**Environmental Assessment: Construct Access Road Pave Contractor’s Row Gravel SNG Plant Road Spur at Grand Forks AFB, North Dakota**

This Final EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts of paving Contractor’s Row, and adding a new portion of the graveled SNG road on Grand Forks AFB, located in Grand Forks County North Dakota. Resource areas analyzed in the EA include Air Quality Noise; Wastes, Hazardous Materials, and Stored Fuels; Water Resources Biological Resources; Socioeconomic Resources; Cultural Resources Land Use; Transportation Systems; Airspace/Airfield Operations; Safety and Occupational Health; Environmental Management; and Environmental Justice. In addition to the Proposed Action, the Alternative Action, and the No Action Alternative were analyzed in the EA. The EA also addresses the potential cumulative effects of the associated construction activities along with other concurrent actions at Grand Forks AFB and the surrounding area.
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
(33 CFR 325)

Public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in, or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Routine Uses: Information provided on this form will be used in evaluating the application for permit. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor can a permit be issued.

The set of original drawings or good reproducible copies, which show the location and character of the proposed activity, must be attached to the application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

APPLICATION NO. 2. FIELD OFFICE CODE 3. DATE RECEIVED 4. DATE APPLICATION COMPLETED

(ITEMS BELOW TO BE FILLED BY APPLICANT)

APPLICANT'S NAME ATRICK F. FOGARTY, Lt Col, USAF

APPLICANT'S ADDRESS
19 CES/CC
25 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434

APPLICANT'S PHONE NOS. W/AREA CODE 8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)
a. Residence (701) 747-4769
b. Business

AGENTS ADDRESS
10. AGENT'S PHONE NOS. W/AREA CODE

STATEMENT OF AUTHORIZATION

I hereby authorize, , to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION AND DESCRIPTION OF PROJECT OR ACTIVITY

PROJECT NAME OR TITLE (see instructions)

SNG plant access road.

LOCATION OF PROJECT

Grand Forks ND

COUNTY STATE

OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

Twp. 152N, Range 53W, Section 36. The proposed project is located approximately 65 feet east of east gate of the SNG Plant. Nearest intersection is Eielson Street and Lox Avenue.

INSTRUCTIONS TO THE SITE

Enter Grand Forks AFB through the Commercial Gate and proceed to a right on Lox Avenue. The SNG plant is on the right. The proposed access entrance will be constructed on the east side. Due to the fact this is a military installation, please contact 319 CES/CEV, (701) 747-74, for access to this site.
8. Nature of Activity (Description of project, include all features)

The project will include the construction of a 12' wide, 65' gravel access road from an existing 12' gravel road to the east gate of the SNG plant. This 65' length of road will include cutting 6" of topsoil, sloping the road bed, adding a geotextile, and covering with compacted 1" minus gravel. A 4" - 8" culvert will be placed perpendicular to the road as shown in the attached drawing. Total estimated 1" minus gravel material needed is 50 cu vds. Excess topsoil (black dirt) will be transported to an on-base material stockpile (“Pea Patch”). Silt fencing will be placed on the north end of the construction site to control any drainage problems. No ditches exist that water accumulation in the area will drain to.

9. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to provide an access road to the SNG Plant so that base personnel may access the site by vehicle. Currently no road exists and base personnel must drive over a grass area to access the site by vehicle. During wet conditions the grass area is susceptible to damage and rutting from vehicle traffic. Total construction time is planned for two days and will begin as soon as all applicable permits and environmental regulations are met.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

10. Reason(s) for Discharge

To discharge.

1. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

A

2. Surface Area in Acres of Wetlands or Other Water Filled (see instructions)

A

3. Is Any Portion of the Work Already Complete? Yes _________ No ________ X_______ IF YES, DESCRIBE THE COMPLETED WORK

A work has been completed on this project.

Lots of adjoining property owners, leases, etc., whose property adjoins the waterbody (If more than can be entered here, attach a supplemental list). The lot is located on Grand Forks AFB.

5. List of other certifications or approvals/denials received from other Federal, State or Local Agencies for Work Described in This Application.

| AGENCY TYPE APPROVAL IDENTIFICATION NUMBER DATE APPLIED DATE APPROVED DATE DENIED |
|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Would include but is not restricted to zoning, building and flood plain permits |

Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT 7-6-04

SIGNATURE OF AGENT DATE

ATRICK F. FOGARTY, Lt Col, USAF

Base Civil Engineer

An application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States, and willfully falsifies, conceals, or covers up any trick, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.
MEMORANDUM FOR U.S. ARMY CORPS OF ENGINEERS
North Dakota Regulatory Office
1513 South 12th Street
Bismarck ND 58504

FROM: 319 ARW/CC

SUBJECT: Delegation of Authority

1. In accordance with 33USC 401, Section 10; 1413, Section 404, appropriate permits must be obtained to authorize activities affecting navigable waters of the United States. Signature authority for the application for these permits belongs to the installation commander or authorized agent. The 319th Civil Engineer Squadron Commander (319 CES/CC) and Deputy Base Civil Engineer (319 CES/CD) are informed of all activities, construction projects, and maintenance activities involving ditches, wetlands, or waterways impacting waters of the United States. The duty of signing application for permit is hereby delegated to the 319 CES/CC and 319 CES/CD.

2. Please address correspondence relating to these permits to:

319 CES/CEV
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434

3. If you have any questions regarding this matter please contact the base Environmental Manager, Mr. Wayne Koop, at (701) 747-4590 or at the address above.

MARK F. RAMSAY, Colonel, USAF
Commander, 319th Air Refueling Wing
FINDING OF NO SIGNIFICANT IMPACT
FOR
CONTRACTOR’S ROW ROAD AND SNG PLANT SPUR

AGENCY: Department of the Air Force

PROPOSED ACTION (Contractor’s Row Road and SNG Plant Spur): Under the proposed action, CE will make improvements to the existing 1400' of Contractor's Row Road. Road improvements include: cutting the road bed to a suitable base, adding, compacting, and crowning clay to form an impermeable barrier, and placing and compacting 1” minus gravel on top for a base. If paving cannot be accomplished with this year's budget, the road will be suitable until the paving can be completed next year. Estimated material quantities include 1,000 cubic yards of cut material, 1,300 cubic yards of clay, and 600 cubic yards of 1" minus gravel. Pavement will consist of a 4"-6" crowned asphalt surface. Excess spoil material (black dirt) will be transported to an on-base material stockpile ("Pea Patch"). Runoff and drainage will be addressed during design of the project. A ground water monitoring well in the existing pavement east of Bldg 434 cannot be paved over or otherwise destroyed or damaged.

The SNG spur will consist of a gravel access road to the existing SNG plant east gate from the improved railroad bed. Improvements include the placement of four inches of 1” minus gravel, added and compacted, to the Section 1 area on the map. The road will not be widened from its present 12 foot width. Work on Section 2 will include cutting 6" of topsoil, sloping the road bed, adding a geotextile, and covering with compacted 1” minus gravel to approximately 65 feet of unimproved ground. Road width will be 12 feet. A 4-8 inch conduit will be installed to allow water to flow from the high ground on the north side to the lower area on the south side. Total estimated 1” minus gravel material needed for both sections is 50 cubic yards. Excess spoil material (black dirt) from Section 2 will be transported to an on-base material stockpile ("Pea Patch").

ALTERNATIVES CONSIDERED: Under the alternative action, another route could be constructed to access the substation, Contractor's Row, and the SNG east gate. This would require much of the same work included in this request, in addition to disturbing additional area required for new road installation.

ENVIRONMENTAL CONSEQUENCES:
Air Quality - Air Quality is considered good and the area is in attainment for all criteria pollutants. Fugitive emissions from construction activities are expected to be below the regulatory threshold and would be managed in accordance with NDAC 33-15-17-03. Best management practices (BMPs) would be implemented to reduce the amount of these emissions.

Noise - Short-term operation of heavy equipment in the construction area would generate additional noise. The increase in noise from construction activities would be negligible.
Wastes, Hazardous Materials, and Stored Fuels - The increase in hazardous and solid wastes from construction related activities would be minimal and temporary. Construction debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill.

Water Resources – Provided best management practices (BMPs) are followed, there would be minimal impacts on ground water, surface water, and water quality. The proposed action would have no impact on waste water or wetlands.

Biological Resources – BMPs and control measures, including silt fences and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. BMPs would be required to prevent the spread of noxious weeds, minimize soil erosion, and promote the establishment of native plant species.

Socioeconomic Resources - This action would have a minor positive effect on the local economy. Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, beneficial impact to local contractors and retailers during the construction phase of the project.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

Land Use – The proposed action would not impact land use.

Transportation Systems – The proposed action would have minimal adverse impact to transportation systems on base due to vehicles traveling to and from the construction site.

Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.

Safety and Occupational Health – The proposed impact would have beneficial impact as maintenance personnel and contractors would no longer be required to drive through mud, ruts, and unfavorable road conditions.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. No pesticides would be used as part of this project. A ground water monitoring well in the existing pavement east of 434 cannot be paved over or otherwise destroyed or damaged during construction.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.
No adverse environmental impact to any of the areas identified by the AF Form 813 is expected by the proposed action, Improvements to Contractor's Row Road and Synthetic Natural Gas (SNG) plant Road Spur.

**CONCLUSION:** Based on the Environmental Assessment performed for Contractor's Row Road and SNG Plant Road Spur, no significant environmental impact is anticipated from the proposed action. Based upon this finding, an Environmental Impact Statement is not required for this action. This document and the supporting AF Form 813 fulfill the requirements of the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations implementing NEPA, and Air Force Instruction 32-7061, which implements the CEQ regulations.

[Signature]
WAYNE A. KOOP, R.E.M., GM-13
Environmental Management Flight Chief

Date: 11 Aug 04
Final

Environmental Assessment

CONSTRUCT ACCESS ROAD
Pave Contractor’s Row
Gravel SNG Plant Road Spur

At
Grand Forks AFB, North Dakota

21 June 04
Cover Sheet

Agency: United States Air Force (USAF)

Action: The action proposes to pave Contractor’s Row, and build new graveled spur to Synthetic Natural Gas (SNG) road at Grand Forks Air Force Base (AFB), North Dakota.

Contacts: 319 CES/CEVA
525 Tuskegee Airmen Boulevard (Blvd)
Grand Forks AFB, ND 58205

Designation: Final Environmental Assessment (EA)

Abstract: This Final EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts of paving Contractor’s Row, and adding a new portion of the graveled SNG road on Grand Forks AFB, located in Grand Forks County, North Dakota. Resource areas analyzed in the EA include Air Quality; Noise; Wastes, Hazardous Materials, and Stored Fuels; Water Resources; Biological Resources; Socioeconomic Resources; Cultural Resources; Land Use; Transportation Systems; Airspace/Airfield Operations; Safety and Occupational Health; Environmental Management; and Environmental Justice.

In addition to the Proposed Action, the Alternative Action, and the No Action Alternative were analyzed in the EA. The EA also addresses the potential cumulative effects of the associated construction activities along with other concurrent actions at Grand Forks AFB and the surrounding area.
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## ACRONYMS, ABBREVIATIONS, AND TERMS

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<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
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<td>Emergency Planning and Community Right-to-Know Act</td>
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<td>F</td>
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</tr>
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<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>ft</td>
<td>Feet</td>
</tr>
<tr>
<td>ft³/s</td>
<td>feet cubed per meter</td>
</tr>
<tr>
<td>HAP</td>
<td>Hazardous Air Pollutants</td>
</tr>
<tr>
<td>hr</td>
<td>Hour</td>
</tr>
<tr>
<td>H₂S</td>
<td>Hydrogen Sulfide</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
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<td>---------</td>
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<td>IRP</td>
<td>Installation Restoration Program</td>
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<tr>
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<td>Long-Term</td>
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<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
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<td>MFH</td>
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<tr>
<td>mph</td>
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<tr>
<td>MSDS</td>
<td>Material Safety Data Sheet</td>
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<tr>
<td>MSL</td>
<td>Mean Sea Level</td>
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<tr>
<td>μg/m³</td>
<td>Micrograms Per Meter Cubed</td>
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<td>NAAQS</td>
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<td>NAGPRA</td>
<td>Native American Graves Protection and Repatriation Act</td>
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<td>NO₂</td>
<td>Nitrogen Dioxide</td>
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<td>Lead</td>
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<tr>
<td>PM₁₀</td>
<td>Particulate Matter 10 Microns In Diameter</td>
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<tr>
<td>PM₂.₅</td>
<td>Particulate Matter 25 Microns In Diameter</td>
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<tr>
<td>POL</td>
<td>Petroleum Oil Lubricant</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts Per Million</td>
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<tr>
<td>PSD</td>
<td>Prevention of Significant Deterioration</td>
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<tr>
<td>RACM</td>
<td>Regulated Asbestos Containing Materials</td>
</tr>
<tr>
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<tr>
<td>RI/FS</td>
<td>Remedial Investigation/Feasibility Study</td>
</tr>
<tr>
<td>RV</td>
<td>Recreational Vehicle</td>
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<td>SAGE</td>
<td>Strategic Air Ground Equipment</td>
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<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>SO$_2$</td>
<td>Sulfur Dioxide</td>
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<tr>
<td>SO$_X$</td>
<td>Sulfur Dioxide</td>
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<tr>
<td>St</td>
<td>Street</td>
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<td>ST</td>
<td>Short-Term</td>
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<tr>
<td>tpy</td>
<td>Tons Per Year</td>
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<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
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<tr>
<td>TSI</td>
<td>Thermal System Insulation</td>
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<td>United States</td>
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<td>USACE</td>
<td>United States Army Corps of Engineers</td>
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<td>United States Air Force</td>
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<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compound</td>
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</table>
EXECUTIVE SUMMARY

The United States Air Force (USAF) proposes to pave Contractor's Row and gravel a new portion to the road to the Synthetic Natural Gas plant on Grand Forks Air Force Base (AFB), North Dakota.

