REPORT TO THE CONGRESS

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Survey Of Policies, Procedures, And Practices For Developing And Reviewing Proposed Military Hospital Construction Projects B-161475(1)

Department of Defense

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-161475(1)

To the President of the Senate and the
Speaker of the **House** of Representatives

This is our report on a survey of policies, procedures, and practices of the Department of Defense for developing and reviewing proposed military hospital construction projects,

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of Defense; the Secretary of Health, Education, and Welfare; and the Administrator of Veterans Affairs. Copies are also being sent to **the** Secretaries of the Army, Navy, and Air Force.

Comptroller General
of the United States

COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

SURVEY OF POLICIES, PROCEDURES AND PRACTICES FOR DEVELOPING AND REVIEWING PROPOSED MILITARY HOSPITAL CONSTRUCTION PROJECTS
Department of Defense B-161475(1)

DIGEST

WHY THE SURVEY WAS MADE

Pursuant to a request of the Chairman, House Committee on Appropriations, the General Accounting Office (GAO) surveyed the Department of Defense (DOD) program for the construction of military hospital and medical facilities.

This report pertains only to the policies, procedures, and practices used by the DOD (1) to develop information on the need for new facilities and (2) to develop plans for the construction of needed military hospital and medical facilities.

The costs of designing, building, and equipping such facilities were included in a concurrent survey which will be the subject of a separate report.

This report is being issued to the whole of the Congress with the agreement of the Chairman of the Committee.

NDINGS AND CONCLUSION

GAO found that the policies and procedures used by the DOD appeared adequate to ensure that proposed hospital construction projects were needed.

GAO found also that consideration was being given to the proper planning of the functional departments--surgical facilities, physical medicine and rehabilitation, administration, etc.--to be included in, and the medical services to be provided by, such hospitals.

GAO found that DOD was drafting revised regulations incorporating its policies and procedures for developing and reviewing proposed military hospital construction projects. GAO believes that effective implementation of these regulations should assist in the processing of proposals for hospital construction through the required review levels on an orderly and timely basis.

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DEC. 21, 1968

RECOMMENDATIONS OR SUGGESTIONS

None.

AGENCY ACTIONS

On September 24, 1968, the DOD issued a directive and an instruction incorporating the policies and procedures for developing and reviewing proposed military hospital construction projects.

ISSUES FOR FURTHER CONSIDERATION

None.

LEGISLATIVE PROPOSALS

None.

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INTRODUCTION

Pursuant to a request contained in a letter dated April 28, 1967, from the Chairman, Committee on Appropriations, House of Representatives (see app. I), the General Accounting Office made inquiries into the policies, procedures, and practices of the Department of Defense relative to the determination of requirements and the planning and programming of hospital construction projects. We also obtained general information on comparable policies and procedures relative to hospital construction programs of other Government agencies; i.e., the Veterans Administration's hospital construction program and the Department of Health, Education, and Welfare's grant program to States (commonly known as the Hill-Burton program) for assisting in the construction and equipping of public and nonprofit hospitals.

Insofar as the Chairman's request pertains to the cost for designing, constructing, and equipping DOD hospitals, a separate report was issued to the Chairman on July 2, 1968. We plan to issue a report on these aspects to the Congress after obtaining and evaluating agency comments on our report to the Chairman.

Although many of the policies and procedures of DOD discussed in this report are applicable to all medical facilities construction, we concentrated primarily on hospital construction since most of the funds currently being requested by DOD for medical facilities construction are for replacement of, or additions to, existing hospitals.

To rebate practices to policies and procedures currently in effect in DOD we studied the actual planning of five hospital projects contained in the Fiscal Year 1968 Military Construction Program presented to the Congress. Brief summaries of the justification data for these five projects, as well as chronologies of major events in the processing of the requirements for, and design of, these projects, are contained in appendixes III through VII. The scope of our survey is described in greater detail on page 30.

BACKGROUND

Within the Department of Defense, the Assistant Secretary of Defense (Installations and Logistics) is the principal staff assistant to the Secretary of Defense in the functional field of military construction. Within this area of responsibility, the Assistant Secretary of Defense (I&L) must (1) recommend policies and guidance governing DOD planning and program development, (2) develop systems and standards for the administration and management of approved plans and programs, (3) review programs of the military departments for carrying out approved policies, and (4) evaluate the management of approved policies and programs.

The Deputy Assistant Secretary of Defense (Properties and Installations) assists the Assistant Secretary of Defense (I&L) in carrying out his responsibilities related to military construction. Within the Office of the Deputy Assistant Secretary of Defense (P&I) are two directorates--the Directorate for Construction and the Directorate for Real Property Management. Subject to the authority and direction of the Deputy Assistant Secretary of Defense (P&I), the Director, Directorate for Construction, is responsible on a worldwide basis for all phases of military public works, from original programming and planning through design and construction to final completion.

The Director's responsibilities include (1) development of uniform design criteria and construction standards for DOD, (2) promulgation of basic instructions and program guidance for the development of all military construction programs, (3) review and correlation of the yearly military construction programs, (4) submission of these annual programs to the Congress for legislative action, (5) policy guidance in long-range planning, (6) postauthorization and postappropriation management determinations as required to permit orderly and efficient accomplishment of construction programs, and (7) surveillance of construction and maintenance of facilities programming and progress.

The Assistant Secretary of Defense (Manpower and Reserve Affairs) is the principal staff assistant to the Secretary of Defense in the functional fields of

(1) medical care and treatment of patients and (2) hospitals and related health and medical facilities. The Deputy Assistant Secretary (Health and Medical) provides assistance to the Secretary of Defense and the Assistant Secretary of Defense (Manpower and Reserve Affairs) on health and medical aspects of DOD policies, plans, and programs. Within the individual military departments, the Surgeons General have the responsibility for determining requirements for hospitals in accordance with established DOD policies and procedures.

The Office of the Secretary of Defense was, at the time of our survey, formalizing its policies and procedures for the development and review of proposed military hospital construction projects. The policies were to be included in a DUD Directive, subject, "Military Health and Medical Facilities Requirements," and the procedures were to be included in a DOD Instruction, subject, "Procedures and Criteria for Planning and Acquisition of Military Health and Medical Facilities."

Although these documents had not been issued at the time of our survey, DOD had issued a number of instructions and memorandums which provided guidelines for the development and review of proposed hospital construction projects. One of the significant documents in this category is DOD Instruction 6015.7, dated December 13, 1956, subject, "Criteria to be Used in Developing the Medical Portion of Military Construction Programs and Data Required in Justification of Medical and Dental Facilities in Military Construction Programs." This Instruction provides for the development and submission by all military departments of uniform data in justification of proposed medical and dental facilities primarily as related to individual hospital requirements.

