copy was sent to the Grand Forks Public Library and Grand Forks AFB Library for public review. No public comments were received during the 30-day review period.

CHAPTER 7

REFERENCES

CHAPTER 7 REFERENCES

- 32 CFR 989. Air Force Environmental Impact Analysis Process.
- 33 CFR 328. Definition of Waters of the United States.
- 40 CFR 50. National Primary and Secondary Ambient Air Quality Standards.
- 40 CFR 52.21. Prevention of Significant Deterioration of Air Quality.
- 40 CFR 261.3. Definition of Hazardous Waste.
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- USAF. 11 March 2005. *Grand Forks AFB Annual Emissions Inventory, 2004*.

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APPENDIX A

EARLY COORDINATION AND AGENCY CORRESPONDENCE

North Dakota
Department of Commerce

Community Services

Economic
Development & Finance

Tourism

Workforce Development



Century Center

1600 E. Century Ave

Suite 2

PO Box 2057

Bismarck, ND 58502-2057

Phone 701-328-5300

Fax 701-328-5320

www.ndcommerce.com



July 25, 2005

Brian Gross
HDR Engineering, Inc.
8404 Indian Hills Dr.
Omaha, NE 68114-4098

"Letter of Clearance" In Conformance with the North Dakota Federal Program
Review System - State Application Identifier No.: ND050725-0401

Dear Mr. Gross:

SUBJECT: DOPAA - Demolition of Alpha Ramp Draft Environmental
Assessment, Grand Forks AFB, ND

The above referenced DOPAA has been reviewed through the North Dakota Federal
Program Review Process. As a result of the review, clearance is given to the project
only with respect to this consultation process.

If the proposed project changes in duration, scope, description, budget, location or
area of impact, from the project description submitted for review, then it is necessary
to submit a copy of the completed application to this office for further review.

We also request the opportunity for complete review of applications for renewal or
continuation grants within one year after the date of this letter.

Please use the above SAI number for reference to the above project with this office.
Your continued cooperation in the review process is much appreciated.

Sincerely,

A handwritten signature in cursive script that reads "James R. Boyd".

James R. Boyd
Manager of Governmental Services
Division of Community Services

jml

July 20, 2005

Jeffrey K. Towner, Field Supervisor
U. S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, North Dakota 58501-7926

RE: Demolition of Alpha Ramp Draft Environmental Assessment
Description of Proposed Action and Alternatives
Grand Forks Air Force Base, North Dakota

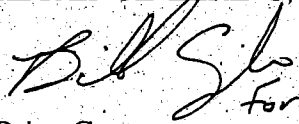
Dear Mr. Towner:

On behalf of the Department of Defense and the 319th Air Refueling Wing, HDR Engineering, Inc. (HDR) is preparing an Environmental Assessment for the mechanical demolition of all Alpha Ramp (A Ramp) buildings, facilities, and pavement at Grand Forks Air Force Base, North Dakota. Demolition of A Ramp buildings, facilities, and other features is needed as the ramp has not been used by aircraft for several years and the structures, which were constructed in the Cold War era, are no longer needed. Following demolition, the A Ramp area would be restored to a maintained grassy area; future reuse is undetermined at this time. A detailed Description of Proposed Action and Alternatives (DOPAA) is included with this correspondence as Attachment 1.

The environmental impact analysis process for this proposal is being conducted by the Department of Defense in accordance with the Council on Environmental Quality guidelines 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. Please provide written comments or information regarding the action at your earliest convenience but no later than August 23, 2005. Also enclosed is a listing of the agencies that were sent this information (Attachment 2). 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 the attached materials.

If you require any additional information or have any questions concerning this request please contact me at (402) 399-4933.

Sincerely,
HDR ENGINEERING, INC.



Brian Goss
Project Manager

cc: Diane Strom, Grand Forks AFB

Enclosures

- 1 Description of Proposed Action and Alternatives
- 2 Distribution List

U.S. FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES
ND FIELD OFFICE

Project as described will have no significant impact on fish and wildlife resources. No endangered or threatened species are known to occupy the project area. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT PLANS FOR REVIEW.

