

## Health Care Council of IFMA

# HEALTH CARE COUNCIL NEWS

### 2002-2003 HCC Officers:

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Gary W. Collins, AIA;

HLM Design

**Vice President:**

Louis M. Poineau

**Secretary:**

Susan Goeldner

Siemens Bldg. Technologies

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**Newsletter Chair:**

James R. Allen, REH;

HCI Consulting Group, and

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**Research Chair:**

Howard Yarme, Health Care

Facility Research Consortium

**Web Master:**

Thomas W. Gardner, PE;

Schirmer Engineering

Corporation

## Interim President's Message

*By Gary W. Collins, AIA*

All organizations face challenges, and our Healthcare Council (HCC) is no exception. During the past 12 months, personal and employment issues of our President, Stan Kirtley, and our Vice President, Lou Poineau, have caused our council to lose a certain amount of direction and focus. To challenge us further, Erica Noyes, Council Resource Manager, has left IFMA to relocate with her husband. While I am certain that Erica's replacement, Leslie Scantlebury, will get up to speed quickly, Erica had assumed an integral role with the HCC over the past few months.

Although some council members may see this situation as a reason not to get involved with the HCC now, I see this as an opportunity to get MORE involved and take the council into new areas of commitment,

both with other professional healthcare organizations and through our own internal membership resources.

To accomplish this, a small contingent of HCC members is rallying to quickly reorganize a new leadership team to bring renewed direction and focus to the HCC membership.

We have a great potential to take the HCC to new levels of accomplishment not yet attained by this organization. One of the first things we need to do is determine the makeup of our organization.

Coming soon to all HCC members will be a survey designed specifically to provide your new council leadership a better understanding of the makeup of HCC membership.

From there, we will begin to target our members and engage you with meaningful and effective resources, presentations, guides to assist you in your day-to-day activities, and much more, as we learn your different areas of practice and needs.

I look forward to eventually meeting or talking with each one of you about your interest in the HCC and your expectations of our council. The more we share with one another, the better we will become as an organization. Nearly everyone I have met in my practice of healthcare architecture is in the healthcare profession because they choose to be there, and that makes working with all of you special. I can be reached at 312-609-0196, ext. 129, or you can e-mail me at [gcollins@hlmdesign.com](mailto:gcollins@hlmdesign.com).



**World Workplace 2003 Update**

By now, HCC members should be finalizing their plans to attend World Workplace 2003 in Dallas. As we reported in our last issue, IFMA is combining this conference with the Facilities America conference sponsored by the Association for Facilities Engineering (AFE).

The dates for this combined conference are October 19-21 at the Dallas Convention Center, Dallas, Texas. Additionally, to add to the conference's appeal, the American Institute of Architects (AIA) and the International Interior Design Association (IIDA) will be contributing educational sessions.

The theme of this year's show is 'pure FM,' with corporate sustainability a key theme. Nearly 100 educational sessions will focus on 12 key areas, and more than 200 exhibitors will also focus on the topic of sustainability when displaying their products and services.

Our HCC Annual Meeting will be held on October 19, from 8:00 a.m. until noon, at the Hyatt Regency Dallas in the Bryan-Beeman Room. This meeting will include some informative presentations as well as a Council business meeting. Please come to meet and greet your fellow HCC members and discuss the coming year's activities for the Council.

If you have any questions about World Workplace, or the Healthcare Council meeting, please contact Leslie Scantlebury, Council Resource Manager, at [leslie.scantlebury@ifma.org](mailto:leslie.scantlebury@ifma.org) or give her a call at 713-623-4362, ex. 142.

See you in Dallas!

**IFMA Reaches Agreement with AIA on CES Credit**

IFMA has reached a collaborative agreement with the American Institute of Architects (AIA) Facility Management Professional Interest Area (PIA) that will allow AIA attendees at World Workplace 2003 in Dallas to earn continuing education credits for all sessions they attend at the conference. This agreement opens the door to a greater professional understanding among building owners, their facility managers, and architects. This is expected to be the first of many opportunities for IFMA and AIA to collaborate as partners, thereby leading to more productive and valuable working relationships in the future.



