

PERFORMANCE AUDIT  
OF THE  
CONSTRUCTION AND FACILITIES MANAGEMENT OFFICE  
DEPARTMENT OF MILITARY AND VETERANS AFFAIRS

January 2002

## EXECUTIVE DIGEST

# CONSTRUCTION AND FACILITIES MANAGEMENT OFFICE

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### INTRODUCTION

This report, issued in January 2002, contains the results of our performance audit\* of the Construction and Facilities Management Office (CFMO), Department of Military and Veterans Affairs.

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### AUDIT PURPOSE

This performance audit was conducted as part of the constitutional responsibility of the Office of the Auditor General. Performance audits are conducted on a priority basis related to the potential for improving effectiveness\* and efficiency\*.

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### BACKGROUND

The Department is responsible for administering State-regulated veterans services and training the Michigan National Guard to ensure military preparedness to assist both federal and State authorities.

CFMO is responsible for ensuring that the Department's 51 National Guard armories, 2 Army National Guard training sites, and 2 homes for veterans are maintained and comply with all health, safety, and environmental laws and regulations. CFMO prepares technical plans, specifications, cost estimates, and bid documents for minor construction, remodeling, operational maintenance, and special maintenance projects. In addition, CFMO

\* See glossary at end of report for definition.

oversees activities related to natural resources management and environmental compliance.

Most of CFMO's funding is from the U.S. Department of Defense National Guard Master Cooperative Agreement, the State General Fund, and capital outlay appropriations. During fiscal year 1999-2000, CFMO expended approximately \$6.6 million for construction and maintenance projects and approximately \$2.7 million for environmental programs.

As of July 1, 2001, there were 27 CFMO employees, of which 6 were federal employees and 21 were State employees.

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AUDIT OBJECTIVES,  
CONCLUSIONS, AND  
NOTEWORTHY  
ACCOMPLISHMENTS

**Audit Objective:** To assess the effectiveness and efficiency of CFMO's planning, contracting, and monitoring of facilities construction and maintenance.

**Conclusion:** We concluded that CFMO was generally effective and efficient in the planning, contracting, and monitoring of facilities construction and maintenance. However, we noted reportable conditions\* related to construction monitoring, submission of as-built plans\*, operating procedures, and identification and reporting of maintenance and repair projects (Findings 1 through 4).

**Noteworthy Accomplishments:** CFMO designed and contracted for the renovation of a deteriorating aircraft hangar located at the Grand Ledge Airport into a consolidated maintenance facility for wheeled vehicles. This eliminated the need for considerable expenditures that would have been required to bring several smaller shops into compliance with Michigan Occupational Safety and Health Administration (MIOSHA) laws. This "super

\* See glossary at end of report for definition.

shop" was opened in 1999 and was followed by the establishment of a second consolidated maintenance facility at Selfridge Air National Guard Base. This concept is now being adopted by several other states that recognize the economy of this method of operation.

**Audit Objective:** To assess the effectiveness and efficiency of CFMO's planning, implementing, and monitoring of environmental programs.

**Conclusion:** We concluded that CFMO was effective and efficient in the planning, implementing, and monitoring of environmental programs. Our report does not include any reportable conditions related to this objective.

**Noteworthy Accomplishments:** The endangered Kirtland's warbler has made a strong comeback in northern Michigan as a result of CFMO's assistance to and help from the Department of Natural Resources. The Michigan National Guard has set aside 5,000 acres for Kirtland's warbler management at Camp Grayling. A northern Michigan census conducted in spring 2001 recorded a total of 1,085 singing males, of which 30 were counted at Camp Grayling. The adult population is believed to be at least twice that high, assuming a female partner for every male. As recently as 1987, only 167 singing males were found Statewide. Since then, the number of male Kirtland's warblers has risen steadily.

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**AUDIT SCOPE AND  
METHODOLOGY**

Our audit scope was to examine the program and other records of the Construction Facilities and Management Office. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing

procedures as we considered necessary in the circumstances.

Our audit procedures included examination of CFMO records and activities for the period October 1998 through June 2001.

To establish our audit objectives and to gain an understanding of CFMO activities, we conducted a preliminary review of CFMO operations. This included discussions with various CFMO staff regarding their functions and responsibilities and a review of program records.

To assess the effectiveness and efficiency of CFMO's planning, contracting, and monitoring of facilities construction and maintenance, we reviewed CFMO and Department of Management and Budget policies and procedures, observed bidding and contracting activities, inspected construction projects in progress, toured an Army National Guard training site, tested a sample of construction and maintenance projects, and reviewed armory sales and purchases made with armory construction funds.

