

Q2-3 | 2013



STRUCTURETONE

Organization *Journal*

FLAWLESS

Flawless Construction

**“LIKE NOTHING I HAVE
EVER BUILT”**

WHAT'S INSIDE:

INTERIOR BUILD-OUT
+

NEW CONSTRUCTION
+

REPURPOSING & RENOVATION

FOR:

COMMERCIAL OFFICES

HOSPITALS

HOTELS

UNIVERSITIES

LAW FIRMS

DATA CENTERS

**MANUFACTURING &
DISTRIBUTION FACILITIES**

AND MUCH MORE...

On a Mission

The cornerstone of our organization's success has always been valued, long-term relationships with both clients and industry partners. As we look at where we've been, and anticipate challenges ahead, we are steadfast in our belief that relationships will continue to be the fulcrum of our success.

Regardless of technological developments or changes in our industry, one thing remains constant...people. People devise innovations, they resolve issues and they inspire each other to meet challenges, among many other important things.

Led by our staff and guided by our mission and values, our goal is to be the best value total project delivery service provider while facilitating the achievement of our clients' strategic business goals. As the following stories show, we exemplify this through work that we perform every day—sometimes routine, sometimes almost miraculous. And, at the heart at each and every one is people—ours, yours—working together to find success. ◀

Mission Statement

Partnering to Imagine, Execute and Realize Our Clients' Visions

Guided by the proven STO Way, we will solve our clients' challenges and service our chosen markets by:

- ▶ Executing a sustainable growth strategy centered on market sectors and geographic expansion in tandem with our client's strategic needs
- ▶ Servicing our clients with innovative construction solutions and best construction management practices in our chosen market segments
- ▶ Continuously fostering the highest level client relationships, which create long-term value for both our customers and our organization
- ▶ Developing and fully engaging the highest quality professionals who approach every assignment with a creative and enthusiastic attitude toward performance excellence and workplace safety



John Baer — *James K. Danahy*

VALUES
**Integrity, Client Devotion, Excellence,
 Passion, Ingenuity, Collaboration**

Focus on Safety

The Royal Society for the Prevention of Accidents (RoSPA) honored our **London** and **Dublin** offices with **Gold Safety Awards** for achieving high levels of performance; demonstrating well developed occupational health and safety management systems and culture; and ensuring outstanding control of risk and very low levels of error, harm and loss. Structure Tone London has won four Gold Safety Awards in total. The most recent Gold Safety Awards are for both our London and Dublin operations for their high safety standards.

Structure Tone NJ's achievements in safety were also recognized with three **Citation of Merit Awards** at the 85th Annual Governor's Occupational Safety and Health Administration awards program. ◀



- Marriott Courtyard Newark Downtown, Newark, NJ**
150,000 man-hours with no lost-time incidents
- Hess Corporation, Woodbridge, NJ**
140,000 man-hours with no lost-time incidents
- Novartis Pharmaceuticals, East Hanover, NJ**
130,000 man-hours with no lost-time incidents

Congratulations On Your Promotion



JOSEPH CRIBBIN
Executive Vice President
 Structure Tone Southwest



DAVID KEMPTON
Regional Vice President
 Structure Tone Boston

MVP

At this year's United Way of NYC Gridiron Gala, Tony Carvette was honored as MVP for his 18 years of exemplary service on the Board and as co-chair of the annual gala. Over his tenure, United Way raised close to \$25 million to support its initiatives to help the city's youth in low income communities.



"Working with United Way on the gala has been a life-changing experience in so many ways," observed Tony. "First and foremost, through the gala so many of us who have achieved, or are in the process of achieving, some of our life's goals have had the chance to open doors of opportunity for others who are less fortunate. The icing on the cake is the friendships that have grown from my work on the galas both with the wonderful, talented staff at United Way and many industry colleagues."

One of those colleagues is Jonathan (Jody) Durst, president of The Durst Organization. Speaking the night of the gala, Mr. Durst said,

“There is no one in our industry who brings people together better than Tony Carvette. Tony's deft touch is legendary...That's what Tony does. He gets everyone together, figures out what the problems are and solves them with quiet competence. Tony has brought his formidable skills to this event for nearly two decades and we as an industry and a city are truly thankful for his commitment and talent.”

This year was the 20th anniversary of the Gridiron Gala. Over 1,000 industry and community leaders attended the celebratory event, including Joe Namath who presented Tony with his MVP award. Other honorees included Community Quarterbacks Jody Durst and Ted Moudis and Hometown Heroes Hakeem Nicks (NY Giants) and Kyle Wilson (NJ Jets).

We tip our hat to you Tony. Like a tight spiral thrown to the corner of the end zone, your work has been both art and skill and always a winner. <



(L to R) Joe Namath, Tony Carvette and Joseph Cabrera (executive director, Cushman & Wakefield)



Grand Openings



photo by Mike Verzella

EDWARD KANE PARK

L.F. Driscoll managed construction of the new **Edward Kane Park**, located in front of the Hospital of the University of Pennsylvania (HUP) and bounded by 33rd, 34th and Spruce Streets in **Philadelphia, PA**.



ATMOS ENERGY

Structure Tone Southwest managed construction of **Atmos Energy's** new **Arlington, TX** service center. The center is two single-story buildings—an 11,402sf office and a 10,000sf warehouse.



photo by Mike Verzella

INSPIRA ADULT BEHAVIORAL

Inspira Health revealed their new 17,000sf behavioral health inpatient unit in **Bridgeton, PA**. L.F. Driscoll served as construction manager.



On the Money

PayPal revolutionised e-commerce when it created its electronic alternative to traditional payments and made it accessible to any individual or small enterprise via the internet. To its users, the process is simple and seamless—the result of a sophisticated, expert behind-the-scenes operation.

In **Dublin**, our work to build-out PayPal's 100,000sf new complex at the Xerox Technology Park, Dundalk, County Louth was similar. For PayPal the multi-phase project was a smooth, uncomplicated delivery of a state-of-the-art new space—all the result of our Dublin team's highly skilled, professional construction management and execution.

“Thank you all for your efforts, the space is fantastic and feedback from teammates has been one of amazement.”—*Paul Smith, site stand-up manager, ebay/PayPal*

Phase I of the project was critical. The schedule was accelerated (12 weeks for 35,000sf) and the handover date was inflexible. PayPal staff had been hired for the Dublin operation and were committed to start-up of the Dundalk facility.