Another significant document is a report, commonly known as the Rourke Report, which was prepared by an ad hoc study group appointed by the Secretary of Defense in February 1962 to consider a number of problem areas related to military hospital construction. This report was reviewed and accepted by the Secretary of Defense and the Director of the Bureau of the Budget as a basis for policies governing the planning of military hospitals; it was forwarded

in September 1962 by DOD to the Secretaries of the military departments to be used by them in developing the medical portion of military construction programs. This report included statements of DOD policies on (1) the programming of medical facilities for active duty personnel and their dependents, (2) the utilization of local community facilities, and (3) the interservice utilization of medical facilities.

In the Veterans Administration (VA), the Department of Medicine and Surgery is primarily responsible for developing project requirements and justifications. Procedures for programming, funding, and processing construction projects within VA were issued on November 28, 1967. These procedures establish review and approval responsibilities for proposed hospital construction projects as well as for VA's relationships with the Bureau of the Budget in obtaining the approval of the Congress or the President for construction projects.

In addition, Bureau of the Budget Circular No. A-57 has been issued--subject, "Review of Proposed Construction or Acquisition of Federal Hospitals and Domiciliary Homes," revised August 23, 1967--which sets forth a number of procedures and criteria to assist DOD, VA, and other Federal departments and agencies in the planning of hospitals and the development of hospital construction programs.

The stated purpose of Circular No, A-57 is as follows:

> "This Circular sets forth procedures and promulgates criteria to assist the Federal Government in assuring (1) sound development of its hospital and domiciliary home program, (2) full consideration of the availability of community and other Federal agency medical facilities and services in programming construction projects, (3) planning of Federal hospitals and homes in a manner that facilitates provision of high quality medical care to Federal beneficiaries, and (4) effective management and budgetary appraisal of proposals for Federal medical care facilities."

Under the Hill-Burton program to provide assistance to States for constructing and equipping public and nonprofit hospitals, the States have primary responsibility for determining requirements for medical facilities and for the administration and execution of medical facility construction programs. The Public Health Service of the Department of Health, Education, and Welfare has issued a number of regulations setting forth criteria for determining requirements and procedures to be followed by the States in submitting hospital construction plans.

SUMMARY OF INFORMATION OBTAINED

On the basis of our survey, we believe that the procedures of the Department of Defense for determining hospital construction requirements are adequate to ensure that proposed hospital construction projects are needed and that consideration is given to the proper planning of the functional departments to be included in, and the medical services to be provided by, such hospitals.

DOD was, at the time of our survey, drafting revised regulations incorporating its policies and procedures for developing and reviewing proposed military hospital construction projects. In our opinion, these regulations, if effectively implemented, should assist in ensuring that the proposals for hospital construction are processed through the required review levels on an orderly and timely basis.

Our inquiry revealed that the procedures for determining requirements for military hospitals and for processing the requirements through to actual construction of the hospitals require analyses and determinations which are both complex and time consuming and which require considerable judgment by those responsible for providing adequate medical facilities. Once the need for a new military hospital is recognized, many decisions involving size, services to be provided, costs, etc., must be made and reviewed, not only at various levels in the military departments but also in the Office of the Secretary of Defense, the Bureau of the Budget, and the Congress.

Under current procedures, hospital construction projects proposed by the military departments are reviewed individually and jointly by DOD and the Bureau of the Budget prior to submission of the projects for congressional authorization and appropriation. These proposed projects are also reviewed by the Bureau of the Budget in relation to proposed hospital construction of other Federal departments and agencies.

In addition, DOD and the Bureau of the Budget consider the availability of non-Federal hospitals to meet military requirements as a part of their review of proposed military

hospital construction. These procedures should assist in ensuring that needed military hospitals are constructed but that overbuilding of military or other Federal hospitals does not occur.

Once the need for the hospital projects has been established, the military departments use space-planning criteria published by the Bureau of the Budget to assist in determining the size of various functional areas of the proposed hospitals. For those functional areas not having published space-planning criteria, DOD criteria or criteria developed by the individual military departments are used. However, the latter criteria must be reviewed by the Bureau of the Budget.

After the sizes of the hospitals are determined, the military departments project the estimated cost of the hospital buildings by the application of empirical costs per square foot (adjusted by geographical cost indexes) to arrive at the estimated costs to be submitted to the Congress for authorizations and appropriations of funds for the proposed hospital projects, The military departments generally initiate the preparation of architect-engineer plans prior to authorization of the projects by the Congress. These plans and the final working drawings are prepared on the basis of the estimated sizes and costs submitted to the Congress for authorizations and appropriations of funds.

In our opinion, the major stages of planning, execution, and review that a military hospital project generally must undergo prior to the award of the construction contract and construction of the project can be summarized as (1) the inclusion of the project in long-range plans on the basis of need, (2) the determination of the specific size and services to be provided in the project, (3) the inclusion of the project in the military construction program submitted for congressional approval, and (4) the preparation of plans and working drawings for the approved project.

The procedures and practices of DQD in processing hospital projects through these stages, along with comparable

procedures of other Government agencies where considered applicable, are discussed in the following sections of this report.

LONG-RANGE PLANNING FOR HOSPITAL CONSTRUCTION

Each military department within DOD is responsible for preparing and maintaining a long-range plan of proposed medical facilities construction. Bureau of the Budget Circular No. A-57, revised August 23, 1967, establishes the requirement for long-range plans, covering at least 5 years, not only for the military departments but also for all Federal departments and agencies foreseeing a need for substantial hospital or domiciliary home construction or acquisition,

Each hospital project included in the long-range plan must be supported by such information as (1) the purpose of the facility, (2) the number of beds to be provided, (3) the major deficiencies in present facilities, and (4) the proposed remedy for such deficiencies. The first such long-range plans of proposed hospital and domiciliary home construction were required to be submitted to the Bureau of the Budget within 12 months of the issuance of its Circular No. A-57 dated October 17, 1962.

As stated in Circular No. A-57, revised August 23, 1967,

> "The long-range plans will be used by the Bureau to (1) coordinate the construction plans of two or more agencies in the same geographical area and (2) plan the funding requirements each year in relationship to the total funding necessary to meet long-range needs. The Bureau of the Budget normally will not formally approve long-range plans but will use them to identify problems for discussion with the agency in advance of detailed planning for individual projects."

Each Federal department or agency foreseeing a need for substantial hospital construction or acquisition is

required to keep its long-range plans up to date and to submit annual revisions to the Bureau of the Budget. Currently the military departments as well as VA are emphasizing the replacement of existing, outdated hospitals in their medical facilities construction programs.

DOD has formed a Hospital Planning Group which reviews medical construction projects proposed in the long-range plan of each military department and recommends actions relative to problems on medical facilities planning, This Group, which is headed by a civilian medical consultant, is made up of representatives of the Assistant Secretaries of Defense (Manpower), (Installations and Logistics), and (Comptroller). In addition, representatives of the Surgeons General of the military departments and representative of the Bureau of the Budget participate in reviews by this Group.

