Memorial Health System knows excellent healthcare is not an achievement. It is an ongoing iteration of technology and training. So when the time came to renovate the flagship Memorial Medical Center hospital in Springfield, Ill., the project focused as much on continual education as facility improvements. Within the hospital, there are six new operating rooms with expanded surgical services and a three-floor patient care tower with 114 private rooms. The most profound investment is the four-story, 72,000-square-foot Memorial Center for Learning and Innovation (MCLI). “The health system has seven affiliates, which includes four hospitals, providing a continuum of care,” says Aimee Allbritton, Vice President of Organizational Development and Chief Learning Officer at Memorial Health System. “We created the Center for Learning and Innovation to support a culture of learning for our entire organization.”

BSA LifeStructures, headquartered in Indianapolis, was commissioned for the expansion and took special interest in the MCLI. “We focus on three market sectors: healing, learning and discovery,” says Tim Bosche, Project Architect. “This project is unique in that it brings all those components together.” The four areas of emphasis in the MCLI—educational initiatives, quality and patient safety, simulation, and surgical skills—are threaded together with state-of-the-art technology. “From an architectural standpoint, simulation in design is very similar to simulation for inpatient care. Both rely on the latest and greatest technology tools and software to produce better outcomes,” says Bosche. “We virtually built the building in 3-D before committing to construction.”

The same technological foresight and application of lessons learned drove the material specifications. Based in Bartonville, Ill., Redbud Ridge Custom Shop designed and fabricated all the custom Wilsonart® High Pressure Laminate (HPL) casework, Solid Surface countertops and sinks throughout both the MCLI and the Memorial Medical Center expansion. “We say we have 115 new patient rooms because there is an exact replica in the MCLI, down to the design features and Wilsonart finishes,” says Allbritton.
HEALING

“First and foremost the MCLI is about healthcare and the patient,” says Allbritton. “There is so much technology, and it has an academic feel. However, we never want to lose sight that this is an investment in our employees, so we can improve patient care.”

The third floor of the MCLI is a state-of-the-art Simulation Center, housing exact replicas of patient care settings ranging from nursing stations and patient care rooms, to emergency and intensive care environments. There is even a home setting and an outdoor ambulance on hydraulics, so staff can practice multiple skills like inserting IVs while a vehicle is in motion. This area provides ongoing training to the roughly 7,000 employees of Memorial Health System, both patient care providers and support staff. Practicing protocol, whether in medical procedure or cleaning and maintenance, results in better outcomes—particularly in stressful situations. “When talking evidence-based design, the benefit of a comfortable aesthetic is obvious,” says Allbritton. “But having consistency and predictability within your environment is also important.”

Patrick Ruder, President of Redbud Ridge Custom Shop, shares the same belief. Over 37 years of operation, Ruder has developed proprietary software that allows him to create multiple sets of mock-ups and fabricate predictably for precision installation. “We have a computerized measuring device that measures every room on a jobsite, accounting for any irregularities,” says Ruder. “We custom run the cabinets and countertops, then pre-assemble in the shop before installation to make certain every part fits perfectly.”

The key to providing consistency is controlling as many variables as possible. Compi Distributors of Springfield, Ill., worked closely with Redbud to ensure proper inventory levels met the demanding delivery schedule for the job. Ruder elaborates, “Our work interacts with other trades. Problems cost time and money. Whenever possible, we build with Wilsonart engineered surface materials because the service and quality is consistently excellent and they stand behind their products. On two occasions, we used a different brand based on the specification and had issues with the solid surface not matching throughout the run. That company did not stand behind their material. What a hassle! Now if an RFP includes that brand, there’s a disclaimer in the cover letter of our bid, and I do my best to change the spec to Wilsonart.”

“Our clients trust us to provide all the millwork. I trust Wilsonart to deliver the laminates, solid surface with integrated sinks and quartz. And if something comes up during production, Wilsonart’s service is excellent. Not everybody has the same integrity. That’s where the value comes in.”

LEARNING

The fourth floor of the MCLI is home to the Surgical Skills Laboratory, a partnership with the Southern Illinois University School of Medicine. Here, residents and physicians learn and practice cutting-edge techniques. “There is a degree of recruitment in healthcare. An organization is only as good as the providers. People carefully consider the facilities when choosing where they’re going to work and learn,” says Bosche. “Memorial Health System made a big investment in state-of-the-art audio/video and simulation technology, and it integrates the entire MCLI. So a team of doctors can be performing a surgical procedure on the fourth floor, while 300 people watch in high-definition in the first-floor conference room. After, they can break into discussion groups and review in the second-floor technology classrooms.”

According to Allbritton, about 20 percent of the education taking place daily at the MCLI is academic, 15 percent is community health initiatives and the balance is ongoing training for staff, creating a continuous cycle of learning.

DISCOVERY

The MCLI provides a safe environment for physicians to refine skills and develop new protocols. With hundreds of people using the MCLI on a daily basis, long-lasting durability is important. Within the casework, the design team used best practices to specify non-porous, durable and cleanable materials. Then Ruder applied his expertise to further refine. “We listen to what our client wants to accomplish, then add value so they get the best product,” says Ruder. “On this job, we built frameless boxes out of water-resistant exterior-grade particleboard and custom laid it up with Thermally-Fused Laminate (TFL). There are a lot of sinks in healthcare. This way a leak or spill won’t deteriorate the cabinet. We put HPL inside of the cabinet fronts; as well as on the outside to have balanced sheets that don’t warp. With Wilsonart’s Coordinated Surfaces, the TFL and HPL designs match exactly. We use 3-millimeter Edgebanding and screw everything together in addition to doweling, which mechanically reinforces the edges and joints.” These methods are so effective that Ruder, who has never had to advertise, has had clients call a decade after installation to update the look by switching out the countertops, while keeping the original casework.

“We invested heavily in this project in part to educate, attract top talent and foster the development of forefront medical protocol,” says Allbritton. “But more important, better trained professionals who are more sensitive, more skilled and less likely to make mistakes provide the best possible care to patients.”