



# SECAD

Nashville, Tennessee 2010

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## **Learning Objectives:**

- Discover barriers that inhibit collaboration and participation from the clinical profession and the end user groups.
- Discuss practical tools, best practices, and personal experience that will enhance and promote interdisciplinary collaboration and improved outcomes for behavioral and addictive health environments.
- Learn how to apply current principles related to evidence based design, LEED, LEAN, environmental concerns, safety standards, etc. to current healthcare projects

## **Session Description**

We believe **CLINICAL INPUT** is essential for the planning and design of healthcare facilities.

The **NURSING INSTITUTE FOR HEALTHCARE DESIGN** has identified barriers that limit the communication and collaboration between the design community and the clinical community.

This is about creating **MUTUAL RESPECT, COLLABORATION** and effective communications for the entire team. We will address **BEST PRACTICES, TRENDS** and **TOOLS** for user participation.

## **Clinical and Nursing Perspectives**

**NIHD Online Poll – Determining the value and impact of nursing participation on a design and construction project.**

- **72% of architects and designers believe that nurses are not educated in healthcare design and construction.**
- **93% agree that if they were knowledgeable, it would benefit the outcome of the project.**



## Clinical and Nursing Perspectives

Whose opinion do we value the most for design decisions related to **nurse and patient environments?**

Nurse Managers	33%
Staff nurses	30%
Nurse executives	22%
Members of the design team	15%
Chief Executive Officer (CEO)	03%



## Clinical and Nursing Perspectives

Barriers that limit communication and collaboration



Intimidation  
Communication (terminology)  
Time Constraints  
Internal Clinical Staff Issues  
Staff Turnover



## ***Clinical and Nursing Perspectives***

### **Interdisciplinary Goals**

Preparation	Trust	Appreciation
Respect	Collaboration	Shared Goals
Communication	Education	Negotiation
Experience	Creativity	Vision

## ***Clinical and Nursing Perspectives***

### **Tools**

Example Drawings	Research	Site Visits
Experiences	Mock up rooms	LEAN
Evidence Based Design	LEED	POE
AIA Guidelines	AutoCAD/Revit	Community
Steering Committee	End user groups	Websites

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# Clinical and Nursing Perspectives

## National Association of Psychiatric Health Systems (NAPHS)

Kathleen McCann, R.N., Ph.D.  
Director of Clinical and Regulatory Affairs

### Design Guide for Behavioral Health AIA Design Guidelines

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1.1 Measurement of the Quality and Value

1.2 Measurement/Reporting

1.3.1 Measurement

1.3.2 Measurement/Reporting

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### Guidelines for Design and Construction of Health Care Facilities

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## New Edition Arriving Early 2010

Growing Partnerships

## ***Clinical and Nursing Perspectives***

### **Clinical and Nursing Perspectives Important Design Issues-Patient Care Areas**

#### **Safety - support a safe environment**

Patient, staff, and family considerations

#### **Home like atmosphere**

Lighting, Noise, Double rooms

#### **Seclusion Room**

Softer walls, music, quiet, aroma therapy, lounge chair, "tool box"

## ***Clinical and Nursing Perspectives***

### **Clinical and Nursing Perspectives Important Design Issues-Nursing Areas**

#### **Nurses Station**

Open vs Closed Concepts

#### **Medicine Delivery and Dispensing**

Quiet, Window vs. Cart vs. Automated Dispensing

#### **Storage and Service Support**

Adequacy and Convenient Locations

#### **Electronic Records**

Treatment Planning Individualized, Paperless, Confidential

#### **Nursing Unit Concepts**

Size, Layout, Security and Design Character

## ***Clinical and Nursing Perspectives***

### ▪ Interview Comments From Our State Mental Healthcare Commissioner:

- The Needs
- The Care Givers
- The Funding
- The Service Delivery Continuum
- The Gaps Within Any State System
- The Built Environment



Dr. Menninger, Founder of Menninger Foundation noted in his survey assessment of the mental health needs of Kansas:  
“Brains Before Bricks and Mortar”