The Hospital Planning Group meets twice each year--in the spring and in the fall. The spring meeting gives primary emphasis to the military departments' long-range plans for medical facilities construction, while the fall meeting gives primary emphasis to the projects contained in the next proposed military construction program under preparation for submission to the Bureau of the Budget and to the Congress. During this fall meeting, the Group prepares recommendations to the Secretary of Defense on the projects which are considered most urgent, for inclusion in the ensuing fiscal year's military construction program.

In regard to planning for civilian hospitals, each State, in order to participate in the Hill-Burton program, is responsible for developing a State plan for hospital and other medical facilities construction. The State plans are required to be revised annually and submitted to the Surgeon General, Public Health Service, for approval and use in evaluating applications for Federal construction grants. These plans serve a similar purpose as the long-range plans for Federal agencies in that they are related to future needs for construction based on existing acceptable facilities.

The Bureau of the Budget has expressed considerable interest in the coordination of overall civilian and Federal long-range planning for medical facilities construction by stressing in its Circular No. A-57 the importance of Federal agencies! considering the interrelationship of Federal hospitals with community medical facilities, in planning for the construction of hospitals.

We found that, in planning the size and services to be provided in proposed hospital projects of the military departments, consideration was being given to the existing and planned medical capabilities in the local area of the proposed hospital. (See p. 13.) Procedures of VA also state that, for projects requiring Presidential approval, the Bureau of the Budget shall be advised of the extent to which the proposed construction has been worked out with health planning agencies, the planned participation in regional medical programs, and the services that are planned to be obtained from, or contributed to, other resources in the community.

DETERMINATION OF SPECIFIC SIZES AND SERVICES TO BE PROVIDED IN INDIVIDUAL HOSPITAL PROJECTS

After proposed hospital projects have been included in long-range plans, detailed planning is initiated for these hospitals by the military departments. This detailed planning encompasses the determination of the services to be provided in the proposed hospitals, the number of beds required to support anticipated workloads, the size of the proposed hospitals in relation to anticipated workloads, and the estimated cost of the proposed hospitals. In making such determinations, the military departments accumulate and analyze information on the experienced workloads of the military medical facilities already in existence at the locations of the proposed hospitals as well as information on the medical capabilities of civilian and other Federal hospitals which are available in, or planned for, the areas surrounding the locations of the proposed hospitals.

In its review of hospital projects contained in long-range plans, the DOD Hospital Planning Group schedules on-site surveys for proposed projects to validate the medical requirements to support the military mission and to evaluate the existing and planned medical capabilities of civilian and other Federal hospitals in the local areas. These on-site surveys are made by representatives of DOD, the Bureau of the Budget, and other interested parties,

Before these on-site surveys are conducted, information on existing and planned civilian and Federal hospitals is requested from the installation at which the proposed hospital is to be located. Such information is provided by the installation in a study called an "area medical study." On the basis of the findings of the on-site survey, decisions can be made as to the services to be provided by the proposed hospital in relation to those services which can be provided by the hospitals already in existence or planned for the community.

Under Bureau of the Budget Circular No. A-57, each military department is required to submit to the Bureau of the Budget certain information in justification of a proposed hospital project. These data, which include (1) the purpose

of the facility, (2) the number of beds proposed and the major workloads anticipated (outpatient and inpatient), (3) the type and extent of specialty care to be provided, etc., are reviewed by the Office of the Secretary of Defense and the Bureau of the Budget. These data, along with the space requirements and an estimated cost for the proposed hospital project, comprise the "preliminary studies" for the proposed hospital project.

Following are discussions concerning the major computations made during the preparation and review of preliminary studies, which determine the specific sizes of the proposed hospital projects.

Computation of bed requirements

Computations of the number of beds required in new or replacement hospitals are basically made in accordance with policies and procedures set forth in the Rourke Report, DOB Instruction 6015.7, and the Bureau of the Budget Circular No, A-57. Under these policies and procedures, the number of beds required for a replacement hospital (or for bed additions to an existing hospital) is determined on the basis of daily patient load in the existing hospital projected to provide for increases or decreases in the populations to be served by the proposed hospital. This projected average daily patient load is then converted to beds on the basis of established utilization rates.

Starting with the Fiscal Year 1968 Military Construction Program, additional beds are added to provide for retirees and their dependents. For a new hospital, the average daily patient load at similar installations must be substituted in the above computations.

In determining the number of beds required on the basis of the past experience of the hospital being replaced, the military department first separates the experienced hospital usage (i.e., the average daily patient load for a selected period of time, generally 1 year) into categories based on the types of patients (i.e., active duty personnel, dependents of active duty personnel, retirees and their dependents, and other eligible personnel) so that ratios can be determined of the usage compared with the

population served in each category. In this connection, we found that the bed needs for all services had been considered in determining bed requirements for the five hospital projects included in the Fiscal Year 1968 Military Construction Program studied in our survey. (See app. VIII.)

Once the above ratios (known as hospitalization rates) are determined, they are applied to the projected populations for each category of patients to arrive at the number of beds to be programmed for each category. Requirements for retirees and their dependents, however, are computed differently, as explained on page 16. It was the conclusion of the ad hoc study group appointed to recommend policies on military hospital construction (see p. 5) that "*** hospitalization of military personnel is usually best done within the military establishment." For dependents, the study group concluded that there were conditions which warranted programming beds in the military facilities but the group was also of the opinion that there was no appreciable difference whether care for dependents was furnished in military or civilian facilities and that the selection between the two types was largely related to ready availability.

After the total number of beds to be programmed on the basis of past experience has been determined, the military departments increase the number programmed to permit the hospitals to operate at given levels of efficiency with regard to the minimum number of beds which should be utilized at a given time,

Under BOD policy, proposed hospitals with projected average daily patient loads of 90 patients or more are authorized to be programmed on the basis of an 80-percent utilization rate while smaller hospitals are authorized to be programmed on the basis of a 75-percent utilization rate. Accordingly, the total number of required beds projected on the basis of past experience is increased by 25 percent for hospitals with an average daily load of 90 patients or more and by 33 percent for smaller hospitals. DOD officials informed us that, in effect, these additional bed requirements (known as dispersion bed requirements) were designed to allow for separation of sexes and isolation of contagious diseases as well as to provide for rush or peak periods in which the number of patients exceed the experienced average daily patient load.