**FACILITY MANAGERS HAVE AN IMPORTANT ROLE IN SUPPORTING THERAPEUTIC ENVIRONMENTS**

*By Judith Yarme, Director, Health Care Facility Research Consortium(401-245-6212 or yarmeco@aol.com)*

The process of designing, building, maintaining and operating health care facilities has become increasingly complex, and this complexity brings with it higher levels of specialization.

For years, the challenge to many healthcare facility managers has been to increase efficiency on every level. However, with responsibilities increasing exponentially, and with budgets and staffing consistently being reduced, we must periodically remind ourselves that the purpose of any healthcare facility is not simply to house operations, but to support the delivery of healthcare through appropriate settings. Therefore, our real goal should be to maximize effectiveness, not efficiency. While all facilities impact users as a result of specification, design and planning of physical settings, the residents of long-term care facilities are most significantly impacted. This is partly because many of the traditional coping mechanisms that residents use to overcome stress and disorientation fail as they get older.

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# SPEECH PRIVACY IN HEALTHCARE SETTINGS

By Howard Yarme, Research Chair, IFMA Health Care Council (401-245-6212 or yarmeco@aol.com)



Four years ago, the IFMA Foundation awarded a research grant to study issues relating to acoustical privacy in healthcare settings. The focus of this research study was to understand what factors impacted confidential speech privacy and how to effectively control them.

Now that HIPPA is on everybody's agenda, the research team that conducted the original study is helping facility managers understand how to correct existing speech privacy problems, and how to design spaces properly from the beginning.

## FACILITY MANAGERS HAVE AN IMPORTANT ROLE...

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Also, residents in long-term care facilities are exposed to their environment for extended periods of time, as compared to patients in acute or ambulatory care settings.



Therapeutic environmental audits at a number of quality long-term care facilities have shown

that many facility management decisions made with the goal of improving settings or saving money are, in fact, fighting the delivery of quality healthcare services.

One of the concepts associated with long-term care settings is the normalization of the environment as much as possible for frail, elder residents. The criteria for the specification of products, materials or services, however, rarely contain any reference to illumination and acoustics appropriate to older residents, reduction of ambiguity, non-disruptive maintenance, healthy and sustainable products and building materials, or other features that would make the environment less institutional and more comforting and forgiving for the residents.

A simple test is to look at any detail, setting or environment and ask, "Would I select this for myself, my spouse, or my parents?" If not, don't select it for others. Facilities are assemblies of products and systems, and, if specified and integrated properly, under the direction of enlightened facility managers, they can be wonderfully supportive tools for effective delivery of care.

Many facility managers feel that they have built quality interiors, have hired leading architects and have used recommended construction details, and, therefore, they are not aware of speech privacy problems in closed spaces such as exam rooms and physician's offices. Field visits to major healthcare facilities, however, suggest that speech privacy is still a major unresolved issue.



One way to check on the actual performance of your facilities, as a patient would experience them, is to go into an empty exam room or physician's office during a busy time of the daily schedule, turn out the lights (so you can focus on acoustics alone) and listen.

In many cases, you may be surprised to find that it is not only possible to hear voices, but even to understand complete conversations from adjacent rooms, from the corridor, or even from a nurse's station across the hall!

We believe that HIPPA will be very effective in bringing attention to the privacy of records and other paper and electronic documents.

Whether HIPPA gets into any detail about privacy relative to conversations overheard in waiting rooms, reception areas, insurance offices, emergency rooms, etc., we know it is important to do whatever we can to ensure confidential speech privacy for patients and staff. Anything less is simply not acceptable. Most effective solutions will include better

space planning, reasonable construction details, quality materials and products, sensitive user behavior, special types of sound masking systems, and, above all, appropriate balancing of all these tools within available budgets and architectural constraints to maximize acoustical performance.

The IFMA research study was able to demonstrate that speech privacy can be achieved in facilities that formerly showed poor acoustical privacy, with simple and inexpensive corrective measures. Our intention is for the IFMA Healthcare Council to become an effective vehicle for helping its members apply research findings to their real facility challenges.

