



9th Greater New York  
Hospital, Outpatient Facilities & Medical Office Buildings Summit  
April 25, 2024

Executive Summary

# 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 – Greater New York Chapter  
National, Regional & Local Sponsors

# 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 was Presented by  
Corporate Realty, Design & Management Institute  
Association of Medical Facility Professionals (AMFP) Greater New York Chapter  
National, Regional & Local Sponsors

## Executive Summary:

- Hospitals Role in the Evolving Healthcare Ecosystem
- Integrating Behavioral Health & Medical Facilities
- Money-Saving Solutions
- The Building as a Catalyst: A Phased Approach to Decarbonizing Research Buildings Through Electrification
- Using Cleanroom Technology to Improve Critical Environments in Healthcare
- Determining the Value Proposition for Renovations & Adaptive Reuse Projects
- Mobile Health Clinics: Providing Care to Underserved Communities
- The Art of Big Projects: Managing Scope, Schedule, Cost, Execution, Expectations & Ghosts
- Effective Digital Transformation in Healthcare Facilities: How to Do It Right
- Target Value Design & Delivery

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



The executive summary was prepared by Guelda Voien, a freelance writer and editor, based in Brooklyn, NY. She can be reached at [gvoien@gmail.com](mailto:gvoien@gmail.com)

## Hospitals Role in the Evolving Healthcare Ecosystem

Darren Deoraj      President-Elect, Healthcare Leaders of New York  
System Director, Department of Urology,  
Icahn School of Medicine, Mount Sinai Health System

The biggest changes on the horizon for the healthcare sector -- and their attendant challenges are:

- The move away from brick and mortar-based services to new delivery spaces, which include:
  - Mobile units
  - Virtual visits
  - School partnerships
  - Patient homes (concierge model)
- Regulatory changes. The major hurdles to keep an eye on include:
  - Ambulatory surgical centers' utility compared with that of hospital operating rooms -- while the former are heavily regulated, they are also more cost-effective for the patient. The latter, meanwhile, present better emergency response resources.
  - Waiver 1115 would allow health programs to use a mobile unit as a demonstration project to gain clearance to provide services outside traditional settings.
  - Telehealth payment parity laws would require Medicaid to reimburse service providers at the same rate as in-person charges.
- Technological advancements are helping drive the evolution away from traditional brick and mortar places of service. These include:
  - Portable diagnostic devices
  - Robotic assistive surgical tools
  - Remote monitoring
  - Smart building technologies
- Conclusion: amid rising costs and with many service providers unable to raise prices, lobbying is more important than ever.
- "Pulling together a coalition of voices" is the thrust of HLNy's approach. -- Darren Deoraj



## Integrating Behavioral Health & Medical Facilities

Tina Macica	Associate Vice President Design & Construction, Montefiore
Grant Mitchell, M.D.	Site Chair, Department of Psychiatry Mount Sinai Beth Israel
Bryan Pennington	Associate Principal NK Architects
Rahul Tikekar	Principal/Healthcare Group Leader, Loring Consulting Engineers   Moderator

Panelists discussed the design, planning and construction process for the Mount Sinai Behavioral Health Center, a repurposed school dating to 1898.

- The difficulty integrating behavioral health facilities with medical facilities is part and parcel to eliminating barriers to care for behavioral health. With different services in different locations, "behavioral health is the first thing to go," when accessibility is difficult.
- Ideally services for mental health, substance use disorders, physical health and social services are co-located, as they are in this facility.
- Design:
  - A means of addressing stigma
  - Created with feedback from the staff, community, patients and their families
  - Utilized natural light, high ceilings, wide hallways, green spaces and non-institutional furniture
  - Challenges included
    - Getting light into the middle of floorplans
    - Creating large open meeting spaces without making resident spaces too confined
- Safety Technology:
  - Nursing stations with views of vital areas, video monitoring
  - Panic buttons with GPS
  - Facial recognition
- "We want to be good neighbors." --Gary Mitchell

## Money Saving Solutions

Tom Morgan                      Assa Abloy  
Chris MacPhee                 STARC Systems  
David Harris                    Camfil

### Doors, Frames, Hardware and the Healing Environment (Assa Abloy)

- Doors can contribute to the healing environment.
- Simple hardware solutions offer sustainability features.
- Decorative doors, frames and hardware aid in creating positive outcomes.