“In Phase I we completed a full retrofit of the existing ground and first floor office,” noted Brendan Dunne, project manager. “This Phase also included works for a clean room, ancillary areas and a 100-seat restaurant and canteen/catering facility.”

What You Don't See

- ▶ 6,000sf Data Centre
- ▶ IDF (Comms) Rooms
- ▶ Extensive A/V
- ▶ Main Point of Entry, Main Disaster Recovery and Surveillance and Security Rooms
- ▶ CAT6f to Workstations and Meeting Rooms
- ▶ Very Early Smoke Detection and Fire Suppression and Voice Evac System
- ▶ Intelligent Lighting System
- ▶ Wi-Fi Throughout Building
- ▶ Four Standby Generators and Four Roof-Mounted Chillers
- ▶ APC In-Row Cooling with Hot/Cold-Oil Configuration



Donal Murphy photography

An on-site gym focuses on fitness and well-being for PayPal staff.

Phase I was quite successful and the full team carried on with subsequent phases to streamline efforts and save overall budget and schedule. Brendan commented, “It was a very cooperative atmosphere with KMCS (project manager), Henry J. Lyons (architect) and Ethos Engineering (mechanical and electrical). Together, we achieved success for PayPal.” Phase II works consisted of the roll-out of the office accommodation throughout the entire area and also involved works to the exterior of the building, including installation of new roof lights, glazing, insulation and cladding.



Donal Murphy Photography

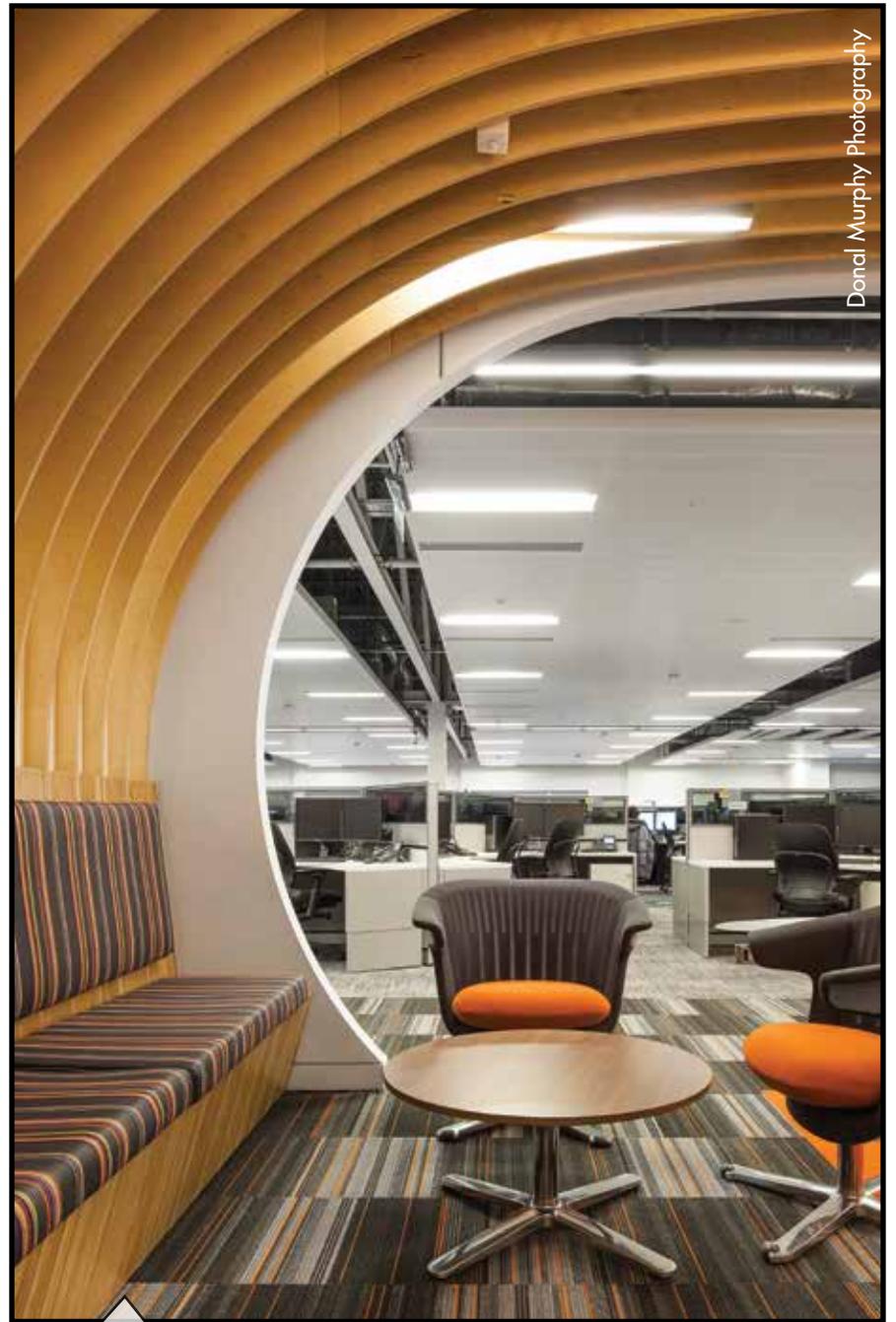
A very unique aspect of the project occurred in between Phases I and II, one that enhanced sustainability, as well as contributed to schedule and budget savings. The façade was removed, stored and re-used on another part of the building thus eliminating the need to re-order materials and saving time and money.

“Innovations like this make Structure Tone stand out in terms of environmental and procurement issues,” said Brendan Dunne. <



Donal Murphy Photography

The cafe is a bright, open space for employees.