## A Component Construction Primer

By Pam Whalen, GE PermaCon Healthcare Segment Manager

Today's health care providers find themselves under constant fiscal scrutiny, as they face health care reforms and changing medical demands from their communities. Customized Component Construction for the health care industry offers a fast, cost-effective and non-disruptive way to create space for higher revenue operations, add beds or house satellite clinics.

Component construction is a fast track alternative to conventional building methods. Because it doesn't require space for on-site building, it enables organizations to create new space without interfering with the daily operations of a health care facility. Another feature of this revolutionary technology is that it gets the building up and running faster and enables the organization to generate revenue sooner.



Here's how it works. Component construction uses the same materials as conventional construction. The building process is the only difference between the two methods.† Component structures are constructed off-site in a controlled manufacturing environment and later transported by truck to the site. Components typically arrive on site up to 90% complete, with systems such as electrical, plumbing, and HVAC pre-installed.

This approach not only minimizes delays due to weather and unscheduled inspections, it speeds up the project schedule because manufacturing takes place simultaneously with site preparation. Quality is also improved and waste minimized as a result of the standardized manufacturing process.

After each component is delivered, it is placed on the foundation via crane and/or a rolling method. Once the structure is assembled, all the systems, such as electrical, fire, security and HVAC, are connected.† The result: A facility built with component construction can be ready for occupancy in as little as half the time of a conventionally built building.

In addition to its speed and convenience, component construction offers flexibility.† A wide variety of buildings can be produced via component construction methods ñ from single-story specialized clinics and doctors' offices to diagnostic imaging laboratories to multi-story full-service medical centers.†

Many facilities built with component construction are indistinguishable from conventionally built structures. They can be designed to match the exteriors of surrounding buildings.† In some cases, elements of brick and mortar construction are combined with component installation, such as for building patient wing corridors or assembling a glass atrium on-site.

When using the component approach, it's best to investigate the abilities of manufacturers to be certain they are able to construct permanent facilities.† Some suppliers can provide complete turnkey services from space design and site work to building installation and furniture delivery.† Some even offer floor plans, configurations and specifications that are pre-approved for compliance with local, state and national codes, saving time in the building approval process.

Health care facility planners and designers are wise to examine component construction methods as an option when determining how best to meet the evolving space needs of their organizations.

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*A unit of General Electric Company (NYSE:GE), GE Modular Space is a leading North American supplier of permanent customizable component construction for healthcare, which it markets under the name GE PermaCon<sup>®</sup>. Headquartered in Devon, Pa., its website is [www.modspace.com](http://www.modspace.com)*

# A New Test Method to Evaluate Rolling Loads on Hospital Flooring

## Part 1

By Howard Kanare, Senior Principal Scientist, Construction Technology Laboratories, Inc.

Resilient floor coverings such as rubber, linoleum, vinyl sheet, plank, and tile, are expected to provide attractive, cleanable, longwearing, and safe surfaces in patient rooms, public areas, operating suites, and laboratories. Hospitals and other medical facilities, however, present some of the toughest exposure conditions for resilient flooring. Flooring is exposed to alternating cycles of acidic and alkaline cleaners, spills and dropped objects, daily washing and buffing, and pedestrian traffic.

In addition, rolling objects with specially-shaped wheels such as medical-surgical and ICU beds, operating tables, X-ray equipment, and other heavy items can produce loads exceeding one thousand pounds per square inch, well beyond the exposures that resilient flooring receives in other commercial applications. Modes of floor covering failures due to rolling loads in health care facilities (Figure 1)



Figure 1

include bubbling, debonding, tearing, and delaminating, which can compromise cleanability and pedestrian safety. Excessive rolling loads also can cause deterioration of floor patching compounds and leveling underlayments.

Until now, there has been no test method to evaluate various types of rolling loads on resilient flooring (Note 1), and we are not aware of limitations on rolling loads currently published by flooring manufacturers. Rolling and pivoting wheels across a resilient surface produces a complex set of forces that cannot be readily modeled, including in-plane shear and torsion, compression, and even tensile components.