Purpose and Need: The purpose for this project is to make improvements to and pave Contractor's Row Road from 1st Avenue to the Steen Electrical Substation. Also, a gravel road from the existing improved railroad bed to the SNG east gate is necessary. The primary need exists because base personnel must have all weather access to the Steen Electrical Substation. Additionally, contractors will be able to safely access their shops and storage areas along Contractor's Row Road and base personnel will be able to access the SNG plant through the existing east gate.

Proposed Action: Under the proposed action, CE will make improvements to the existing 1400' of Contractor's Row Road. Road improvements include; cutting the road bed to a suitable base, adding, compacting, and crowing clay to form an impermeable barrier and placing and compacting 1" minus gravel on top for a base. If paving cannot be accomplished with this year's budget, the road will be suitable until the paving can be completed next year. Estimated material quantities include 1,000 cubic yards of cut material, 1,300 cubic yards of clay, and 600 cubic yards of 1" minus gravel. Pavement will consist of a 4"-6" crowned asphalt surface. Excess spoil material (black dirt) will be transported to an on-base material stockpile ("Pea Patch"). Runoff and drainage will be addressed during design of the project. A ground water monitoring well in the existing pavement east of Bldg 434 cannot be paved over or otherwise destroyed or damaged.

The SNG spur will consist of a gravel access road to the existing SNG plant east gate from the improved railroad bed. Improvements include the placement of four inches of 1" minus gravel, added and compacted, to the Section 1 area on the map. The road will not be widened from its present 12 foot width. Work on Section 2 will include cutting 6" of topsoil, sloping the road bed, adding a geotextile, and covering with compacted 1" minus gravel to approximately 65 feet of unimproved ground. Road width will be 12 feet. A 4-8 inch conduit will be installed to allow water to flow from the high ground on the north side to the lower area on the south side. Total estimated 1" minus gravel material needed for both sections is 50 cubic yards. Excess spoil material (black dirt) from Section 2 will be transported to an on-base material stockpile ("Pea Patch").

Alternate Location Alternative: Under the alternative action, another route could be constructed to access the substation, Contractor's Row, and the SNG east gate. This would require much of the same work included in this request in addition to disturbing additional area required for new road installation.

No Action Alternative: Under the no action alternative, the existing and poor quality Contractor Row Road would continue to be used. The road would not be able to be improved during such usage and would continue to degrade, rut, become muddy, and safety would ultimately become a
concern. If spring rains persist, the road may become impassable and severely limit the access and use of facilities necessary for personnel to perform their work on Grand Forks AFB. SNG access through the east gate would continue on unimproved ground.

Impacts by Resource Area

Air Quality - Air Quality is considered good and the area is in attainment for all criteria pollutants. No significant impacts to air quality would result because of road building activities.

Noise - The people constructing the roads would create additional noise. The increase in noise would be negligible and only occur when the road was being built.

Wastes, Hazardous Materials, and Stored Fuels - The increase in hazardous and solid wastes from construction related activities would be minimal and temporary. Construction debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill.

Water Resources – Provided best management practices (BMPs) are followed, there would be minimal impacts on ground water, surface water, water quality, and wetlands. The proposed action would have no impact on wastewater.

Biological Resources – BMPs and control measures, including silt fences and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. BMPs would be required to prevent the spread of noxious weeds, minimize soil erosion, and promote the establishment of native plant species.

Socioeconomic Resources - This action would have a minor positive effect on the local economy. Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, beneficial impact to local contractors and retailers during the construction phase of the project.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

Land Use - The proposed construction would not have an impact on land use.

Transportation Systems – The proposed construction would have minor adverse impact to transportation systems on base due to vehicles traveling to and from the electrical substation and SNG plant site.

Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.
Safety and Occupational Health – The Grand Forks AFB Safety Office has indicated they have no safety concerns.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. No pesticides would be used as part of this project. A ground water monitoring well in the existing pavement east of 434 cannot be paved over or otherwise destroyed or damaged during construction.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.
1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

This Environmental Assessment (EA) examines the potential for impacts to the environment resulting from the paving of Contractor's Row and adding a graveled spur to the SNG plant road on Grand Forks Air Force Base (AFB). As required by the National Environmental Policy Act (NEPA) of 1969, federal agencies must consider environmental consequences in their decision making process. The EA provides analysis of the potential environmental impacts from both the proposed action and its alternatives.

1.1 INTRODUCTION

Located in northeastern North Dakota (ND), Grand Forks AFB is the first core refueling wing in Air Mobility Command (AMC) and home to 48 KC-135R Stratotanker aircraft. The host organization at Grand Forks AFB is the 319th Air Refueling Wing (ARW). Its mission is to guarantee global reach, by extending range in the air, supplying people and cargo where and when they are needed and provides air refueling and airlift capability support to United States Air Force (USAF) operations anywhere in the world, at any time. Organizational structure of the 319th ARW consists primarily of an operations group, maintenance group, mission support group, and medical group.

The location of the proposed action (and the alternative actions) would be at Grand Forks AFB, ND. Grand Forks AFB covers approximately 5,420 acres of government-owned land and is located in northeastern ND, about 14 miles west of Grand Forks, along United States (US) Highway 2. Grand Forks (population 49,321) is the third largest city in ND. Appendix A includes a Location Map. The city, and surrounding area, is a regional center for agriculture, education, and government. It is located approximately 160 miles south of Winnipeg, Manitoba, and 315 miles northwest of Minneapolis, Minnesota. The total base population, as of May 2003, is approximately 6,934. Of that, 2,849 are military, 3,747 are military dependents, and 338 civilians working on base (Grand Forks AFB, 2003).

Contractor’s Row road is located from First Avenue to the Steen electrical substation in the southern portion of Grand Forks AFB. The road to the Synthetic Natural Gas (SNG) plant runs north of Alert Avenue, parallel and east of Eielson Street.

1.2 NEED FOR THE ACTION

All weather access for Air Force personnel to reach the Steen Electrical Substation is necessary. Road conditions make this difficult due to mud, severe rutting, and unfavorable road conditions after rain on Contractor's Row Road. Without some means of reasonable access Air Force personnel will have limited seasonal access to the substation. There is currently no access road to the SNG through the east gate. To access the SNG through the east gate, personnel must drive over unimproved ground.

1.3 OBJECTIVES FOR THE ACTION
The purpose of the proposed action is to pave Contractor’s Row from 1st Avenue to the Steen electrical substation, and to add a graveled spur to the existing SNG road, leading to the east gate of the SNG plant.

1.4 SCOPE OF EA

This EA identifies, describes, and evaluates the potential environmental impacts associated with paving Contractor’s Row and graveling a SNG Road spur on Grand Forks AFB. This analysis covers only those items listed above. It does not include any previous construction of facilities, parking lots, associated water drainage structures, or other non-related construction activities.

The following must be considered under the NEPA, Section 102(E).

- Air Quality
- Noise
- Wastes, Hazardous Materials, and Stored Fuels
- Water Resources
- Biological Resources
- Socioeconomic Resources
- Cultural Resources
- Land Use
- Transportation Systems
- Airspace/Airfield Operations
- Safety and Occupation Health
- Environmental Management
- Environmental Justice

1.5 DECISION(S) THAT MUST BE MADE

This EA evaluates the environmental consequences from paving Contractor’s Row and graveling a SNG plant road spur on Grand Forks AFB. NEPA requires that environmental impacts be considered prior to final decision on a proposed project. The Environmental Management Flight Chief will determine if a Finding of Significant Impact can be signed or if an Environmental Impact Statement (EIS) must be prepared. Preparation of an environmental analysis must be accomplished 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 either of the alternatives.

1.6 APPLICABLE REGULATORY REQUIREMENTS AND REQUIRED COORDINATION

These regulations require federal agencies to analyze potential environmental impacts of proposed actions and alternatives and to use these analyses in making decisions on a proposed action. All cumulative effects and irretrievable commitment of resources must also be
assessed during this process. The Council on Environmental Quality (CEQ) regulations declares that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI).
- Aid in an agency’s compliance with NEPA when an EIS is not necessary, and facilitate preparation of an EIS when necessary.

Air Force Instruction (AFI) 32-7061 as promulgated in 32 Code of Federal Regulations (CFR) 989, specifies the procedural requirements for the implementation of NEPA and the preparation of an EA. Other environmental regulatory requirements relevant to the proposed action and alternatives are also in this EA. Regulatory requirements including, but not restricted to the following programs will be assessed:

- AF Environmental Impact Analysis Process (EIAP) (32 CFR 989)
- 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 (ARPA) [16 U.S.C. Sec 470a-11, et seq., as amended]
- Clean Air Act (CAA) [42 U.S.C. Sec 7401, et seq., as amended]
- Clean Water Act (CWA) [33 U.S.C. Sec 400, et seq.]
- CWA [33 U.S.C. Sec 1251, et seq., as amended]
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) [42 U.S.C. Sec. 9601, et seq.]  
- Defense Environmental Restoration Program [10 U.S.C. Sec. 2701, et seq.]
- Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 [42 U.S.C. Sec. 11001, et seq.]
- Endangered Species Act (ESA) [16 U.S.C. Sec 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
• NEPA of 1969 [42 U.S.C. Sec 4321, et seq.]
• National Historic Preservation Act (NHPA) of 1966 [16 U.S.C. Sec 470, et seq., as amended]
• Noise Control Act of 1972 [42 U.S.C. Sec. 4901, et seq., Public Law 92-574]
• ND Air Pollution Control Act (Title 23) and Regulations
• ND Air Quality Standards (Title 33)
• ND Hazardous Air Pollutants Emission Standards (Title 33)
• Occupational Safety and Health Act (OSHA) of 1970 [29 U.S.C. Sec. 651, et seq.]
• Toxic Substances Control Act (TSCA) of 1976 [15 U.S.C. Sec. 2601, et seq.]

Grand Forks AFB has a National Pollutant Discharge Elimination System (NPDES) permit to cover base-wide industrial activities. Construction of the proposed action or the alternative action would disturb more than one acre requiring a contractor to obtain a separate NPDES from the North Dakota Department of Health (NDDH). The permit would allow discharge of storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover.

Scoping for this EA included discussion of relevant issues with members of the environmental management and bioenvironmental flights. Scoping letters requesting comments on possible issues of concern were sent to agencies with pertinent resource responsibilities. In accordance with AFI 32-7061, a copy is submitted to the ND Division of Community Services.
2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

Based on the descriptions of the relevant environmental resources presented in Section 3 and the predictions and analyses presented in Section 4, this section presents a comparative summary matrix of the alternatives (the heart of the analysis) providing the decision maker and the public with a clear basis for choice among the alternatives.

This section has five parts:

- Selection Criteria for Alternatives
- Alternatives Considered but Eliminated from Detailed Study
- Detailed Descriptions of the Three Alternatives Considered
- Comparison of Environmental Effects of the Proposed Action and Alternatives
- Identification of the Preferred Alternative

2.2 SELECTION CRITERIA FOR ALTERNATIVES

Selection criteria used to evaluate the Proposed and Alternative Actions include the following:

All weather access to Steen Electrical Substation, Contractor's Row buildings, and Synthetic Natural Gas (SNG) plant.

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

No alternatives were eliminated from detailed study.