## ***Clinical and Nursing Perspectives***

- ### ▪ Interview Comments From Our State Mental Healthcare Commissioner and Key Staff:
- Opening 2 New Facilities As We Speak (225 Beds)
  - 5 Total State Facilities (22 Community Health Centers and 14 Have Crisis Stabilization Services)
  - Census Has Declined (Down from 1,000 to 656)
  - Progress With Programs and People
  - Challenges With the Economy and Resources
  - Continuing Inter-Agency Partnerships, for example; The TN Board of Parole and Pardons
  - Opportunity Through FQHC's and Stimulus Program

## ***Clinical and Nursing Perspectives***

- **The State Is Moving Forward With Healthcare Planning and Review of Overall Needs:**
  - **Statewide Plan Through State Comptrollers Office**
  - **Three Year Plan Through Department of Mental Health and Developmental Disabilities (TDMHDD):**
    - **TDMHDD Planning & Policy Council Today**
    - **Update By Commissioner Betts**
    - **Status of Legislative Bills and Federal Programs**
    - **Committee Reports**
    - **7 Regional Councils Provide Updates**

## ***Dynamic, Demographic and Service Delivery Forces Within Any Region***

- **Using Our State of Tennessee as an example, we will illustrate a few of the local, regional and statewide factors to be considered:**
  - **The primary and outpatient care sector**
  - **The secondary, inpatient and extended stay sector**
  - **The acute psychiatric and behavioral health sector**
  - **The special needs populations (substance, eating disorders/anorexia and sexual addiction)**
  - **The tertiary care, research and training sector**

**Must Understand the Public Sector Programs and Their Relationships To the Private Sector;**  
**Children, Adults and Seniors (Men and Women)**



## A Common Theme In All Areas

### MAKING THE HEALTHCARE DELIVERY NETWORK WORK

- RESIDENCE + RETAIL
- PRIMARY CARE
- SECONDARY CARE
- TERTIARY CARE
- QUATINARY CARE
- CRITICALACCESS HOSPITAL



FQHC  
Stimulus  
Funding

Added  
Value

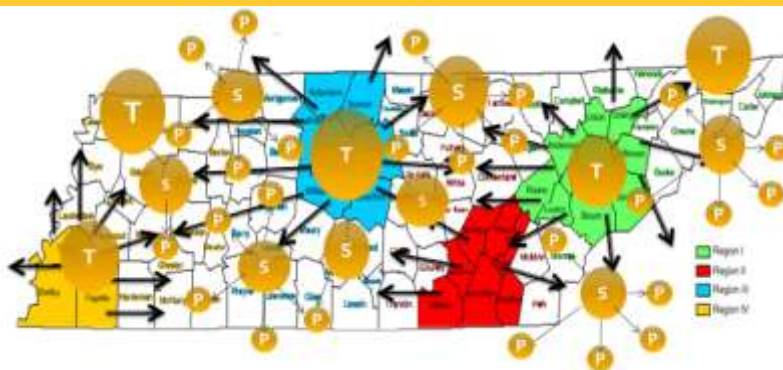
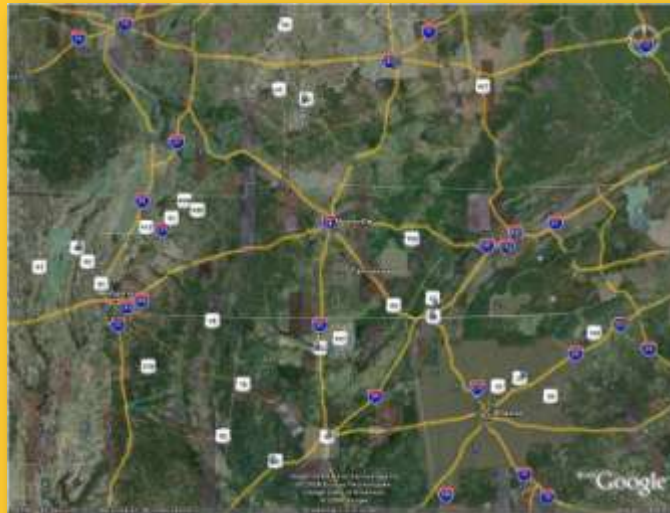
“Linkages Are Required To Effectively  
Provide The Care...Coming to  
Your Neighborhood”

## The Demographic and Market Forces Are Key To Understanding Access, Facility Responsiveness and Needs

- Service Area
- Historical Trends
- Population Mix
- Incidence
- Age, Sex, Ethnicity
- Socio/Economic Factors
- Community Needs Assessment
- Cost/Benefit and ROI Factors



## The State Of Tennessee



"Regional and Statewide Healthcare Planning  
Can Respond to All Human Service Needs When Managed  
Carefully and Implemented Comprehensively".