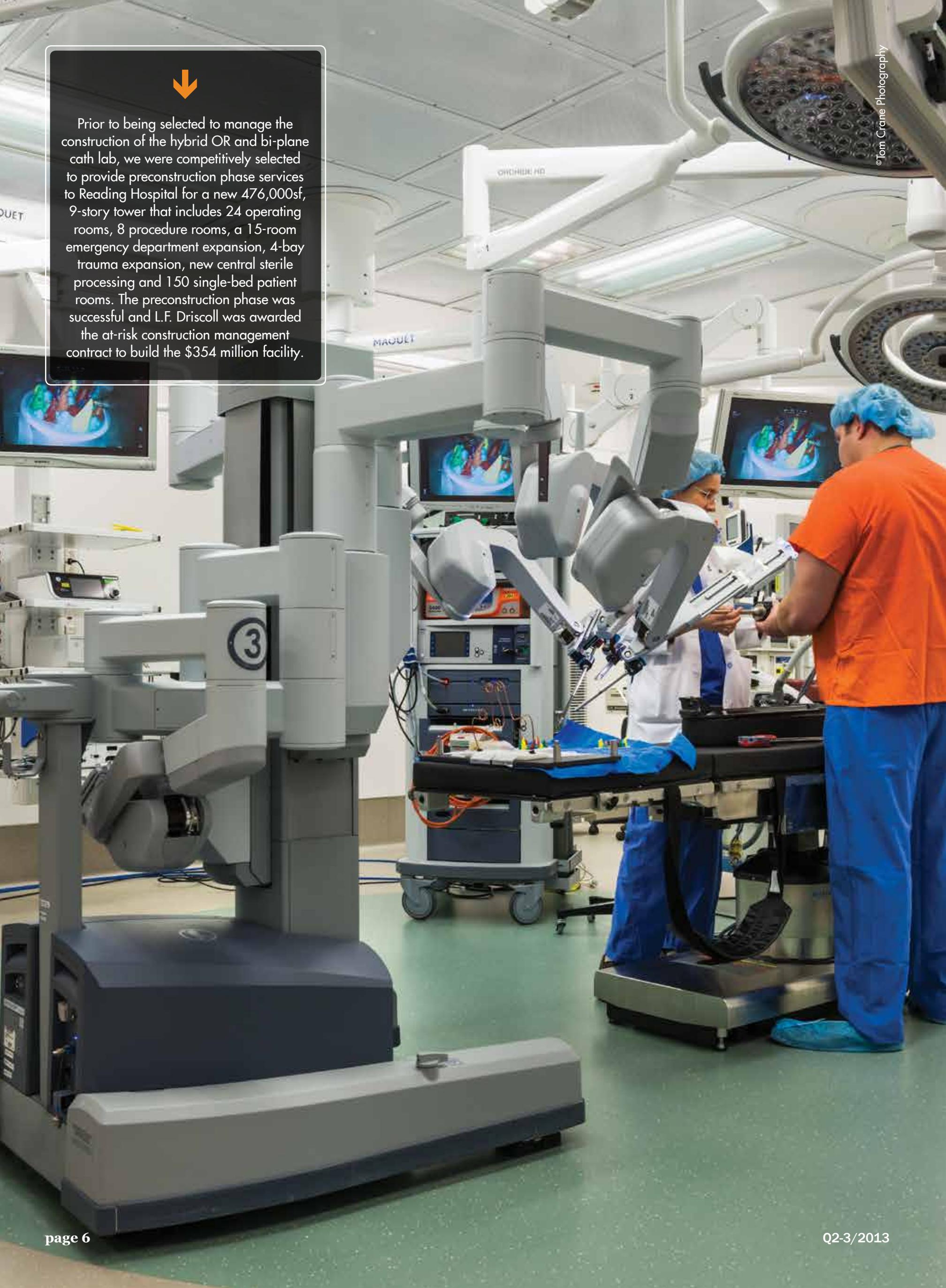


Donal Murphy Photography

Unique design elements create a one-of-a-kind space for PayPal.



Prior to being selected to manage the construction of the hybrid OR and bi-plane cath lab, we were competitively selected to provide preconstruction phase services to Reading Hospital for a new 476,000sf, 9-story tower that includes 24 operating rooms, 8 procedure rooms, a 15-room emergency department expansion, 4-bay trauma expansion, new central sterile processing and 150 single-bed patient rooms. The preconstruction phase was successful and L.F. Driscoll was awarded the at-risk construction management contract to build the \$354 million facility.



Under a Microscope

Hybrid operating rooms (OR) and the talented medical staff who utilize them specialize in delicate, multi-disciplinary procedures performed through small surgical openings. Similarly, our **L.F. Driscoll** team managed the renovation/construction of a new hybrid OR suite and bi-plane cath lab at **Reading Hospital** with precision, expertise and care.

The new 5,500sf hybrid suite features two ORs—both with advanced imaging equipment and high-definition screens for delicate intravascular surgeries—and one with robotic surgical equipment used for multi-disciplinary procedures. Both suites also accommodate multiple specialist surgeons working on a patient at the same time, as well as the anesthesiologist, surgical nurses and technicians required for complicated procedures.

Within the overall duration of hybrid OR project, our team also managed the renovation/construction of a 3,250sf bi-plane cath lab. This room expands Reading's Cardiac Procedural Area that supports detailed vessel and soft tissue heart procedures through digital x-ray technology (via two rotating bi-plane cameras taking simultaneous images in real time) to reconstruct 3D images on computer screens.

Both projects required extensive (horizontal) structural reinforcement, amounting to over 15 tons of steel for the hybrid OR alone. This was required to reinforce existing floors and ceilings to accommodate the heavy, large equipment such as C-Arms, CT and MRI scanners and digital X-ray machines. While steel reinforcement may not sound delicate it was one of the areas requiring the deftest touch. "In both locations we had very sensitive active floors above, below and around us," commented Nick Fazzini, project manager. "We could not affect any of these areas."

Project superintendent Andy Walters recalls working in the hybrid OR location as a "very con-

gested ceiling" installing steel and feeding utilities to new equipment while maintaining operational capabilities in the adjacent, immune-sensitive dialysis area without impacting nor shutting down the space. "It was very tight and quite challenging at times. One day we were literally welding over-top of the RO filtered water system that supports dialysis procedures in the next room. The next day we were weaving steel and ductwork through the hospital's pneumatic system, which is critical to conveying laboratory samples to various testing facilities throughout the complex."

The bi-plane cath lab was directly above the hospital's linear accelerator (linac), next to six operational cath procedure labs and below 200-plus occupied patient beds. "To feed the bi-plane equipment we had to trench through the concrete roof of the linac," recalls Andy. "It's a very delicate process to use water for dust control while keeping it from leaking to the linac below. In addition, we had to keep vibration under control to avoid impacting the nearby cardiac procedure rooms. When we were done we went to the floor below and asked the physicists to test the linac to see if our work affected their equipment—which would have required us to install additional lead shielding. They said they never even knew we'd started. I've never been so happy to have someone not know I'm there!"