### Containment Beyond Comparison (STARC)

- Benefits of hard barriers
  1. A two-man crew can assemble pre-fabricated space in as little as one hour
  2. Modular units are interchangeable and therefore customizable without actual custom design
  3. Savings--both financial and environmental (patients are protected from dust and noise during construction)

### Clean Air Solutions (Camfil)

- ASHRAE Epidemic Task Force has settled on MERV 13, stipulating that a combination of filters be can be used to achieve Merv 13 or better performance for air recirculated through HVAC systems.
- MERV rating is important. *According to ASHRAE 170-2022...* "Where listed, MERV rating is assumed to be non-degrading." Meaning the filter has a *MERV-A rating*.
- Fine fiber vs. electrostatically charged coarse fiber: Electrocharged fiber draws particles in, but the charge can degrade over time, and it's performance declines (MERV rating), whereas a fine fiber filter with MERV-A rating does not.
- In practical terms, the MERV-A rating remains the same over the filter's useful life. Think of it as "A" stands for "actual" or "always."
- We build products not for price points but for solutions.
- The total cost of ownership is 2% disposal, 8% labor, 20% filter cost, and 70% energy cost.

## The Building as a Catalyst: A Phased Approach to Decarbonizing Research Buildings Through Electrification

Patrick Burke	Vice President of Facilities Management, Operations and Planning, Columbia University
Michael Delaney	Executive Vice President LF Driscoll Healthcare
Nikita Jathan	Senior Environmental Designer Atelier Ten
Jorge Mendoza	Principal KPF
Georgina Lalli	Senior Associate Principal KPF   Moderator

Panelists discussed Columbia's Vagelos College of Surgeons and Physicians project, which via redevelopment connected two existing buildings with new construction and embarked on a multi-phase project to eventually decarbonize the entire relevant block.

- In light of Local Law 97, passed in New York City in 2019 and setting the goal of making the city of New York carbon neutral by 2050, the project bore significant liability in terms of electrification.
- The resulting Vagelos College of Surgeons and Physicians was designed to serve as a model for other, similar projects in the city and the state of New York.
- The building is now the first purpose-built all electric academic laboratory space in New York City.
- Design innovations included a focus on limiting the renovations to reduce carbon footprint; the resulting design kept the original ductwork and toilets, even, and created as much flexible space as possible within the lab.
- The project will likely serve as a model for anticipated future Columbia initiatives to mitigate the environmental impact of spaces with computational science uses.



## Determining the Value Proposition for Renovations & Adaptive Reuse Projects

Darren Conlen	Principal, Array Architects
David Geller	Vice President, Planning, Design and Construction; Mount Sinai Health Systems
John Koch	Partner Jaros, Blum & Bolles
Elizabeth Sullivan	Assistant Vice President, Architecture, Facilities Services; Northwell Health
Bradley Taylor	Assistant Vice President White Plains Hospital
Robert Franco	Regional Director O'Donnell & Naccarato Structural Engineers   Moderator:

- The most significant real estate challenge for healthcare at the moment is finding the right space that can be converted for healthcare. Older facilities are hard to bring up to code.
- Understanding the true costs of renovation and adaptive reuse before undertaking a project can be challenging--or even impossible.
- Owners need to think like developers: engage a land-use attorney before you engage an architect, for instance.
- Constraints vary between owned vs. leased spaces. With leased spaces changes are more difficult so strategic planning upfront is key. Often owners want to add equipment--more MRI machines, for instance--and encounter barriers in leased spaces.
- The biggest drivers of renovation and adaptive reuse are the need for more and larger operating rooms. Outpatient spaces become dated after approximately ten years. But new technology means ORs can be erected in as few as three days.
- Reducing the frequency of need for renovations is also key to meeting sustainability goals, but renovations are also inevitable as the healthcare industry evolves so quickly.
- Among the major risks inherent in renovation and redevelopment is the possibility of accessibility liability under the Americans with Disabilities Act. The best way to mitigate these risks is by doing an accessibility study early in the planning process (i.e. before committing to a site).
- In order to minimize facilities' overall downtime due to construction, there's a need to look at future proofing spaces currently under renovation and obviate future projects. Sometimes that means overbuilding in anticipation of future needs.
- The key to making redevelopment pay dividends is the right design. Too often projects are undertaken without knowledge of how the spaces are used. Getting all the stakeholders together to discuss design early in the process is the best way to avoid design delays.



## Mobile Health Clinics: Providing Care to Underserved Communities

Safia Khan                      Administrative Director, Robert F. Smith Mount Sinai Prostate Cancer  
Mobile Screening Unit

Errol Webster                     Manager, Robert F. Smith Mount Sinai Prostate Cancer Mobile Screening  
Unit

- One in 40 American men will die of prostate cancer according to current metrics. The impact on the Black community is significantly higher.
- Underserved communities can gain better access to screening with innovative delivery methods such as mobile screening units.
- Mobile healthcare units have proliferated domestically and internationally since the advent of Covid-19.
- Mobile clinics address
  - lack of transit/cost of transit
  - financial constraints
  - distrust of the healthcare system
- Billionaire Robert F. Smith endowed a mobile prostate cancer screening initiative in New York City that is free to users with \$3.8 million in funding.
- Point of care testing does present obstacles, most notably the need to follow up with patients who receive mixed or poor results.
- "Men take better care of their cars than they do of their own bodies." -- Errol Webster

