# HEALTHCARE FACILITIES TODAY®



### HEALTHCARE FACILITIES TODAY.COM®

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### NEW CHILDREN'S HOSPITAL ADDITION **DESIGNED FOR HEALING**

As northeast Ohio's largest pediatric healthcare provider, Akron Children's Hospital is always striving to stay one step ahead of ever-expanding healthcare demands. Envisioned nearly a decade ago, Akron Children's Hospital recently completed an impressive seven-story addition to their William H. Considine Professional Building. The 230,000 sq. ft. addition serves multiple purposes—providing a convenient, safe, and functional environment for patients and staff while also consolidating outpatient programs into an easy-to-access centralized facility.







### **Project**

Akron Children's Hospita

### **Products**

Wilsonart® Spectrum Laminate | Solid Surface

### **Architects**

Hasenstab Architects

Wilsonart® Distributor
Bennett Supply Company

Hasenstab Architects was tasked with creating a high-quality, patient-centered healing environment designed "through the eyes of a child." Their vision for incorporating childlike features included utilizing vibrant colors, illuminated lighting and whimsical elements. When the time came to address key surface elements, Hasenstab Architects had previously found materials they liked but had found them to be costly and missing the functionality they desired.

In search of more flexible solutions, and encouraged by a strong relationship with Wilsonart's local distributor representative, the firm turned to Wilsonart's Spectrum series, Solid Surface and High Pressure Laminate. "Even though we had to follow casework standards established by a prior project, we knew we wanted to use Wilsonart in feature areas," shares Carla Cremers, Interior Designer at Hasenstab Architects.

Each floor's arrival desk showcases Wilsonart's color-friendly design category, Spectrum. Utilizing Spectrum's custom design alteration capabilities, Hasenstab Architects was able to find the perfect color. Pleased with the results, Cremers elaborates, "It was the perfect fit for our arrival desks which needed to be color-coordinated to color themes used for wayfinding on each floor. We ordered strike-offs and appreciated that we were given four ranges of color matches to make our decision easier." The public café counters make use of Wilsonart's non-porous Solid Surface in Burnt Amber Mirage, while the staff cafés and Sports Rehab cabinetry displays Wilsonart® Laminate in Veranda Teak, Wild Cherry and Bronze Legacy.





### Healthcare Flooring Considerations

By Larry Bernstein / Special to Healthcare Facilities Today

o one chooses to go to the hospital. However, the time spent in the hospital —whether it be as a patient or visitor —can have be made more agreeable with the right flooring. For medical staff, the maintenance crew and every

other employee in the facility, the right flooring can make a big difference.

Flooring selection plays a key role in healthcare settings and is part of solving critical issues related to hygiene, infection control, durability, ease-of-cleaning and maintenance.

With growing expectations and shrinking budgets in healthcare facilities, the right flooring can help meet a range of challenges.

Sustainability

Trends are emerging in the flooring market as companies strive to meet the needs of healthcare facilities. One area of concern when it comes to flooring is sustainability. While this is not a new concern, "today, sustainability has grown-up and it's more than just adding recycled content

or rapidly renewable materials," said April Hoelscher, Senior Marketing Manager, Commercial for Armstrong Flooring.

These added considerations mean more complicated decisions when considering flooring. "Sacrificing long-term performance for what may be considered preferable green attributes does not account for life cycle," said Mark Huxta, Director of Sales – Healthcare for Ecore Commercial Flooring. "Maintenance plays into that holistic perspective as well as products that require less chemicals to preserve the sterile environment would contribute to sustainable initiatives."

Another sustainability flooring trend is the reduction in harsh chemicals for cleaning. Kieren Corcoran, Patcraft Director of Marketing for Institutional Markets said the company recently introduced EcoSystyem, a PVC-free resilient collection which is designed to perform in high-demand environments.

### Infection Control

While infection control has always been a concern at hospitals, floors are now also part of the battle. Because they are considered a low-touch area, the most important

One area of concern when it comes to flooring is sustainability.



### FLOORING TRENDS

aspect is the ability to sanitize.