To assess the effectiveness and efficiency of CFMO's planning, implementing, and monitoring of environmental projects, we reviewed U.S. Department of Defense and National Guard Bureau (NGB) policies and procedures, analyzed the submission of projects to NGB for approval and funding, and tested a sample of environmental projects for compliance with NGB requirements.

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**AGENCY RESPONSES**

Our audit report contains 4 findings and 4 corresponding recommendations. The Department's preliminary response indicated that CFMO agreed with our recommendations.

January 8, 2002

Major General E. Gordon Stump, Director  
Department of Military and Veterans Affairs  
2500 South Washington Avenue  
Lansing, Michigan

Dear General Stump:

This is our report on the performance audit of the Construction and Facilities Management Office, Department of Military and Veterans Affairs.

This report contains our executive digest; description of agency; audit objectives, scope, and methodology and agency responses; comments, findings, recommendations, and agency preliminary responses; and a glossary of acronyms and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from the agency's responses subsequent to our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a formal response within 60 days after the release of the audit report.

We appreciate the courtesy and cooperation extended to us during the audit.

AUDITOR GENERAL

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## Description of Agency

The Department of Military and Veterans Affairs is responsible for administering State-regulated veterans services and training the Michigan National Guard to ensure military preparedness to assist both federal and State authorities.

The Department's Construction and Facilities Management Office (CFMO) is responsible for ensuring that the Department's 51 National Guard armories, 2 Army National Guard training sites, and 2 homes for veterans are maintained and comply with all health, safety, and environmental laws and regulations. CFMO prepares technical plans, specifications, cost estimates, and bid documents for minor construction, remodeling, operational maintenance, and special maintenance projects. CFMO projects are usually repairs and modifications of existing buildings. During our audit period, CFMO also administered the construction of new armories in Augusta and Alpena.

In addition, CFMO oversees activities related to natural resources management and environmental compliance.

Most of CFMO's funding is from the U.S. Department of Defense National Guard Master Cooperative Agreement, the State General Fund, and capital outlay appropriations. During fiscal year 1999-2000, CFMO provided oversight for approximately 49 construction and maintenance projects representing State and federal costs of approximately \$6.6 million. In fiscal year 1999-2000, CFMO also spent approximately \$2.7 million administering environmental programs related to conservation or compliance with federal or State environmental laws at State facilities.

As of July 1, 2001, there were 27 CFMO employees, of which 6 were federal employees and 21 were State employees.

## Audit Objectives, Scope, and Methodology and Agency Responses

### Audit Objectives

Our performance audit of the Construction and Facilities Management Office (CFMO), Department of Military and Veterans Affairs, had the following objectives:

1. To assess the effectiveness and efficiency of CFMO's planning, contracting, and monitoring of facilities construction and maintenance.
2. To assess the effectiveness and efficiency of CFMO's planning, implementing, and monitoring of environmental programs.

### Audit Scope

Our audit scope was to examine the program and other records of the Construction Facilities and Management Office. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

### Audit Methodology

Our audit procedures, conducted from May through July 2001, included examination of CFMO records and activities for the period October 1998 through June 2001.

To establish our audit objectives and to gain an understanding of CFMO activities, we conducted a preliminary review of CFMO operations. This included discussions with various CFMO staff regarding their functions and responsibilities and a review of program records.

To assess the effectiveness and efficiency of CFMO's planning, contracting, and monitoring of facilities construction and maintenance, we reviewed CFMO and Department of Management and Budget policies and procedures, observed bidding and contracting activities, inspected construction projects in progress, toured an Army National Guard training site, tested a sample of construction and maintenance projects, and reviewed armory sales and purchases made with armory construction funds.

To assess the effectiveness and efficiency of CFMO's planning, implementing, and monitoring of environmental projects, we reviewed U.S. Department of Defense and National Guard Bureau (NGB) policies and procedures, analyzed the submission of projects to NGB for approval and funding, and tested a sample of environmental projects for compliance with NGB requirements.

#### Audit Responses

Our audit report contains 4 findings and 4 corresponding recommendations. The Department's preliminary response indicated that CFMO agreed with our recommendations.

The agency preliminary response that follows each recommendation in our audit report was taken from the agency's written comments and oral discussion subsequent to our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and Department of Management and Budget Administrative Guide procedure 1280.02 require the Department of Military and Veterans Affairs to develop a formal response to our audit findings and recommendations within 60 days after the release of the audit report.

# COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

## EFFECTIVENESS AND EFFICIENCY OF FACILITIES CONSTRUCTION AND MAINTENANCE

### COMMENT

**Audit Objective:** To assess the effectiveness and efficiency of the Construction and Facilities Management Office's (CFMO's) planning, contracting, and monitoring of facilities construction and maintenance.