**Healthcare Should Have No Boundaries to Access.**

# How Should Mental Healthcare Service Delivery Fit Into The Continuum of Care?



## The Vanderbilt Medical Center



- Education
- Research
- Training
- Acute Care
- Cancer Care
- Behavioral Healthcare
- Psychiatric Care
- Rehabilitation
- Wellness + Fitness
- Sports Medicine
- Children's Hospital
- Veterans Care
- Emergency + Trauma
- Outpatient Care

## The Cumberland Heights Campus



Expanding  
Programmatic  
Partnerships



Communications

Federal  
State  
Local

## The Master Planning (MP) Perspective

- Campus Master Planning Provides The **FUNDAMENTAL ELEMENTS** integral to the successful development of any mental healthcare venture:
  - The Big Picture Perspective
  - The Road Map Into The Future
  - The Strategy, Mission and Vision
  - The Infrastructure
  - The Services
  - The Assets



## The Steps In The Master Plan (MP)

1. Existing Situation
2. Strategic Plan and Demographics
3. User Goals and Objectives
4. Work Loads and Volumes
5. Trends and Market Share Factors
6. Engineering , Equip and Systems
7. Functional Program By Service
8. Functional Concepts and Clinical Objectives
9. Existing Vs. New Construction
10. Master Zoning and Fit of the Spaces
11. Site Plan and Related Features
12. Budget, Schedule and Phasing
13. Affordability Factors
14. Implementation Priorities



## Key Components Of The System



## How Does The Program Evolve?

A Closer Look  
At The Functional  
Program...

A Mental Health  
Facility Case  
Study...

Plan      Program      Design      Build      Operate



## The Ten Primary Attributes of Planetree...

01. Human Interaction
02. Architectural Design + Healing
03. Nutrition + Diet
04. Patient Empowerment
05. Family, Friends, Social Support
06. Spiritual and Emotional Support
07. Human Touch
08. Healing Arts and Sensory Factors
09. Complementary Therapies
10. Healthy Communities (Youth + Aged)




Planetree Background  
And Ten Point Program

## Key Attributes of Greenhouse Design



**Teamwork + Innovative Planning  
and  
Creative Design =  
Effective  
Results.**



**QUESTIONS + COMMENTS**

Thank You For Being Here and Serving Our Communities  
We Appreciate Your Commitment!



**Thank You...Questions or Comments  
Please**

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# Removing the Institutional Feeling from the Behavioral Health Hospital



**ALEXIAN**  
BROTHERS  
Health System



**A Very Special Thank You!**  
Excellent Case Study  
2009, Chicago, IL

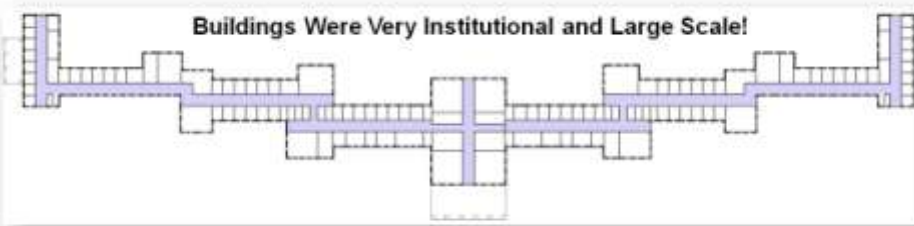


Project  
Case Study

SECAD  
Considerations

# History Of Mental Health Design

Turn of the century therapies...



- Expensive and limited privacy.
- Used farmlike atmosphere, plant and animals very effectively back then.