As mentioned on page 15, the military departments, starting with the Fiscal Year 1968 Military Construction Program, added beds to the totals otherwise programmed to provide for retirees and their dependents. Public Law 89-614, dated September 30, 1966, amended chapter 55 of title 10, United States Code, to authorize an improved health benefits program for retired members of the uniformed services and their dependents and for the dependents of active duty members of the uniformed services and to accomplish other purposes. While chapter 55 of title 10, prior to enactment of Public Law 89-614, authorized medical treatment for retirees and their dependents in military medical facilities on a "space-available" basis, Public Law 89-614 authorized increased medical benefits for retirees and their dependents.

This law also authorized the Secretary of Defense to program space in new construction of medical facilities for inpatient and outpatient care for retired members of the uniformed services and their dependents and the dependents of deceased retired members, In this connection, Public Law 89-614 states:

> "*** the amount of space so programmed shall be limited to that amount determined by the Secretary concerned to be necessary to support teaching and training requirements in uniformed service facilities, except that space may be programmed in areas having a large concentration of retired members and their dependents where there is also a projected critical shortage of community facilities."

In implementing Public Law 89-614, the military departments provided space and beds for retired members and their dependents in all but two (in Alaska and Korea) proposed hospital projects contained in the Fiscal Year 1968 Military Construction Program.

DOD policies on programming for retirees and their dependents in military construction programs are contained in a memorandum dated January 15, 1968, to the military departments, which states that the amount of space programmed for such patients in

"*** teaching hospitals and all other hospitals will normally not exceed 10% and 5% respectively of the space otherwise programmed at such facilities. Detailed justification will be necessary in support of any greater amount."

This memorandum further states that space can be programmed on the basis of projected workloads in an area having a large concentration of retirees and their dependents where there is also a projected critical shortage of community facilities.

Use of the above procedures by the military departments in computing bed requirements is illustrated by the following computation of the number of beds required for a replacement hospital at Fort Ord, California--one of the five hospital projects selected for our study from those contained in the Fiscal Year 1968 Military Construction Program.

Computation of Bed Requirement
United States Army Hospital
Fort Ord, California

Patient category	Average strength 1-1-64 to 12-31-64	Average beds occupied daily 1-1-64 to 12-31-64	Hospitalization rate where applicable (col. 3 t col. 2)	Future programmed strengths	Programmed heds (col. 4 x col. 5)
Military (Army)	27,865	253	.0091	28,722	261
" (Navy)	1,664	3	N/A	1,700	3
" (Air Force)	182	-	N/A	180	-
Dependents of active duty personnel	23,650	53	N/A	24,000	54
Retirees	5,433	15	N/A	-	(added below)
Dependents of retirees	10,866	13	N/A	11.000	Do.
Other patients	-	1	N/A		1
Total average patient load		338			319
Dispersion bed requirement					80
Bed requirement, exclusive of retirees and their dependents					399
Retirees and dependents					40
Grand total bed requirement					439[a]

[a]439 rounded to 440 in submission of requirement to the Congress.

The computation of the number of beds to be programmed for a new or replacement hospital, although appearing from the discussions above to be scientific, actually involves many decisions of judgment. Our study of the actual

computations of bed requirements for four hospitals and one hospital addition contained in the Fiscal Year 1968 Military Construction Program revealed that, although the same basic types of computations were made for all the projects, various differences existed between hospital projects as to (1) the time periods selected as representative of past experience, (2) the end years selected in projecting future populations to be served, (3) the application of hospitalization rates in converting past experience to future requirements, and (4) the addition of beds for retirees and their dependents. Since the judgment decisions can significantly affect the outcome of the computations of beds required, such decisions must be thoroughly reviewed by those responsible for providing adequate medical facilities.

Computation of hospital size

Computations of the sizes (square feet) of the proposed hospital projects are made by converting the proposed inpatient and outpatient workloads, numbers of personnel, and other factors to building floor space. Bureau of the Budget Circular No. A-57 requires that, for each hospital construction project involving new construction or more than a minor change in the utilization of existing space, the responsible Federal department or agency prepare space schedules which will show (1) the net assignable area for each function, (2) the total net assignable area, (3) the area for mechanical use, circulation, walls, and partitions, and (4) the gross area for the entire hospital, including garage, power plant, laundry, warehouse, maintenance shops, and personnel quarters. These space schedules are important in that they provide bases for the preparation of architectural and engineering schematic or preliminary plans and cost estimates.

In determining the net assignable area for each function in the proposed hospital, the military department must allocate computed bed requirements to various inpatient departments on the basis of previously experienced workloads. Also, the experienced workloads in outpatient departments are used as bases for programming the outpatient facilities for the proposed hospital. These proposed workloads for inpatient and outpatient care are converted to space or square feet by using criteria published in Bureau of the

Budget Circular No. A-57 or, where no criteria are published in this Circular, by using criteria established by DOD or the pertinent military department. Where the criteria are established by DOD or the individual military departments, these criteria must be reviewed by the Bureau of the Budget.

Currently Bureau of the Budget Circular No. A-57 contains published criteria for a number of major hospital functional areas including (1) nursing units, (2) administration, (3) food service, (4) physical medicine and rehabilitation, (5) surgical facilities, and (6) storage. The Circular states that these criteria were developed jointly by the Federal Government's major hospital systems. The development of criteria for functional areas not contained in the Circular is the responsibility of the Federal agencies or departments operating hospital systems. Other functional areas include outpatient clinics; pharmacies; and radiology, dental, patient welfare, and materials handling systems.

An illustration of the use of Circular No. A-57 criteria in planning space (square feet) in the 20-bed obstetrical nursing unit of the Naval Hospital in Memphis, Tennessee, is given in the following schedule. The requirement of 20 beds in this unit (of a total of 230 beds programmed for the hospital) was determined by the Navy on the basis of deliveries experienced in the existing hospital.

Space Requirement
for the Obstetrical Nursing Unit
Naval Hospital, Memphis

Function Obstetrical nursing unit 20 beds	Square feet (SF) per Circular A-57 SF per bed or unit	Square feet requirement as computed by the Navy Number of beds	Number of units	SF per bed or unit	Net SF
Bed rooms	85-100 SF/bed	20	8[a]	93	1,860
Water closets	12-15 SF/unit		8	15	120
Lavatories in toilet rooms	12-15 SF/unit		8	15	120
Shower (private) .	12-15 SF/unit		8	15	120
Sitz bath and tub	70-80 SF/unit		1	70	70
Cleaned and soiled utility area	380 SF minimum			380	380
Nurses station	185 SF minimum			185	185
Day room	7-8 SF/bed	20		8	160
Fathers'--waiting	Not stated			120	120
Examination and treatment area	120-140 SF/unit		1	140	140
Consultation room	100-120 SF/unit		1	110	110
				Net square feet	3,385

[a]Includes two one-bed, three two-bed, and three four-bed rooms.