Another critical factor was the PA Department of Health Life-Safety (LSI) and Acute and Ambulatory (DAAC) Inspections, which require (a minimum) six weeks of lead time to schedule. Coordination and scheduling was critical to turning over spaces to Reading without delays.

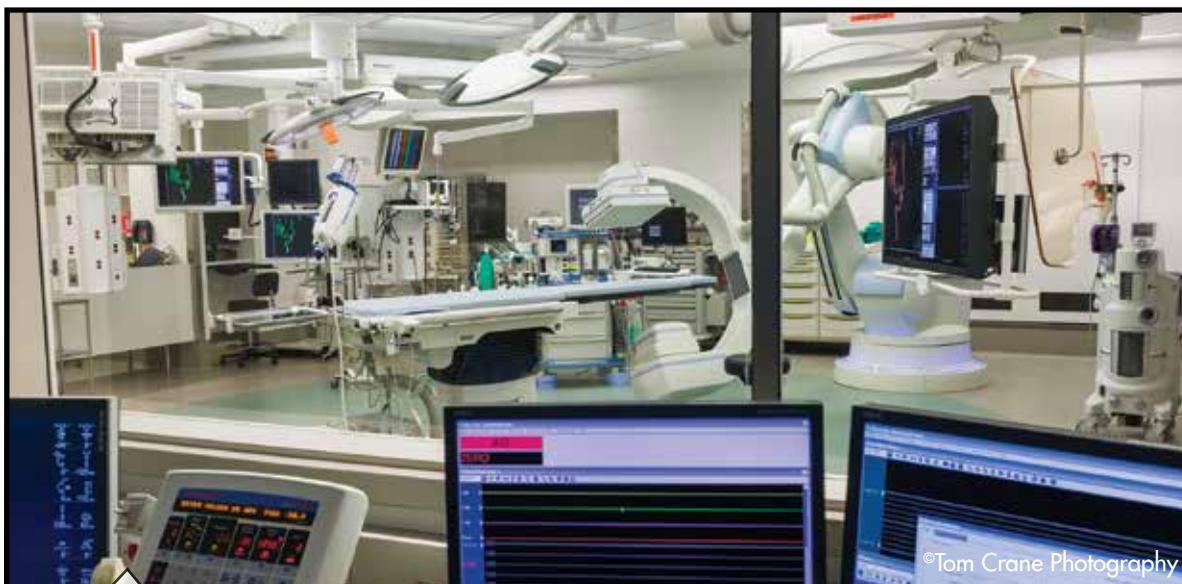
As the two projects progressed, the hospital asked us to reduce the overall schedule of the hybrid OR by two weeks (when we were four weeks away from completion). They made this request in order to install equipment in the OR suites before the life safety inspection, thus enabling them to



The new hybrid suite features two operating rooms.

piggy-back on a previously scheduled DAAC inspection. This change expedited their path to getting patients into the OR suites. Said Fazzini, "It was a real pressure cooker with the schedule reduction and both the hybrid OR and bi-plane cath lab projects being inspected the same day. I really give credit to Andy and our subcontractors who stepped up in a big way." Both projects passed inspection on the first round and the hospital opened their facilities on/ahead of schedule. <

“Although never having worked at Reading Hospital prior to the hybrid OR or bi-plane projects, L.F. Driscoll has become an extension of my staff and an integral *PARTNER* in Reading Hospital's ability to transform space to ensure that we are the premier health system in our region. It has not been lip service and has never been the "Driscoll Way"—they have adapted their business practices and site operational model to the way that we perform and do business. From day one they have placed our patients, guests and staff members above the work. I could not ask for a more professional group nor partner.”—*David J. Major, PE, CHC, CHFM, director of construction management, Reading Hospital*



Significant structural reinforcement was required to accommodate the large, heavy equipment.

↓
We have also completed four projects for Net-a-Porter in Hong Kong and Shanghai, China totaling over 85,000sf.

Fashion Forward

Since its founding in 2000, **Net-a-Porter** has established itself as the world's premier online luxury fashion destination. Two keys to their success are "unrivaled customer care" and "impeccable packing."

When Net-a-Porter selected **Structure Tone** to support their construction needs in **Mahwah, NJ** they selected a firm with similar values. Client "first, last and always" is our core philosophy and industry leading quality for high-end interiors (our 'impeccable packaging') is our hallmark.

In Mahwah we managed: construction of two office floors totaling 80,000sf; replacement of the entrance façade; installation of all new high-end finishes; automation of an existing 200,000sf distribution center; and build-out of a 25,000sf studio. Mahwah is Net-A-Porter's North American HQ for internet sales and the supporting warehousing and distribution operations.

The elegant office reflects Net-a-Porter's high-end products and clientele. "The architects, Studiofibre (design architect) and Conant Architects (architect of record), were very successful in transforming the space," said Tom Kilgallen, project manager. "It's refined, uncluttered and classic with a black and white motif." In addition to the architectural team, other project partners for the office build-out included Gardiner & Theobald (owner's representative), WSP Flack + Kurtz (MEP engineer) and Gilsanz Murray Steficek (structural engineer).

Prior to starting construction for the interiors our team identified structural steel deficiencies in the building. We worked diligently with the building owner and building manager, and their structural engineer (SNS), to increase support for the floor and roof assemblies to accommodate the new loads.