8/2/05
Date

Jeffrey K. Towner
Jeffrey K. Towner
Field Supervisor



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
1200 Missouri Avenue, Bismarck, ND 58504-5264
P.O. Box 5520, Bismarck, ND 58506-5520
701.328.5200 (fax)
www.ndhealth.gov



August 4, 2005

Mr. Brian Gross
Project Manager
HDR Engineering, Inc.
8404 Indian Hills Drive
Omaha, NE 68114-4098

Re: Draft EA for Demolition of Alpha Ramp
Grand Forks AFB, Grand Forks County

Dear Mr. Gross:

This department has reviewed the information concerning the above-referenced project submitted to Dr. Terry Dwelle under date of July 20, 2005, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed demolition will be minor and can be controlled by proper demolition methods. With respect to demolition, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during demolition activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. Care is to be taken during demolition activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during demolition are attached.
3. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Also, cities may impose additional requirements and/or specific best management practices for demolition affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.
4. All necessary measures must be taken to minimize the disturbance of any asbestos-containing material and to prevent any asbestos fiber release episodes. Removal of any

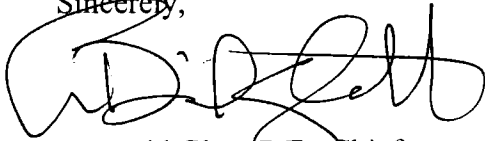
friable asbestos-containing material must be accomplished in accordance with section 33-15-13-02 of the North Dakota air pollution control rules.

5. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. Asphalt/concrete materials can be crushed and reused as aggregate. Information on concrete crushers is available from the Department's Division of Waste Management at (701) 328-5166. All mercury, metals and ballasts (oil) can be recycled. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is also available from the Department's Division of Waste Management.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. David Glatt', written over a horizontal line.

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

ONE COMPANY ¹ Many Solutions SM

July 20, 2005

Mr. Dean Hildebrand
Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, ND 58501

RE: Demolition of Alpha Ramp Draft Environmental Assessment
Description of Proposed Action and Alternatives
Grand Forks Air Force Base, North Dakota

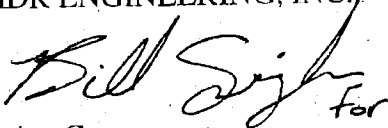
Dear Mr. Hildebrand:

On behalf of the Department of Defense and the 319th Air Refueling Wing, HDR Engineering, Inc. (HDR) is preparing an Environmental Assessment for the mechanical demolition of all Alpha Ramp (A Ramp) buildings, facilities, and pavement at Grand Forks Air Force Base, North Dakota. Demolition of A Ramp buildings, facilities, and other features is needed as the ramp has not been used by aircraft for several years and the structures, which were constructed in the Cold War era, are no longer needed. Following demolition, the A Ramp area would be restored to a maintained grassy area; future reuse is undetermined at this time. A detailed Description of Proposed Action and Alternatives (DOPAA) is included with this correspondence as Attachment 1.

The environmental impact analysis process for this proposal is being conducted by the Department of Defense in accordance with the Council on Environmental Quality guidelines 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. Please provide written comments or information regarding the action at your earliest convenience but no later than August 23, 2005. Also enclosed is a listing of the agencies that were sent this information (Attachment 2). 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 the attached materials.

If you require any additional information or have any questions concerning this request please contact me at (402) 399-4933.

Sincerely,
HDR ENGINEERING, INC.



Brian Goss
Project Manager

cc: Diane Strom, Grand Forks AFB

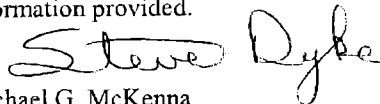
Enclosures

- 1 Description of Proposed Action and Alternatives
- 2 Distribution List



North Dakota Game & Fish Dept.
100 N. Bismarck Expressway
Bismarck, ND 58501-5095

We have reviewed the project and foresee no identifiable conflict with wildlife or wildlife habitat based on the information provided.



(for) Michael G. McKenna
Chief, Conservation & Communication Division
Date: 8/23/05



**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

John Hoeven
Governor of North Dakota

**North Dakota
State Historical Board**

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Williston - President

Albert I. Berger
Grand Forks - Vice President

Chester E. Nelson, Jr.
Bismarck - Secretary

Gereld Gerntholz
Valley City

A. Ruric Todd III
Jamestown

Diane K. Larson
Bismarck

John E. Von Rueden
Bismarck

Sara Otte Coleman
*Director
Tourism Division*

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
*Director
Parks and Recreation
Department*

David A. Sprynczynatyk
*Director
Department of
Transportation*

Merlan E. Paaverud, Jr.
Director

*Accredited by the
American Association
of Museums*

January 20, 2006

Ms. Diane Strom, 319 CES/CEVA
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205-6434

Mr. Brian Goss, Project Manager
HDR Engineering, Inc.
8404 Indian Hills Drive
Omaha, ND 68114-4098

ND SHPO Ref.:97-0527 F Demolition of Alpha Ramp Draft EA

Dear Ms. Strom,

We reviewed ND SHPO Ref.:97-0527 F Demolition of Alpha Ramp Draft EA, provided by Mr. Goss. We would concur with a "No Historic Properties Affected" determination, if so requested by the lead federal agency, provided the project is of the nature specified and takes place in the legal description outlined and mapped in the report and HDR correspondence.

