Audit Report

OFFICE OF THE INSPECTOR GENERAL

**MEDICAL FACILITY REQUIREMENTS -
NAVAL HOSPITAL BREMERTON, WASHINGTON**

Report No. 98-035 December 10, 1997

Department of Defense

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Acronyms

BRAC	Base Realignment and Closure
MILCON	Military Construction

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
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December 10, 1997

MEMORANDUM FOR ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Medical Facility Requirements - Naval Hospital Bremerton, Washington (Report No. 98-035)

We are providing this audit report for your information and use. We provided a draft of this report to the addressees on October 9, 1997. We did not make recommendations because Navy management took corrective action during the audit. Because this report contains no recommendations, written comments were not required, and none were received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the audit staff. For additional information on this report, please contact Mr. Michael A. Joseph, Audit Program Director, <mjoseph@dodig.osd.mil> or Mr. Timothy J. Tonkovic, Audit Project Manager, <ttonkovic@dodig.osd.mil> at (757) 766-2703. See Appendix C for the report distribution. The audit team members are listed inside the back cover.

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Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 98-035 **December 10, 1997**
(Project No. 7LF-0053)

Medical Facility Requirements - Naval Hospital Bremerton, Washington

Executive Summary

Introduction. Naval Hospital Bremerton, Washington was constructed in 1980. This report discusses Navy plans to construct a $30 million addition and alteration to the hospital and an adjacent parking structure. The Navy planned the project to expand administrative functions, ancillary services, occupational health services, and primary care to meet the demands of its current beneficiary population.

Audit Objectives. The overall objective was to determine whether the planned military construction project at Naval Hospital Bremerton was justified and cost-effective. The specific objectives were to determine whether the proposed military construction was based on valid requirements and whether alternatives to construction were considered.

We did not review the management control program as part of the audit because the $30 million hospital project was jointly funded with an $11 million base realignment and closure project. Management controls on the base realignment and closure military construction projects will be discussed in a summary report on FY 1998 Defense base realignment and closure budget data.

Audit Results. The existing hospital was undersized and the proposed addition and alteration were necessary to support current and projected patient work loads. The Navy properly determined that there were no alternatives for meeting health care requirements at Naval Hospital Bremerton. The project should enable Naval Hospital Bremerton to meet the health care service needs of the fleet and all other eligible beneficiaries in the catchment area.

Although the planned hospital addition and alteration project was justified, the Navy planned to construct a $6.1 million parking structure at Naval Hospital Bremerton that exceeded requirements. As a result of the audit, the Navy reduced the scope of the parking garage from 414 parking spaces to 250 parking spaces and DoD will be able to put $2 million in Military Construction funds to better use.

Management Comments. We provided a draft of this report on October 9, 1997. Because this report contains no recommendations, written comments were not required, and none were received. Therefore, we are publishing this report in final form.

Table of Contents

Executive Summary i

Part I - Audit Results

Audit Background 2
Audit Objectives 2
Other Matters of Interest 3
Construction Requirements at Naval Hospital Bremerton 5

Part II - Additional Information

Appendix A. Audit Process
Scope and Methodology 10
Appendix B. Navy Bureau of Medicine and Surgery Comments 12
Appendix C. Report Distribution 13

Part I - Audit Results

Audit Background

Naval Hospital Bremerton, Washington, is a nine-story, 254,500-square foot facility, that was built in 1980. The hospital was built with an inpatient capacity of 170 beds; however, current authorized hospital staffing supports 90 inpatient beds. The hospital provides clinical, general, and hospitalization services for active duty personnel, active duty family members, retirees and their dependents, and other authorized beneficiaries.

Since 1989, the Navy has added additional space to provide improved health care to the beneficiary population. It added a Computer Axial Topography (CAT) Scan service in 1989, an auditorium in 1991, and a 5,200-square foot family practice clinic in portable buildings on the hospital compound in 1994. A drive-up pharmacy annex was added in early 1997 near the main hospital entrance.