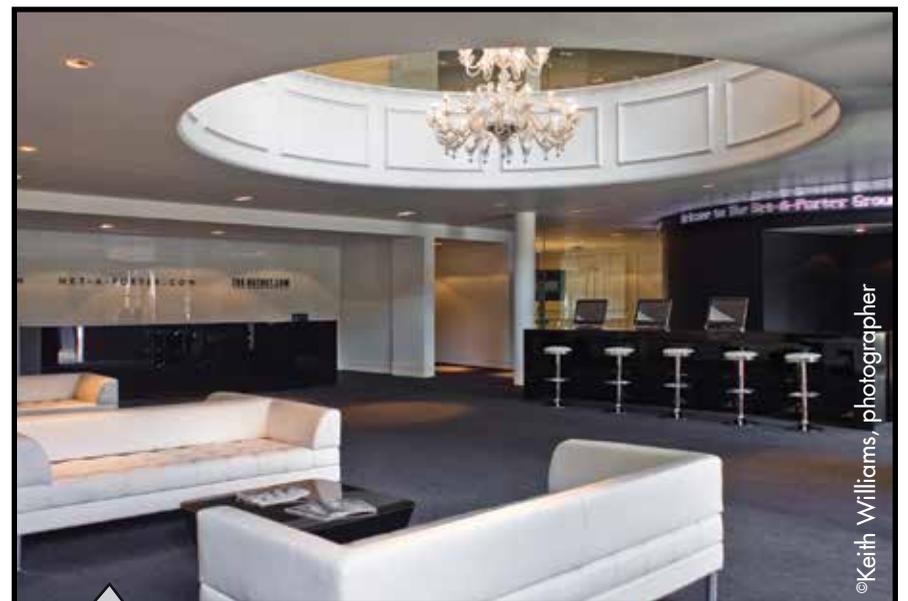
Whereas the office floors were unoccupied during construction, the distribution center was fully functioning. Noted Kilgallen, "It was a significant challenge to completely upgrade in a live environment. It was critical that our work did not cause any disruption to incoming or outgoing inventory and, of course, the safety of workers in the facility was paramount."

The distribution center is now outfitted with an automated pick system, new storage and staging mezzanines and conveyors to expedite orders. All new energy efficient lighting, in-rack sprinkler system and HVAC upgrades were also installed.

"It was a team effort," said Brian McKenna, superintendent, "which was critical since we completed this on a very expedited schedule, working two shifts six days per week. Our focus was on turning over the space to Net-a-Porter so that they could put the new fulfillment center into operation as quickly as possible." ◀

Key Interior Features

- ▶ Two-Story Display Stair
- ▶ Circular Atrium/Double Height Reception (featuring Murano glass chandelier)
- ▶ Theater for Special Events
- ▶ 12,500sf Photography/Video Studio
- ▶ 4,500sf Video Conference Facility
- ▶ 6,750sf Cafeteria (with full kitchen)
- ▶ Gym, Showers, Lockers
- ▶ 24-Hour Call Center
- ▶ Convenience Stair
- ▶ Rooftop AHUs



A Murano glass chandelier graces the elegant double-height, circular atrium.

Towing *the* Line

Getting to know our clients' business, how they operate and what their strategic objectives are is a key component—perhaps the key component—to every project. Jody Reed, project manager, sums it up best, “For us, construction is the easy part. What’s critical is to completely understand how every aspect of what we do may impact our client, communicate that and, together, determine the best course of action.”

When Jody took on a 445,870sf renovation of a warehouse and production facility for **Flextronics in Fort Worth** heeding his own advice was his top priority. Flextronics is a worldwide leader providing design, manufacturing, distribution and aftermarket services to original equipment manufacturers (OEM). Their driving philosophy is “there is no room for mediocrity.” It was a perfect match since Jody’s, and the entire team’s, philosophy is the same!

“We had a great owner in Flextronics,” said Joe Cribbin, executive vice president, “and a fantastic owner’s rep in Cassidy Turley. From the moment they selected us, and the lauckgroup (architect), Cassidy Turley’s leadership set the bar for collaboration, which is what we have come to know as the norm over several successful projects with them.”

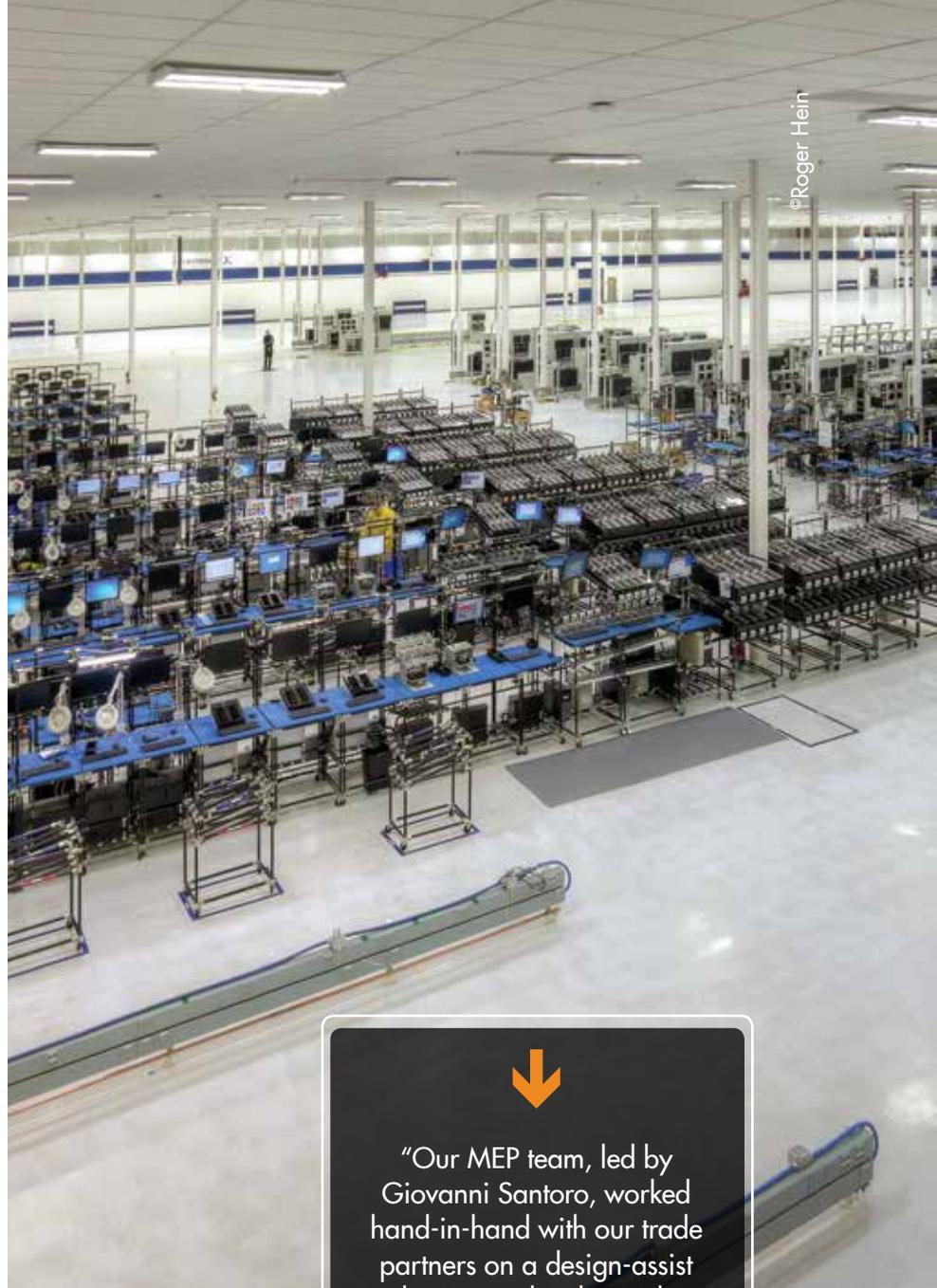
A major focus of the project was preparing the production lines and the bulk of that effort was mechanical and electrical service. Every line had several pieces of equipment, each with unique power and pneumatic requirements. The Fort Worth facility also includes 50,000sf of offices, a conference center, training rooms and a data center.