In addition to providing space (square feet) criteria on the basis of beds, units, or other factors, Bureau of the Budget Circular No. 8-57 provides criteria for making such determinations as the number of one-bed and two-bed rooms to be programmed for nursing units, the number of separate nurses' stations to be programmed, the number of toilets and showers to be programmed, the number of lockers to be provided, etc.

In its Circular No. A-57, however, the Bureau of the Budget requests each department or agency that operates or constructs facilities for which the published criteria are applicable to advise the Bureau of changes which experience indicates to be desirable. Such changes are to be considered jointly with the other agencies concerned and revised criteria promulgated as appropriate. In addition, each

agency is advised that it should submit for Bureau of the Budget review, changes in its criteria which experience indicates are desirable.

Prior to the August 23, 1967, revision of Circular No. A-57, those Federal agencies wishing to construct new hospitals or replace existing facilities were required to submit a detailed space schedule for each construction project to the Bureau of the Budget for review. It is our understanding that in the past each space schedule was checked and verified by the Bureau of the Budget.

The August 23, 1967, revision changed the above requirement in that the pertinent Federal agencies no longer must submit a detailed space schedule but only a summary of the space schedule along with a statement that the criteria in Circular No. A-57 have been adhered to and that any deviations from these criteria are fully justified. Also, according to the August 23, 1967, revision, the application of the space criteria to the items in the summary schedule is to be checked from time to time by the Bureau of the Budget on a sampling basis.

In December 1967, the Public Health Service issued a regulation entitled "General Standards of Construction and Equipment for Hospital and Medical Facilities" which sets forth standards constituting minimum requirements for construction and equipment applying to all projects for which Federal assistance is requested under the Hill-Burton program. One section of this regulation describes the elements (units, suites, or departments) which must be contained in general hospitals unless the needed services are available to the hospital by some other means.

Although the regulation specifies that the sizes of the various departments will be based upon the requirements (anticipated workloads) of the hospital, certain general standards are prescribed for each department which affect the space planning for the hospital. In a nursing unit, for example, the regulations specify that each patient room must meet certain requirements, such as maximum room capacity of four patients, minimum room areas of 100 square feet in one-bed rooms, and 80 square feet per patient in multibed rooms,

SUBMISSION FOR CONGRESSIONAL APPROVAL

Prior to submission of proposed military hospital projects to the Congress for authorization and appropriation of funds, the projects must have been programmed into the Five Year Defense Program and the annual military construction program. Medical facilities construction projects must be included in these programs on the basis of the need for these facilities in relation to all other construction needs of the individual military departments and the DOD. A final review of each requested project is made during the annual budget review immediately prior to the submission of the military construction program to the Bureau of the Budget and to the Congress.

Justifications for requested authorizations and appropriations of funds for individual hospital projects are submitted to the Congress on DD Forms 1391--"Military Construction Line Item Data." Our study of five hospital projects submitted to the Congress as part of the Fiscal Year 1968 Military Construction Program revealed that the sizes (square feet) of the hospitals as presented in the DD Forms 1391 for these projects were based on information developed during preliminary studies, as discussed in the previous sections of this report. After the sizes were developed, the military departments used empirical costs per square foot adjusted by geographical cost indexes to arrive at the total estimated costs (exclusive of support facilities) for the hospital projects presented on the DD Forms 1391.

We were advised that the empirical costs per square foot used by the military departments in preparing their DD Forms 1391 were taken from a DOD publication "FY 1968 Military Construction Cost Review Guide" (April 1966) which contains cost data developed for use as a guide in reviewing construction costs in military construction programs and to show expected unit costs for selected repetitive-type permanent facilities.

We were advised that the costs per square foot contained in this publication were derived from historical military bid experience for two sizes of hospitals--those under 200-bed size and those 200-bed size or over--and that

the experienced costs per square foot had been increased by 5 percent for contingencies and 6 percent for engineering, supervision, inspection, and administration. We were advised further that the derivations of costs per square foot for hospitals contained in the above DOD publication had been closely coordinated with the Bureau of the Budget.

Bureau of the Budget Circular No. A-57 states that, unless other arrangements are made, the summary of the space schedule and a corresponding cost estimate will be submitted to the Bureau prior to requesting apportionment of appropriated funds for architectural and engineering planning services for individual projects. If, however, funds for architectural and planning services are apportioned in lump sum without identification of individual projects, the summary and cost estimate will be submitted not later than the submission of either draft legislation to authorize construction or a budget estimate for construction. The Circular states further that budget estimates for construction funds should be such as to provide for a complete, usable facility including installed equipment.

The procedures of VA applicable to requesting Presidential authorization (VA does not separately request congressional authorization) of construction of replacement or relocation hospitals state that the estimates may be made on the basis of cost per bed or cost per square foot. In applying either basis, the costs of hospitals of similar functional characteristics, recently constructed or under construction, with appropriate adjustment for known differences in requirements, time of construction, and location, are to be used.

The procedures of VA, however, provide for refining the estimated costs of construction of new hospitals prior to requesting congressional appropriation of funds for design and construction. In its submission to the Congress requesting appropriation of funds for fiscal year 1968, VA advised that funds requested for construction were based on estimates made from plans either in a preliminary stage or in a somewhat more advanced degree of completion.

This differs from DOD practices in that our tests, of hospital projects for which appropriations of funds for construction were requested in the Fiscal Year 1968 Military Construction Program, show that DOD used the same estimated costs (based on preliminary studies) for requesting both congressional authorization and appropriation of funds.

Under the Hill-Burton program for Federal assistance to State programs for the construction or modernization of public and nonprofit community hospitals and other medical facilities, the States request funds (grants) from the Department of Health, Education, and Welfare rather than from the Congress. Under Public Law 88-443, dated August 18, 1964, the Congress authorized $280 million for grants for construction and modernization of public and nonprofit hospitals and other medical facilities for fiscal year 1968. (This public law also authorized grants for other fiscal years.) Although procedures have been established to regulate the allocation of funds to individual States, the States must, in their application for Federal grants, submit the estimated costs for proposed projects on the basis of final working drawings for these projects.

PREPARATION OF PLANS AND WORKING DRAWINGS AND AWARD OF THE CONSTRUCTION CONTRACT

After approval of preliminary studies by the Office of the Secretary of Defense, the military departments are authorized to proceed with development of concept plans for the proposed hospital projects. DOD procedures authorize the obligation of architect-engineer funds for the preparation of concept plans. Concept plans represent a design stage prior to the initiation of working drawings and are prepared for the purpose of establishing and resolving an acceptable building concept based on the approved space computations discussed on pages 18 through 21.

Under DOD procedures, concept plans for medical construction projects are to include:

1. Floor plans for each level showing all rooms, spaces, corridors, and building features, properly

titled for identification, and noting principal dimensions.

