



9th Dallas Hospital, Outpatient Facilities & Medical Office Buildings Summit
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Piloting Healthcare's Road to Recovery

Planning, Real Estate, Design, Construction, and Operation of
Hospitals | Clinics | ASCs | MOBs | Retail | Telehealth
Home Health | Non-Clinical | Research Facilities

This Education and Networking Event is Presented by
Corporate Realty, Design & Management Institute
Association of Medical Facility Professionals – North Texas Chapter
National, Regional & Local Sponsors

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Executive Summary:

- The Art of Big Projects: Managing Scope, Schedule, Cost, Execution, Expectations & Ghosts
- What's in the Cards for Healthcare Real Estate: 2024 and Beyond
- Flipping Aging Acute Care Facilities To Behavioral Health
- Money-Saving Solutions
- Solving the Parking Puzzle
- Using Cleanroom Technology to Improve Critical Environments in Healthcare
- How Facilities Sustain a Great Health System's Mission
- Energy: Straight Talk on How Healthcare Systems Can Control It
- Determining Value Proposition for Healthcare Renovation Projects

Corporate Realty, Design & Management Institute, AMFP, and AMFP North Texas want to thank these sponsors for making this educational and networking program possible



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ART OF BIG HEALTHCARE PROJECTS: Managing Scope, Schedule, Cost, Execution, Expectations and Ghosts

Moderator:

- Jennifer Lacy, Building Forward Lean Practice Leader, Robins & Morton

Panelists:

- Jeremy Bartz, president, E4H Architectue
- Andy Craigo, director of Design & Construction Project Management, Baylor Scott & White
- Robert Feldbauer, chief facilities and real estate development officer, Children's Health
- Evan McKee, vice president, Whiting Turner

MINDING THE BUSINESS OF THE MEGA-PROJECTS: Each big project is in essence its own mini-business. It needs leaders, workers, accountants, human relations to be successful – and especially organization and clear communication through the ranks.

SPEAKING OF COMMUNICATION: The project team must speak with one voice from the start to set and keep expectations aligned. Consistency is *key* for the organization, project donors and the project itself. Internal end users need to know what to expect, as does the surrounding community. But communicate without making promises. Make sure the end users are involved from the start.

THE SNARES: We perform better when we know what we are building and have the budget to fit that. But scope creep seems inevitable as health care end-users change and new players arrive with different ideas. The biggest scope changes arise when an insider in the project goes outside the lines of communication. Be prepared to defend the purpose and the budget of the project.

A SMOOTHER PROCESS: Get the whole team together during the planning process so that all voices are heard. Have the right technology implemented from the rollout. Target value delivery, which starts with the amount a project owner can spend and limits project overruns by putting the priority on cost. In other words, build to a budget by maximizing early engagement and alignment with the stakeholders. The costs of making decisions early is cheaper than making decisions after the project starts.

What's In the Cards for Healthcare Real Estate: 2024 & Beyond

Moderator:

- **Alan Whitson, founder and president, Corporate Realty, Design & Management Institute**

Panelists:

- **Nathan Golik, executive vice president of healthcare development, Nexcore**
- **Regina McClendon, real estate operations manager, Texas Health Resources**
- **Steve Wheeler, senior vice president, development and leasing, Cambridge Holdings**

MORE THAN 4 WALLS IN A BOX: Create a space where people want to come, that “makes a clinic feel less like a clinic, a hospital less like a hospital,” McClendon said. Texas Health Frisco “feels like a resort.” That approach not only attracts patients but also promotes employee retention.

USABLE SQUARE FEET: Consider the potential that a physician’s group will grow beyond the space that the decision-makers are considering. Find a creative solutions through a partnership: A hospital operator with a massive campus might team up with senior living company to put housing on the grounds. Academic medicine holds the potential for similar match-ups.

MEET PATIENTS WHERE THEY ARE: Especially for ambulatory systems, you want to be where the population is — or is trending. Look at where the competition is. In some cases, consolidating facilities might be the answer.