2.4 DESCRIPTION OF PROPOSED ALTERNATIVES

This section describes the activities that would occur under three alternatives: the proposed action and the two action alternatives. These three alternatives provide the decision maker with a reasonable range of alternatives from which to choose.

2.4.1 Alternative 1 (Proposed Action): Pave Contractor’s Row and Gravel SNG Plant Road

Under the proposed action, improvements will be made to the existing 1400’ of Contractor's Row Road. Road improvements include; cutting the road bed to a suitable base, adding, compacting, and crowning clay to form an impermeable barrier and placing and compacting 1” minus gravel on top for a base. If paving cannot be accomplished with this year's budget, the road will be suitable until the paving can be completed next year. Estimated material quantities include 1,000 cubic yards of cut material, 1,300 cubic yards of clay, and 600 cubic yards of 1” minus gravel. Pavement will consist of a 4”-6” crowned asphalt surface. Excess spoil material (black dirt) will be transported to an on-base material stockpile ("Pea Patch"). Runoff and drainage will be addressed during design of the project. A ground water monitoring well in the existing pavement east of Bldg 434 cannot be paved over or otherwise destroyed or damaged.
The SNG spur will consist of a gravel access road to the existing SNG plant east gate from the improved railroad bed. Improvements include the placement of four inches of 1" minus gravel, added and compacted, to the Section 1 area on the map. The road will not be widened from its present 12 foot width. Work on Section 2 will include cutting 6" of topsoil, sloping the road bed, adding a geotextile, and covering with compacted 1" minus gravel to approximately 65 feet of unimproved ground. Road width will be 12 feet. A 4-8 inch conduit will be installed to allow water to flow from the high ground on the north side to the lower area on the south side. Total estimated 1" minus gravel material needed for both sections is 50 cubic yards. Excess spoil material (black dirt) from Section 2 will be transported to an on-base material stockpile ("Pea Patch").

2.4.2 Alternative 2: Alternate Location

Under the alternative action, another route could be constructed to access the substation, Contractor's Row, and the SNG east gate. This would require much of the same work included in this request in addition to disturbing additional area required for new road installation.

2.4.3 Alternative 3 (No Action Alternative): Status Quo

Under the no action alternative, the existing and poor quality Contractor Row Road would continue to be used. The road would not be able to be improved during such usage and would continue to degrade, rut, become muddy, and safety would ultimately become a concern. If spring rains persist, the road may become impassable and severely limit the access and use of facilities necessary for personnel to perform their work on Grand Forks AFB. SNG access through the east gate would continue on unimproved ground.

2.5 DESCRIPTION OF PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS RELEVANT TO CUMULATIVE IMPACTS

Impacts from the Proposed Action would be concurrent with other actions occurring at Grand Forks AFB. 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.

2.6 SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES

Potential impacts from implementing the Proposed Action, Alternative 2, and the No Action Alternative are discussed in detail in Chapter 4.

<table>
<thead>
<tr>
<th>Table 2.6.1: Summary of Environmental Impacts</th>
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<tbody>
<tr>
<td>Proposed Action</td>
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<tr>
<td>Legend: ST = short-term; LT = long-term</td>
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<tr>
<td>Air Quality</td>
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<tr>
<td>Noise</td>
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<tr>
<td>Table 2.6.1: Summary of Environmental Impacts</td>
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<td>----------------------------------------------</td>
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<tr>
<td><strong>Wastes, Hazardous Materials, and Stored Fuels</strong></td>
</tr>
<tr>
<td>Ground Water</td>
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<td>Surface Water</td>
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<td>Water Quality</td>
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<td><strong>Biological Resources</strong></td>
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<td>Threatened and Endangered Species</td>
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<td><strong>Socioeconomic Resources</strong></td>
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<td>Cultural Resources</td>
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<td>Land Use</td>
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<td><strong>Transportation Systems</strong></td>
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<td>Airspace/Field Compatibility</td>
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<tr>
<td>Safety and Occupational Health</td>
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<td>Environmental Justice</td>
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2.7 IDENTIFICATION OF PREFERRED ALTERNATIVE

The preferred action is Alternative 1 (Proposed Action): Pave Contractor’s Row and gravel SNG plant road spur.
3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This section succinctly describes the operational concerns and the environmental resources relevant to the decision that must be made concerning this proposed action. Environmental concerns and issues relevant to the decision to be made and the attributes of the potentially affected environment are studied in greater detail in this section.

This descriptive section, combined with the definitions of the three alternatives in Section 2, and their predicted effects in Section 4, establish the scientific baseline against which the decision-maker and the public can compare and evaluate the activities and effects of all three alternatives.

3.2 AIR QUALITY

Grand Forks AFB has a humid continental climate that is characterized by frequent and drastic weather changes. The summers are short and humid with frequent thunderstorms. Winters are long and severe with almost continuous snow cover. The spring and fall seasons are generally short transition periods. The average annual temperature is 40°Fahrenheit (F) and the monthly mean temperature varies from 6°F in January to 70°F in July. Mean annual precipitation is 19.5 inches. Rainfall is generally well distributed throughout the year, with summer being the wettest season and winter the driest. An average of 34 thunderstorm days per year is recorded, with some of these storms being severe and accompanied by hail and tornadoes. Mean annual snowfall recorded is 40 inches with the mean monthly snowfall ranging from 1.6 inches in October to 8.0 inches in March. Relative humidity averages 58 percent annually, with highest humidity being recorded in the early morning. The average humidity at dawn is 76 percent. Mean cloud cover is 48 percent in the summer and 56 percent in the winter (USAF, 2003).

<table>
<thead>
<tr>
<th>Table 3.2-1: Climate Data for Grand Forks AFB, ND</th>
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<tbody>
<tr>
<td><strong>Month</strong></td>
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<td>February</td>
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<td>November</td>
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<td>December</td>
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Source: AFCCC/DOO, October 1998
Wind speed averages 10 miles per hour (mph). A maximum wind speed of 74 mph has been recorded. Wind direction is generally from the northwest during the late fall, winter, and spring, and from the southeast during the summer.

Grand Forks County is included in the ND Air Quality Control Region. This region is in attainment status for all criteria pollutants. In 1997, the ND Department of Health (NDDH) conducted an Air Quality Monitoring Survey that indicated that the quality of ambient air in ND is generally good as it is located in an attainment area (NDDH, 1998). Grand Forks AFB has the following air permits: T5-F78004 (permit to operate) issued by NDDH and a CAA Title V air emissions permit.

The United States Environmental Protection Agency (USEPA) established the National Ambient Air Quality Standards (NAAQS), which define the maximum allowable concentrations of pollutants that may be reached, but not exceeded within a given time period. The NAAQS regulates the following criteria pollutants: Ozone ($O_3$), carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), lead (Pb), and particulate matter. The ND Ambient Air Quality Standards (NDAAQS) were set by the State of ND. These standards are more stringent and emissions for operations in ND must comply with the Federal or State standard that is the most restrictive. There is also a standard for hydrogen sulfide ($H_2S$) in ND.

Prevention of significant deterioration (PSD) regulations establish $SO_2$, particulate matter 10 microns in diameter ($PM_{10}$), and $NO_2$ that can be emitted above a premeasured amount in each of three class areas. Grand Forks AFB is located in a PSD Class II area where moderate, well-controlled industrial growth could be permitted. Class I areas are pristine areas and include national parks and wilderness areas. Significant increases in emissions from stationary sources (100 tons per year (tpy) of CO, 40 tpy of nitrogen oxides ($NO_X$), volatile organic compounds (VOCs), or sulfur oxides ($SO_X$), or 15 tpy of $PM_{10}$) and the addition of major sources requires compliance with PSD regulations. There is also a 25 ton/year level for total particulate.

Air pollutants include $O_3$, CO, $NO_2$, $SO_2$, Pb, and particulate matter. Ground disturbing activities create $PM_{10}$ and particulate matter 2.5 microns in diameter ($PM_{2.5}$). Combustion creates CO, $SO_2$, $PM_{10}$, and $PM_{2.5}$ particulate matter and the precursors (VOC and $NO_2$) to $O_3$. Only small amounts of Hazardous Air Pollutants (HAP) are generated from internal combustion processes or earth-moving activities. The Grand Forks AFB Final Emissions Survey Report (USAF, 1996) reported that Grand Forks AFB only generated small levels HAPs, 10.3 tpy of combined HAPs and 2.2 tpy maximum of a single HAP (methyl ethyl ketone). Methyl Ethyl Ketone is associated with aircraft and vehicle maintenance and repair. Secondary sources include fuel storage and dispensing (USAF, 2001a).
### Table 3.2-2
National Ambient Air Quality Standards (NAAQS) and ND Ambient Air Quality Standards (NDAAQS)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>NAAQS ( \mu g/m^3 ) (ppm)(^a)</th>
<th>NDAAQS ( \mu g/m^3 ) (ppm)(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Primary(^b)</td>
<td>Secondary(^c)</td>
</tr>
<tr>
<td>( O_3 )</td>
<td>1 hr</td>
<td>235 (0.12)</td>
<td>Same</td>
</tr>
<tr>
<td></td>
<td>8 hr(^e)</td>
<td>157 (0.08)</td>
<td>Same</td>
</tr>
<tr>
<td>( CO )</td>
<td>1 hr</td>
<td>40,000 (35)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>8 hr</td>
<td>10,000 (9)</td>
<td>None</td>
</tr>
<tr>
<td>( NO_2 )</td>
<td>AAM(^d)</td>
<td>100 (0.053)</td>
<td>Same</td>
</tr>
<tr>
<td>( SO_2 )</td>
<td>1 hr</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>3 hr</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>24 hr</td>
<td>365 (0.14)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>AAM</td>
<td>80 (0.03)</td>
<td>None</td>
</tr>
<tr>
<td>( PM_{10} )</td>
<td>AAM</td>
<td>50</td>
<td>Same</td>
</tr>
<tr>
<td></td>
<td>24 hr</td>
<td>150</td>
<td>Same</td>
</tr>
<tr>
<td>( PM_{2.5} )</td>
<td>AAM</td>
<td>65</td>
<td>Same</td>
</tr>
<tr>
<td></td>
<td>24 hr</td>
<td>15</td>
<td>Same</td>
</tr>
<tr>
<td>( Pb )</td>
<td>( \frac{1}{2} ) year</td>
<td>1.5</td>
<td>Same</td>
</tr>
<tr>
<td>( H_2S )</td>
<td>1 hr</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>24 hr</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>3 mth</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>AAM</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

\(^a\)\( \mu g/m^3 \) – micrograms per cubic meter; ppm – parts per million

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

\(^c\)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.

\(^d\)AAM – Annual Arithmetic Mean.

\(^e\)The Ozone 8-hour standard and the PM 2.5 standards are included for information only. A 1999 federal court ruling blocked implementation of these standards, which USEPA proposed in 1997. USEPA has asked the US Supreme Court to reconsider that decision (USEPA, 2000).

PM\(_{10}\) is particulate matter equal to or less than 10 microns in diameter.

PM\(_{2.5}\) is particulate matter equal to or less than 2.5 microns in diameter.