2. For larger projects only, a schematic set of plans showing relationship of medical departments and circulation.

3. For alteration projects, existing conditions delineated by dotted lines or other suitable means.

4. A building section showing all floor-to-floor heights.

5. A plot plan showing access roads, principal utilities, topography, and extent of parking.

6. Elevations showing type and extent of exterior building finishes.

7. Tabulation of net areas in three columns:

   a. Net areas approved in preliminary studies.

   b. Net areas as delineated in submitted concept plans.

   c. Percent difference between (a) and (b).

8. A gross area tabulation.

9. Outline specifications including schedule of typical finishes, structural design, mechanical equipment system, and special features.

10. Cost estimate.

In our tests of hospital projects included in the Fiscal Year 1968 Military Construction Program, we found that the concept plans were being prepared by the military departments while the projects were being reviewed in the Congress. In a memorandum to the military departments, dated December 14, 1964, the Deputy Assistant Secretary of Defense (Properties and Installations) set forth the procedures for review of the design of military medical and

dental construction projects. This memorandum stated that, in order to provide for the orderly review of the design of military and dental construction projects and to ensure optimum utilization of design funds, all proposed hospital and medical facilities construction projects (with certain exceptions based primarily on total estimated construction costs) require review and approval of the Office of the Secretary of Defense at the completion of each of the following stages: (1) preliminary studies, (2) concept plans, and (3) final working drawings,

Under the procedures set forth in this memorandum, the military departments were required to submit their preliminary studies for review at least 30 days prior to submission of the regular military construction program to the Office of the Secretary of Defense (submitted in the fall preceding the submission to the Congress for authorization and appropriations). Concept plans were to be prepared following the approval of preliminary studies. Under these procedures, four of the five hospital projects included in the Fiscal Year 1968 Military Construction Program that were surveyed by us had not progressed beyond the preliminary studies stage at the time of submission to the Congress in January 1967.

Under procedures currently being drafted by DOD, the military departments are to submit their preliminary studies to the Deputy Assistant Secretary of Defense (Health and Medical) for review not later than the spring meeting of the Hospital Planning Group--about 9 months before submission to the Congress.

These procedures also will require that the preliminary studies be approved by the Deputy Assistant Secretary of Defense (Health and Medical) prior to the fall submission of the regular military construction program to the Office of the Secretary of Defense. We were advised that, under these new procedures, the military departments should be in a position to start concept plans at an early date so that concept plans could be completed at the time of congressional hearings on the proposed projects.

Under current procedures, final working drawings may be initiated only after approval of concept plans by the

Deputy Assistant Secretary of Defense (Properties and Installations). Final working drawings must also be reviewed and approved by the Deputy Assistant Secretary of Defense (Properties and Installations). Such approval is normally required to support the request to the Bureau of the Budget for apportionment of funds.

Information supplied by the military departments on hospital projects authorized in prior years (see app. IX) showed that, for *14* hospital projects authorized in the Fiscal Year 1965 Military Construction Program, the final drawings were completed from 7 to 23 months after congressional authorization, the average time being about 11 months, The construction contracts for these projects were awarded an average of 3 months after completion of final working drawings.

For 10 hospital projects authorized in the Fiscal Year 1966 Military Construction Program, final working drawings were completed from 8 to *29* months after congressional authorization, the average time being about 17 months. The construction contracts for these projects were awarded an average of *4* months after completion of final working drawings. We were advised that, for the Fiscal Year 1966 Military Construction Program, the completion of final working drawings was delayed because of the deferral of military construction projects by the Secretary of Defense.

Our tests of military hospitals for which construction was completed and which were occupied in calendar year 1967 indicated that the sizes and total costs of the hospitals were approximately the same as the sizes and estimated costs submitted to the Congress when authorizations were requested.

Procedures for developing and processing construction projects in VA, for major modernization of, or major addition to, existing hospitals and for all new hospitals, establish stages of design similar to those of DOD. After approval of a space plan (made in accordance with Bureau of Budget Circular No. A-57 and applicable internal planning criteria) by the Associate Deputy Administrator, Veterans Administration, and the Bureau of the Budget, the Office of Construction may start the preparation of preliminary plans.

Preliminary plans in VA appear similar to concept plans of DOD in that, at this stage, the VA converts the space plan into an acceptable building concept. After completion of the preliminary plans, design contracts may be awarded for final working drawings. With respect to requesting appropriations of construction funds from the Congress, VA procedures state that, for projects funded over a period of two or more years, preliminary plans should be completed before construction funds are requested.

Regulations of the Public Health Service pertinent to the design of civilian hospitals and medical facilities for which Federal assistance is requested under the Hill-Burton program establish three stages for submission of plans. These stages are (1) program and schematics, (2) preliminaries, and (3) contract documents (includes final working drawings). The States request approval of Federal funds for construction on the basis of estimated costs supported by final working drawings.

AGENCY COMMENTS AND ACTIONS

With the agreement of the Chairman, Committee on Appropriations, House of Representatives, for whom our report was initially prepared, we submitted our report to the Secretary of Defense for review and comment. In a letter dated August 30, 1968 (see app. II), the Assistant Secretary of Defense (Installations and Logistics), replying for the Secretary, did not take issue with either the statements of fact or the conclusions reached by our Office as presented in the report.

Subsequent to the receipt of the Assistant Secretary's comments, **DOD** approved two documents which were in process of preparation during our survey (see p. 5) and which would incorporate and formalize **DOD** policies and procedures for developing and reviewing proposed military hospital construction projects. The policies were approved and issued in a **DOD** Directive, subject, "Technical Military Health and Medical Facilities Requirements," dated September *24,* 1968, and the procedures were approved and issued in a **DOD** Instruction, subject, "Technical Procedures and Criteria for Planning and Acquisition of Military Health and Medical Facilities," dated September *24,* 1968.

CONCLUSIONS

We believe that the policies and procedures of DOD for determining hospital construction requirements are adequate to ensure that proposed hospital construction projects are needed and that consideration is given to the proper planning of the functional departments to be included in, and the medical services to be provided by, such hospitals.

We believe also that the policies and procedures which were being formalized at the time of our survey and which were recently approved and issued as DOD regulations, if effectively implemented, will assist in ensuring that the proposals for hospital construction are processed through the required review levels on an orderly and timely basis.

SCOPE OF SURVEY

Our survey, which was completed in February 1968, was directed toward obtaining information on the policies, procedures, and practices of the Department of Defense related to the determination of requirements and the planning and programming of hospital construction projects.

Since the Office of the Secretary of Defense was, at the time of our survey, formalizing its policies and procedures to be used in developing and reviewing proposed hospital construction projects, much of the information contained in this report was obtained through interviews with responsible officials and such reviews of available records and tests of individual transactions as deemed necessary to confirm the accuracy of the information obtained.