If you have any questions please contact Susan Quinnell, at (701) 328-3576.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)

August 2, 2006

North Dakota Division of Community Services
Century Center
1600 East Century Avenue, Suite 2
P.O. Box 2057
Bismarck, ND 58503

RE: Demolition of Alpha Ramp Draft Environmental Assessment
Grand Forks Air Force Base, North Dakota

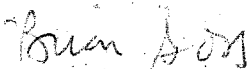
To Whom It May Concern:

On behalf of the Department of Defense and the 319th Air Refueling Wing, HDR Engineering, Inc. (HDR) has prepared an Environmental Assessment (EA) for the mechanical demolition of all Alpha Ramp (A-Ramp) buildings, facilities, and pavement at Grand Forks Air Force Base, North Dakota. The purposes of the project are: to remove the A-Ramp facilities and infrastructure that are no longer needed; to remove excess buildings and utilities that represent sources of potential contamination; and to remove excess buildings and facilities (including walls) that require flight-line waivers. Following demolition, the A Ramp area would be regraded for erosion and drainage control and revegetated to suitable hay grass; future reuse is undetermined at this time.

The environmental impact analysis process for this proposed project is being conducted by the Department of Defense in accordance with the Council on Environmental Quality guidelines 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 EA and Finding of No Significant Impact/Finding of No Practicable Alternative (Attachment 1) and solicit your comments concerning the project and any potential environmental consequences. Please provide written comments at your earliest convenience but no later than September 5, 2006. Also enclosed (Attachment 2) is a listing of the agencies that were sent Attachment 1 for review.

If you require any additional information or have any questions concerning this request please contact me at (402) 399-4933.

Sincerely,
HDR ENGINEERING, INC.



Brian Goss
Project Manager

cc: Diane Strom, Grand Forks AFB

Attachments

- 1 Environmental Assessment and Finding of No Significant Impact/Finding of No Practicable Alternative
- 2 Distribution List

Environmental Impact Analysis Process for the Demolition of Alpha Ramp Facilities at Grand Forks AFB, North Dakota

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) List

Dr. Terry Dwelle
State Health Officer
North Dakota Department of Health
600 East Boulevard Avenue
Bismarck, ND 58505-0200

North Dakota Division of Community Services
Century Center
1600 East Century Avenue, Suite 2
P.O. Box 2057
Bismarck, ND 58503

Mr. Terry Steinwand
Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, ND 58501

Mr. Larry Knudtson, Planning
North Dakota State Water Commission
900 E Boulevard Avenue, Dept 770
Bismarck, ND 58505-0850

Mr. Merlan E. Paaverud
State Historic Preservation Officer
State Historical Society of North Dakota
612 East Boulevard Avenue
Bismarck, ND 58505-0200

U.S. Army Corps of Engineers
St. Paul District Office
190 Fifth Street East
St. Paul, MN 55101-1638

Jeffrey K. Towner, Field Supervisor
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

Mr. Jim Winters
Bismarck Regulatory Office
Omaha District, USACE
1513 South 12th Street
Bismarck, ND 58504

Mr. Larry Svoboda
NEPA Unit Chief
USEPA Region 8
999 18th Street, Suite 500
Denver, CO 80202

Ms. Cindy Cody
Environmental Review Coordinator
USEPA Region 8
999 18th Street, Suite 500
Denver, CO 80202

Mr. Robert F. Stewart
Office of Environmental Policy and Compliance
U.S. Department of Interior
P.O. Box 25007 (D-108)
Denver Federal Center
Denver, CO 80225-0007

Mr. Mark Schenkelburg
Federal Aviation Administration
Airports Division, ACE-615B
901 Locust Street
Kansas City, MO 64106

PUBLIC NOTICE

Availability of Environmental Assessment and Draft Finding of No Significant Impact/Finding of No Practicable Alternative for Demolition of Alpha-Ramp Grand Forks Air Force Base, North Dakota

The Air Force has conducted an assessment of the potential environmental and socioeconomic effects associated with demolition of the Alpha Ramp (A-Ramp) at Grand Forks Air Force Base.

Demolition of A-Ramp buildings, facilities and other features is needed because the ramp has not been used by aircraft for several years and these structures, constructed in the Cold War era, are no longer needed. The project will include mechanical demolition of all A-Ramp buildings, facilities (including the facility wall and security fence) and pavement; regrading of the area for erosion and drainage control; and revegetation of the area to suitable hay grass.

Based on the environmental assessment, it was determined that the A-Ramp Perimeter road preservation implementation alternative would result in no significant impact to the quality of the natural or human environment. Therefore, an environmental impact statement is not required and a draft finding of no significant impact (FONSI) has been prepared. In accordance with Air Force regulations, a finding of no practical alternative (FONPA) has also been prepared for minor wetland impacts which are unavoidable. A combined FONSI and FONPA document was prepared to minimize paperwork.