Project  
Case Study

SECAD  
Considerations

## History of BHH

### Turn of the century therapies + Institutional Design...



#### Cottage and/or Residential System

- First example –Eastern Illinois Hospital, Kankakee
- 1 story cottage in wooded setting
- Ideal for fresh air and nice views but still a locked ward and massive.
- No privacy, eat, sleep and dine in the same room with no visual stimulation.
- 1970 wards were remodeled into dormitory type environment (improved residential)



Project  
Case Study

SECAD  
Considerations

## History Changes in Behavioral Health

### **Concepts** of Healing from 50-30 years ago

- After WWII **deinstitutionalization** became the norm.
- The Psychiatric institutions were **housing & Institutionalization**, not healing and therapy.
- With Freudian analysis the physical environment became less important.
- In the 1970's the trends were moving away from the big institutions and focusing on **neighborhood facilities** and outpatient treatment.
- Community based gained momentum in the 80/90's. Depopulation worked with proper care and continuity



Project  
Case Study

SECAD  
Considerations

# History of BHH

## Concepts of healing in the last 20 years

- Average length of stay is based on acuity level or treatment modality with financial implications.
- **Adolescent and Child:** 10 days



short length of stay, Active engagement and least restrictive environment

- Promotes moving patient to outpatient settings and residential settings



Project Case Study

SECAD Considerations

# Architectural Features Pod Concepts Evolved

## Pod concept



- Therapy is in harmony with the environment
- Concept of sub clusters. Ideally 6 to 10 beds
- Social units that are residential in feel
- Smaller dining and living areas

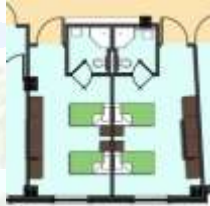


Project Case Study

SECAD Considerations

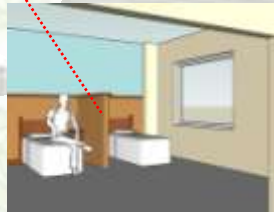
# Architectural Features

## Patient Rooms



Semi private room

Privacy screen



Private rooms versus roommates in the healing process (Buddy System)

Semi private patient room with privacy screen or half height wall.

Private rooms can reduce stress

Large oversized windows v. imp.

Still debates with AIA and ASHE via

Design Guidelines...private not always the best option!



Project Case Study

SECAD Considerations

# Architectural Features

## Managing disturbed behavior through the environment

Encourage self help

Calming room



Self management challenges are incorporated into the treatment program.. Interior design very, very important!



Project Case Study

SECAD Considerations

# Architectural Features

## Unit location

### Adjacencies and placement of units

- Access and Registration at entrance level, within locked area
- Provide graduated environments and increased access to space based on progress of patient's treatment.
- Locate High Acuity unit on upper levels for safety
  - Eliminate direct access to elevators
  - Separate staff and patient entry
- Have partial hospitalization units on lower levels