Another key element was to deliver a fully functioning temporary production line within three weeks of project start-up. The facility will bring over 2,000 jobs to the area and Flextronics conducted job fairs for the duration of our work. Over the course of 74,191 man-hours, our field superintendent, Vernon Turner, was vigilant in maintaining safety for Structure Tone and Flextronics staff and visitors.

The existing infrastructure required extensive repair and upgrade. The major components of this encompassed over 100 roof-top units, new EMS to monitor and control HVAC, lighting and life safety systems. All infrastructure work was substantially completed in approximately 10 weeks.

Other project highlights included the removal and replacement of 170,000sf of existing acoustical ceiling tile, ceiling grid and light fixtures in the production area. This was accomplished, with lights operational, in 10 days. <

“We had little time to put this deal together. Structure Tone had provided due diligence on a mothballed facility being considered by Flextronics. Once the real estate was done, Structure Tone was selected to lead the renovation. The challenge was the schedule, which demanded that we start construction without plans or specifications. Structure Tone did what few contractors can...mobilized and started selective work and long lead orders within days of award. They worked collaboratively with us and the lauckgroup to progress the work as the design requirements came into focus from Flextronics. They did it quickly, efficiently and safely—in spite of long hours and changes. The entire facility was designed and completed in three months! The monthly churn was impressive. When my fox hole gets dug, I like having Structure Tone there with me.”—**Brad Blankenship, managing director, Cassidy Turley**



©Roger Hein



“Our MEP team, led by Giovanni Santoro, worked hand-in-hand with our trade partners on a design-assist basis,” said Jody Reed.

“Together, we held several meetings with Flextronics to understand the requirements of the equipment and their expectations, not only for functionality but also the clean, streamlined look of a world class production facility.”

©Roger Hein





A monumental staircase is the focal point of the atrium.

Stunning Make-Over

When pharmaceutical giant **Novo Nordisk** selected a site in **Plainsboro, NJ** for its new North American HQ they took on a number of challenges. To meet those challenges they partnered with (property owner) LCOR, Ivy Equities and Intercontinental Real Estate Corp. for the development and a construction management team that included resources from both **Structure Tone NJ** and **L.F. Driscoll**.

The project entailed repurposing a 1980s office to a new, state-of-the-art facility. This involved complete renovation of the building's façade and core infrastructure and demolition and build-out of 731,000sf of interior office space.

Novo Nordisk's mission for their new corporate HQ was simple—create the best workplace. For them that meant a building that would balance social, economic and environmental responsibilities to accommodate the firm's most important asset: their people. Novo Nordisk also wanted a facility that reflected their Danish roots, focusing on simplicity, functionality, openness, tranquility and natural materials.

The project was completed over a 26-month period, including six months of preconstruction and 20 months of construction with core and shell and interior build-out overlapping. At peak, there were 320 trades on site. Said Keith Bergen, project manager, "Preplanning and logistics management were the keys. For a job of this magnitude and complexity, it was all about making sure we had the right people (skills and expertise) in all the right places."

NEW SKIN

The entire original precast façade and strip window system were removed and replaced with a new, fully unitized curtainwall system comprised of approximately 80% energy efficient glass and zinc finished metal panels. The design itself and the bid package were developed using an "engaged design-assist process" to define the specifics of performance and aesthetics to meet the end needs of the tenant, Novo Nordisk.

Design-assist uniquely leveraged the 3D models created by Granum A/I and allowed Structure Tone to award the curtainwall contract prior to a complete set of 2D drawings and specifications being developed. This facilitated collaboration much earlier in the process.

The new unitized curtainwall system was erected on-site, hanging it onto the existing steel structure with anchors. This presented one of the most significant project challenges—marrying the existing "bones" of the 1982 structure with the new design and construction.

"Integrating a new skin onto a 30-year-old structure is always a challenge," said Bill Wright, project manager. "There are always variances and deviations in the field from the dimensions or details shown in plan. We obtained extensive survey information before starting the design-build process for shop drawings and fabrication to mitigate these factors."

The entire ¼-mile long facility was laser scanned to define the existing perimeter conditions for the subcontractors rather than waiting for demolition to be complete. Specific areas of overlap where we needed to integrate new and existing building system elements, such as specialty framing and waterproofing, were coordinated to assure the water tight integrity of these complicated interface details.

"There was a lot of coordination and many collaborative meetings with the design professionals," noted Walt Cichonski, engineering director. "HOK and Granum A/I were tremendous partners as we advanced their vision for the façade from the developmental stage through the design-assist process to actual manufacture and installation of the curtainwall and exterior skin. The most satisfying construction efforts are those where we are truly engaged together with the client, the designers and our entire building team all with the common focus of bringing to reality an amazing complex for people to work in every day."

Novo Nordisk chose this site, in part, because of the mature landscaping and wooded setting. Meticulous site protection was of utmost concern during the removal of the existing skin and installation of the new façade. "When we first arrived at the proj-




WINNER
 2013 ENR NY Best Of
 Office/Retail/Mixed-Use

Granum Architecture and Interiors ©Tom Crane

ect, the trees were so lush and mature many of the branches were touching the building envelope making for some pretty tight spaces to maneuver in,” noted Wright. “It was a challenge figuring out the logistics to install nearly 250,000sf of new façade without impacting existing hardscape and landscape around the campus.”