The draft final EA and draft FONSI/FONPA are available for review and comment for 30 days, from August 5, 2006 through September 5, 2006, at the Grand Forks Public Library (2110 Library Circle, Grand Forks, ND 58201, telephone 701-772-8116), and at the Grand Forks AFB Library (511 Holzapple Street, Grand Forks AFB, ND 58205, telephone 701-747-3046).

If you have any questions or comments please contact Public Affairs Officer, 319 ARW/PA, 375 Steen Blvd., Grand Forks AFB, North Dakota 58205-6434; telephone (701)747-5017; or e-mail PA@grandforks.af.mil.

Written comments should be sent to the above address or email no later than September 5, 2006 to ensure consideration. The civil engineer of Air Mobility Command will review all comments received by that date before making a decision to sign the final FONSI.

Public environmental notice

The Air Force has conducted an assessment of the potential environmental and socioeconomic effects associated with demolition of the Alpha Ramp at Grand Forks Air Force Base.

Demolition of A-Ramp buildings, facilities and other features is needed because the ramp has not been used by aircraft for several years and these structures, constructed in the Cold War era, are no longer needed. The project will include mechanical demolition of all A-Ramp buildings, facilities (including the facility wall and security fence) and pavement; regrading of the area for erosion and drainage control; and revegetation of the area to suitable hay grass.

Based on the environmental assessment, it was determined that the A-Ramp Perimeter road preservation implementation alternative would result in no significant impact to the quality of the natural or human environment. Therefore, an environmental impact statement is not required and a draft finding of no significant impact has been prepared. In accordance with Air Force regulations, a finding of no practical alternative has also been prepared for minor wetland impacts which are unavoidable. A combined FONSI and FONPA document was prepared to minimize paperwork.

The draft final EA and draft FONSI/FONPA are available for review and comment for 30 days, from Aug. 15, through Sept. 5, at the Grand Forks Public Library (2110 Library

Circle, Grand Forks, ND 58201, telephone 701-772-8116), and at the Grand Forks AFB Library (511 Holzapple Street, Grand Forks AFB, ND 58205, telephone 701-747-3046).

If you have any questions or comments please contact the public affairs office, 319 ARW/PA, 375 Steen Blvd., Grand Forks AFB, North Dakota 58205-6434; telephone (701) 747-5023; or e-mail PA@grandforks.af.mil.

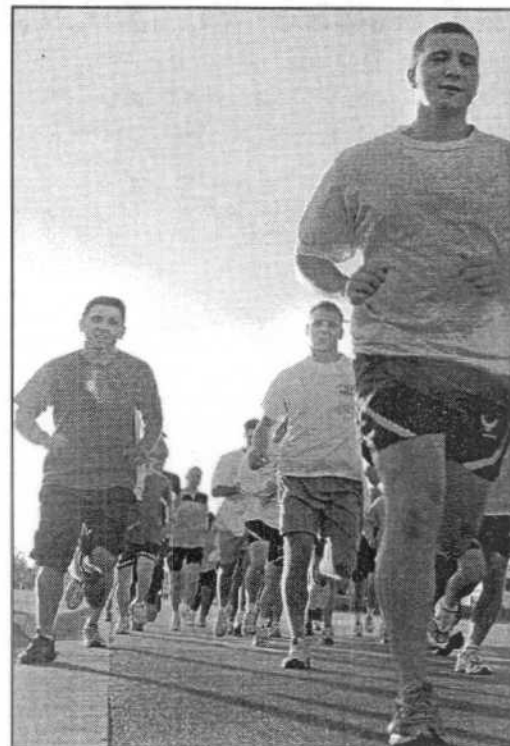
Written comments should be sent to the above address or email no later than Sept. 5 to ensure consideration. The civil engineer of Air Mobility Command will review all comments received by that date before making a decision to sign the final FONSI.

Blood drive

During August, blood donors at Dak-Minn Blood Bank will receive a coupon for a free ice cream treat from a local fast food restaurant at South Washington and north Grand Forks locations. These blizzards are just a sweet treat to say thank you for donating blood.

The summer has brought shortages in blood inventory around the nation, and the Dak-Minn Blood Bank is no exception.

The blood bank, located inside Altru Hospital, is open Monday through Thursday 9:30 a.m. to 6:00 p.m. Appointments can be made by calling (701) 780-LIFE (5433) or emailing blood donations@altru.org. Walk-ins are also welcome. Free cholesterol checks will be done through the end of the month.