TRENDING:

- More developers aren’t long-term owners.
- Avoid the master lease. Better to pass up the space, Golik says.
- Joint ventures are rising among developers.
- Time shares at clinics.

Flipping Aging Acute Care Facilities To Behavioral Health

■ Nick Fears, health care market lead, Kelley Construction

Kelley Construction has completed six projects converting acute care facilities to behavioral health in Texas, including a 72-bed one in McKinney in spring.

BEHAVIORAL HEALTH NEED GROWS: Health and Human Services says 160 million people, almost half of the 330 million Americans, will experience a behavioral health condition in their lifetime. Medicare and Medicaid spend \$79 billion a year on behavioral health, but half the population in need doesn't get these services. And those who do often travel over an hour for the services.

To fill the need quicker, some companies consider converting a long-term care facility or a hospital to behavioral. But there are pitfalls that those considering an adaptive reuse should know before taking on a project.

WINDOWS: For behavioral care, windows have to meet window systems and anchorage systems requirements. In a conversion of a long-term care facility, the anchorage has to resist 2,000 foot-pounds of force from the inside. But in one case, the blocking in THE building didn't meet the requirements, and bringing 65 windows up to specs cost \$170,000.

PLUMBING STACKS: You typically can't have exposed flush valves because of ligature concerns. In this project, Kelley had to offset the stacks so the concealed flush valve was in the wall. This was a union project, so it cost \$350-\$400 per opening to modify the stacks in each room. The cost, at 36 rooms with two beds to a room, reached \$40,000.

DOORS: The doors must open into the corridor so patients can't barricade themselves inside the room. Doors in a med-surg or continuous care building must have the necessary recess – and doors that swing in and out to meet fire code. And being out of plumb just a little is not acceptable. When you do a casement jamb, you have to be exact. Even a little out of plumb can be a problem. You need a door installer and team on-site that can do a quality installation and verify that the door frames are square, plumb and level. After the drywall is hung around the door, have the installers check the doors and door frames again.

LEVEL FLOORS: In behavioral health, where platform beds meet the floor can create a space where contraband can be stashed. That's why the floor needs to be dead level. On one project, the cost, at \$2 to \$4 a square foot, came to \$160,000 of floor leveling. If you don't have a contractor who has doesn't have the expertise to foresee this problem for you, it can be a costly mistake.

Solving The Parking Puzzle

Moderator:

- **Alan Whitson, founder and president, Corporate Realty, Design & Management Institute**

Panelists:

- **Jaime Snyder, senior parking consultant, National Lead Parking Consulting Services for Walter P. Moore**
- **Stephanie Barnes, vice president, Healthcare Services, LAZ Parking**
- **Jeff Goodermote, national director of parking structures, Swinerton Construction**
- **Brandy Stanley, vice president, state and local market development, Flash Parking.**

Mention parking, and the groans begin. Despite the horror stories, our panel has thoughtful ways to make visitors to an unfamiliar medical facility have a better experience and to help workers start their shifts without the frustration.

WHERE DO YOU PUT THE PARKING? Plainly, you want it to be close to patient buildings, but easy access is the key. That might be via a tunnel, a skyway, or even remote parking. If parking is for a mixed-use facility rather than a dedicated medical building, consider how patients and doctors can get to your offices quickly without obstacles – especially in urgent situations.

BEFORE YOU START CONSTRUCTION: Get a parking consultant involved early to prevent missteps. Parking is geometry based. If you're looking to build something that is not a rectangle or square, that adds dollars and time, let alone affecting the installment, the functionality and experience of the lot. Assess how people will move through a lot to a building: Will they be tempted to cut across green-space islands and possibly break an ankle? Consider building in conduit for technology needs instead of making it an expensive afterthought.