Also as part of the core and shell upgrade, new roofing was installed, including a 4,000sf rooftop terrace complete with custom planters, grill, refrigerators and dining space. Renovation of the core infrastructure encompassed new restrooms, elevator cabs and lobby, perimeter wall and fin tube heating, as well as upgrades to the existing egress/access stairs.

INNER BEAUTY

Granum A/I’s design arranges the ¼ mile-long building into six office pods along a primary corridor. There is a new, expanded lobby and main visitor entrance with a water-feature, as well as secondary entrances in each of the pods. The secondary entrances each open to an atrium with a monumental stair as the focal point. Conference rooms and communal spaces are arranged around the atriums.

“Structure Tone is committed to excellence and was dedicated to providing Novo Nordisk with the most satisfying product possible. The on-site team was great. They labored tirelessly to meet the very aggressive and demanding schedule. Structure Tone proactively jumped into solving a vendor supply problem and was successful where many other general contractors would have failed.”—Ted Bielicky, senior director of facilities, Novo Nordisk Inc.

The office pods are designed as neighborhoods to create a unique sense of place for Novo Nordisk employees. In addition to traditional space types—private and open offices, conference rooms, support and filing spaces and multiple pantries—there are special project rooms, work rooms, huddle spaces and open collaborative spaces all incorporating the latest A/V and communications technologies.

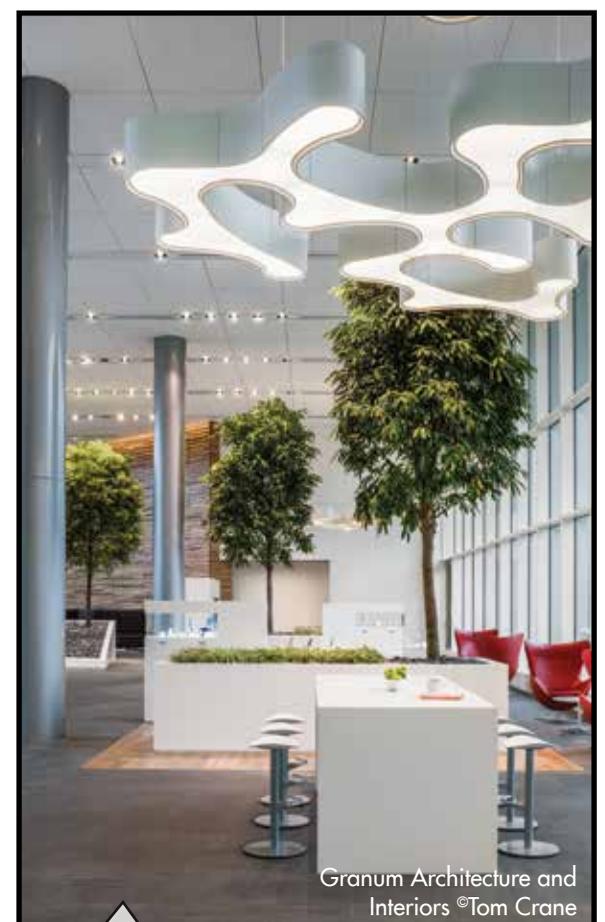
The new HQ also includes numerous amenity spaces, such as a fitness center and dining area with kitchen and servery. There is also an executive suite and special product-launch suite.

“To streamline the MEP coordination process we utilized BIM. This virtually eliminated field conflicts and greatly reduced field changes,” said Bergen.

This Novo Nordisk space was designed to achieve LEED® Silver certification. Sustainable elements include a new roof to minimize heat island effect; 95% construction waste recycling; use of sustainable, regional and low VOC materials; low-flow technology in break-rooms and restrooms; and the energy-efficient façade system. <



Granum Architecture and Interiors ©Tom Crane



Granum Architecture and Interiors ©Tom Crane

A series of “neighborhoods” each feature traditional work areas as well as open collaboration spaces.

The new HQ emphasizes openness, tranquility and natural materials.

GREAT in London

With the assistance of **Structure Tone Mission Critical, Volta Data Centres Ltd** has gone live with a new colocation complex at Great Sutton Street in central **London**.

The Great Sutton Street facility is London's newest and most resilient data centre in over a decade, being supplied at 33kV from two separate substations of the national grid. The state-of-the-art, Tier III data centre offers sub-millisecond latency for financial services and trading firms based in the city and beyond, as well as excellent connectivity and infrastructure hosting solutions for the entrepreneurial communities in TechCity and Shoreditch and the media and content industries in West London.

“In less than a year, over 250,000 man-hours have been invested in the redevelopment of our Great Sutton Street data centre, under the management of Structure Tone's highly skilled team. We had a tight timeline but are very pleased that we are now open for business and the first customer has already installed in the building, with more to follow in the near future. As with every project of this scale, and the added complexities of a central London location, challenges have presented themselves along the way, but we have been able to rely on Structure Tone's team to keep the development progressing.”—**Matthew Dent, CEO, Volta Data Centres Ltd**

YESTERDAY

The Great Sutton Street facility has a laudable history as one of the longest established data centres in London and, indeed, the UK. Its earliest roots date back to 1977 when Thomson Reuters began utilising the facility as a frontline between Reuters' journalists on Fleet Street and their nearby clients. Almost 30 years later Reuters sold their network business to the specialist financial services network arm of British Telecom, which vacated the building in 2012.

Volta Data Centres completed the acquisition of the 90,000sf building in summer 2012, when the redevelopment commenced with initial demolition followed by a re-fit. Because the building had previously been a data centre, all planning



© James Reid photography

permissions were in place and multiple carriers already had diverse fibre links into the building.

TODAY & TOMORROW

To make Volta's vision a reality, our team's first steps were to strip the building to its concrete shell. We were faced with significant challenges, both inherent within the building and also the logistics associated with working in a dense, mixed-used area in central London.

Director-in-charge of the project, Richard Brandon, commented, “Delivering a wholesale redevelopment of this scale on an island site with significant access constraints required a very clear logistics strategy and dedicated resourcing from the operations team. The sheer volume of waste material removed and new materials brought to site required each of our subcontractors to be fully coordinated under our direction and supervision. With a series of road closures and parking suspensions necessary for the delivery of large capital plant, our relationship with the local council, residents and businesses also was critical.”