Running for the fun o'

Warriors of the North and their families start out Fun Run. Members of the base community are scheduled Sept. 15 at 8 a.m. (Photo by Staff Sgt. Sg)

Uniform changes

Following the Air Force Chief of Staff's vision of "lasting heritage - limitless horizons," the Air Force Uniform Board made minor changes to the enlisted uniform.

These changes include returning to the US insignia with circle for the serv-

ice dre
the opt
blue
chevro
The
cled ins
Man
sleeves


Balto
 Adult Male


Beauty
 Young Female


Carla
 Adult Female


Jack
 Adult Male


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NORTHWOOD ME RODEO

AUG. 26, 2 PM & AUG. 27

**LOCATION: 1/2 MILE EAST OF RA
ON HIGHWAY 15, NORTHV**

RODEO DANCE

ON MAIN STREET - ALL AGES

SATURDAY, AUGUST 26

ADMISSION \$8.00

Roughrider Rodeo Association
Entry Information 701-624-5226

Project:	Grand Forks AFB A-Ramp Environmental Assessment	Project No:	23448
Date:	August 10, 2006	Subject:	A-Ramp Draft EA Review
Call to:	Patsy Crooke, Bismarck Office USACE	Phone No:	701-255-0015
Call from:	Brian Goss	Phone No:	402-399-4933

Discussion, Agreement and/or Action:

Patsy Crooke left a message from Brian regarding her review of the A-Ramp Demolition Draft EA. Brian contacted her and the following is a summary of their discussion.

Patsy noted she had worked with Kristen Rundquist of Grand Forks AFB in the past and indicated that she did a jurisdictional determination recently [we have a jurisdictional map dated June 2005]. She asked if all the wetlands in the project area had been reviewed in the determination. Brian noted that some inside the A-Ramp area had not been delineated prior to the jurisdictional determination but that the other wetlands appeared to be reviewed and primarily were non-jurisdictional. Brian indicated a portion of the West Drainage Ditch on the northwest of the project area was identified as jurisdictional. Patsy mentioned that the recent Supreme Court case on wetlands would affect whether or not the wetlands in this area would require a Nationwide or Section 404 permit. If none of the wetlands would be jurisdictional, the need for a permit would be moot. She recommended that if an area identified as jurisdictional would be affected by the project, then a permit application be prepared (Nationwide or Section 404 as appropriate). The Supreme Court decision is still being interpreted by the USACE, and perhaps a clearer distinction can be made with the information in the application. Patsy has assigned a project number to the A-Ramp project that would be used on the permit application: 200660519.



**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

John Hoeven
Governor of North Dakota

August 11, 2006

**North Dakota
State Historical Board**

Marvin L. Kaiser
Williston - President

Albert I. Berger
Grand Forks - Vice President

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Bismarck - Secretary

Gerold Gerntholz
Valley City

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Jamestown

Diane K. Larson
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John E. Von Rueden
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Sara Otte Coleman
*Director
Tourism Division*

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
*Director
Parks and Recreation
Department*

David A. Sprynczynatyk
*Director
Department of
Transportation*

Merlan E. Paaverud, Jr.
Director

*Accredited by the
American Association
of Museums*

Mr. Brian Goss
HDR
8404 Indian Hills Drive
Omaha, NE 68114

Ms. Diane M. Strom
Environmental Impact Analysis Program
319 CES/CEVA, Room 128
525 Tuskegee Airmen Blvd.
Grand Forks AFB ND 58205-6434

ND SHPO Ref.:97-0527BH EA for mechanical demolition of all Alpha Ramp buildings, facilities and pavement at Grand Forks Air Force Base [T152N R53W Sections 34 and 35] Grand Forks County, North Dakota

Dear Mr. Goss and Ms. Strom,

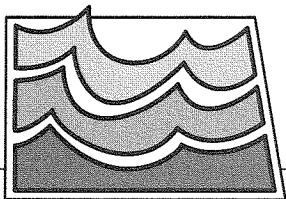
We reviewed "Draft Environmental Assessment Demolition of Alpha Ramp Grand Forks Air Force Base, North Dakota."

We concur with a "No Historic Properties Affected" determination, provided the project is of the nature specified and takes place in the legal description outlined and mapped in the report.

Thank you for the opportunity to review this project. If you have any questions please contact Susan Quinnell, at (701) 328-3576, e-mail squinnell@nd.gov

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850 • 701-328-2750
TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: <http://www.swc.state.nd.us/>

August 30, 2006

Brian Goss
HDR
8404 Indian Hills Drive
Omaha, NE 58114-4098

Dear Mr. Goss:

This is in response to your request for review of environmental impacts associated with the Demolition of Alpha Ramp Draft Environmental Assessment, Grand Forks Air Force Base, North Dakota.