OFF-SITE CAN BE BETTER: When on-site parking isn't workable, you can flip the script to make off-site parking an attractive option. The University of Alabama at Birmingham changed the perception by rebranding its remote lots as "express parking." By providing reliable service with buses equipped with Wi-Fi, you may win over staffers, who make up 60% to 70% of parking demand. And other users will appreciate saving time by not circling parking lots.

MAKE IT INTUITIVE: GPS takes people to the front door of hospitals. That's where you want your patient parking. Doctors are also a priority – think of the surgeon rushing to an operating room. For them, placing their parking behind the hospital may be a good option. Give clear directions on how to get to the spaces. Make it intuitive so you don't have issues and conflicts right at the start.

EMBRACE TECHNOLOGY: Build technology into a parking structure from the start, and you can maximize the usage of spaces, get people to park where you want and lessen conflicts. Use gates, access cards and validations to restrict parking to the intended users.

MANAGE YOUR PARKING: If you don't manage your parking, it's going to be a headache. If employees park in patient spaces, stop it through enforcement and consequences. Where possible, put employee and patient parking in separate facilities. You don't want an employee laying on the horn behind a cancer patient fumbling to pay at an exit.

PARKING IS A TOUCH POINT: First, provide multiple ways to pay — what is easy technology for a young visitor may stump someone older. If you have intercoms, make sure there is someone to answer them promptly. Are the turns too tight in your lot because you squeezed in an extra space on each aisle? Do drivers bump their doors into columns or walls? Be mindful that the lot will serve a wide range of drivers with a wide range of driving styles.

MONEY-SAVING SOLUTIONS

Mark Facca of Allegion

Today's sliding doors have advanced greatly for use in health care and offer space-saving advantages over swing doors. They're also code-compliant for a wider range of needs in health care. They meet smoke regulations and have a 45-minute fire burn rate, as well as complying with HIPAA sound ratings for privacy. Allegiant even has lead-lined doors weighing up to 500 pounds for radiology units.

As for access control, Allegiant offers a choice for maintaining security. Among them are fully automatic operating doors with locking systems such as mag locks or strike locks.

The doors also save space compared to swing doors. In a study, Providence Healthcare found that the doors provided 10% more space for exam rooms, which can be significant in large buildings.

Craig Fairbetter of STARC Systems containment

When undergoing remodeling or other construction in a health facility, dust containment and steering people away from hazards are a must. Speed is also a factor, especially with tight demand for labor.

STARC, which stands for simple, telescopic, airtight, reasonable containment, can install 100 feet of hard containment in an hour. It also keeps your facility from having to put up containment while installing containment. It meets ASHRAE 2.0 standards and is reusable. And it's an improvement over drywall, metal stud framing, plastic and tape – “none of that has a place in today's standard of care,” Fairbetter says.

Lindsey Lawrence of Assa Abloy

Assa Abloy specializes in doors for entering hospitals, clinics, patient rooms; emergency exits; pharmacy rooms; imaging rooms and surgical units. Door features include antibacterial surfaces and touchless access.

Surgeons and other medical personnel can enter operating theaters through contactless automatic doors. Other solutions for medical facilities include elbow and knuckle switches as well as handles with antibacterial coatings.

For high security, the company's key cards identify who is entering pharmaceutical facilities and entering or leaving psychiatric wards.

Additionally, Assa Abloy sells partition systems for patient privacy and lead lining for radiology rooms.

David Harris of Camfil

Camfil sells high-performance air filters designed for hospitals and medical facilities. What separates Camfil from others is the fine fiber that it uses in its filters, which lengthens their life.

Competitors with filters made with course fibers use an electric charge to catch air particles. But the electric charge dissipates over time, meaning that the filter, even if it has the same MERV rating as the Camfil product, won't be as effective.

"You don't want the MERV to degrade," Harris said. If it's a 14 MERV when installed, it should still be a 14 when removed, he said. In the long run, a fine fiber filter like Camfil's will save hospitals and other medical facilities money by keeping HVAC systems running efficiently as well as safeguarding patients' health and keeping facilities in compliance with ASHRAE standards.