Source: 40 CFR 50, ND Air Pollution Control Regulations – North Dakota Administrative Code (NDAC) 33-15

### 3.3 NOISE

Noise generated on Grand Forks AFB consists mostly of aircraft, vehicular traffic and construction activity. Most noise is generated from aircraft during takeoff and landing and not from ground traffic. Noise levels are dependent upon type of aircraft, type of operations, and distance from the observer to the aircraft. Duration of the noise is dependent upon proximity of the aircraft, speed, and orientation with respect to the observer.
### Table 3.3-1
Typical Decibel Levels Encountered in the Environment and Industry

<table>
<thead>
<tr>
<th>Sound Level (dBA)*</th>
<th>Maximum Exposure Limits</th>
<th>Source of Noise</th>
<th>Subjective Impression</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>Threshold of hearing</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Still recording studio; Rustling leaves</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>Quiet bedroom</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
<td>Soft whisper at 5 ft³; Typical library</td>
<td>Threshold of quiet</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>Quiet urban setting (nighttime); Normal level in home</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Large transformer at 200 ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Private business office; Light traffic at 100 ft; Quiet urban setting (daytime)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Window air conditioner; Men’s clothing department in store</td>
<td>Desirable limit for outdoor residential area use (EPA)</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Conversation speech; Data processing center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>Busy restaurant; Automobile at 100 ft</td>
<td>Acceptable level for residential land use</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>Vacuum cleaner in home; Freight train at 100 ft</td>
<td>Threshold of moderately loud</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>Freeway at 10 ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>Ringing alarm clock at 2 ft; Kitchen garbage disposal; Loud orchestral music in large room</td>
<td>Most residents annoyed</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>Printing press; Boiler room; Heavy truck at 50 ft</td>
<td>Threshold of hearing damage for prolonged exposure</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>8 hr³</td>
<td>Heavy city traffic</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>4 hr</td>
<td>Freight train at 50 ft; Home lawn mower</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>2 hr</td>
<td>Pile driver at 50 ft; Heavy diesel equipment at 25 ft</td>
<td>Threshold of very loud</td>
</tr>
<tr>
<td>105</td>
<td>1 hr</td>
<td>Banging on steel plate; Air Hammer</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>0.5 hr</td>
<td>Rock music concert; Turbine condenser</td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>0.25 hr</td>
<td>Jet plane overhead at 500 ft</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>&lt; 0.25 hr</td>
<td>Jet plane taking off at 200 ft</td>
<td>Threshold of pain</td>
</tr>
<tr>
<td>135</td>
<td>&lt; 0.25 hr</td>
<td>Civil defense siren at 100 ft</td>
<td>Threshold of extremely loud</td>
</tr>
</tbody>
</table>

*a dBA – decibals
³ft – feet
³hr - hours
Source: US Army, 1978

### Table 3.3-2
Approximate Sound Levels (dBA) of Construction Equipment

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Sound Levels (dBA) at Various Distances (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Front-end Loader</td>
<td></td>
</tr>
<tr>
<td>Dump Truck</td>
<td>84</td>
</tr>
<tr>
<td>Truck</td>
<td>83</td>
</tr>
<tr>
<td>Tractor</td>
<td>84</td>
</tr>
</tbody>
</table>

Because military installations attract development in proximity to their airfields, the potential exists for urban encroachment and incompatible development. The USAF utilizes a program known as AICUZ to help alleviate noise and accident potential problems due to unsuitable community development. AICUZ recommendations give surrounding communities alternatives to help prevent urban encroachment. Noise contours are developed from the Day-Night Average A-Weighted Sound Level (DNL) data which defines the noise created by flight operations and ground-based activities. The AICUZ also defines Accident Potential Zones (APZs), which are rectangular corridors extending from the ends of the runways. Recommended land use activities and densities in the APZs for residential, commercial, and industrial uses are provided in the base’s AICUZ study. Grand Forks AFB takes measures to minimize noise levels by evaluating aircraft operations. Blast deflectors are utilized in designated areas to deflect blast and minimize exposure to noise.

3.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

Hazardous wastes, as listed under the RCRA, are defined as any solid, liquid, contained gaseous, or combination of wastes that pose a substantive or potential hazard to human health or the environment. On-base hazardous waste generation involves three types of on-base sites: an accumulation point (90-day), satellite accumulation points, and spill cleanup equipment and materials storage (USAF, 2001c). Discharge and emergency response equipment is maintained in accessible areas throughout Grand Forks AFB. The Fire Department maintains adequate fire response and discharge control and containment equipment. Equipment stores are maintained in buildings 523 and 530. Petroleum contaminated soils generated from excavations throughout the base can be treated at the land treatment facility located on base. These solid wastes are tilled or turned several times a year to remediate the soils to acceptable levels.

Hard fill, construction debris, and inert waste generated by Grand Forks AFB are disposed of at a permitted off-base landfill. All on-base household garbage and solid waste is collected by a contractor and transported to the Grand Forks County Landfill, which opened in 1982.

Recyclable materials from industrial facilities are collected in the recycling facility, in building 424. Paper, glass, plastics, cardboard, and wood are collected in separate storage bins. Curbside containers are used in housing for recyclable materials. A contractor collects these materials and transports them off base.

The Environmental Management Flight manages the hazardous material through a contract with Mactec Pacific Environmental Services. Typical hazardous materials include reactive materials such as explosives, ignitable, toxics, and corrosives. Improper storage can impact human health and the safety of the environment.

Since Grand Forks AFB is a military installation with a flying mission, there are several aboveground and underground fuel storage tanks. None of the alternatives would impact fuel storage tanks.
3.5 WATER RESOURCES

3.5.1 Ground Water

Chemical quality of ground water is dependent upon the amount and type of dissolved gases, minerals, and organic material leached by water from surrounding rocks as it flows from recharge to discharge areas. The water table depth varies throughout the base, from a typical 1-3 ft to 10 ft or more below the surface.

Even though the Dakota Aquifer has produced more water than any other aquifer in Grand Forks County, the water is very saline and generally unsatisfactory for domestic and most industrial uses. Its primary use is for livestock watering. It is sodium chloride type water with total dissolved solids concentrations of about 4,400 ppm. The water generally contains excessive chloride, iron, sulfate, total dissolved solids, and fluoride. The water from the Dakota is highly toxic to most domestic plants and small grain crops, and in places, the water is too highly mineralized for use as livestock water (Hansen and Kume, 1970).

Water from wells tapping the Emerado Aquifer near Grand Forks AFB is generally of poor quality due to upward leakage of poor quality water from underlying bedrock aquifers. It is sodium sulfate type water with excessive hardness, chloride, sulfate, and total dissolved solids. Water from the Lake Agassiz beach aquifers is usually of good chemical quality in Grand Forks County. The water is a calcium bicarbonate type that is relatively soft. The total dissolved content ranges from 308 to 1,490 ppm. Most water from beach aquifers is satisfactory for industrial, livestock, and agricultural uses (Hansen and Kume, 1970).

Grand Forks AFB draws 85 to 90 percent of its water for industrial, commercial and housing functions from the City of Grand Forks and 10 to 15 percent from Agassiz Water.

3.5.2 Surface Water

Natural surface water features located on or near Grand Forks AFB are the Turtle River and Kellys Slough National Wildlife Refuge (NWR). Drainage from surface water channels ultimately flows into the Red River.

The Turtle River, crossing the base boundary at the northwest corner, is very sinuous and generally flows in a northeasterly direction. It receives surface water runoff from the western portion of Grand Forks AFB and eventually empties into the Red River of the North that flows north to Lake Winnipeg, Canada. The Red River drainage basin is part of the Hudson Bay drainage system. At Manvel, ND, approximately 10 miles northeast of Grand Forks AFB, the mean discharge of the Turtle River is 50.3 feet cubed per second (ft³/s). Peak flows result from spring runoff in April and minimum flows (or no flow in some years) occur in January and February.

NDDH has designated the Turtle River to be a Class II stream, it may be intermittent, but, when flowing, the quality of the water, after treatment, meets the chemical, physical, and
bacteriological requirements of the NDDH for municipal use. The designation also states that it is of sufficient quality to permit use for irrigation, for propagation of life for resident fish species, and for boating, swimming, and other water recreation.

Kelly’s Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kelly’s Slough NWR receives surface water runoff from the east half of the base and effluent from the base sewage lagoons located east of the base. Surface water flow of the slough is northeasterly into the Turtle River Drainage from surface water channels ultimately flowing into the Red River. Floodplains are limited to an area 250 ft on either side of Turtle River (about 46 acres on base). Appendix C contains a map depicting floodplains. Any development in or modifications to floodplains must be coordinated with the Corps of Engineers and the Federal Emergency Management Agency (FEMA).

Surface water runoff leaves Grand Forks AFB at four primary locations related to identifiable drainage areas on base. The four sites are identified as northeast, northwest, west, and southeast related to the base proper. These outfalls were approved by the NDDH as stated in the Grand Forks AFB ND Pollutant Discharge Elimination System (NDPDES) Permit NDR02-0314 Stormwater Discharges from Industrial Activity. Of the four outfall locations, the west and northwest sites flow into the Turtle River, the northeast site flows to the north ditch and the southeast outfall flows into the south ditch. The latter two flow to Kelly’s Slough and then the Turtle River. All drainage from these surface water channels ultimately flows into the Red River. The Bioenvironmental Engineering Office samples the four outfall locations during months when de-icing activities occur on base.

3.5.3 Waste Water

Grand Forks AFB discharges its domestic and industrial wastewater to four stabilization lagoons located east of the main base. The four separate treatment cells consist of one primary treatment cell, two secondary treatment cells, and one tertiary treatment cell. Wastewater effluent is discharged under ND Permit ND0020621 into Kelly’s Slough. Wastewater discharge occurs for about one week, sometime between mid-April though October. Industrial wastewater at the base comprises less than ten percent of the total flow to the treatment lagoons.

3.5.4 Water Quality

According to the National Water Quality Inventory Report (USEPA, 1995), ND reports the majority of rivers and streams have good water quality. Natural conditions, such as low flows, can contribute to violations of water quality standards. During low flow periods, the rivers are generally too saline for domestic use. Grand Forks AFB receives water from Grand Forks and Lake Agassiz Water. The city recovers its water from the Red River and the Red Lake River, while the water association provides water from aquifers. The water association recovers water from well systems within glacial drift aquifers (USAF, 1999). The 319th Civil Engineering Squadron tests the water received on base daily for fluorine and chlorine. The 319th
Bioenvironmental Flight collects monthly bacteriological samples to be analyzed at the ND State Laboratory.

3.5.5 Wetlands

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 Type 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 flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kellys Slough NWR is the most important regional wetland area in the Grand Forks vicinity. EO 11990 requires zero loss of wetlands. Grand Forks AFB has 49 wetlands, covering 23.9 acres of wetlands (see Appendix C), including 33 jurisdictional wetlands covering 12.2 acres. Wetlands on Grand Forks AFB occur frequently in drainage ways, low-lying depressions, and potholes. Wetlands are highly concentrated in drainage ways leading from the wastewater treatment lagoons to Kellys Slough NWR. The majority of wetland areas occur in the northern and central portions of base, near the runway, while the remaining areas are near the eastern boundary and southeastern corner of base. Development in or near these areas must include coordination with the ND State Water Commission and the USACE.

3.6 BIOLOGICAL RESOURCES

3.6.1 Vegetation

Plants include a large variety of naturally occurring native plants. Because of the agrarian nature of Grand Forks County, cropland is the predominant element for wildlife habitat. Pastures, meadows, and other non-cultivated areas are overgrown with grasses, legumes, and wild herbaceous plants. Included in the grasses and legumes vegetation species are tall wheat grass, brome grass, sweet clover, and alfalfa. Herbaceous plants include little bluestem, goldenrod, green needle grass, western wheat grass, and bluegrama. Shrubs such as Juneberry, dogwood, hawthorn, and snowberry also are found in the area. In wetland areas, predominant species include smartweed, wild millet, cord grass, bulrushes, sedges, and reeds. These habitats for upland wildlife and wetland wildlife attract a variety of species to the area and support many aquatic species.

Various researchers, most associated with the University of ND, have studied current native floras in the vicinity of the base. Prior to 1993 field investigations, ten natural communities occurring in Grand Forks County were identified in the ND Natural Heritage Inventory (1994). Of these, only one community, Lowland Woodland, is represented within the base boundaries. Dominant trees in this community are elm, cottonwood, and green ash. Dutch elm disease has killed many of the elms. European buckthorn (a highly invasive exotic species), chokecherry, and wood rose (Rosa woodsii) are common in the under story in this area. Wood nettle (Laportea canadensis), stinging nettle (Urtica dioica), beggars’ ticks (Bidens frondosa), and waterleaf (Hydrophyllum virginianum) are typical forbes.
One hundred and forty two total taxa, representing less than a third of the known Grand Forks County plant taxa, were identified in the ND Natural Heritage Inventory. No rare plants species are known to exist on Grand Forks AFB.

3.6.2 Wildlife

Grand Forks County is primarily cropland although there are wildlife areas located within the county. Kellys Slough NWR is located a couple miles northeast of Grand Forks AFB. In addition to being a wetland, it is a stopover point for migratory birds. The Prairie Chicken Wildlife Management Area is located north of Mekinock and contains 1,160 acres of habitat for deer, sharp-tailed grouse, and game birds. Wildlife can also be found at the Turtle River State Park, The Bremer Nature Trail, and the Myra Arboretum.

There is minimal habitat for wildlife on Grand Forks AFB due to extensive development. White tail deer, eastern cottontail, and ring-neck pheasant can be found on base. The proposed project area only provides low-quality foraging habitat for small animals.

3.6.3 Threatened and Endangered Species

According to the 1994 ND Natural Heritage Inventory, “There are no known federally threatened or endangered species populations on or adjacent to Grand Forks AFB.” The base does have infrequent use by migratory threatened and endangered species, such as the bald eagle and peregrine falcon, but there are no critical or significant habitats for those species present. The inventory also indicated that red-breasted nuthatch and moose are two special concern species. They have been observed on base near Turtle River. The inventory also indicated that there is no habitat on or near Grand Forks AFB to sustain a moose population. Red-breasted nuthatches prefer woodland habitats dominated by conifers. These birds are transients and pose no particular concern. The ESA does require that Federal Agencies not jeopardize the existence of a threatened or endangered species nor destroy or adversely modify designated critical habitat for threatened or endangered species.