The Naval Hospital Bremerton catchment area encompasses an approximate 40-mile radius. Downsizing initiatives and subsequent ship decommissionings and realignments in the area are projected to result in a beneficiary population of about 54,000 personnel by FY 2000. The hospital operates three branch medical clinics in its 40-mile catchment area. The branch medical clinics at Naval Submarine Base, Bangor, Washington; Naval Undersea Warfare Center, Keyport, Washington; and the Puget Sound Naval Shipyard, Bremerton, Washington, are located about 14 miles from the hospital.

Audit Objectives

The overall objective was to determine whether the planned military construction (MILCON) Project P-008, "Hospital Addition/Alteration," valued at $30 million at Naval Hospital Bremerton, was justified and cost-effective. The specific objectives were to determine whether the proposed MILCON project was based on valid requirements and whether alternatives to construction were considered. See Appendix A for a discussion of the audit scope and methodology.

The proposed hospital addition and alteration were necessary to expand administration functions, ancillary services, occupational health, and primary health care services to meet the demands of Bremerton's current and projected catchment area population. The Navy properly determined that there were no alternatives to the proposed addition/alteration construction project. The work

load related to the projected population showed that the hospital was undersized. The proposed project should alleviate the space shortfalls associated with the current beneficiary population.

Other Matters of Interest

The proposed $30 million MILCON project includes an addition, alterations, and a 295,600-square foot parking structure. The project was jointly funded with an $11 million base realignment and closure (BRAC) project that included a medical annex and an additional 193,000-square foot parking structure.

Inspector General, DoD, Report No. 97-169, "Defense Base Realignment and Closure Budget Data for Naval Hospital Bremerton, Washington," June 19, 1997, reported that the planned 34,189-square foot medical annex and adjacent 193,000-square foot parking structure were not required because Navy facility planners did not include personnel realignments in their space requirement determinations. We recommended that the Under Secretary of Defense (Comptroller) delete the $11 million project from the FY 1998 Defense BRAC MILCON budget and realign the funds to other unfunded projects.

On April 7, 1997, the Navy Bureau of Medicine and Surgery, Assistant Chief for Logistics stated that the $11 million BRAC project was not required and requested cancellation of the project's design authorization. The Under Secretary of Defense (Comptroller) stated that he would realign the funds for the FY 1998 project, if appropriated, to other valid BRAC requirements.

Table 1 shows the total scope of both projects at Naval Hospital Bremerton prior to cancellation of the BRAC project.

Table 1. Naval Hospital Bremerton BRAC and MILCON Project Scopes

Project	Square Feet	Project Cost* (millions)
BRAC medical annex	34,189	$ 5.8
BRAC parking structure	193,000	3.5
Supporting utilities and equipment		1.7
Total		**$ 11.0**
MILCON addition	55,907	$ 9.8
MILCON alteration	118,361	10.2
MILCON parking structure	295,600	6.1
Building information system and supporting utilities		3.9
Total		**$ 30.0**

*Project costs include contingency and other overhead expenses.

Construction Requirements at Naval Hospital Bremerton

The Navy planned to construct a $6.1 million parking structure at Naval Hospital Bremerton that exceeded requirements. The proposed parking structure exceeded requirements because facility planners used a higher number of outpatient visits to project parking requirements than were used to support medical facility requirements. As a result of the audit, the Navy agreed to reduce the size of the parking structure and DoD will be able to put about $2 million in MILCON funds to better use.

Background

Planned Construction. MILCON Project P-008, "Hospital Addition/Alteration," is a $30 million, MILCON project that will add 55,907 square feet and alter 118,361 square feet of the existing hospital. The project also includes funds for construction of a 295,600-square foot (414-space) parking structure adjacent to the hospital.

Criteria. "DoD Medical Space Planning Criteria," August 1, 1991, provides detailed guidance for sizing the administrative and medical treatment areas in military hospitals. Projected staffing and patient workloads are applied to the criteria to estimate the space requirements for each functional area in the proposed hospital.