**Conclusion:** We concluded that CFMO was generally effective and efficient in the planning, contracting, and monitoring of facilities construction and maintenance.

However, we noted reportable conditions related to construction monitoring, submission of as-built plans, operating procedures, and identification and reporting of maintenance and repair projects.

**Noteworthy Accomplishments:** CFMO designed and contracted for the renovation of a deteriorating aircraft hangar located at the Grand Ledge Airport into a consolidated maintenance facility for wheeled vehicles. This eliminated the need for considerable expenditures that would have been required to bring several smaller shops into compliance with Michigan Occupational Safety and Health Administration (MIOSHA) laws. This "super shop" was opened in 1999 and was followed by the establishment of a second consolidated maintenance facility at Selfridge Air National Guard Base. This concept is now being adopted by several other states that recognize the economy of this method of operation.

### FINDING

#### 1. Construction Monitoring

CFMO did not ensure that construction projects were effectively monitored by requiring that project files included written documentation to support monitoring activities, as specified in the contract language.

CFMO inspectors are responsible for the general supervision of construction and maintenance projects to ensure that the work conforms to the requirements of the contract plans and specifications.

During our review of 15 construction and maintenance projects, of which 10 were completed and 5 were still in progress, we noted:

- a. Department of Military and Veterans Affairs inspectors did not document required on-site inspections for 6 (60%) of the 10 completed projects.

Standard written project reports would provide CFMO with information about the job, including instructions to the contractor, delays, accidents, weather conditions, progress schedule activities corresponding to work performed, material deliveries, inspection/testing performed and related results, and any deficiencies.

- b. CFMO did not document contract-required inspections and field tests for 7 (70%) of the 10 completed projects.

Contract language, depending on the type of project, requires that specific inspections, tests, and adjustments, such as electrical circuit tests, air monitoring tests, or concrete density tests, be conducted by or in the presence of a Department representative. Written verification that the inspections were performed helps to ensure that the project is completed in accordance with the specifications.

- c. CFMO did not include required contract submittal documents in 7 (70%) of the 10 completed project files.

The Department's standard contract language states that no work requiring submission of a shop drawing, product data, or sample shall be started until the submittal has been approved by the Department. Department approval of submittals indicates compliance with project requirements and conformance with the design concept of the project. Some designers completed a shop drawing status log to track the submittals, but these were not required of all designers.

- d. CFMO did not document its approval for extension of the completion date for the 5 projects that were not completed on time.

The completion date is specified in the contract language. If the contractor finds that it will not be possible to complete the work on or before the completion date fixed by the contract, a written request for a change to the contract extending the time of completion shall be submitted to the Department.

CFMO has the ultimate responsibility for ensuring that construction and maintenance projects are completed in a timely manner and in accordance with construction standards and specifications.

### **RECOMMENDATION**

We recommend that CFMO ensure that construction projects are effectively monitored by requiring that project files include written documentation to support monitoring activities, as specified in the contract language.

### **AGENCY PRELIMINARY RESPONSE**

CFMO agreed with the recommendation and informed us that it has taken steps to comply by directing inspectors to document project site visits, inspections, and required field tests on the project report form. Inspectors will review completion dates with contractors periodically and, if an extension is required, ensure that the paperwork is submitted. Project designers will use a status log to ensure that all required shop drawings are submitted.

### **FINDING**

#### **2. Submission of As-Built Plans**

CFMO did not always ensure that as-built plans for construction projects were received and included in the project files after construction projects were completed.

Our review disclosed that 5 (50%) of 10 completed project files did not contain as-built plans. These projects included jobs, such as paving, building renovations, and construction of a nature trail, with costs ranging from \$20,775 to \$299,000.

Standard Department of Management and Budget contract language required the contractors to submit documents showing all revisions to the original plans and deviations between the original plans and the finished project. Submittal of these documents is required with, or prior to, the request for final payment. Final payment disbursement should not occur until after the as-built plans are received. A final set of as-built plans is generally a requirement for CFMO's construction projects. These plans show location details of all construction work, including sewer and electrical lines. They can be marked construction drawings showing deviations from the planned work or separately drafted drawings.

Accurate as-built plans minimize costly changes and time delays on future work and provide information that is critical for maintenance and subsequent renovations.

### **RECOMMENDATION**

We recommend that CFMO ensure that as-built plans for construction projects are received and included in the project files after construction projects are completed.

### **AGENCY PRELIMINARY RESPONSE**

CFMO agreed with this recommendation and informed us that it has taken steps to comply by instructing inspectors to ensure that as-built plans are included with the closeout documents. The manager of Administrative Services will review the project folder to ensure that a set of as-built plans is included prior to authorizing the final payment invoice.