3.7 SOCIOECONOMIC RESOURCES

Grand Forks County is primarily an agricultural region and, as part of the Red River Valley, is one of the worlds most fertile. Cash crops include sugar beets, beans, corn, barley, and oats. The valley ranks first in the nation in the production of potatoes, spring wheat, sunflowers, and durum wheat. Grand Forks County’s population in 2000 was 66,109, a decrease of 6.5 percent from the 1990 population of 70,638 (ND State Data Center, No Date). Grand Forks County’s annual mean wage in Oct 2001 was $26,715 (Job Service of ND, 2001). Grand Forks AFB is one of the largest employers in Grand Forks County. As of May 2003, Grand Forks AFB had 3, 165 active duty military members and 338 civilian employees. The total annual economic impact for Grand Forks AFB is $325,647, 980.
3.8 CULTURAL RESOURCES

According to the Grand Forks AFB Cultural Resources Management Plan, there are no archeological sites that are potentially eligible for the National Register of Historic Places (NRHP). A total of six archeological sites and six archeological find spots have been identified on the base. None meet the criteria of eligibility of the NRHP established in 36 CFR 60.4. There is no evidence for Native American burial grounds, or other culturally sensitive areas. Paleosols (soil that developed on a past landscape) remain a management concern requiring Section 106 compliance. Reconnaissance-level archival and archeological surveys of Grand Forks AFB conducted by the University of ND in 1989 indicated that there are no facilities (50 years or older) that possess historical significance. The base is currently consulting with the ND Historical Society on the future use of eight Cold War Era facilities. These are buildings 313, 606, 703-707, and 714.

3.9 LAND USE

Land use in Grand Forks County consists primarily of cultivated crops with remaining land used for pasture and hay, urban development, recreation, and wildlife habitat. Principal crops are spring wheat, barley, sunflowers, potatoes, and sugar beets. Turtle River State Park, developed as a recreation area in Grand Forks County, is located about five miles west of the base. Several watershed protection dams are being developed for recreation activities including picnicking, swimming, and ball fields. Wildlife habitat is very limited in the county. Kellys Slough NWR (located about two miles east of the base) and the adjacent National Waterfowl Production Area are managed for wetland wildlife and migratory waterfowl, but they also include a significant acreage of open land wildlife habitat.

The main base encompasses 5,420 acres, of which the USAF owns 4,830 acres and another 590 acres are lands containing easements, permits, and licenses. Improved grounds, consisting of all covered area (under buildings and sidewalks), land surrounding base buildings, the 9-hole 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 2,910 acres of the installation consist of unimproved grounds. These areas are comprised of woodlands, open space, and wetlands, including four lagoons (180.4 acres) used for the treatment of base wastewater. Agricultural out leased land (1,040 acres) is also classified as unimproved. Land use at the base is solely urban in nature, with residential development to the south and cropland, hayfields, and pastures to the north, west, and east.

3.10 TRANSPORATION SYSTEMS

Seven thousand vehicles per day travel ND County Road B3 from Grand Forks AFB’s east gate to the US Highway 2 Interchange (Clayton, 2001). Two thousand vehicles per day use the off-ramp from US Highway 2 onto ND County Road B3 (Dunn, 2001). US Highway 2, east of the base interchange, handles 10,800 vehicles per day. (Kingsley and Kuntz, 2001). A four lane arterial road has a capacity of 6,000 vehicles per hour and a two lane, 3,000, based on the average
capacity of 1,500 per hour per lane. Roadways adjacent to Grand Forks AFB are quite capable of accommodating existing traffic flows (USAF, 2001a).

Grand Forks AFB has good traffic flow even during peak hours (6-8 am and 4-6 pm). There are two gates: the main gate located off of County Road B3, about one mile north of U.S. Highway 2, and the Secondary Gate located off of U.S. Highway 2, about 3/4 mile west of County Road B3. The main gate is connected to Steen Boulevard (Blvd), which is the main east-west road, and the south gate is connected to Eielson Street (St), which is the main north-south road.

3.11 AIRSPACE/AIRFIELD OPERATIONS

3.11.1 AIRCRAFT SAFETY

Bird Aircraft Strike Hazard (BASH) is a major safety concern for military aircraft. Collision with birds may result in aircraft damage and aircrew injury, which may result in high repair costs or loss of the aircraft. A BASH hazard exists at Grand Forks AFB and its vicinity, due to resident and migratory birds. Daily and seasonal bird movements create various hazardous conditions. Although BASH problems are minimal, Kellys Slough NWR is a major stopover for migratory birds. Canadian Geese and other large waterfowl have been seen in the area (USAF, 2001b).

3.11.2 AIRSPACE COMPATIBILITY

The primary objective of airspace management is to ensure the best possible use of available airspace to meet user needs and to segregate requirements that are incompatible with existing airspace or land uses. The Federal Aviation Administration has overall responsibility for managing the nation’s airspace and constantly reviews civil and military airspace needs to ensure all interests are compatibly served to the greatest extent possible. Airspace is regulated and managed through use of flight rules, designated aeronautical maps, and air traffic control procedures and separation criteria.

3.12 SAFETY AND OCCUPATIONAL HEALTH

Safety and occupational health issues include one-time and long-term exposure. Examples include asbestos/radiation/chemical exposure, explosives safety quantity-distance, and bird/wildlife aircraft hazard. Safety issues include injuries or deaths resulting from a one-time accident. Aircraft Safety includes information on birds/wildlife aircraft hazards and the BASH program. Health issues include long-term exposure to chemicals such as asbestos and lead-based paint. Safety and occupational health concerns could impact personnel working on the project and in the surrounding area.

The National Emission Standards for Hazardous Air Pollutants (NESHAP) of the CAA designates asbestos as HAP. OSHA provides worker protection for employees who work around or asbestos containing material (ACM). Regulated ACM (RACM) includes thermal system
insulation (TSI), any surfacing material, and any friable asbestos material. Non-regulated Category I non-friable ACM includes floor tile and joint compound.

Lead exposure can result from paint chips or dust or inhalation of lead vapors from torch-cutting operations. This exposure can affect the human nervous system. Due to the size of children, exposure to lead based paint is especially dangerous to small children. OSHA considers all painted surfaces in which lead is detectable to have a potential for occupational health exposure.

3.13 ENVIRONMENTAL MANAGEMENT

3.13.1 INSTALLATION RESTORATION PROGRAM

The Installation Restoration Program (IRP) is the AF’s environmental restoration program based on the CERCLA. CERCLA provides for Federal agencies with the authority to inventory, investigate, and clean up uncontrolled or abandoned hazardous waste sites. There are seven IRP sites at Grand Forks AFB. These sites are identified as potentially impacted by past hazardous material or hazardous waste activities. They are the Fire Training Area/Old Sanitary Landfill Area, FT-02; New Sanitary Landfill Area, LF-03; Strategic Air Ground Equipment (SAGE) Building 306, ST-04; Explosive Ordnance Detonation Area, OT-05; Refueling Ramps and Pads, Base Tanks Area, ST-06; POL Off-Loading Area, ST-07; and Refueling Ramps and Pads, ST-08 (USAF, 1997b). Two sites are considered closed, OT-05 and ST-06. ST-08 has had a remedial investigation/feasibility study (RI/FS) completed and the rest are in long-term monitoring. Grand Forks AFB is not on the National Priorities List (NPL).

3.13.2 GEOLOGICAL RESOURCES

3.13.2.1 Physiography and Topography

The topography of Grand Forks County ranges from broad, flat plains to gently rolling hills that were produced mainly by glacial activity. Local relief rarely exceeds 100 ft in one mile, and, in parts of the lake basin, less than five ft in one mile.

Grand Forks AFB is located within the Central Lowlands physiographic province. The topography of Grand Forks County, and the entire Red River Valley, is largely a result of the former existence of Glacial Lake Agassiz, which existed in this area during the melting of the last glacier, about 12,000 years ago (Stoner et al., 1993). The eastern four-fifths of Grand Forks County, including the base, lies in the Agassiz Lake Plain District, which extends westward to the Pembina escarpment in the western portion of the county. The escarpment separates the Agassiz Lake Plain District from the Drift Plain District to the west. Glacial Lake Agassiz occupied the valley in a series of recessive lake stages, most of which were sufficient duration to produce shoreline features inland from the edge of the lake. Prominent physiographic features of the Agassiz Lake 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-southwest in Grand Forks County.
Grand Forks AFB lies on a large lake plain in the eastern portion of Grand Forks County. The lake plain is characterized by somewhat poorly drained flats and swells, separated by poorly drained shallow swells and sloughs (Doolittle et al., 1981). The plain is generally level, with local relief being less that one foot. Land at the base is relatively flat, with elevations ranging from 880 to 920 ft mean sea level (MSL) and averaging about 890 ft MSL. The land slopes to the north at less than 12 ft per mile.

3.13.2.2 Soil Type Condition

Soils consist of the Gilby loam series that are characterized by deep, somewhat poorly drained, moderately to slowly permeable soils in areas between beach ridges. The loam can be found from 0 to 12 inches. From 12 to 26 inches, the soil is a mixture of loam, silt loam, and very fine sandy loam. From 26 to 60 inches, the soil is loam and clay loam.

3.13.3 PESTICIDE MANAGEMENT

Pesticides are handled at various facilities including Environmental Controls, Golf Course Maintenance, and Grounds Maintenance. Other organizations assist in the management of pesticides and monitoring or personnel working with pesticides. Primary uses are for weed and mosquito control. Herbicides, such as Round-up, are used to maintain areas adjacent to roadways. Military Public Health and Bioenvironmental Engineering provide information on the safe handling, storage, and use of pesticides. Military Public Health maintains records on all pesticide applicators. The Fire Department provides emergency response in the event of a spill, fire, or similar type incident.

3.14 ENVIRONMENTAL JUSTICE

Environmental justice addresses the minority and low-income characteristics of the area, in this case Grand Forks County. The county is more than 93 percent Caucasian, 2.3 percent Native American, 1.4 percent African-American, 1 percent Asian/Pacific Islander, less than 1 percent Other, and 1.6 percent “Two or more races”. In comparison, the US is 97.6 percent Caucasian, 12.3 African-American, 0.9 percent Native American or Native Alaskan, 3.6 percent Asian, 0.1 Native Hawaiian or Pacific Islander, 5.5 percent Other, and 2.4 percent “Two or more races”. Approximately 12.5 percent of the county’s population is below the poverty level in comparison to 13.3 percent the state (US Bureau of the Census, 2002). There are few residences and no concentrations of low-income or minority populations around Grand Forks AFB.
4.0 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

The effects of the proposed action and the alternatives on the affected environment are discussed in this section. The project involves paving of Contractor’s Row and graveling the SNG plant road spur on Grand Forks AFB.

4.2 AIR QUALITY

4.2.1 Alternative 1 (Proposed Action)

No long-term effects; however short term effects involve heavy construction equipment emissions (not a concern as they are mobile sources) and fugitive dust (mentioned on our Title V permit). Air Quality is considered good and the area is in attainment for all criteria pollutants. Fugitive emissions from construction activities are expected to be below the regulatory threshold and would be managed in accordance with NDAC 33-15-17-03. Best management practices (BMPs) to reduce fugitive emissions would be implemented to reduce the amount of these emissions.

4.2.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.2.3 Alternative 3 (No Action)

The no action alternative would not impact air quality.

4.3 NOISE

4.3.1 Alternative 1 (Proposed Action)

The short-term operation of heavy equipment in the construction area would generate additional noise. These noise impacts would exist only during construction and would cease after completion. The increase in noise from construction activities would be negligible.

4.3.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.3.3 Alternative 3 (No Action)

The no action alternative would not impact noise generation.
4.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

4.4.1 Alternative 1 (Proposed Action)

The increase in hazardous and solid wastes from construction related activities would be minimal and temporary. Construction debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill, which is located within 12 miles of the construction site. All solid waste materials would 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 encouraged by the State of North Dakota. Inert waste should be segregated from non-inert waste, where possible, to reduce the cost of waste management.

4.4.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.4.3 Alternative 3 (No Action)

The no action alternative would not impact hazardous or solid waste generation.

4.5 WATER RESOURCES

4.5.1 Alternative 1 (Proposed Action)

Groundwater: Excavation would potentially intercept the water table during the removal of unsuitable soils. If the excavated area fills with groundwater, water could be directly exposed to contaminants released from construction equipment. If pumping of the excavation needs to take place, sedimentation issues will have to be addressed. Control devices, such as secondary containment, would have to be included in design. Provided best management practices are followed, there will be minimal impacts on ground water.

