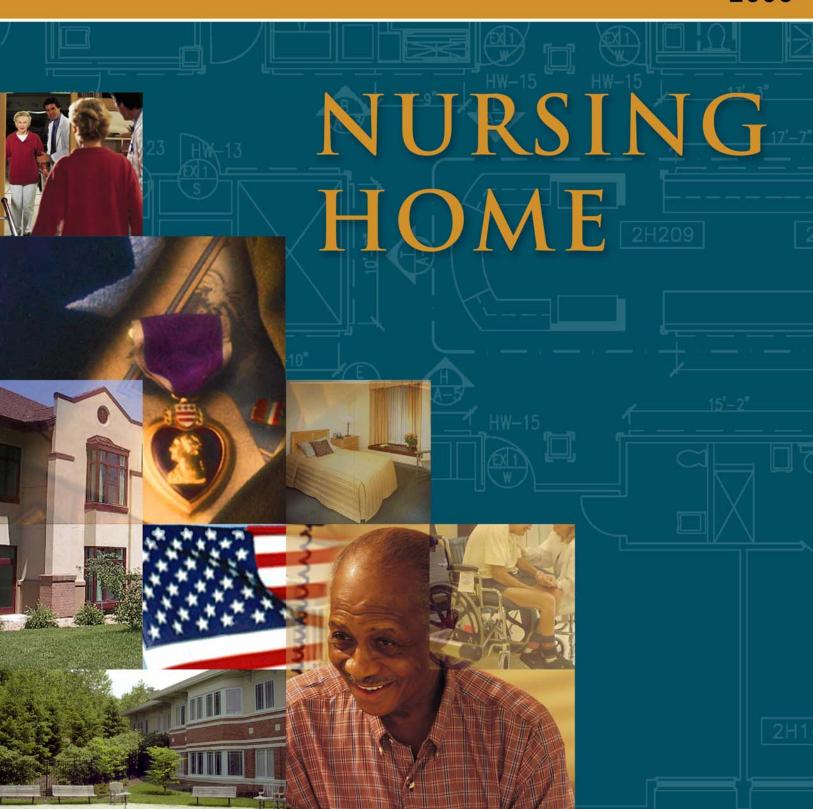


Office of Facilities Management

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2006



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Acknowledgements

The following individuals are those whose guidance, insight, advice and expertise made this Nursing Home Design Guide possible:

Facilities Management Office

Mr. Lloyd H. Siegel, FAIA

ACFMO for Strategic Management (181)

Mr. Kurt D. Knight, PE Director, Facilities Quality Service (181A)

Mr. Dennis Hancher, RA *Project Manager (181A)*

Mr. Donald Myers, AIA, NCARB *Project Manager (181A)*

Ms. Frances C. Wells

Administrative Assistant (181A)

Office of Geriatrics & Extended Care

Mr. Frank Salvas
Chief, State Veterans Home Construction Grant Program (114)

Dr. Christa M. Hojlo, DNSc, NHA Chief, Nursing Home Care (114)

Dr. Susan G. Cooley Chief, Geriatric Research & Evaluation and Dementia Initiatives (114)

Nursing Home Design Advisory Group (DAG)

Mr. Timothy C. Boers, AIA Principal-in-Charge of Design for Aging Boulder Associates, Inc.

Mr. Tim Cox, COO Chief Operating Officer US Airmen's & Soldiers Retirement Home

Ms. Susan DiMotta, ASID, IIDA Principal Perkins Eastman Architects

Mr. Douglas P. King, AIA, AICP Principal Perkins Eastman Architects

Ms. Leslie Moldow, AIA

Principal

Mithun Architects & Designers

Paul B. Rosenberg, MD Asst. Professor of Psychiatry & Behavioral Sciences Johns Hopkins University

Mr. Jon A. Sanford, MArch Research Architect VAMC Atlanta, Rehabilitation Research & Development Center

Dr. Bettye Ross Connel Research Architect VAMC Atlanta, Rehabilitation Research & Development Center Ms. Linda VanAlstyne, RN
Clinical Director
Health Facilities Management
NYS DOH

Prime Consultant

EBA Ernest Bland Associates, P.C.

Mr. Ernest Bland, RA Sr. Project Manager

Ms. Dawn M. Davis Project Architect

Ms. Carla Billingslea Technical Support

Sub Consultants

Lorraine G. Hiatt, Ph.D Design for the Aging Specialist New York, NY

Mr. William Rice, FACHE, FAAHC Healthcare Consultant Alexandria, VA

Mr. Martin Cohen, FAIA Codes and Standards Consultant Armonk, NY

Burdette, Kohler Murphy Mechanical Plumbing and Electrical Engineers Baltimore, MD

Foreword

The Nursing Home Design Guide 2006 signals a significant change in VA's approach to the environment of care for Long Term Care residents. It is an extremely important addition to the series of Design Guides for various elements of the United States Department of Veterans Affairs facilities produced by the Office of Facilities Management. This excellence was achieved with the indispensable input of: Lorraine G. Hiatt, Ph.D.; Martin Cohen, FAIA; Christa M. Hojlo, DNSc; and Dennis Hancher, RA. They gave countless unstinting effort to the creation of this document which signals the transformation of the culture of care in VA, discussed by Dr. Hojlo in the Introduction. Their extensive experience in this subject, supplemented by traveling to look at and meet with staff and residents at VA, State, and private sector Nursing Homes across the country, was further assisted by the experts in the Nursing Home Design Advisory Group and the consulting services of EBA Ernest Bland Associates, P.C.