The proposed project has been reviewed by State Water Commission staff and the following comments are provided:

- The property is not located in an identified floodplain and it is believed the project will not affect an identified floodplain.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.
- No sole-source aquifers have been designated in ND.

There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 328-4969.

Sincerely,

Larry Knudtson
Research Analyst

LJK:ds/1570



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



August 30, 2006

Brian Goss, Project Manager
HDR Engineering, Inc.
8404 Indian Hills Drive
Omaha, NE 68114-4098

Re: Draft Environmental Assessment for Demolition of Alpha Ramp
Grand Forks Air force Base, Grand Forks County

Dear Mr. Goss:

This department has reviewed the information concerning the above-referenced project submitted under date of August 2, 2006, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

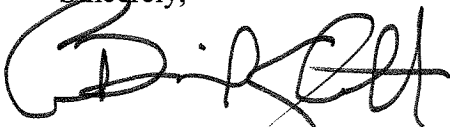
4. All necessary measures must be taken to minimize the disturbance of any asbestos-containing material and to prevent any asbestos fiber release episodes. Any facility that is to be renovated or demolished must be inspected for asbestos. Notification of the Department's Division of Air Quality (701-328-5188) is required before any demolition. Removal of any friable asbestos-containing material must be accomplished in accordance with section 33-15-13-02 of the North Dakota air pollution control rules.
5. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.
6. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is available from the Department's Division of Waste Management at (701) 328-5166.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. David Glatt', written over a horizontal line.

L. David Glatt, P.E. Chief
Environmental Health Section

LDG:cc
Attach.



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

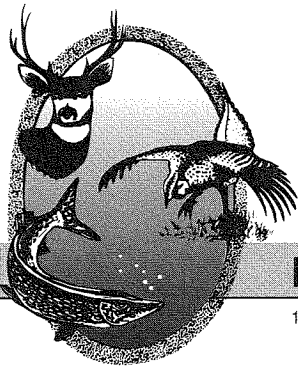
Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.



"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

August 31, 2006

Brian Goss
Project Manager
HDR Engineering, Inc.
8404 Indian Hills Drive
Omaha, NE 68114-4098

Dear Mr. Goss:

RE: Demolition of Alpha Ramp Draft Environmental Assessment
Grand Forks Air Force Base, North Dakota

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns. We do not believe it will have any significant adverse effects on wildlife or wildlife habitat, including endangered species, provided the approximately 5.2 acres of wetlands slated to be filled are mitigated in kind either concurrently or in advance of construction.

Sincerely,

Michael G. McKenna
Chief
Conservation & Communication Division

js

August 2, 2006

Jeffrey K. Towner, Field Supervisor
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

RE: Demolition of Alpha Ramp Draft Environmental Assessment
Grand Forks Air Force Base, North Dakota

To Whom It May Concern:

On behalf of the Department of Defense and the 319th Air Refueling Wing, HDR Engineering, Inc. (HDR) has prepared an Environmental Assessment (EA) for the mechanical demolition of all Alpha Ramp (A-Ramp) buildings, facilities, and pavement at Grand Forks Air Force Base, North Dakota. The purposes of the project are: to remove the A-Ramp facilities and infrastructure that are no longer needed; to remove excess buildings and utilities that represent sources of potential contamination; and to remove excess buildings and facilities (including walls) that require flight-line waivers. Following demolition, the A Ramp area would be regraded for erosion and drainage control and revegetated to suitable hay grass; future reuse is undetermined at this time.

The environmental impact analysis process for this proposed project is being conducted by the Department of Defense in accordance with the Council on Environmental Quality guidelines 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 EA and Finding of No Significant Impact/Finding of No Practicable Alternative (Attachment 1) and solicit your comments concerning the project and any potential environmental consequences. Please provide written comments at your earliest convenience but no later than September 5, 2006. Also enclosed (Attachment 2) is a listing of the agencies that were sent Attachment 1 for review.

If you require any additional information or have any questions concerning this request please contact me at (402) 399-4933.

Sincerely,
HDR ENGINEERING, INC.

Brian Goss

Brian Goss
Project Manager

cc: Diane Strom, Grand Forks AFB

Attachments

- 1 Environmental Assessment and Finding of No Significant Impact/Finding of No Practicable Alternative
- 2 Distribution List

U.S. FISH AND WILDLIFE SERVICE

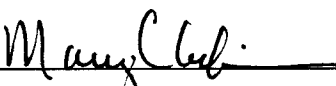
ECOLOGICAL SERVICES
ND FIELD OFFICE

Project as described will have no significant impact on fish and wildlife resources. No endangered or threatened species are known to occupy the project area. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT PLANS FOR REVIEW.