Surface Water: Surface water quality could be degraded, both in the short-term, during actual construction, and over the long-term due to reduced storm water quality caused by the decrease of infiltration area. The short-term effects come from possible erosion contributing to turbidity of runoff and possible contamination from spills or leaks from construction equipment. Surface water could also be impacted if, due to storm water inflow to the excavation, the contractor would need to pump out the excavation. The contractor must utilize effective methods to control surface water runoff and minimize erosion. Proper stabilization and seeding the site immediately upon completion of the construction would provide beneficial vegetation, controlling erosion.
Secondary containment needs must be studied and implemented if needed, to prevent future contamination of surface water and the environment in general. Long-term surface water degradation could occur simply from the fact that additional area is non-porous, reducing the ability of local environment to absorb water and increasing both the volume and velocity of storm water runoff. Also depending on the slope of the paved area, runoff could become concentrated, increasing the amount of erosion occurring with any given rain event. The design of the paved area must consider these long-term effects and, as required by Federal Law, include mitigating features and BMPs. Provided best management practices are utilized during design and construction, negative surface water impacts should be minimal.

**Water Quality:** Provided containment needs are met and best management practices are used, the proposed action would have minimal impact to water quality.

**Wastewater:** The proposed action would have no impact on wastewater.

**Wetlands:** The proposed action could possibly have direct impact on wetlands since the quality of surface water flowing to them may be degraded. All mitigating BMPs should be utilized during design and construction to prevent this. If they are not utilized then the project quite probably will have a minimal negative impact on wetlands. This would be due to the increased volume, flow rates, and decreased water quality of the sites storm water discharges.

### 4.1.1 Alternative 2

This action would have similar impacts as Alternative 1, with the additional impact due to completely new areas being disturbed.

### 4.1.2 Alternative 3 (No Action)

The no action alternative would have no additional impact on water resources.

### 4.5 BIOLOGICAL RESOURCES

#### 4.6.1 Alternative 1 (Proposed Action)

**Vegetation:** BMPs and control measures, including silt fences and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. The amount of vegetation disturbed would be kept to the minimum required to complete the action.
Disturbed areas should be re-established. There would be a short-term minimal loss of vegetation from construction activities.

**Noxious Weeds:** Public law 93-629 mandates control of noxious weeds. Limit possible weed seed transport from infested areas to non-infested sites. Avoid activities in or adjacent to heavily infested areas or remove seed sources and propagules from site prior to conducting activities, or limit operations to non-seed producing seasons. Wash or otherwise remove all vegetation and soil from equipment before transporting to a new site. Following activities which expose the soil, mitigate by covering the area with weed seed free mulch and/or seed the area with native species. Covering the soil will reduce the germination of weed seeds, maintain soil moisture, and minimize erosion. If any fill material is used, it should be from a weed-free source.

**Wildlife:** Construction would have insignificant impacts to wildlife. These areas provide foraging habitat for small mammals, such as mice and rabbits. The area is improved and frequently maintained by the grounds maintenance contractor. Due to the abundance and mobility of these species and the profusion of natural habitats in the general vicinity, any wildlife disturbed would be able to find similar habitat in the local area.

**Threatened or Endangered Species:** According to the 1994 ND Natural Heritage Inventory (1994), “There are no known federally threatened or endangered species populations on or adjacent to Grand Forks AFB.” A threatened species, the bald eagle, has been observed using GFAFB sewage lagoons in Oct/Nov of 2003. However, the construction area does not include optimal habitat for the bald eagle or any other transient federal-or state-listed species that may occur in Grand Forks County.

### 4.6.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

### 4.6.3 Alternative 3 (No Action)

The no action alternative would not impact biological resources.

### 4.7 SOCIOECONOMIC RESOURCES

#### 4.7.1 Alternative 1 (Proposed Action)

Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, minimal beneficial impact to local retailers during the construction phase of the project.

#### 4.7.2 Alternative 2
Impacts would be similar to those generated under the proposed action.

4.7.3 **Alternative 3 (No Action)**

The no action alternative would not impact socioeconomics.

4.8 **CULTURAL RESOURCES**

4.8.1 **Alternative 1 (Proposed Action)**

The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

4.8.2 **Alternative 2**

Alternative 2 would not impact cultural resources as the facility was recently constructed.

4.8.3 **Alternative 3 (No Action)**

The no action alternative would not impact cultural resources.

4.9 **LAND USE**

4.9.1 **Alternative 1 (Proposed Action)**

The proposed construction would not have an impact on land use.

4.9.2 **Alternative 2**

Alternative 2 would not have an impact on land use.

4.9.3 **Alternative 3 (No Action)**

The no action alternative would not have an impact on land use.

4.10 **TRANSPORTATION SYSTEMS**

4.10.1 **Alternative 1 (Proposed Action)**

The proposed action would have minimal adverse impact to transportation systems on base due to vehicles traveling to and from the Steen electrical substation, SNG plant and contractor's shop storage site.
4.10.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.10.3 Alternative 3 (No Action)

The action would not impact transportation.

4.11 AIRSPACE/AIRFIELD OPERATIONS

4.11.1 Alternative 1 (Proposed Action)

The proposed action would not impact aircraft safety or airspace compatibility.

4.11.2 Alternative 2

The action would not impact aircraft safety or airspace compatibility.

4.11.3 Alternative 3 (No Action)

The no action alternative would not impact aircraft safety or airspace compatibility.

4.12 SAFETY AND OCCUPATIONAL HEALTH

4.12.1 Alternative 1 (Proposed Action)

The proposed action would have no impact on safety and occupational health.

Alternative 2

Alternative 2 would have no impact on safety and occupational health.

4.12.2 Alternative 3 (No Action)

The no action alternative would not impact safety and occupational health.

4.13 ENVIRONMENTAL MANAGEMENT

4.13.1.1 Alternative 1 (Proposed Action)

IRP: The proposed action would not impact IRP Sites.

Geology: The proposed action would not impact geological resources.
Pesticides: No pesticides would be used as part of this project.

4.13.1.2 Alternative 2

Impacts would be similar to those generated under the proposed action. Soils present in the proposed area include the Gilby series.

4.13.1.3 Alternative 3 (No Action)

The no action alternative would not impact IRP Sites or geological resources. No pesticides would be used as part of this project.

4.14 ENVIRONMENTAL JUSTICE

4.14.1 Alternative 1 (Proposed Action)

EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

4.14.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.14.3 Alternative 3 (No Action)

The no action alternative would not impact environmental justice.

4.15 INDIRECT AND CUMULATIVE IMPACTS

The short-term increases in air emissions and noise during construction and the impacts predicted for other resource areas, would not be significant when considered cumulatively with other ongoing and planned activities at Grand Forks AFB and nearby off-base areas. The cumulative impact of the Proposed Action or Alternative with other ongoing construction in the area would produce and increase in solid waste generation; however, the increase would be limited to the timeframe of each construction project. The area landfill used for construction and demolition debris does not have capacity concerns and could readily handle the solid waste generated by the various projects.

4.16 UNAVIODABLE ADVERSE IMPACTS

The use of construction-related vehicles and their short-term impacts on noise, air quality, and traffic is unavoidable.
4.17 RELATIONSHIP BETWEEN SHORT-TERM USES AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed action and alternative would involve the use of previously developed areas. No croplands, pastureland, wooded areas, or wetlands would be modified or affected as a result of implementing the Proposed Action or Alternative and, consequently, productivity of the area would not be degraded.

4.18 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Under the proposed action, fuels, manpower, economic resources, fill and other construction materials related to the paving of Contractor’s Row and graveling the SNG plant road spur would be irreversibly lost.
5.0 LIST OF PREPARERS

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Grand Forks AFB ND 58205
6.0 LIST OF AGENCIES AND PERSONS CONSULTED AND/OR PROVIDED COPIES

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

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


Dunn, Curtis, 2001. Personal communication. ND Department of Transportation, Grand Forks District Office.


NDDH, 2001. Division of Air Quality, Asbestos Control Program. [www.health.state.nd.us](http://www.health.state.nd.us)


US AFI 32-7061, as promulgated in 32 C.F.R. 989, EIAP


USAF, 1999. *Final EIS for Minuteman III Missile System Dismantlement at Grand Forks AFB, ND.* April


USAF, 1995. *AICUZ Study at Grand Forks AFB, ND.*


APPENDIX A
LOCATION MAP
Section 1: Add gravel to SNG Road

Section 2: New gravel SNG Road

Contractor's Row Road

Steen Electrical Substation

SNG Plant
APPENDIX B
CULTURAL RESOURCE PROBABILITY MAP
Figure 3.5
Survey Areas and Probabilities

Grand Forks Air Force Base
Cultural Resources Management Plan

Legend

- Historic Bridge Inventory Survey
- Base Boundary
- High Probability (near water)
- Medium Probability (beach ridge)
- Kinney Survey
- Medium Probability (beach ridge)
- Peace Keeper Rail Garrison Survey
- Low Probability (distance from water)
- Low Probability (10% sample)
- Previously Disturbed

Scale: 1:50000
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Date: 5-16-02
Figure Number: 3.5
Page Number: 3-18
APPENDIX C
ENVIRONMENTAL SITE MAP
Grand Forks AFB Environmental Sites (SW)

- Above Ground Storage Tanks (Fuel)
- Abandoned Fuel Lines
- Building 622 - Acid Dip Room
- Helicopter Wash Area
- Oil/Water Separator
- Satellite Accumulation Areas (Haz Waste)
- Scrap Storage Area
- S.H.P.O. (Buildings under consideration)
- Underground Waste Storage
- Underground Storage Tanks (Fuel)

Ditches/Streams

IRP Sites

Landfill Caps

Trees

Wetlands

Hydrography-flood zone area

floodplain zone centroid

08 May 01/ks
REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

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 - PROPONEHN INFORMATION**

<table>
<thead>
<tr>
<th>1. TO (Environmental Planning Function)</th>
<th>2. FROM (Proponent organization and functional address symbol)</th>
<th>2a. TELEPHONE NO.</th>
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<tbody>
<tr>
<td>319 CES/CEVC</td>
<td>319 CES/CEOEM</td>
<td>7-3905</td>
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3. TITLE OF PROPOSED ACTION
Contractors Row Road and Steen Electrical Substation Access

4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date)
See Attached

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.)
See Attached

6. PROPONENT APPROVAL (Name and Grade)

<table>
<thead>
<tr>
<th>6a. SIGNATURE</th>
<th>6b. DATE</th>
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<tr>
<td>Mr Ken Demmons</td>
<td>7-12-04</td>
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**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)

<table>
<thead>
<tr>
<th>7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)</th>
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<th>8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)</th>
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<th>9. WATER RESOURCES (Quality, quantity, source, etc.)</th>
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<th>3. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)</th>
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<th>11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)</th>
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<th>12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)</th>
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<th>13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)</th>
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<th>14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)</th>
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<th>15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)</th>
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<th>16. OTHER (Potential impacts not addressed above.)</th>
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**SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION**

<table>
<thead>
<tr>
<th>17. PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # ___________________ ; OR</th>
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<tbody>
<tr>
<td>☒ PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.</td>
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**REMARKS**

This action is not "regionally significant" and does not require a conformity determination in accordance with 40 CFR 93.153(1). The total emission of criteria pollutants from the proposed action are below the de minimus thresholds and less than 10 percent of the Air Quality Region's planning inventory.

<table>
<thead>
<tr>
<th>19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade)</th>
<th>19a. SIGNATURE</th>
<th>19b. DATE</th>
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<tbody>
<tr>
<td>WAYNE. A. KOOP, R.E.M., GM-13</td>
<td></td>
<td>12 Jul 04</td>
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AF FORM 813, 19990901 (IMT-V1)
Block 4: Purpose and Need for Action

1 Purpose: The purpose for this project is to make improvements to and pave Contractor's Row Road from 1st Avenue to the Steen Electrical Substation. Also, a gravel road from the existing improved railroad bed to the SNG east gate is necessary. The primary need exists because base personnel must have all weather access to the Steen Electrical Substation. Additionally, contractor's will be able to safely access their shops and storage areas along Contractor's Row Road and base personnel will be able to access the SNG plant through the existing east gate.

4.2 Need for Action: All weather access for Air Force personnel to reach the Steen Electrical Substation is necessary. Road conditions make this difficult due to mud, severe rutting, and unfavorable road conditions after rain on Contractor's Row Road. Without some means of reasonable access Air Force personnel will have limited seasonal access to the substation. There is currently no access road to the SNG through the east gate. To access the SNG through the east gate, personnel must drive over unimproved ground.