Specific guidance for economic analysis of medical MILCON projects is provided in "Procedures Manual for Economic Analysis of Military Medical Construction," July 7, 1995, issued by the Office of the Assistant Secretary of Defense for Health Affairs.

"Military Handbook: DoD Medical and Dental Treatment Facilities Design and Construction Criteria," (the Handbook), October 15, 1991, also issued by the Office of the Assistant Secretary of Defense (Health Affairs), provides criteria and procedures for determining inpatient and outpatient space requirements. The Handbook states that the published criteria and procedures are mandatory for all DoD medical and dental treatment facilities costing more than $200,000.

Parking Structure Requirements

The Navy planned construction of a 414-space parking structure at Naval Hospital Bremerton that exceeded requirements by 164 spaces. The planned parking structure exceeded requirements because Navy facility planners overestimated outpatient visits.

Naval Hospital Bremerton has 267 existing patient parking spaces and 652 parking spaces for the hospital staff. The 919 parking spaces are located in 28 parking areas. The Navy considers 172 of the 919 parking spaces to be inadequate because they are located on a perimeter road and require diagonal parking. The perimeter road is considered a safety deficiency because of its limited width and one-way direction of travel. The Navy plans to eliminate the 172 diagonal spaces and return the perimeter road to two-way traffic. That action will result in 747 adequate parking spaces at the hospital.

Outpatient Visits. The planned parking structure of 414 spaces was based on a FY 2002 projected beneficiary population of 54,263 individuals with an outpatient work load of 388,449 annual visits. In FY 1994, the hospital had a beneficiary population of about 56,844 personnel and provided services for 242,904 outpatient visits.

As a result of our concerns with the significant increase in the outpatient work load, the Health Services Analysis and Measurement Office of the Assistant Secretary of Defense (Health Affairs) revalidated the health care requirements at the hospital. The revalidation showed that the work load is expected to decrease to about 233,000 outpatient visits per year by the project completion year of 2002.

Parking Requirements. The revalidated work load supports the requirement for a 250-space parking structure. We determined parking space requirements for Naval Hospital Bremerton using criteria established in the Handbook. We computed parking space requirements for all personnel working in the hospital full time, and included an allowance for visitors and part-time staff. We also included parking space for the average daily outpatient work load for "peak month" usage and included a 10-percent factor for preadmission testing, paperwork, and pharmacy visits. We allocated one parking space for each hospital inpatient bed, three parking spaces for each dental treatment room and one parking space for each vehicle assigned to the hospital. Table 2 summarizes the parking space requirement at the hospital.

Table 2. Parking Space Requirements at Naval Hospital Bremerton

	Number of Spaces Required
Contract personnel, dental and full-time staff, Red Cross volunteers, and visitors	621
Outpatient beneficiaries	233
Inpatient beneficiaries	63
Dental beneficiaries	9
Hospital vehicles	21
Subtotal	**947**
Less: Existing adequate spaces	747
Existing parking space shortfall	**200**
Adjustments for parking spaces lost due to construction and fleet hospital requirements, and reconfiguration of existing spaces	28
MILCON parking structure requirement	**228**

Based on the Handbook criteria, the revalidated outpatient work load reduces the parking space requirement to 228 spaces. Because of design considerations with the surrounding topography and an increased emphasis on health promotion and prevention programs at Naval Hospital Bremerton, we believe that a 250-parking space structure is required.

Management Actions Taken

On September 5, 1997, personnel from the Facility Division of the Navy Bureau of Medicine and Surgery (the Bureau) agreed that the proposed parking structure should be reduced from 414 parking spaces to 250 parking spaces. A revised cost estimate for the 250-space parking structure showed that funding for the project could be reduced by $2 million. The full text of the comments from the Bureau are in Appendix B. As a result of the Bureau reducing the project funding by $2 million, we are not making a recommendation on the downsizing of the parking structure.