Clean Room Technology Enters the Operating Room

■ Andrew Hall, vice president, SLD Technology

Clean room technology arose with the semiconductor and big pharma industries nearly two decades ago. It's now being adapted for modular ceilings in operating rooms, cath labs and other critical care environments.

CMS kicked off the move when it quit reimbursing hospitals for infections they caused, most often surgical site infections, Hall said. He cited an *American Journal of Infection Control* article on a third-party, peer-reviewed comparison of clean room technology versus the traditional multiple diffuser array systems. In an aerobiological study, it found that the fully integrated modular ceiling system, with its continuous diffuser plenum, reduced particle counts over a traditional system with a multiple diffuser array. In measuring the number of colonies causing SSIs, the single diffuser had three, whereas the multiple array had 13.

Another key difference between continuous diffuser plenum and the multiple diffuser array is turbulent air, which raises infection risk. The continuous diffuser system performed better than the multiple array, Hall said.

The cost of modular, once considered a luxury, has fallen as it has entered the mainstream, Hall said. Construction costs are now lower than for stick-built, he said, and construction schedules more certain.

How Facilities Sustain A Great Health System's Mission

Moderator:

- **Michael Grabowski, project executive, McCarthy Construction**

Panelists:

- **Brent Rutherford, facilities director, Texas Health Flower Mound**
- **Mark Stewart, senior program manager, Parkland Health & Hospital System**
- **Sam Werschky, assistant vice president of planning, design and construction at Cook Children's Health Care System**

With Dallas-Fort Worth adding population so fast that outlying burbs have become the latest suburban hot spots, hospital systems are racing to keep up. Here are how three leaders are meeting the challenge of expansion.

FOLLOW THE POPULATION: Put your footprint in areas where growth is heading. "We're now focusing on making sure our care is convenient where the demographic is, where the population growth is," said Werschky of Cook Children's. "It's not easy because it's all over." Texas Health's strategy is to use clinics and smaller hospitals to funnel patients to its major hospitals.

CHALLENGES OF GROWTH: Parkland Hospital, expecting about 100,000 visits a year after already had. Also unexpected: "The psych patients we have are off the chart," Stewart said. At Texas Health, the issue is patients using emergency rooms for their primary care. The hospital system is trying to steer those patients to its urgent care clinics, diagnostic offices, its completion in 2015, hit about 240,000 last year, forcing it to add beds to the 882 it rehabilitation, even physical therapy gyms. "We're trying to go beyond the four walls of a hospital," Rutherford said.

FALLOUT ON PLANNING AND DESIGN: Anticipate changes to avoid costly additions. Opening as an ambulatory surgery center, Texas Health Frisco was told by its parent four months later to add orthopedics. But orthopedics requires lower operating room temperatures and different controls. Adding the right air handler would be pennies upfront, but after the facility is built, it can run millions, Rutherford said. The lesson: "When we build a hospital, a medical space, we put in the design side the ability to be flexible from one kind of surgery procedure to another."

BRING IN KEY EXPERTISE AT THE START: Have the architects, consultants, engineers and other experts take part in the design at the beginning. Each one has knowledge the others don't, which matters as their work overlaps and as value engineering has not proved fully reliable. "Having all those folks at the table has been very valuable to us. We start making hedges on purchases or whatever we need to do to," Werschky said. "From an execution piece, schedules are one of the first things we look at, all the factors that's

going to hit us. Having all those people at the table has saved us a lot of time, money and effort.”

UPDATING THE MASTER PLAN: With continuing high growth in Dallas-Fort Worth, the 20-year and 10-year master plans are likely to need adjusting. Wary of being locked into a corner, Cook Children’s does “what-if drills” in its planning. In the current environment, a hospital system may find a facility quickly outgrown. Also involve your experts on how long materials and equipment will last or degrade over time.