This volume is meant to be a guide, not a code or regulation. It reflects the best practices of care and supporting facility design concepts for creating functional, pleasing, nurturing, and efficient environments for those veterans who reside in VA or State sponsored Nursing Homes, as well as for those who serve and honor the residents.

The drawings illustrate possibilities, meant to allow deviation, not always to be copied without variation. Although the guide illustrates some double room layouts, it is VA's strong preference to create only single bedrooms, except for special requirements. The dignity, privacy, and special needs of the individual residents must be paramount. Those who have served the Nation will live in these buildings, perhaps for the remainder of their lives, and deserve no less.

Lloyd H. Siegel, FAIA

Introduction

This nursing home design guide represents a unique collaborative effort on the part of architects, nursing home providers, clinicians, and others to set forth an approach to designing and building nursing homes based on a resident centered, resident focused approach to care. The guide represents the best thinking of experts who are committed to transforming the culture of care in nursing homes built on the notion that in large part, the actual facility design itself contributes to the well being and positive outcomes of care in such facilities.

The transformation of the culture of care in nursing homes is grounded in two essential principles:

- 1. The resident comes first, and
- Nursing homes today and into the future are defined as a dynamic array of services when hospital care is no longer necessary and nursing home is the only option.

Nursing homes have suffered from their affiliation with the hospital model, negative press, and overall institutionalization of those who need this service. The transformation of the culture of care in nursing homes focuses attention on enhancing the resident's ability to function and live fully until he or she dies. The driver of care in the new culture is achieving "the highest

practicable quality of life" for residents rather than solely treating the medical diagnosis.

The new culture embraces the resident as the focal point of care and delivers an environment conducive to facilitating quality or life as well as quality of care while overriding the negative stereotypes. Very personal components of residing in the nursing home such as the need for privacy, the need for natural light, comfortable and safe flooring, engagement in meaningful use of time, inviting dining experiences, and living space that generates elements of the comforts of home, are characteristics of the new nursing home.

Design that enhances the physical environment to support quality of life for the resident is critical to positive outcomes of care regardless of why the resident is admitted to the nursing home.

The challenge then, from a design perspective, is to de-institutionalize the facility space in order to promote fullness of life for residents regardless of reason for admission. This guide then will serve as a resource for those embarking on the path of creating environments where residents thrive in ways never imagined possible in institutions of care.

Glossary

Adjacency Matrix: A diagram illustrating the relative proximity of each workspace to other

workspaces.

Americans with Disabilities Act: Legislates access for disabled persons in most privately owned buildings or

businesses that serve the public.

Assignable Space: A measurement of space attributable to a distinct function or service including

support areas and intradepartmental circulation. Defines Net Square Feet.

Bay: The space in a building generally bounded by four columns.

Biaxial: Equal space as well as equal access to light, controls, etc. within a resident

bed room.

Case Mix: Case Mix categorizes patients into statistically and clinically homogeneous

groups based on the collection of clinical and administrative data. Adjusting for patients of different levels of acuity forms the basis for healthcare organization

comparisons and case mix adjusted resource utilization.

Certificate of Need

(CON)

Certificate of Need (CON) is a formal statement that a health care facility, medical equipment purchase, or new medical or expanded service is needed,

or that a reduction or termination in service will not have an adverse affect on

health care access.

Circulation Area: Entrances, vestibules, (interdepartmental) corridors, passages, elevators,

escalators, stairs, etc; included in gross areas and excluded in net areas.

Correlated Color

Temperature (CCT):

Describes the degree to which a color appears warm (reddish), neutral or cool

(bluish) and is measured in Kelvin (K).

Departmental Gross

Square Feet

The sum of gross spaces in a department.

Eden Concept: A vibrant living habitat in which residents are given the opportunity to show their

care, love and concern for other living things.

Glossary (cont'd)

Footprint: Describes the actual floor area for a function or activity; it does not include

circulation space. Also refers to the building floor plate.

Geriatric Research, Education & Clinical Center (GRECC) The GRECC program was conceived in 1973 to focus on aging as a special interest for VA. The purpose of GRECCs is to give visibility to the study of geriatrics or diseases of the elderly, and the study of the aging process-gerontology. GRECCs support a multi-disciplinary approach to research,

education, and clinical care at each center.