### **FINDING**

#### **3. Operating Procedures**

CFMO did not maintain up-to-date departmental operating policies and procedures for the management of construction and maintenance projects.

The effective management of construction and maintenance projects requires that standard operating policies and procedures be followed for all phases of the project, including administration, programming, design, and monitoring. In addition to U.S. Department of Defense guidance and program requirements, CFMO should provide its installations with additional, specific guidance to satisfy internal management needs. Department staff follow Department of Management and

Budget Administrative Guide procedures for bidding, contracting, monitoring, and project closeout. However, CFMO has not developed internal policies and procedures to ensure that the duties of CFMO are coordinated and managed efficiently.

Department management told us that because of extensive staff experience in CFMO, management did not place a high priority on maintaining written procedures. Many of the staff in CFMO have been with the Department for nearly 30 years.

The need for standard operating procedures may become more critical in future years when experienced staff begin to retire. Without standard operating procedures, projects may not be completed in a timely manner or within the project specifications.

#### **RECOMMENDATION**

We recommend that CFMO maintain up-to-date departmental operating policies and procedures for the management of construction and maintenance projects.

#### **AGENCY PRELIMINARY RESPONSE**

CFMO agreed with this recommendation and informed us that it will prepare standard operating procedures for each section over the next year. After CFMO develops the procedures, it will review and update them semiannually.

#### **FINDING**

##### **4. Identification and Reporting of Maintenance and Repair Needs**

CFMO had not developed and implemented formal procedures for identifying and reporting maintenance and repair needs at armories and training sites.

Armory managers and training site facility engineers performed routine preventative maintenance on a regular basis but did not have a formal mechanism for reporting additional needed repairs and maintenance to CFMO. Also, CFMO inspectors periodically visited armories and training sites but did not perform standard inspections to look for areas that may need repairs. Comprehensive periodic maintenance and repair inspection reports would help the Department identify the most crucial needs to include in its budget proposals and ensure that all



buildings are maintained in a clean, safe manner. Some CFMO inspectors have developed a standard form to report their findings, but these were not required of all inspectors.

Without comprehensive inspection reports, CFMO may not be identifying the most needed maintenance and repair needs to ensure that State and federal funding is used effectively and efficiently.

### **RECOMMENDATION**

We recommend that CFMO develop and implement formal procedures for identifying and reporting maintenance and repair needs at armories and training sites.

### **AGENCY PRELIMINARY RESPONSE**

CFMO agreed with this recommendation and informed us that it is in the process of compiling an installation status report for the U.S. Department of Defense, which includes all armories and training sites. This report is intended to identify maintenance deficiencies at each facility and will be completed by April 2002. This data will be used to identify the Department's most critical repairs to better utilize both State and federal funds. This review will be performed on an annual basis.

Also, formal procedures will be developed for each site and will help facilities managers establish maintenance standards and procedures for project development. This report will be required at the beginning of each fiscal year beginning October 1, 2002.

## **EFFECTIVENESS AND EFFICIENCY OF ENVIRONMENTAL PROGRAMS**

### **COMMENT**

**Audit Objective:** To assess the effectiveness and efficiency of CFMO's planning, implementing, and monitoring of environmental programs.

**Conclusion:** We concluded that CFMO was effective and efficient in the planning, implementing, and monitoring of environmental programs. Our report does not include any reportable conditions related to this objective.

**Noteworthy Accomplishments:** The endangered Kirtland's warbler has made a strong comeback in northern Michigan as a result of CFMO's assistance to and help from the Department of Natural Resources. The Michigan National Guard has set aside 5,000 acres for Kirtland's warbler management at Camp Grayling. A northern Michigan census conducted in spring 2001 recorded a total of 1,085 singing males, of which 30 were counted at Camp Grayling. The adult population is believed to be at least twice that high, assuming a female partner for every male. As recently as 1987, only 167 singing males were found Statewide. Since then, the number of male Kirtland's warblers has risen steadily.

## Glossary of Acronyms and Terms

as-built plans	Drawings showing the actual condition of construction projects at completion.
CFMO	Construction and Facilities Management Office.
effectiveness	Program success in achieving mission and goals.
efficiency	Achieving the most outputs and outcomes practical for the amount of resources applied or minimizing the amount of resources required to attain a certain level of outputs or outcomes.
NGB	National Guard Bureau.
performance audit	An economy and efficiency audit or a program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve public accountability and to facilitate decision making by parties responsible for overseeing or initiating corrective action.
reportable condition	A matter coming to the auditor's attention that, in the auditor's judgment, should be communicated because it represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.