Energy: Straight Talk on How Healthcare Systems Can Control It

Roundtable:

- **Alexei Holstein, national key account manager, Digital Energy Division, Schneider Electric**
- **Jeff Black, senior vice president, WSP**
- **Brent Rutherford, facilities director, Texas Health Flower Mound**
- **Andre Lehr, principal, client relationship manager, Smith Seckman Reid**

DESIGN FLEXIBILITY: Every expertise tied to the project should be represented at the table from early in the project through the back end of design. This include the nuts and bolts people who know generators, chillers, boilers, roofs to the hospital directors. If a NICU is being renovated, a NICU nurse needs to have input.

KEEP THE COMMUNICATION FLOWING: From predesign to post-occupancy, if you have questions about how things are designed, bring those up to the design team. The middle man in the process should ask the designers: Is this what you planned? And ask the ownership: Is this what you'd intended? Does it produce the value you want?

WHEN THE STAKEHOLDERS MEET: Discuss energy conservation, cost of energy, the sources and reliability. On renewable sources, explore cost, convenience and how realistic an option might be, such as where would solar panels go? Back up the conversation with data. And while the resulting system may save energy and money, you don't want a big learning curve for employees because operating it isn't intuitive.

REPLACEMENT DECISIONS: When equipment reaches the end of life, do you do a straight replacement or install the latest thing? Say you're looking at steam boilers: Do you want another 800-horsepower boiler if you're only using it for sterilization? Can you put in a point-of-use steam generator instead? Adiabatic humidification is gaining attention for humidifying the environment at the right levels. The tradeoff: Air handlers have to be bigger to handle that vapor so it is absorbed into the airstream and doesn't create droplets or health risks from bacteria.

Determining Value Proposition for Healthcare Renovation Projects

Moderator:

- **Andrea Wooden, managing director, Project & Development Services, Cushman & Wakefield**

Panelists:

- **Gena English, director of Planning, Design and Construction, UT Southwestern**
- **Greg Francis, vice president of Layton Construction**
- **Christian Schulke, administrative director of facilities for Scottish Rite Hospital**
- **Dean Woodley, vice president of project management, SPMT Group.**

BUILD FROM GROUND UP OR ADAPTIVE REUSE? Speed to market is an important measure to go by, and often the situation comes down to a use looking for the right location or an existing building looking for a new use. But other factors, especially unexpected ones, can be pivotal in the decisions.

DISRUPTIVE FORCES: Ozempic, Wegovy and Mounjaro are current examples of upending markets. With 25,000 people a week going on Wegovy in the first quarter of 2024 alone, how does that affect a metabolic clinic in, say, two years or five years? Another example: The emergence of allergy medicines has led to far fewer allergy clinics. Such forces of change may favor a renovation and the chance to turn a project over quicker.

LANGUAGE OF ANALYTICS: Doctors talk medicine, but hospital administrators talk data. A surgeon may be confident that a procedure could keep four operating room busy, but the administrator finds the metrics don't bear that out. Collecting the real estate analytics often starts years before a renovation gets underway. It's crucial that the perceptions for costs of design, construction and time to market are realistic and based on current figures.

LOOK – AND RESEARCH – BEFORE YOU LEAP: If the structure is bad, visitors and patients can't get in or out easily, and there isn't the room you need for parking, the building may be more a money pit than an unpolished gem. Doctors may not understand there is more to supporting equipment like an MRI machine than simply plugging in. Beware of permits: Will remodeling the structure void any grandfathered permits. peop in and out of this, don't have the parking to support it on this one acre of land. Bring people back to .

DOING RENOVATION RIGHT: Get the right people at the table from the start and talk feasibility. Bring in your mechanical engineering firm and other tradespeople to assess the

site and address problems out of the gate. Know what you have so you can adjust the costs. With the trend toward outpatient procedures, the outlook for occupancy of medical office buildings is promising.