"The EHS team is challenged to turn over patient rooms as quickly as possible, and therefore use the same chemicals to clean the furniture, equipment in the space, as well as the flooring," said Jeremy Salomon, National Director of Segment Strategy, Healthcare for Tarkett."Not properly maintaining the floor with the correct chemicals can damage the floor and impact the performance of the floor."

These days, there is a move away from the use of antimicrobials in flooring products. However, Natalie Jones Director of Healthcare Markets for Shaw Contract said, "There's a lack of evidence that additive antimicrobials effectively reduce HAIs (hospital-acquired infections). Additionally, they may result in resistance to antibiotics as well as migrate into our wastewater systems and negatively affect the environment."

### Ease of Maintenance

Healthcare facilities are looking for ways to restrain costs. Low-maintenance flooring products can help in that effort. Polish-optional products offer hassle-free maintenance and eliminate harsh cleaning chemicals in the breathing zone.











Solomon

ing more luxury vinyl tile (LVT) for its natural-looking appearance, design flexibility and residential feel. Yet it also brings noise. Therefore, it's important to include an acoustical underlayment for these products.

Rubber tile is an excellent choice to support sound absorption, according to Solomon. "More recent design innovations are making rubber flooring suitable in more high-profile spaces than just the gym and locker room, turning this once utilitarian product into a real design asset."

Since HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) includes sound and acoustic issues in its patient surveys, hospitals have become more concerned about noise levels.

### Style/Design

When considering facility style/design, flooring can be crucial. "Flooring is the largest horizontal surface in a facility and the design of the space plays off the flooring choice," Bistolas said. Current trends focus on creating a calming, peaceful environment for both patient and staff.

"Designers today are specifying non-institutional products that resemble the home experience," said Hoelscher. "They feature warm designs that do not feel institutional,







Reusch

Selecting flooring with maintenance in mind can be a challenging task. "There are good flooring products on the market in healthcare that seem like a good choice until it is realized that the maintenance process is so complicated a facility can't afford the labor to keep them clean," said Jim Bistolas Healthcare Sales Director for Gerflor USA. "This is why even in the "no wax" world we live in, you will see a facility fall back to some type of protective coating to enable their environmental services team to keep the floor clean."

Other factors should also be considered. "It's important in healthcare environments to have floors that will stand up to stains, harsh chemicals, and rigorous cleaning," said Kevin Reusch, Manager of Architectural/Engineering Program for Stonhard.

### Noise Control

Evidence has shown that a quiet place to heal will improve patient outcomes. Flooring can contribute to the reduction of noise Despite this, Corcoran said, "The market is trending with the use of more hard surface flooring and open spaces, which have increased complaints about noise."

Waiting areas and other common spaces are see-

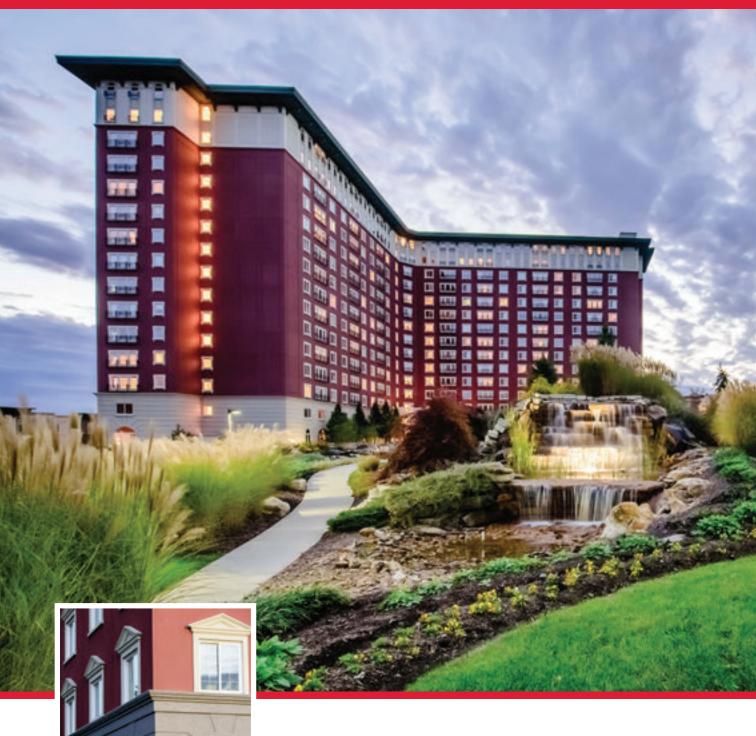
offer coordinating colors and patterns, and facilitate wayfinding – all while matching specific facility aesthetics." She added that flooring can contribute to biophilic design by replicating colors and textures found in nature."