9-6-06
Date

Jeffrey K. Towner
Jeffrey K. Towner
Field Supervisor

APPENDIX B
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS			Report Control Symbol RCS: 2004-116	
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).				
SECTION I - PROPONENT INFORMATION				
1. TO (Environmental Planning Function) 319 CES/CEVA	2. FROM (Proponent organization and functional address symbol) 319 CES/CD	2a. TELEPHONE NO. 701-747-4761		
3. TITLE OF PROPOSED ACTION Demolish the Alpha Ramp and all associated facilities and utilities (JFSD200283).				
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) Grand Forks AFB proposes to demolish Alpha Ramp on project number JFSD200283 in 2007. Facilities were constructed in the Cold War era and are no longer needed. The ramp area has not been used for several years.				
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) Demolish the Alpha Ramp and all associated facilities and utilities, including communication cabling, lighting system, sewer system, and a lift station. Demolish or reutilize 20 ft high concrete barrier walls surrounding Alpha Ramp.				
6. PROPONENT APPROVAL (Name and Grade) MARY C. GILTNER, GM-13 Deputy Base Civil Engineer	6a. SIGNATURE 		6b. DATE 6-30-05	
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)			+	0
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)			☐	☐
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)			☐	☐
9. WATER RESOURCES (Quality, quantity, source, etc.)			☐	☐
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)			☐	☐
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)			☐	☐
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)			☐	☐
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)			☐	☒
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)			☐	☒
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)			☐	☒
16. OTHER (Potential impacts not addressed above.)			☐	☒
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION				
17. ☐ PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____ ; OR ☒ PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.				
18. REMARKS				
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) WAYNE A. KOOP, R.E.M., GS-13 Environmental Management Flight Chief		19a. SIGNATURE 		19b. DATE JUN 30 2005

- 4.0 Purpose and Need for Action, RCS # 2004-116, Demolish the Alpha Ramp (JFSD200283)
- 4.1 Purpose of the Action (mission objectives-who proposes to do what, where, when): Grand Forks AFB is planning to demolish Alpha Ramp on project number JFSD200283 in 2007.
- 4.2 Need for the Action (why this action is desired or required-why here, why now): Facilities were constructed in the Cold War era and are no longer needed. The ramp area has not been used for several years.
- 4.3 Objectives for the Action (what goal do you wish to accomplish): Demolish the Alpha Ramp area to provide room for a new mission, or a new use of the land area, such as additional nine holes for the golf course.
- 4.4 Related EISs/EAs and other documents (similar projects in the past): EBS # 1996-033 Explosive Quantity Distance - Alpha Ramp; Catex # 2001-092 Repair Driveway - A Ramp Maintenance, Catex # 2001-093 Construct Driveway - A Ramp Maintenance Bldgs, Catex # 2003-091 Install parking curbs (blocks) from taxiway to the end of the red line.
- 4.5 Decision that must be made: Demolish the Alpha Ramp and all associated facilities and utilities.
- 4.6 Applicable Regulatory Requirements and Required Coordination-- required permits, licenses, entitlements: Contractor must submit a Work Clearance Request, Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, Erosion and Sediment Control Plan to the CEV Water Program Manager and Contracting Officer.
- 5.0 Description of Proposed Action and Alternatives
- 5.1 Description of the proposed action (in brief, introduction): Demolish Alpha Ramp and all associated facilities.
- 5.2 Selection criteria for Alternatives
- 5.2.1 Minimum mission requirements: effectiveness, timeliness, cost effective, legality, safety, efficiency.
- 5.2.2 Minimum environmental standards : noise, air, water, safety, HW, vegetation, cultural, geology, soils, socioeconomic.
- 5.3 Alternatives Considered but Eliminated from Detailed Study:
- 5.4 Description of proposed alternatives
- 5.4.1 No-action alternative: Continue to leave the existing buildings in their current condition. Bldg 807 and 831 would continue to be used by Security Forces for training. The other buildings would remain pickled, unused and present a mold problem.
- 5.4.2 Proposed Action:
Grand Forks AFB proposes to demolish Alpha Ramp on project number JFSD200283 in 2007. The ramp area has not been used for several years. Facilities were constructed in the Cold War era and are no longer needed. In addition to the ramp, there are miscellaneous buildings and structures that would also need to be demolished. Facilities include:
Squadron Operations (Bldg 807) - 27,163 SF = 2524 SM. Reserve Fire Team Facility (Bldg 809) - 2,112 SF = 196 SM.
Recreation Basketball Court with two backstops and chain link fence (Facility 810), 1 EA.
Maintenance Tool Crib and Storage (Bldg 831) - 4,000 SF = 372 SM.
Gymnasium (Bldg 846) - 3,232 SF = 300 SM. Crew Readiness (Bldg 847) - 3,232 SF = 300 SM.
Crew Readiness (Bldg 848) - 3,232 SF = 300 SM.
Crew Readiness (Bldg 850) - 3,232 SF = 300 SM. Alert Fitness Recreation Center (Bldg 849) - 5,170 SF = 481 SM.
AGE Maintenance (Bldg 851) - 1,600 SF = 149 SM.
Hazard Storage (Bldg 853) - 144 SF = 13 SM.
Security Main Entry Control Building (Bldg 858) - 420 SF = 39 SM.
Electric Power Station Generator Building (Bldg 859) - 1,220 SF = 113 SM.
Taxiway Entry Control Building (Bldg 867) - 48 SF = 4 SM.
Jet Fuel Operating Fuel Storage Tank Aboveground (Bldg 876), 1000 GL.
Underground Storage Tanks: 807-1-2, 807-2-2, 859-1-2. Security Fence Alert Vehicle Barrier Wall (Bldg 879) - 6,573 LF.
Pre-Engineered Revetment Concrete Security Barrier (Bldg 886) - 55 LF.
Aircraft Apron - Alpha Ramp (Facility 942) - 135,407 SY Aboveground Storage Tank 876.
Underground Storage Tanks 807-1-2, 807-2-2, 859-1-2 programmed for removal CEVC (JFSD 569913).
The facilities serve as residences, dining areas, communication complex, and alert center. There is also a series of 10-foot deep tunnels used as an entrance connecting some buildings that would need to be demolished. Security walls approximately 20 feet high would also be demolished, or moved to another use on the base. Utility systems may include PCB ballasts and mercury switches. Asbestos and lead-based paint may be present in the buildings, and asbestos may have been used to line the culverts. Communication cabling, lighting system, sewer system, and a lift station would also need to be removed. The area contains drainage ditch wetlands which will require mitigation.
- 5.4.3 Another Reasonable Action Alternative: Remodel and reutilize the facilities in the Alpha Ramp area for another mission.
- 5.5 Description of Past and Reasonably Foreseeable Future Actions Relevant to Cumulative Impacts: There are several other construction and demolition projects occurring on Grand Forks AFB in the same time frame. These projects are addressed under separate NEPA documents.
- 5.6 Recommendation of preferred alternative: Demolish Alpha Ramp and all associated facilities and utilities.