The survey, for the most part, was conducted by examining pertinent records and interviewing responsible officials in the Offices of the Surgeons General of the Army, Navy, and Air Force and the Offices of the Deputy Assistant Secretary of Defense (Health and Medical) and the Deputy Assistant Secretary of Defense (Properties and Installations). We also obtained information on the determination of requirements from available records and responsible officials at the proposed sites of five hospital projects contained in the Fiscal Year 1968 Military Construction Program. These proposed sites were (1) Ford Ord, California (Army), (2) Fitzsimons General Hospital, Denver, Colorado (Army), (3) Memphis Naval Hospital, Memphis, Tennessee (Navy), (4) Barksdale Air Force Base, Louisiana (Air Force), and (5) Bergstrom Air Force Base, Texas (Air Force).

In addition, we obtained and reviewed copies of regulations and publications issued by the Veterans Administration; the Department of Health, Education, and Welfare, Public Health Service; and the Bureau of the Budget to provide guidance and assistance to those responsible for determining hospital requirements and planning and programming hospital construction projects.

APPENDIXES

Congress of the United States
House of Representatives
Committee on Appropriations
Washington, D.C. 20515

April 28, 1967

Honorable Elmer B. Staats
Comptroller General of the
United States
Washington, D.C. 20548

Dear Mr. Staats:

It would be appreciated if you would direct your staff to make inquiries into the cost, design, requirements, and other aspects of the program of the Department of Defense for the construction and equipping of hospitals and medical facilities. Such a study should compare the pertinent characteristics of the Department of Defense program, including cost, design and requirements, with those of other Government agencies as well as such facilities being constructed in the private economy.

Sincerely yours,

George H. Mahon

George H. Mahon
Chairman

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

30 AUG 1968

INSTALLATIONS AND LOGISTICS

Mr. C. M. Bailey
Director, Defense Division
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Bailey:

This is in response to your letter of August 2, 1968, regarding your report to the House Appropriations Committee on "Survey of Policies, Procedures, and Practices of the Department of Defense Related to Determination of Requirements and Planning and Programming of Hospital Construction Projects," (OSD Case #2790).

The findings of the report indicate that "the procedures of the Department of Defense for determining hospital construction requirements are adequate to ensure that proposed hospital construction projects are needed and that consideration is given to the proper planning of the functional departments to be included in, and the medical services to be provided by, such hospitals."

Nowhere in the report are any serious questions raised as to the policies or procedures used in the programming, planning or construction of military hospital facilities. Minor variations between the Military Departments in the application of certain policy elements were noted, but were not considered a problem of any consequence.

Since this office, in collaboration with the Office of the Deputy Assistant Secretary of Defense (Health and Medical), has for many years placed special emphasis on the development and administration of effective programming and planning for military hospitals, it is reassuring that the General Accounting Office report endorses the Department of Defense policies and procedures in this area.

Sincerely,

Thomas D. Morris

THOMAS D. MORRIS
Assistant Secretary of Defense
(Installations and Logistics)

SELECTED DATA

FITZSIMONS GENERAL HOSPITAL

DENVER, COLORADO

The Department of the Army submitted a requirement for a 290-bed addition (having an area of 237,220 square feet) and certain alterations to the Pitzsimons General Hospital in the Fiscal Year **1968** Military Construction Program. The total estimated cost for this project was about $9.5 million. This addition was to provide additional clinical, nursing, and administrative space in the main hospital building. The need for such space is currently being satisfied in existing World War I and II wards which are considered costly to operate and impracticable to rehabilitate or modernize. The need for increased clinical space was recognized as early as **1962.** After several studies of the best methods of providing increased space at Fitzsimons General Hospital, the hospital addition and alterations in their present form was decided on in 1965.

Following is a chronology of major events in the processing of the requirement for, and design of, the 290-bed hospital addition.

Event	Approximate date
Area medical study prepared	Mar. **1965**
On-site survey performed	Apr. 1965
Preliminary studies submitted by the Army to the Office, Secretary of Defense	Aug. **1966**
Preliminary studies approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Mar, 1967
Award of architect-engineer contract €or concept plans	June **1967**
(Project not approved by the Congress)	

SELECTED **DATA**

U.S. ARMY HOSPITAL

FORT ORD, CALIFORNIA

The Department of the *Army* submitted a requirement for a 440-bed replacement hospital (having an area of 366,589 square feet) at Fort Ord in the Fiscal Year 1968 Military Construction Program. The total estimated cost of this project was about $14 million. The present hospital is composed of numerous separate buildings which are considered obsolete because of changes in mission and advances in medicine and medical care. The present hospital is also considered a potential fire hazard which endangers the lives of the patients and staff. In addition, the maintenance of the present structures is considered a continual problem. Plans for the replacement of the hospital at Fort Ord were started as early as the 1950's; however, the plans for the hospital as currently envisioned were begun in 1965.

Following is a chronology of major events in the processing of the requirement for, and design of, the 440-bed replacement hospital.

Event	Approximate date
Area medical study prepared	June 1965
On-site survey performed	Sept. 1965
Preliminary studies submitted by the Army to the Office, Secretary of Defense	Aug. 1966
Preliminary studies approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Mar. 1967
Award of architect-engineer contract for concept plans	July 1967
Project authorized by the Congress	Oct. 1967
Concept plans submitted by the Army to the Office, Secretary of Defense	Oct. 1967
Concept plans approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Nov. 1967

Event	Approximate date
Funds appropriated by the Congress	Dec. 1967
Estimated completion of final working drawings	May 1968
Estimated date of construction contract award	June 1968

APPENDIX V

SELECTED **DATA**

U.S. NAVAL HOSPITAL

MEMPHIS, TENNESSEE

The Department of the Navy submitted a requirement for a 230-bed replacement hospital (having an area of 189,560 square feet) at the U.S. Naval Hospital, Memphis, Tennessee, in the Fiscal Year 1968 Military Construction Program. The total estimated cost of this project is about $6.6 million. The present hospital was constructed in the early 1940's as a temporary frame, barracks-type, cantonment facility. The hospital is considered to be obsolete and deteriorated. The administrative and treatment spaces are considered to be substandard as to space and design and are widely dispersed throughout the buildings. Also, maintenance and repair costs are considered uneconomical because of the age and design of the buildings.

Following is a chronology of major events in the processing of the requirement for, and design of, the 230-bed replacement hospital.