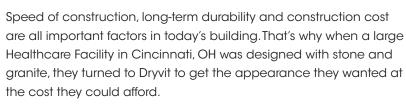
At Shaw, Jones sees the use of LVT growing. However, she added, "Wood looks are still an important visual because of the visual warmth and residential aesthetic; however, we are seeing more modern interpretations on this classic e.g. abstracted woods, modern palettes, etc."

Keeping up with the trends and considerations above can be quite a challenge particularly since some conflict with each other. Jones suggested involving your flooring manufacturer, "who can be an effective partner in alleviating key challenges unique to this sector.

Reusch agreed, "A conversation is required including texture review, typically through a mock-up process, to insure all parties are in agreement that the selected texture is appropriate for the environment in question."

When it comes time to select flooring for a healthcare facility, there are a number of attributes to consider which ultimately come down to budget considerations and performance expectations. However, Corcoran advised to "consider a holistic approach to product selection—one that takes into account all performance attributes."





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### Combined Heat and Power

CHP systems offer energy efficiency at the source

By John Campbell / Special to Healthcare Facilities Today

rom damage caused by extreme weather events to dangerous cyberattacks, utility service disruptions pose significant risks to facility managers in today's connected world. Power dependent systems control everything from a building's temperature to humidity levels, to communication and access.

A loss of power can have devastating effects, particularly in hospitals and healthcare facilities that need reliable power to keep their patients alive and healthy.

As organizations become more reliant on quality power, many are opting to take control of their own energy resiliency through on-site power generation. CHP — Combined Heat and

Power or cogeneration — is one method of onsite generation that has been steadily increasing in popularity.

### What is CHP?

Combined Heat and Power systems are a cost-effective method to simultaneously address energy efficiency and secure supply, while achieving overall emission reduction.

These systems can be identified as either electrical generation plants which utilize waste heat production for more useful purposes or, as heating generation plants which provide the benefit of generating electricity as a by-product.

Natural gas driven CHP systems use fuel more efficiently, economically and reliably — with less harm to the environment than producing heat and electricity through separate production means. It is recognized globally as one of the most reliable and efficient means to produce end-use energy from fossil fuels.

Nearly two-thirds of the energy used by conventional electricity generation is wasted in the form of heat that is discharged to the atmosphere.

In a nutshell, CHP is a solution to this problem that generates electricity and captures the heat that would otherwise be wasted to provide useful thermal energy — such as steam or hot water — that can be used for space heating, cooling, domestic hot water and/or industrial processes.

Natural gas prices are lower than ever, and many healthcare facilities are seeing CHP as a cost-effective approach to providing their own reliable heat and power.

CHP poses distinct advantages over other sources of on-site power generation—such as solar, wind, or fuel cell technology— in that it



Natural gas driven CHP systems use fuel more efficiently, economically and reliably.

provides two sources of end-use energy (heat and power) through familiar means (boilers and engines).

Many companies—hospitals in particular — have the perception that they want to be entirely off-grid. These companies often fantasize about the use of CHP to this end, but frequently overlook that these plants will be oversized, generating expensive electricity as they struggle to find places to use the heat.

Developing an energy resiliency plan that meets the unique goals of the facility is key to balancing these challenges and needs with an honest economic analysis. A realistic approach that has been gaining steam with healthcare facilities is reducing load via CHP while remaining connected to the power grid.