Project Case Study

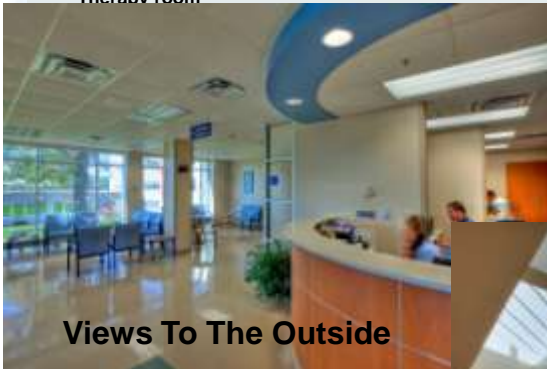
SECAD Considerations

# Architectural Features

## Inpatient Units within Hospitals

Occupational Therapy room

Little Company of Mary Hospital, Evergreen Park, IL



Views To The Outside



Group Therapy Rooms



The Use of Natural Light



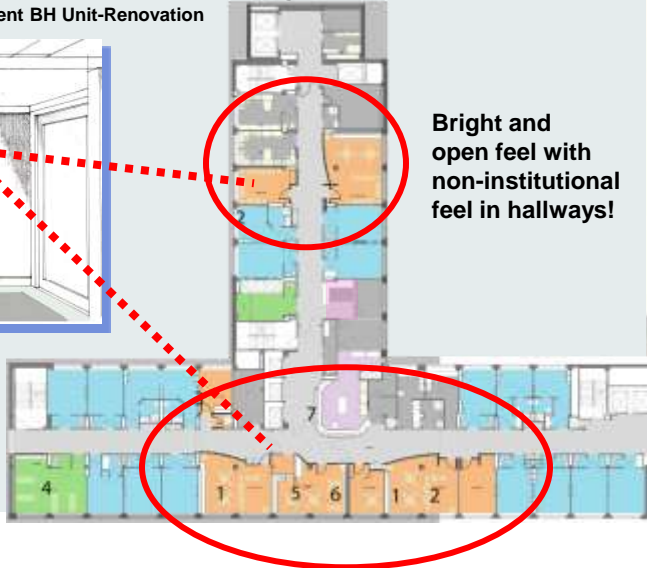
# Architectural Features

## Inpatient Units within Hospitals

Provena St Joseph Medical Center, Chicago, IL  
Hospital Based Inpatient BH Unit-Renovation



Curved Wall at Dayroom



Bright and open feel with non-institutional feel in hallways!



# Architectural Features



## Labyrinths

- Reduce Stress
- Mitigate Pain
- Exercise
- Palliative and Healing effects of nature
- All seasons



# Interior Design Elements

- **Symbolic of professionalism, customer service and hope and healing**
  - Is the facility making the statement that we successfully treat patients with positive outcomes?
  - Does the environment convey a hopeful, helpful atmosphere to contribute to recovery?
  - Respectful, non-institutional, supportive, therapeutic and maintainable,



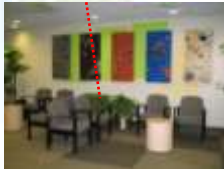
Project Case Study

SECAD Considerations

# Interior Design Elements

## Furniture selection- Levels of flexibility

Sub cluster seating



Waiting area



Day room

- Waiting room furniture layout
- Patient room furniture to be tamper proof and abuse resistant, arranged to recognize the need for privacy
- Sensitive to bariatric patients
- Indoor furniture for social areas like day rooms to be heavy but movable for multifunction activities
- Easily replaceable components and easy to maintain



Finger pulls on integral drawer units



Bariatric chair



Platform beds



Project Case Study

SECAD Considerations

# Interior Design Elements

## Furniture selection- Levels of flexibility

- Outdoor furniture should be fixed or too heavy to be moved
- Cafeteria furniture -round tables, lightweight chairs and accessories.



Patio furniture



Dining seating with views to outside

Project Case Study



Wood like look for metal frames



SECAD Considerations



# Ambient Features

## Focus on 4 senses

### Lighting

- Provide a **Mix of incandescent** light with a full spectrum of light-dimmable fixtures
- Levels of lighting based on time of day for **dementia patients**
- **Avoid excessive fluorescent** lighting
- Built in **table lamps** in common areas
- Maximum access to natural lighting- **bright and cheerful**



Natural light (Study Glare)

Soffits w/ recessed lights



Cove lighting



Full height glazing



Fiber optic lighting

Solar collector



Indestructible table lamp



Project Case Study

SECAD Considerations



# Specific Design Issues



Security with Visibility

- Patient elopement design features



- Alternative Healing process-provide spiritual healing through meditative spaces, faith counseling rooms, traveling altar, planetree concepts and greenhouse design concepts



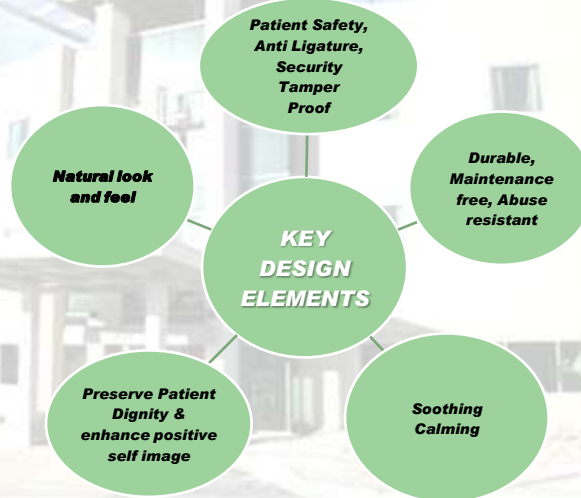
Chapel



Project Case Study

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# Key Design Elements



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