Part II - Additional Information

Appendix A. Audit Process

Scope and Methodology

Work Performed. We examined the FY 1999 MILCON budget request, space requirements, and supporting documentation for project P-008, estimated to cost $30 million, at Naval Hospital Bremerton.

To evaluate the documentation the Navy used to justify the hospital addition and alterations, we contacted or visited the Office of the Assistant Secretary of Defense (Health Affairs), the Bureau of Naval Personnel, the Navy Bureau of Medicine and Surgery, and various other organizations in the Naval Hospital Bremerton catchment area. We also contacted several contractors who prepared project documentation for the Navy. We obtained business and master plans, current and planned beneficiary and staffing levels from FY 1993 through FY 2002, economic analysis, layouts of existing facilities, and projected inpatient and outpatient work loads for FY 2002 for Naval Hospital Bremerton.

We compared the facility's existing clinical spaces to the space requirements provided in the Handbook. We also compared the number of parking spaces to the current and projected staffing and patient work load using criteria in the Handbook. The documentation we reviewed dated from 1992 through August 1997.

We reviewed Naval Hospital Bremerton estimated inpatient and outpatient work loads based on the projected catchment area population of 54,263 beneficiaries in the planned construction completion year of 2002. The estimated work loads, when applied to the space planning criteria in the Handbook, showed that the hospital is undersized.

Audit Type, Dates, and Standards. This economy and efficiency audit was performed from July through August 1997 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD. The audit did not rely on statistical sampling procedures.

Use of Computer-Processed Data. To determine the DoD beneficiary population for the Naval Hospital Bremerton catchment area, we used information from the Total Force Management Information System at the Bureau of Naval Personnel, and the Defense Medical Information System

(including the Resource Analysis and Planning System). We relied on computer-processed data to determine whether project requirements were based on realistic beneficiary population figures for the Naval Hospital Bremerton catchment area. We did not verify the accuracy of the computer-processed data from the two automated personnel management systems, because the reliability of that data was not the primary objective of the audit. Nothing came to our attention during the audit that caused us to doubt the reliability of the computer-processed data.

Summary of Prior Coverage. No prior audit coverage has been conducted on project P-008 during the last 5 years. The audit of a BRAC medical annex and parking structure project at the hospital is discussed in Other Matters of Interest on page 3.

Appendix B. Navy Bureau of Medicine and Surgery Comments

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO
11000
Ser 331/0247
5 Sep 97

MEMORANDUM FOR DEPARTMENT OF DEFENSE (INSPECTOR GENERAL)

SUBJ: NAVAL HOSPITAL BREMERTON, WASHINGTON, HOSPITAL ADDITION/ALTERATION AND PARKING STRUCTURE

Ref: (a) PHONCON BUMED MED-33 CDR Biggins, Fred Webb, Knotts/DOD IG Staff of 12 Aug 97

1. Based on input from all concerned parties and resolution agreed to in reference (a) the size of the parking structure for the subject project has been reduced to 250 space and the budget will be revised accordingly. This action along with other items included in a recent design review of this project will reduce the overall budget figure by approximately $2 Million. A revised estimate is being done by the Architect and will be available within two weeks.

2. The major feature in sizing the parking structure was the projection of future outpatient work load based on the proposed staffing with regard to TRICARE. The parameters used in both the hospital parking plan utilizing Department of Defense (DOD) criteria, and the independent parking consultant which reflected a potential work load of 388,500 visits, were not considered to be achievable. It was subsequently agreed that the DOD IG proposed figure of four visits per eligible beneficiary or 220,000 visits was a reasonable limit and the design for the parking structure was revised from 414 to 250 spaces. Many other factors including: site constraints, safety restrictions, utilization rates, tenant commands, traffic flow, and patient convenience were also discussed and factored into the final decision.

3. My point of contact is Mr. Frederick A. Webb, MED-331, at (202) 762-3515.

T. F. BIGGINS

By direction

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