Block 5: Description of Proposed Action and Alternatives

5.1 Proposed Action: Under the proposed action, CE will make improvements to the existing 1400' of Contractor's Row Road. Road improvements include; cutting the road bed to a suitable base, adding, compacting, and crowing clay to form an impermeable barrier and placing and compacting 1" minus gravel on top for a base. If paving cannot be accomplished with this year's budget, the road will be suitable until the paving can be completed next year. Estimated material quantities include 1,000 cubic yards of cut material, 1,300 cubic yards of clay, and 600 cubic yards of 1" minus gravel. Pavement will consist of a 4"-6" crowned asphalt surface. Excess spoil material (black dirt) will be transported to an on-base material stockpile ("Pea Patch"). Runoff and drainage will be addressed during design of the project.

The SNG spur will consist of a gravel access road to the existing SNG plant east gate from the improved railroad bed. Improvements include the placement of four inches of 1" minus gravel, added and compacted, to the Section 1 area on the map. The road will not be widened from its present 12 foot width. Work on Section 2 will include cutting 6" of topsoil, sloping the road bed, adding a geotextile, and covering with compacted 1" minus gravel to approximately 65 feet of unimproved ground. Road width will be 12 feet. A 4-8 inch conduit will be installed to allow water to flow from the high ground on the north side to the lower area on the south side. Total estimated 1" minus gravel material needed for both sections is 50 cubic yards. Excess spoil material (black dirt) from Section 2 will be transported to an on-base material stockpile ("Pea Patch").

5.2 Alternative 1: Under the alternative action, another route could be constructed to access the substation, Contractor's Row, and the SNG east gate. This would require much of the same work included in this request in addition to disturbing additional area required for new road installation.

5.3 No Action Alternative: Under the no action alternative, the existing and poor quality Contractor Row Road would continue to be used. The road would not be able to be improved during such usage and would continue to degrade, rut, become muddy, and safety would ultimately become a concern. If spring rains persist, the road may become impassable and severely limit the access and use of facilities necessary for personnel to perform their work on Grand Forks AFB. SNG access through the east gate would continue on unimproved ground.

5.4 Decision: Grand Forks AFB must decide whether or not to pave the existing Contractor's Row Road and install 140' of gravel road to the SNG east gate from the improved railroad bed so that base personnel have all weather access to the Steen Electrical Substation and SNG plant.

5.5 Permits: Section 404 and Storm Water permits are being applied for concurrently with this request for an environmental impact analysis.
APPENDIX E
GROUND WATER MONITORING WELL SITE MAP
### EIAP Checklist

<table>
<thead>
<tr>
<th>Title</th>
<th>RCS#</th>
<th>Coordination</th>
<th>Email</th>
<th>Date Sent</th>
<th>Date Received</th>
<th>Date Signed</th>
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<tr>
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<td>01-223</td>
<td>5.14.04 Demons sent 6/3</td>
<td></td>
<td>5-20-01</td>
<td>5-21-01</td>
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</tbody>
</table>

**Public Notice**
- Coordination with Public Affairs: 6-22-04
- Base Leader: 6-25-04
- GF Herald: 7-1-04
- Legal Email: 8-3-04, reply: 8-5-04
- ARW/CV
- EPC

**External Letters to Wayne**
- Signed 7-12-04
  - ND Department of Health: 7-19-04
  - ND Game and Fish: 7-27-04
  - State Historical Society of ND: 7-26-04

**Copy**
- Send copy to Proponent of signed 813. + EA emailed 18Aug04. FONSI emailed 18Aug04.
- One single sided Copy for Wayne & EPC.
- + EA to Gary Williamson for project folder.
- + 813 + EA to Real Property if they initiated 813.
- One copy of FONSI to Division of Community Services. **e-mailed 18Aug04**

**Filing**
- Update EIAP Master Log – change color from yellow to green or red.
- Update data (My Network Places/public on Jfsd2csw2da101/Records Mgmt/45-other Records Mgmt Ops T37-19R/7-00-04-319 MSG/02-CES/25-CEV/01-CEVA/68-T032-01R03.00/C/EIAP Log)
- Update Master Log on H:/env_eng on 'Fsjfsd41009'/CEV A/EIAP Logs/Old Logs/EIAP Log Master)
- Update FY Log on H drive. ...Fsjfsd41009/CEVA/EIAP Logs/Old Logs/EIAP Log current FY
- Move File folder from H drive to official record: (My Network Places/public on Jfsd2csw2da101/Records ....T032-01R03.00/B-General Assessments)
- Originals to Tracy for scanning and filing.
No negative comments

-----Original Message-----
From: Strom Diane M Civ 319 CES/CEVA
Sent: Tuesday, August 03, 2004 11:12 AM
To: Hanson Mark Civ 319 ARW/JA
Subject: Legal Review of EIAP Documentation

Review the enclosed FONSI and EA for the proposed Contractor's Row Road and SNG Plant Spur. The Affidavit of Publication from the Grand Forks Herald is enclosed regarding the public notice requirements of EIAP process. It was published in the Herald on 1 and 3 Jul 04, and The Leader on 25 Jun 04.


Also, enclosed are the comments from ND Dept of Health, ND Game and Fish, and ND Historical Society.


Thanks,
Diane M. Strom, 319 CES/CEVA
NEPA/EIAP Program
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434
Phone (701) 747-6394
Fax (701) 747-6155
E-mail: diane.strom@grandforks.af.mil
August 25, 2004

Diane M. Strom  
Dept. of the Air Force  
319 CES/CEVA  
525 Tuskegee Airman Blvd.  
Grand Forks AFB, ND 58205-6434

"Letter of Clearance" In Conformance with the North Dakota Federal Program Review System - State Application Identifier No.: ND040825-0433

Dear Ms. Strom:

SUBJECT: FONSI - Contractor's Row Road and Synthetic Natural Gas Plant Spur

The above referenced FONSI 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,

James R. Boyd  
Manager of Governmental Services

Postmarked 8.25.04
July 19, 2004

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

Re: Draft Environmental Assessment for
Constructing an Access Road & Paving Contractor’s Row Road
Grand Forks Air Force Base, Grand Forks County

Dear Ms. Strom:

This department has reviewed the information concerning the above-referenced project submitted under date of July 12, 2004, 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. 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.

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,

[Signature]

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

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.

Dear Mr. Hildebrand:

The U.S. Air Force is preparing an environmental assessment (EA) on the paving of Contractor's Row road and the construction of a gravel access road spur to the Synthetic Natural Gas Plant. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

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

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Strom at 701-747-6394.

Sincerely,

WAYNE A. KOOP  
Environmental Management Flight Chief

Attachment:  
Environmental Assessment

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.

Michael G. McKenna  
Chief, Conservation & Communication Division  
Date: 7/27/04

[Signature]
July 26, 2004

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

ND SHPO Ref.: 97-0527ak, Draft EA, Contractor’s Row Road Improvements, Grand Forks AFB, ND.

Dear Ms. Strom:

We have reviewed: Environmental Assessment: Construct Access Road, Pave Contractor’s Row, Gravel SNG Plant Road Spur At Grand Forks AFB, North Dakota (Draft Version, 21 June 04).

We have no comments on the draft Environmental Assessment.

Thank you for the opportunity to review this project. Please include the ND SHPO Reference number listed above in any further correspondence for this specific project. If you have any questions please contact Duane Klinner at (701) 328-3576.

Sincerely,

[Signature]

Merlan E. Paaverud, Jr.
State Historic Preservation Officer
(North Dakota)
1. Attached for your information are the EA and FONSI for the construction of paving of Contractor’s Row road and the construction of a gravel access road spur to the Synthetic Natural Gas Plant on Grand Forks AFB.

2. The FONSI is being submitted to your office in accordance with 32 CFR Part 989 which requires Grand Forks AFB to notify the OMB Circular Clearing House whenever a FONSI has been completed.

3. If you have any questions concerning this matter, or desire copies of the EA enclosures, please contact Ms. Diane Strom, 319 CES/CEVA at (701) 747-6394.
Mr. Terry Dwelle  
State Health Officer  
North Dakota Department of Health  
600 East Boulevard Avenue  
Bismarck, ND 58505-0200

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.

Dear Mr. Dwelle:

The U.S. Air Force is preparing an environmental assessment (EA) on the paving of Contractor’s Row road and the construction of a gravel access road spur to the Synthetic Natural Gas Plant. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency’s responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

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

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Strom at 701-747-6394.

Sincerely,

WAYNE A. KOOP  
Environmental Management Flight Chief

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

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.

Dear Mr. Hildebrand:

The U.S. Air Force is preparing an environmental assessment (EA) on the paving of Contractor’s Row road and the construction of a gravel access road spur to the Synthetic Natural Gas Plant. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency’s responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

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

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Strom at 701-747-6394.

Sincerely,

WAYNE A. KOOP  
Environmental Management Flight Chief

Attachment:  
Environmental Assessment
Mr. Merlen E. Paaverud  
State Historic Preservation Officer  
State Historical Society of North Dakota  
612 East Boulevard Avenue  
Bismarck ND 58505-0200  

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.  

Dear Mr. Paaverud:  

The U.S. Air Force is preparing an environmental assessment (EA) on paving of Contractor's Row road and the construction of a gravel access road spur to the Synthetic Natural Gas Plant. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:  

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

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Strom at 701-747-6394.  

Sincerely,  

WAYNE A. KOOP  
Environmental Management Flight Chief  

Attachment:  
Environmental Assessment
AIR FORCE BASE
PUBLIC NOTIFICATION

Grand Forks Air Force Base has proposed the paving of Contractor's Row road and the construction of a gravel access road spur to the Synthetic Natural Gas Plant.

An environmental assessment has been conducted and a "finding of no significant impact has been determined for the action."

Anyone who would like to view the support documents to this action should contact the 319th Air Refueling Wing Public Affairs Office within the next 30 days at 747-5017.

(July 1, 3, 2004)

AFIDAVIT OF PUBLICATION

STATE OF NORTH DAKOTA
COUNTY OF GRAND FORKS

Of said State and County being first duly sworn, on oath says:

That 

is a representative of the GRAND FORKS HERALD, INC., publisher of the Grand Forks Herald, Morning Edition, a daily newspaper of general circulation, printed and published in the City of Grand Forks, in said County and State, and has been during the time herein mentioned, and that the advertisement of

a printed copy of which is hereto annexed, was printed and published in every copy of the following issues of said newspaper, for a period of time(s) to wit:

Yr. 7-1
Yr. 7-2
Yr. 7-3
Yr. 7-4
Yr. 7-5
Yr. 7-6
Yr. 7-7
Yr. 7-8

and that the full amount of the fee for the publication of the annexed notice inures solely to the benefit of the publishers of said newspaper, that no agreement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any person whomsoever and the amount of said fee is $19.32.

That said newspaper was, at the time of the aforesaid publication, the duly elected and qualified Official Newspaper within said County, and qualified in accordance with the law of the State of North Dakota to do legal printing in said County and State.

Subscribed and sworn to before me this 6th day of July A.D. 2004

ELAINE FAWCETT
NOTARY PUBLIC

STATE OF NORTH DAKOTA

Notary Public, Grand Forks, ND
Larimore City Council
Regular Meeting
July 6, 2004

The City Council met on Monday, June 7, 2004 at 7:00 p.m. in the community room of the City Hall at 122 W. Main St.

Future Council Meetings:
June 27, 2004/Reorganizational Meeting
July 6, 2004/Regular Meeting 7PM

Meeting Agenda:
Roll Call: All members were present except council member, K. Matheson.
Also present: D. Matheson, D. Farrel, J. McDonald, T. Treson, E. Molloy, B. Schroeder, M. Givens, D. Schneider.

Consent Agenda: M/S/C (C/R/N/R)


Chief of Police: A. Hitch has hired Billy Baker as a Part-Time Officer, he will cover shifts as needed. Roll call to accept Police Chief Report approved unanimously.

Way & Means: Motion to accept bid for Troy's P&H for $604.66 providing he comes up with the Contractor's License by June 15, M/S/C (R/N/R). Roll call Vote approved unanimously.

Employee & Purchasing: Motion that City pay Deb $100.00 an hour and that Donna and Deb go to bank and get on the signature card. M/S/C (R/N/U). Roll call vote approved unanimously.

Motion to turn over to the finance committee to consider a retroactive pay raise for Donna M/S/C (D/G).

Water & Sewer: Discussion on past due accounts, will shut water off for non payment or place them on the tax roll. Motion to offer the Petrosen boys the mowing contract. M/S/C (G/D).