## The Art of Big Projects: Managing Scope, Schedule, Cost, Expectations & Ghosts

Richard Alvarez	Vice President & Director of Healthcare Turner Construction
Pam Basch	Senior Project Manager and Principal HKS
Jonathan Cogswell	Vice President, Manhattan Development Design & Construction Northwell Health Facilities Services
Jacobie Richard	Assistant Vice President RWJBarnabas Health, Robert Wood Johnson University Hospital
Heather Fuhrman	Project Director Cumming Director   Moderator:

- Mega-projects are daunting and costly and take years -- sometimes a decade or more -- to complete, but they have massive rewards as well. One of those is that a large-scale project lets clinicians create their vision. The results are bigger than any one person or department.
- Since big projects will always run into problems, the key to their success is navigating them. Stakeholders and leadership need to avoid an "us vs. them" approach in resolving conflicts.
- Design changes along the way are inevitable, but creating a window for change that allows flexibility but prevents a complete re-thinking mid-stream is important.
- "Let's be honest--this is healthcare; we're never not going to change our minds." -- Jonathan Cogswell
- When leadership changes, all parties need to bring the new cohort all the way up to speed on the history of the project, including what decisions were made and why.
- From the construction side, when changes do occur it is key to explain them thoroughly and prevent further delays due to a lack of clarity.
- "What we're really hearing is: communication, communication, communication." -- Heather Fuhrman, Moderator
- When problems do occur, instead of blame, a better approach is to first look at whether deficiencies could be due to a lack of resources, staffing or budget.
- "Try your tech in an existing clinic before you integrate it into your multi-billion dollar project." -- Pam Basch

## Effective Digital Transformation in Healthcare Facilities: How to Do It Right

Steve Greulich	Assoc. Vice President, Real Estate Design & Construction University of Pennsylvania Health System [Penn Medicine]
Jason Lukes	Associate Principal BR+A Consulting Engineers
Braheem Santos	Healthcare Strategic Account Executive Schneider Electric Former Major Projects Engineering Manager Penn Medicine Pavilion Project and Associate Director Physical Plant
Bryleigh Shaw	Global Healthcare Marketing Strategy Director Schneider Electric   Moderato:

A look back at the \$1.6 billion Penn Medical Pavilion project:

- Restraint in terms of technology helped in the planning process. While it was difficult to plan a project that would ultimately debut in 2021 in 2015 in terms of technology, which is always changing, Penn had a clear-headed approach to how much new technology the building should utilize. Too many new tools in an entirely new space can be overwhelming and take a lot of learning and adjustment to implement.
- Planning was also successful because there were pre-emptive internal discussions about how the space would be used, instead of reactive actions mid-way through the design process. Asking how and why a preference or choice was given instead of accepting it at face value was also useful.
- Historical documentation of decision making was important. Leadership will inevitably change during the duration of a large-scale project and documentation can eliminate confusion about what was greenlit and by whom.
- "There are some advantages to big projects because you have the ability to make wholesale changes that can be bled into the existing [infrastructure]." -- Steve Greulich
- Problems with the ultra-sonic technology the building features were resolved by vendors before it opened, but discussion about why which technologies were needed and clarity about their utility was key. The cost of union labor in Philadelphia meant time spent resolving technological problems could have been quite costly.
- "My parting advice is...just 'test.' We saved millions because we tested early and often." – Steve Greulich
- Prioritization is essential. No project will be able to do everything and all will involve looking at new and different technologies and approaches. In order to decide which to implement a team has to be clear on what its priorities are.

## Target Value Design & Delivery

Thomas Drumm	Project Executive Lendlease
Michelle Grossman	Senior Project Manager SBI Consultants
Jovana Kandic-Carlot	Senior Vice President Cannon Design
Ryan LaBarbera	Director, Healthcare Project Management Turner & Townsend Healthcare
Roger McClean	Director, Design and Construction Memorial Sloan Kettering Cancer Center
Patrick Duke	Senior Vice President Turner & Townsend Healthcare   Moderator

Target Value Delivery is a novel approach to capital projects wherein design and construction aim for a target cost, as opposed to re-calculating costs (which are inevitably higher by the end of construction) as a project moves forward.

- TVD generally utilizes:
  1. Incentive structures
  2. Colocation
  3. Early engagement with trade partners
- However, the process is not plug and play.
  - Co-location involves creating a culture, which is not something you can do overnight.
- The lean Integrated Project Delivery (IPD) process can help structure teams employing TVD.
- The availability of client feedback in real time — not typically provided during the planning and development process for major capital projects — allows a team to leverage co-location in the TVD approach.