### CHP for hospitals

Hospitals in particular are unique in terms of their heat and electricity demands. Having a high heat profile due to necessary temperature regulation and similar operations makes them



Cambell

the perfect candidates for a combined CHP and power grid approach.

Utilizing CHP in hospitals is cost-effective because it performs the work of two systems simultaneously,

improving energy efficiency, reducing carbon emissions and lowering utility costs. CHP's main fuel source is natural gas and, as gas prices are lower than ever, this approach is not only energy efficient, but cost-effective as well.

As an example, Southland Industries provided design-build services at the Dallas VA to provide a natural gas turbine generator producing 4.5-MW of electricity.

To enhance energy security, solution incorporated the capability for the gas turbine to operate in an "island mode" configuration.

This included a black-start diesel engine generator to provide start-up power to the CHP in a case of a loss of utility power.

The steady, reliable gas source and a way for the facility to use heat provided an

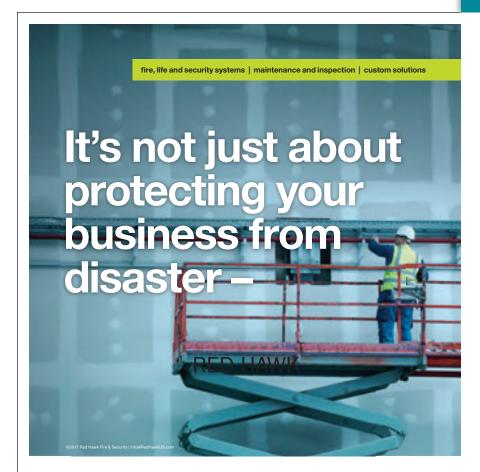
energy demand reduction of nearly 40%, saving \$5,000,000 in annual utility costs.

As more organizations become reliant on the powered systems, our power needs are evolving, and ensuring the availability of reliable, cost-effective power is critical.

The relationship organizations have with the utility grid is changing with more

end users opting to take partial control of their own power through on-site generation. CHP is one strategic, long-term approach that is not only energy efficient, but cost-effective as well.

John Campbell is a Contract Executive for Southland Industries.



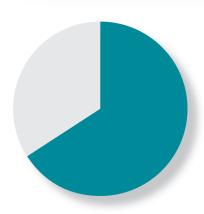
It's about monitoring those side entries, keeping up with regulations and replacing that worn wiring by the break room.

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## Two thirds of surveyed healthcare facilities planning renovations in the next three years



According to our December 2018 survey on healthcare facilities' renovation/construction plans **66**% of nearly 300 respondents are planning projects in the next three years.

There were almost as many reasons for the renovation projects as there were projects planned, but most are related to an addition or expansion of services or to meet growing community needs. But no matter what the reason, most plan to work energy efficiency into their plans. Attention is also being paid to the patient experience and infection control.

- In **72**% of the projects, the HVAC system will be upgraded.
- Seventy-eight percent of the projects will involve other energy efficiency upgrades.
- Almost half of the projects (43%) will be adding more patient rooms, more than a quarter (26%) will involve larger rooms. Thirtyone percent will involve both.
- Almost all the projects (90%) will include the replacement of furniture and flooring.
- Seventy percent will address noise control issues.
- Seventy-one percent will address infection control concerns.

43%

Almost half (43%) of those planning renovations say their projects will add square footage to the facility.

### No matter what the project entails, they come with issues for the facility staff during renovations. Respondents listed concerns including:

- A safe environment, And a smooth cut-over on the utilities
- Access to existing emergency room, which will be kept open during construction
- Coexistence of an operational facility and construction interruptions
- Creating a footprint for ease of patient access but also for efficiency of staff productivity
- Dust control
- · Impact to patient care
- Maintaining daily operations with minimal interruptions
- Maintaining isolation barriers, negative air balance, and maintaining life safety devices
- Maintaining patient and staff safety
- Noise
- Upcoming review by the joint commission.
- Patient satisfaction during construction
- Impact to operations