Preface

The National Institutes of Health (NIH), an agency of the United States federal government, is dedicated to advancement in biomedical research to further knowledge about the cure and prevention of human disease. The organizational components of NIH are referred to as Institutes, Centers or Divisions(ICD). These ICDs conduct their biomedical research programs primarily at the NIH Bethesda , Maryland campus. The Office of Director(OD), NIH, has within its organization Office of Research Services(ORS) with several divisions that provide expertise in planning, design, architecture, engineering, construction, maintenance, safety, security, procurement, logistics, and contracts for the maintenance, renovations, and construction of new facilities. The Design, Construction and Alteration Branch (DCAB) of the Division of Engineering Services (DES) is responsible for the design and construction of facilities at the NIH.

The DES, along with selected consultants, was tasked with the responsibility of reviewing existing biomedical facility guidelines and related studies and creating a new set of guidelines for the NIH which would reflect the latest developments in facility planning and operation technology. This effort represents a collaborative effort by the offices and branches within the Division of Engineering Services, the Division of Safety, the Division of Space Management and the prime consultants Cannon Architects and Engineers and Ross, Murphy, Finkelstein Inc.

Committees covering the disciplines of architecture, structure, mechanical systems, electrical systems, plumbing, fire protection, controls, civil and environmental matters met over an 8-month period to merge, edit, and create documents from various sources The Committees completed their tasks and printed the first version of NIH Design Policy and Guidelines on April 26, 1996. The primary sources of information were the Generic Technical Criteria document (developed as part of the Program of Requirements for the Clinical Center Complex Renewal Program and formulated by the DES Special Project Office), the original Design Policy and Guidelines (the "Rosebook" developed by the DES Facilities and Planning Branch), and the Design Guidelines (developed by the DES Facilities Planning Office). The task to make subsequent revisions and updating the guidelines has been undertaken by Technical Resource Group, a team within DCAB with the help of committees of various disciplines.

The NIH Design Policy and Guidelines consists of Text Volumes identified by building type, Data Sheets specific to space or activity functions, Guideplates suggesting functional groupings, and Reference Materials pertinent to the federal biomedical, vivarium, and research hospital facilities. This collective information must be incorporated into the basis of design for all new construction and renovation projects at NIH.

Introduction

The new NIH Design and Policy Guidelines have been developed to provide minimum criteria to assist architects, planners, and engineers in the process of designing research, vivarium, and clinical center facilities for the NIH. These guidelines establish basic parameters only and are not meant to be restrictive. The NIH recognizes that an essential aspect of the design professional's responsibility is originality and imaginative design.

The NIH requires that all projects be planned and designed using a total environmental approach, including attention to site, structure, massing, circulation, visual harmony, and open areas. The combination of these relationships creates a product that is both functional and aesthetic. The Architect/Engineer must adapt these criteria to meet needs requested by users or imposed by specific site conditions or functional relationships. It is extremely important to recognize that the user is an essential part of this process and is integral to its success.

It is assumed that the selected architect/engineer and his or her consultants will be professionals knowledgeable in the design of these types of facilities. They will be required to assure that each specific project complies with all established codes, regulations, and current practices. These guidelines do not relieve the architect/ engineer of their responsibilities as design professionals. Rather, they are intended to supplement the design process and to consolidate established polices and guidelines developed at the NIH based on operational experience. These guidelines have been devised to assist with establishing greater consistency among the facilities as well as offering the Architect/Engineer assistance with designing to NIH preferences.

The structure of the Design Policy and Guidelines is based on facility type and has been separated into four volumes of information as follows:

Research Laboratory Design Policy and Guidelines
Vivarium Design Policy and Guidelines
Clinical Center Design Policy and Guidelines
Reference Material for the Design Policy and Guidelines

The clinical Center Design Policy and Guidelines refer specifically to the NIH Clinical Center research hospital located on the Bethesda campus. This facility is the primary focus of the NIH and houses many laboratory, vivarium and administrative areas in addition to the hospital function.

Use of the Guidelines

These guidelines have been developed in order to define minimum standards by which architects and engineers can design facilities for the NIH's Bethesda and Poolesville campuses only. The Research Laboratory and Vivarium volumes are to be used for both new construction and renovation. The Clinical Center volume is to be used only for renovations of the existing Clinical Center.

These volumes of the guidelines have been organized into sections from general to specific requirements as follows:

A. Introduction
B. Planning Goals and Objectives
C. Space Descriptions
D. Design Criteria
E. Room Data Sheets
F. Appendix

Sections A. through D. provide the basic policy and guidelines in text format. Section E., the Room Data Sheets section, provides detailed data requirements for all types of spaces associated with research, vivarium and the Clinical Center. Section F, Appendix, lists the acronyms, units of measure associated with the document, and the committees, contributors, and founders that were instrumental in creating the guidelines.

The final volume collects all relevant reference material or describes reference material required for the design and construction of all types of NIH facilities. Included in this volume is the A/E Checklist, which lists the services that may be required by phase for projects at NIH.

The primary focus of these guidelines is to assist in standardizing the design approach to new and existing facilities on the Bethesda campus. The Clinical Center volume is based solely on the Clinical Center and its existing functions and spaces.

This document is intended to be used by all divisions within the Office of Research Services, primarily the branches and offices of the Division of Engineering Services.

Variance Request Procedures

During the course of programming and design development, it may become necessary for Architect and Engineers (A/E) to request variances from the minimum standards established in the NIH Design and Policy Guidelines. These variances may be necessary to accommodate existing building constraints or site conditions, required technology or program of requirements. Requests for variances to the Guidelines shall be submitted by the A/E following these specific procedures.

- All requested variance within a single discipline shall be submitted as a single package at the same time. (ex: all mechanical in one package; all electrical in one package etc.) This assures that all variations to the guidelines can be reviewed at one time to preclude conflicts in guidance.

- Variances will be considered for review by the Guideline committee following submittal of a package, which includes all necessary components to assess the feasibility of the variance requested. If the submittal is incomplete, or requires resubmitted, additional time may be required for the review. Submittal requirements and format will be provided to the A/E by the Project Officer,

- Following submittal of a complete package by the Project Officer to Technical Resource Group (TRG), the review will take a minimum of 10 working days. Additional time may be necessary depending on the complexity of the request. This time frame must be considered by the A/E team when developing the overall project development schedule.

- All variances must be submitted to the DCAB Design Guidelines Committee, TRG, preferably before the completion of the design development stage (35%) for a project.