Event	Approximate date
Area medical study prepared	Apr. 1965
On-site survey performed	May 1966
Project authorized by the Congress	Sept. 1966
Preliminary studies submitted by the Navy to the Office, Secretary of Defense	Jan. 1967
Preliminary studies approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Feb. 1967
Award of architect-engineer contract for concept plans	Mar. 1967
Funds appropriated by the Congress	Dec. 1967
Concept plans submitted by the Navy to the Office, Secretary of Defense	Apr. 1968
Estimated completion of final working drawings	Oct. 1968
Estimated date of construction contract award	Dec. 1968

SELECTED DATA

COMPOSITE MEDICAL FACILITY

BARKSDALE AIR FORCE BASE

LOUISIANA

The Department of the Air Force submitted a requirement for a 110-bed replacement hospital (having an area of 107,223 square feet) at Barksdale Air Force Base in the Fiscal Year 1968 Military Construction Program. The total estimated cost of this project is about $3.8 million. The existing hospital is regarded as being professionally obsolete and not functionally adaptable to the practice of modern medicine. Also, the size of the existing facility is considered to be 39 percent deficient. The proposed hospital, with its increased size, would assist in the accomplishment of an increased mission (projected increase of about 1,500 military personnel) of the base by providing modern facilities for a medical care program which would be comparable with those facilities provided in the medical complex of a progressive civilian community.

Following is a chronology of major events in the processing of the requirement for, and design of, the 110-bed replacement hospital.

Event	Approximate date
Area medical study prepared	July 1965
On-site survey performed	Aug. 1965
Preliminary studies submitted by th Air Force to the Office, Secretary of Defense	Aug. 1965
Preliminary studies approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Dec. 1965
Award of architect-engineer contract for concept plans	Jan. 1967
Project authorized by the Congress	Oct. 1967
Funds appropriated by the Congress	Des. 1967

Event	Approximate date
Concept plans submitted by the Air Force to the Office, Secretary of Defense	Jan. 1968
Concept plans approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Jan. 1968
Estimated completion of final working drawings	Oct. 1968
Estimated date of construction contract award	Nov. 1968

SELECTED DATA

COMPOSITE MEDICAL FACILITY

BERGSTROM AIR FORCE BASE

TEXAS

The Department of the Air Force submitted a requirement for a 50-bed replacement hospital (having an area of 88,000 square feet) at Bergstrom Air Force Base in the Fiscal Year 1968 Military Construction Program. The total estimated cost of this project is about $3 million. The existing facility is a temporary wooden structure of World War II vintage. It is considered to be obsolete and is not functionally adaptable to the practice of modern medicine. Also, the present hospital is thought to be a serious fire hazard. In addition, maintenance and repair costs of this hospital are considered excessive. It is the opinion of the Air Force that a new medical facility of the proposed size will afford an adequate medical and dental care program to meet the current and projected workload.

Following is a chronology of major events in the processing of the requirement for, and design of, the 50-bed replacement hospital.

Event	Approximate date
Area medical study prepared	Mar. 1965
On-site survey performed	Apr. 1966
Preliminary studies submitted by the Air Force to the Office, Secretary of Defense	Feb. 1967
Preliminary studies approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Feb. 1967
Award of architect-engineer contract for concept plans	July 1967
Project authorized by the Congress	Oct. 1967
Funds appropriated by the Congress	Dec. 1967
Concept plans submitted by the Air Force to the Office, Secretary of Defense	Feb. 1968

Event	Approximate date
Concept plans approved by the Deputy Assistant Secretary of Defense (Properties and Installations)	Feb. 1968
Estimated completion of final working drawings	Oct. 1968
Estimated date of construction contract award	Nov. 1968

SUMMARY OF BED REQUIREMENTS

FOR FIVE SELECTED MILITARY HOSPITALS IN THE

FISCAL YEAR 1968 MILITARY CONSTRUCTION PROGRAM

Patient category	Hospital bed requirements				
	Fort Ord Army	Fitzsimons Army	Memphis Navy	Barksdale Air Force	Bergstrom Air Force
Military (Army)	261	286	4	2	1
" (Navy)	3	2	140	1	-
" (Air Force)	-	92	5	30	13
Dependents of active duty personnel	54	127	35	45	22
Retirees	(added below)	(added below)	-	(added below)	(added below)
Dependents of retirees	do.	do.	-	do.	Do.
Other patients	1	20	2	-	-
Total average patient loads	319	527	186	78	36
Dispersion bed requirements	80	133	46	26	12
Bed requirements exclusive of retirees and their dependents	399	660	232	104	48
Retirees and dependents	40	66	(a)	5	3
Grand total--bed requirements	439	726	232	109	51
Existing adequate		436			
Total requirements submitted to the Congress	440	290	230	110	50

[a] A 230-bed replacement hospital was authorized by the Congress as part of the Fiscal Year 1967 Military Construction Program. This project was included in the Fiscal Year 1968 Program for appropriations. Although beds for retirees and their dependents were not included in the computations of this project, correspondence of the Navy states that 13 beds, of the 230 beds authorized, are allocated to retirees and their dependents.

SUMMARY SHOWING TIME REQUIRED TO

COMPLETE FINAL WORKING DRAWINGS AND AWARD CONSTRUCTION CONTRACTS

FOR PRIOR YEARS' MILITARY HOSPITAL PROJECTS

Location	Military department	Dates of congressional authorization	Approximate dates final working drawings completed
Fiscal Year 1965 Military Construction Program			
Huachuca	Army	Aug. 1964	Apr. 1965
Dix	"	do.	do.
Letterman	"	do.	July 1965
Jackson	Navy	do.	Nov. "
Oakland	"	do.	Sept. "
Patuxent	"	do.	July 1966
Cannon	AF	do.	Aug. 1965
Holloman	"	do.	June "
Shaw	"	do.	May "
Tyndall	"	do.	do.
Robins	"	do.	Mar. 1965
Moody	"	do.	May "
Andrews	"	do.	Oct. "
Homestead	"	do.	Apr. "
Approximate total months			
Approximate average months			
Fiscal Year 1966 Military Construction Program			
Irwin	Army	Sept. 1965	May 1966
Academy	"	do.	Oct. 1967
Belvoir	"	do.	Feb. 1968
Stewart	"	do.	Nov. 1967
Wright-Patterson	AF	do.	Apr. "
Edwards	"	do.	do.
Beale	"	do.	Dec. 1966
Bunker Hill	"	do.	May "
Davis-Monthan	"	do.	do.
Myrtle Beach	"	do.	do.
Approximate total months			
Approximate average months			

Approximate months between authorization and completion of final drawings	Approximate dates of award of construction contracts	Approximate months between authorization and award
8	June 1965	10
8	do.	10
11	Nov. 1965	15
15	Jan. 1966	17
13	Dec. 1965	16
23	" 1966	28
12	Nov. 1965	15
10	Sept. "	13
9	June "	10
9	do.	10
7	do.	10
9	do.	10
14	Feb. 1966	18
8	May 1965	9
156		191
11		14
8	Dec. 1966	15
25	Nov. 1967	26
29	Mar. 1968	30
26	Dec. 1967	27
19	Aug. "	23
19	June "	21
15	Jan. "	16
8	July "	22
8	June "	21
8	" 1966	9
165		210
17		21