Flooring adhesive must be strong enough to keep the floor covering safely attached to the structural substrate, usually a concrete floor; the floor covering itself must be strong enough to avoid tearing and delaminating under anticipated loads.

Based on these needs, and due to reports of numerous resilient failures under hospital bed wheels, ASTM Committee F-6 on Resilient Floor Coverings recently established a Task Group to develop a new standard that has the working title, *Standard Practice to Determine Effect of Rolling Loads on Resilient Flooring System Components*. As Task Group co-chair, (along with Christopher Capobianco of CBC America) I developed a unique, prototype rolling loads apparatus at Construction Technology Laboratories.

We have been able to replicate the type of debonding and delaminating failures seen in health care facilities, and to evaluate new products for the health care market. The device (Figure 2) consists of a weighted



Figure 2

carriage supported on a pair of wheels, driven by a pneumatic ram with controller. The ram is fastened to a steel reaction frame attached to a 4-ft x 4-ft concrete slab.

The concrete has a composition and steel-troweled finish typical of ACI 302 Class 4 commercial floor slabs. Two samples of flooring and adhesives can be tested simultaneously side-by-side.

A test cycle consists of pushing the weighted carriage out over the flooring for a distance of about three feet, pausing for 30 seconds to allow the flooring to recover from the load, then retracting the carriage. Typical tests run for several days generating up to 10,000 cycles. Wheels can be fixed to roll in one direction or to pivot freely and randomly as the carriage reverses direction, simulating real-world exposure conditions.

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## A New Test Method ...

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To date, we have tested wheels used on birthing beds, ICU beds, and chairs, over carpet and sheet vinyl, with several types of adhesives, with loads up to 330 lb/wheel (1320 lb total bed and patient weight). Many factors that can affect performance of a flooring system can be investigated with this apparatus, including floor coverings, polishes, adhesives, installation methods, and several others.

In the second installment of this article, we will show results from rolling loads tests and discuss approaches to avoiding such forms of distress. We welcome inquiries for testing and expect to have a method ready for ASTM ballot in 2004.

# # #

Note 1. European test method DIN EN 985, Textile Floor Coverings Castor Chair Test, provides a means to evaluate flooring surfaces for wear resistance but does not provide useful information about performance under heavy rolling loads.

Figure 1. Sheet vinyl under this hospital bed wheel has been severely deteriorated. Other common types of distress include bubbling and rutting.

Figure 2. Prototype rolling loads apparatus set up to test sheet vinyl flooring with approximately 300 lb per wheel. A different type of adhesive has been used to install the flooring under each wheel path to evaluate alternate products simultaneously.

## Guidelines for the Built Environment of Behavioral Health Facilities (a synopsis)



*Guidelines for the Built Environment of Behavioral Health Facilities* by David Sine, CSP, OHST, and James M. Hunt, AIA, is intended to assist both clinical staff and design professionals with unit design and with the selection of

manufactured items appropriate for use in behavioral health settings.

General suggestions are provided for the design and layout of the unit, including exterior spaces for patients and entrance areas for visitors and staff.

The main focus is on safety for patients, staff, and visitors. As precautions vary for different parts of the unit, the paper identifies five separate levels. Each requires all the precautions of the preceding level and adds more factors. Areas where the patients are highly supervised or spend little time alone are less critical than places where patients will be alone and unsupervised for periods of time. Other areas where patients are unknown to staff (such as admissions rooms or where patients may be at greater risk such as seclusion rooms) are the highest level.

The paper names specific items and their manufacturers (along with model numbers and photographs) and explains why specific items are appropriate for use. The items listed are not necessarily the only products available, but provide one example in every area that would be acceptable. Other items that meet the criteria would also be appropriate. Detailed information is provided in an appendix regarding how to contact each company (with addresses, phone numbers, and Websites provided).

Jim Hunt is a founding member and past president of the Health Care Council, and David Sine was a presenter at the 1998 HCC meeting at Northwestern University Hospital in Chicago. The paper is posted on the Website of the National Association of Psychiatric Health Systems at [www.naphs.org](http://www.naphs.org).