APPENDIX C

DD FORM 1391

1. COMPONENT AIR FORCE	FY 2006 PROJECT DATA (computer generated)			2. DATE
3. INSTALLATION AND LOCATION GRAND FORKS AIR FORCE BASE, NORTH DAKOTA			4. PROJECT TITLE DEMO A-RAMP & ALERT FACILITIES	
5. PROGRAM ELEMENT 41893	6. CATEGORY CODE 141-459	7. PROJECT NUMBER JFSD200283	8. PROJECT COST (\$000) EEIC 592 5,500.1	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT	COST
ALPHA PAD DEMOLITION				3,812.3
BLDG 807- SAC ALERT FACILITY	SM	2,526	161	(407.7)
BLDG 809- SECURITY FORCES FIRE TEAM FACILITY	SM	196	161	(31.6)
BLDG 831- MAINTENANCE TOOL CRIB AND STORAGE	SM	372	161	(60.0)
BLDG 846- CREW READINESS	SM	301	162	(48.9)
BLDG 847- CREW READINESS	SM	301	161	(48.6)
BLDG 848- CREW READINESS	SM	301	161	(48.6)
BLDG 850- CREW READINESS	SM	301	161	(48.6)
BLDG 849- ALERT FITNESS CENTER/RECREATION	SM	481	161	(77.6)
BLDG 851- AGE MAINTENANCE	SM	149	161	(24.0)
BLDG 585- SECURITY MAIN ENTRY CONTROL BLDG	SM	39	161	(6.3)
BLDG 859- GENERATOR BLDG	SM	113	161	(18.2)
BLDG 867-TAXIWAY ENTRY CONTROL BLDG	SM	4	161	(0.6)
BLDG 876- FUEL STORAGE	SM	6	161	(1.0)
BLDG 879- ALERT BARRIER WALL	SM	3,632	161	(586.2)
BLDG 886- CONCRETE SECURITY BARRIER	SM	2	161	(0.3)
ALPHA RAMP	SM	14,896	161	(2,404.1)
SUPPORTING FACILITIES				587.8
DEMO AND SEAL-UTILITIES	SM	23,595	21	(502.1)
SITE IMPROVEMENT	SM	23,595	4	(85.6)
SUBTOTAL				4,400.1
PROFIT AND OVERHEAD (25 %)				1,100.0
TOTAL FUNDED COST				5,500.1
UNFUNDED COST (0 %)				0.0
TOTAL REQUEST				5,500.1
10. Description of Proposed Work:				
11. Requirement: As Required.				