Gross Square Feet: Total building gross areas measured from exterior faces of exterior walls.

Indoor Air Quality (IAQ): Refers to the quantitative level of contaminations in the air as well as the

qualitative level of satisfaction of those exposed to the air. Standards for acceptable IAQ have been developed by the U.S. Environmental Protection

Agency.

Layout: A floor plan showing the specific placement of walls, doors, furniture, and

equipment.

Leadership in Energy and Environmental Design (LEEDtm) LEED_{tm} includes a rating system for building design as well as professional accreditation for people working in the design and building industry.

Mechanical Area Main boiler room and other mechanical and electrical areas; included in gross

areas and excluded in net areas.

Minimum Data Set

(MDS)

A standardized assessment instrument required for all Centers for Medicare

and Medicaid Services (CMS) certified nursing homes.

National Fire Protection

Association:

Produces a code used in many jurisdictions to define fire protection

requirements of building codes.

assigned to functional use by occupants.

Net-to-Gross: A measure of the ratio of assignable space to total space in a building; typically

expressed as a percentage.

Glossary (cont'd)

Nurses' Station Location at which nursing staff traditionally performs charting and related

activities throughout the day.

Off-gassing: The release of chemicals from non-metallic substances used in construction or

> furnishing. Off-gassing compromises indoor air quality (IAQ). Common sources of off-gassing include interior-grade pressed wood materials and synthetic

furnishings such as carpeting.

Resident Bed Room A room in the facility licensed for one or more patient beds.

Resident Centered Care Facility design model that focuses care resources around the individual

resident. Essential services are near or are brought to the resident as

compared to taking the resident to the point of care.

Residential Model Design philosophy based on incorporating home like elements while minimizing

institutional aspects.

Responsible Design: Architecture that respects the natural environment and integrates it into building

design, addresses the health of individuals and community, and is sensitive to

the cultural context of the site.

Resource Utilization

Group (RUG)

Nursing home resident categories that identify resident needs and resources

for care.

Site: The land parcel on which the building(s) sits or will be built. It includes the

grounds, driveways, and walkways associated with the building(s).

Uninterruptible Power

Supply (UPS):

Generators, batteries, and/or associated equipment that provide continuous electrical power, preventing power loss to critical functions that rely on absolute

continuity of service.

United States Green **Building Council**

(USGBC)

The United States Green Building Council is a national coalition of leaders in

the building industry that developed the LEEDtm system.

Veterans Integrated

Service Network (VISN):

The VA healthcare system consists of 21 integrated networks across the US and Puerto Rico that are focused on pooling and aligning resources to better

meet local health care needs and provide greater access to care.

Abbreviations

A Amps

ABA Architectural Barriers Act

AC/HR Air Changes per Hour

ADA Americans with Disability Act

ADAAG ADA Accessibility Guidelines

AHJ Authority Having Jurisdiction

AIA American Institute of Architects

ANSI American National Standards Institute

AR As Required

BOMA Building Owners and Management Association

CAD Computer Assisted Design

CARES Capital Asset Realignment for Enhanced Services

CFM Cubic Feet per Minute

CON Certificate of Need

DAG Design Advisory Group

EPA Environmental Protection Agency

FC Foot Candle

FM Office of Facilities Management

FTEE Full Time Equivalent Employee

GRECC Geriatric Research, Education and Clinical Center

GSF Gross Square Feet

GSM Gross Square Meters

HIPAA Healthcare Insurance Portability and Accountability Act

HP Horsepower

HPD Hours per Day

HVAC Heating, Ventilating and Air Conditioning

IAQ Indoor Air Quality

IBC International Building Code

JCAHO Joint Commission on Accreditation of Healthcare Organizations

LB Pound, Pounds

Abbreviations (cont'd)

LEED Leadership in Energy and Environmental Design

LUX Lumen Per Square Meter

MDS Minimum Data Set

NFPA National Fire Protection Association

NHCU Nursing Home Care Unit

NHRA Nursing Home Reform Act (of 1987)

NSF Net Square Feet

NSM Net Square Meters

NTS Not to Scale

OBRA Omnibus Budget Reconciliation Act (of 1987)

OSHA Occupational Safety and Health Administration

OT Occupational Therapy

PG Program Guide

PT Physical Therapy

RUG Resource Utilization Group

RH Relative Humidity

RT Recreation Therapy

SF Square Feet, Square Foot

SVH State Veterans Home

SqM Square Meters

TV Television

UBC Uniform Building Code

UFAS Uniform Federal Accessibility Standards

UPS Uninterruptible Power Supply

USGBC United States Green Building Council

V Volts

VA Department of Veterans Affairs

VACO Veterans Affairs Central Office

Abbreviations (cont'd)

VAMC Veterans Affairs Medical Center

VHA Veterans Health Administration

VISN Veterans Integrated Service Network

VSO Veterans Service Organizations

W Watts