Unfinished/New Business
City Hall will be a contact place for Larimore Days which is being held July 14, 17, 18, 2004. Motion to donate $500 to the Larson Dam to help with the Fireworks. M/S/C (R/N/R). Permits for fireworks will be included and one permit from City. Motion to advertise FEMA trailer for bids. M/S/C (A/U).

Roll call vote R/U/A, R/N/D/D/G.

2002 PONTIAC Bonneville SSEI 4 door, only 31,000 miles on this 2002 Pontiac Bonneville SSEI 4 door. All original paint, chrome wheels, power sunroof. Sold.

2002 CHEVY Avalanche 4x4, leather interior, 41,500 mi., $11,000.00.

2002 EXPLORER $14,000.

OTTMAR 4 door, with chrome style package.

The FAMILY CIRCUS

The Liberty Business Center

715-733-1002/218-739-5853

The Challenge Group,

The Liberty Business Center

715-733-1002/218-739-5853

The Liberty Business Center

715-733-1002/218-739-5853

Please call for more information.

The Liberty Business Center

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715-733-1002/218-739-5853
319th CPTS closure
The 319th Comptrollers Squadron closes today at noon for an official function.

Envision closure
The Envision Store is closed today for inventory. Emergency requirements will be processed. Envision reopens Monday.

319th MSS closure
The 319th Mission Support Squadron closes Monday from 3 to 4:30 p.m., Tuesday from noon to 4:30 p.m., Wednesday from 10 to 11:30 a.m. for official functions.
For emergency call Military Personnel Flight customer service at 747-4902.

Library closure
The library is closed July 4 and 5 for the holiday. Regular business hours resume July 6.

LRS change of command
The 319th Logistics Readiness Squadron invites all to their change of command ceremony, where Maj. Ted A. Lewis assumes command from Lt. Col. Walter C. Moynihan, 10 a.m. Monday at the Northern Lights Club.
For details call 1st Lt. Kristy Herman at 747-6165.

Password creation practices
It is the responsibility of all military personnel to protect their passwords.
It is advisable to use a password that uses a phrase such as 2b—N2b! that doesn't make sense to anyone else, but don't use this example as a password.
For more information on passwords or information security call Information Protection at 747-6958.

Public notice
The paving of Contractor's Row Road and the construction of a gravel access road spur to the Synthetic Natural Gas plant was proposed.
An environmental assessment has been conducted and a finding of no significant impact has been determined for the action.
If you would like to view the support documents to this action contact the 319th Air Refueling Wing Public Affairs at 747-5017 within the next 30 days.

ECAMP
This week volunteers from different squadrons around base have been conducting the Environmental Compliance and Management Program.
The purpose of ECAMP is to provide an assessment of environmental management program areas at Air Force bases.
Some of the different areas investigated were hazardous waste, hazardous materials, asbestos, waste water, water quality, lead, radon, pesticides, air, solid waste, pollution prevention and several other areas.
Through a series of interviews, team members collected information at the sites they visited which could affect installation environments. The team will submit their findings, good or bad, in order to ensure a safe environment in the future.
This is all part of Air Force policy which calls for the identification of problems and the control of hazards to health and welfare from current operations. Federal, state and local governments have developed regulations that, if implemented, would significantly reduce hazards to the environment.
ECAMP also ensures appropriate planning for future environmental program expenditures.

Consumer confidence report
A consumer confidence report describing base drinking water quality is available on the base Web page under "What's Hot", an additional copy is available in the base library. A copy of this report will also be mailed to each housing resident.
For details call 747-5015.
Enclosed for approval and signature is FONSI for contractor’s row. I emailed Legal’s approval to you. Once signed, I will make copies for the various parties.

Thanks,

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)
Diane Strom, 319 CES/CEVA, NEPA / EIAP, Room 128, Blde 410. Phone 747-6394. Fax 747-6155
**ROUTING AND TRANSMITTAL SLIP**

21 Jun 04

(Naam, office symbol, room number, building, Agency/Post)

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<td>Investigate</td>
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1. Coordination Justify

REMARKS

EA for 04-223 is enclosed for your review..

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)  
Diane Strom, 319 CES/CEVA, NEPA / EIAP

Room No 128 · Bldg. 410  
Phone No. 747-6394

OPTIONAL FORM 41 (Rev. 1-94)  
Prescribed by GSA
**REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS**

**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 - PROPOINTER INFORMATION

1. TO (Environmental Planning Function)  319 CES/CEVC
2. FROM (Proponent organization and functional address symbol)  319 CES/CEOEO
   2a. TELEPHONE NO. 7-3905

3. TITLE OF PROPOSED ACTION
   Contractors Row Road and Steen Electrical Substation Access

4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date)
   See Attached

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.)
   See Attached

6. PROPOINTER APPROVAL (Name and Grade)
   Mr Ken Demmons

### SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY

(Provide sufficient details for evaluation of the total action.)

<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td>7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)</td>
</tr>
<tr>
<td>8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)</td>
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<tr>
<td>9. WATER RESOURCES (Quality, quantity, source, etc.)</td>
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<tr>
<td>10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)</td>
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<td>11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)</td>
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<td>12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)</td>
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<td>13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)</td>
</tr>
<tr>
<td>14. GEOLOGY AND SOILS (Topography, minerals, geothermal, installation Restoration Program, seismicity, etc.)</td>
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<tr>
<td>15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)</td>
</tr>
<tr>
<td>16. OTHER (Potential impacts not addressed above.)</td>
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</tbody>
</table>

### 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
   This action is not "regionally significant" and does not require a conformity determination in accordance with 40 CFR 93.153(1). The total emission of criteria pollutants from the proposed action are below the de minimus thresholds and less than 10 percent of the Air Quality Region's planning inventory.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade)
   WAYNE A. KOOP, R.E.M., GM-13
   Environmental Management Flight Chief

**AF FORM 813, 19990901 (IMT-V1)**
Block 4: Purpose and Need for Action

4.1 Purpose: The purpose for this project is to make improvements to and pave Contractor’s Row Road from 1st Avenue to the Steen Electrical Substation. Also, a gravel road from the existing improved railroad bed to the SNG east gate is necessary. The primary need exists because base personnel must have all weather access to the Steen Electrical Substation. Additionally, contractor’s will be able to safely access their shops and storage areas along Contractor’s Row Road and base personnel will be able to access the SNG plant through the existing east gate.

4.2 Need for Action: All weather access for Air Force personnel to reach the Steen Electrical Substation is necessary. Road conditions make this difficult due to mud, severe rutting, and unfavorable road conditions after rain on Contractor’s Row Road. Without some means of reasonable access Air Force personnel will have limited seasonal access to the substation. There is currently no access road to the SNG through the east gate. To access the SNG through the east gate, personnel must drive over unimproved ground.

Block 5: Description of Proposed Action and Alternatives

5.1 Proposed Action: Under the proposed action, CE will make improvements to the existing 1400’ of Contractor’s Row Road. Road improvements include; cutting the road bed to a suitable base, adding, compacting, and crowing clay to form an impermeable barrier and placing and compacting 1” minus gravel on top for a base. If paving cannot be accomplished with this year’s budget, the road will be suitable until the paving can be completed next year. Estimated material quantities include 1,000 cubic yards of cut material, 1,300 cubic yards of clay, and 600 cubic yards of 1” minus gravel. Pavement will consist of a 4”-6” crowned asphalt surface. Excess spoil material (black dirt) will be transported to an on-base material stockpile (“Pea Patch”). Runoff and drainage will be addressed during design of the project.

The SNG spur will consist of a gravel access road to the existing SNG plant east gate from the improved railroad bed. Improvements include the placement of four inches of 1” minus gravel, added and compacted, to the Section 1 area on the map. The road will not be widened from its present 12 foot width. Work on Section 2 will include cutting 6” of topsoil, sloping the road bed, adding a geotextile, and covering with compacted 1” minus gravel to approximately 65 feet of unimproved ground. Road width will be 12 feet. A 4-8 inch conduit will be installed to allow water to flow from the high ground on the north side to the lower area on the south side. Total estimated 1” minus gravel material needed for both sections is 50 cubic yards. Excess spoil material (black dirt) from Section 2 will be transported to an on-base material stockpile (“Pea Patch”).

5.2 Alternative 1: Under the alternative action, another route could be constructed to access the substation, Contractor’s Row, and the SNG east gate. This would require much of the same work included in this request in addition to disturbing additional area required for new road installation.

5.3 No Action Alternative: Under the no action alternative, the existing and poor quality Contractor Row Road would continue to be used. The road would not be able to be improved during such usage and would continue to degrade, rut, become muddy, and safety would ultimately become a concern. If spring rains persist, the road may become impassable and severely limit the access and use of facilities necessary for personnel to perform their work on Grand Forks AFB. SNG access through the east gate would continue on unimproved ground.

5.4 Decision: Grand Forks AFB must decide whether or not to pave the existing Contractor’s Row Road and install 140’ of gravel road to the SNG east gate from the improved railroad bed so that base personnel have all weather access to the Steen Electrical Substation and SNG plant.

5.5 Permits: Section 404 and Storm Water permits are being applied for concurrently with this request for an environmental impact analysis.
BASE CIVIL ENGINEER WORK REQUEST

_Section I - To Be Completed By Requester_

1. FROM (Organization) 319 Civil Engineer Squadron
2. OFFICE SYMBOL CEOE
3. DATE OF REQUEST 20040319
4. WORK REQUEST NO. (For BCE Use) None
5. NAME AND PHONE NO. OF REQUESTER Tom Plath 7-4720
6. REQUIRED COMPLETION DATE
7. BUILDING, FACILITY OR STREET ADDRESS WHERE WORK IS TO BE ACCOMPLISHED Synthetic Natural Gas (SNG) Plant Road
8. DESCRIPTION OF WORK TO BE ACCOMPLISHED (Include Sketch or Plan, when appropriate) Install a paved road for access to the SNG Plant and a road to Contractor's Row.

_9. BRIEF JUSTIFICATION FOR WORK TO BE ACCOMPLISHED (Not required for maintenance and repair)_ Road will also provide access to Contractor's Row.

_10. DONATED RESOURCES_

<table>
<thead>
<tr>
<th>FUNDS</th>
<th>LABOR</th>
<th>MATERIAL</th>
<th>CONTRACT BY REQUESTER</th>
<th>NONE</th>
</tr>
</thead>
</table>

_11. NAME OF REQUESTER_ Thomas R. Plath
_12. GRADE OF REQUESTER_ GS-9
_13. SIGNATURE OF REQUESTER_ Thomas R. Plath

__Section II - For Base Civil Engineer Use__

15. WORK ORDER (Place an "X" in the appropriate box.)
16. DIRECT SCHEDULED WORK (Place an "X" in the appropriate box.)
17. SELF-HELP (Place an "X" in the appropriate box.)

14. COORDINATION

18. WORK CLASS None
19. PRIORITY None
20. ESTIMATED HOURS None
21. ESTIMATED FUNDED COST None
22. ESTIMATED TOTAL COST

23. THERE IS NO NEED FOR AN ENVIRONMENTAL ASSESSMENT (AFR 19-2) None
24. A WRITTEN ASSESSMENT HAS BEEN SUBMITTED AND PROCESSED None
25. APPROVED None
26. DISAPPROVED None

27. REMARKS
28. NAME AND GRADE (Please Type or Print)
29. SIGNATURE None
30. DATE None

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PUBLICATION

CASTER ACCESS

The design and installation of a specialized road (1,390') for access to the Service Contractor's facilities and Steen Electrical Sub-Station on Contractor's Row.

SECTION II - FOR BASE CIVIL ENGINEER USE

15. WORK ORDER (Place an "X" in the appropriate box.)

IN-SERVICE SELF-HELP CONTRACT SABER

16. DIRECT SCHEDULED WORK (Place an "X" in the appropriate box.)

EMERGENCY URGENT ROUTINE SELF-HELP M/C

17. SELF-HELP (Place an "X" in the appropriate box.)

BRIEFING REQUIRED ADEQUATE COORDINATION INSPECTION REQUIRED

SECTION III - COMPLETE ONLY IF WORK IS TO BE ACCOMPLISHED BY WORK ORDER

18. WORK CLASS

19. PRIORITY

20. ESTIMATED HOURS

21. ESTIMATED FUNDED COST

22. ESTIMATED TOTAL COST

23. THERE IS NO NEED FOR AN ENVIRONMENTAL ASSESSMENT (AFPR 19-2)

24. A WRITTEN ASSESSMENT HAS BEEN PROCESSED

25. APPROVED

26. DISAPPROVED

27. REMARKS

28. NAME AND GRADE (Please Type or Print)

29. SIGNATURE

30. DATE

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