Once Volta had contracted with UK Power Networks, a major focus of our work was to bring a new 33kV power supply to the facility via two network grid substations. We also installed two Schneider 33kV transformers, three 11kV diesel generators (supporting Phase I) and an Emerson Trinergy UPS system. These all support the three IT strings. Lastly, this part of our scope entailed installing TurboCor chillers on the roof.

In terms of technical (white) space, the facility offers 45,000sf (net) over four floors. This equals 6.4MW across 1,600 racks.

The fit-out of the fourth floor data hall included raised floor, diverse busbar power distribution

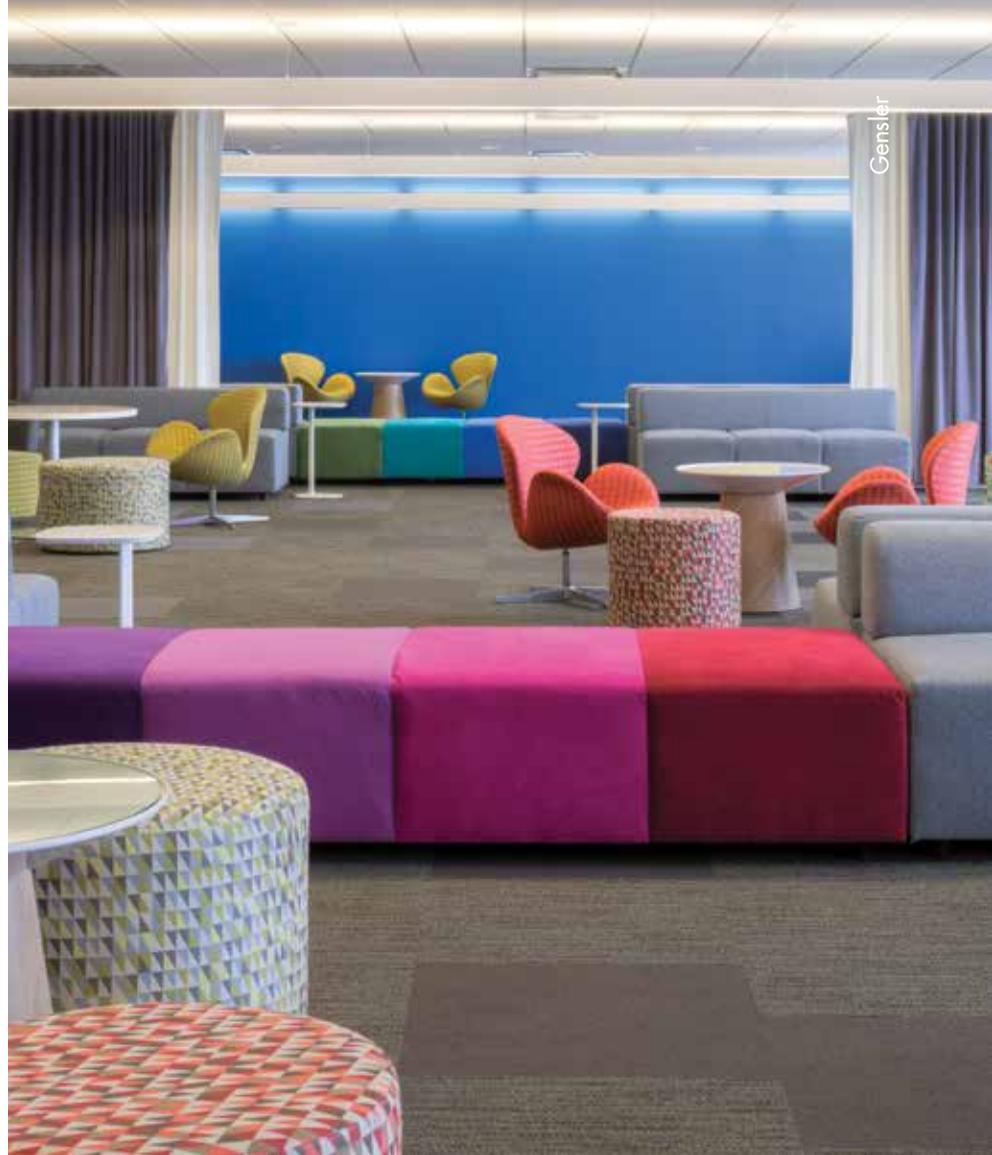
to IT racks and a high-efficiency hot air containment in-rack cooling system. At full load the hall will achieve a Power Usage Effectiveness (PUE) of less than 1.5.

The remaining phases will encompass fit-out of the other three data floors—each 10,000sf of technical space and associated supporting capital plant. These will be rolled out over the next two years. <



© James Reid photography

The Tier III data centre offers sub-millisecond latency and is the most resilient in London in over a decade.



Spreading *the Word*

Edelman is a worldwide leader in public relations and strategic communications. Their service philosophy is to meet their clients' needs through a convergence of specialist knowledge, local market understanding, proprietary methodology and breakthrough creativity and they seek to build long-term relationships and help their clients initiate change and seek new solutions.

For their own work spaces they 'walked the walk' and, through a unique all-encompassing process, embodied their core values and service philosophy. Recently, Edelman held a vendor summit that brought together 14 firms, including CBRE (leasing agent), Gensler (architect) and Structure Tone (CM). With Edelman (owner/end user) these firms form the core for siting, planning, design and construction of Edelman's workplace facilities.

In addition to that core team, Edelman's summit included 10 additional firms—vendors and suppliers from furniture to lighting to move management. Said Richard Mondragon of Cooper Industries, "It was a pleasure to...be a part of the supplier meeting. If every account were to have the type of dialogue and synergy that I experienced, more projects would be more successful. I applaud the coordination..."

The purpose of the summit was to share the steps, 54 in total, involved in establishing an Edelman work location with each and every group that touches that process. Edelman outlined individual activities from site evaluation through move-in and the tasks and players involved with each. This afforded all team members great insight into the overall process, their role in it and how integrated each function is, although they may seem independent or distinct.

"In order to truly be business partners—every member of the team needs a 360° view of the process. Our team charette did just that. All of us have

Edelman At-a-Glance

- ▶ Since 2007
- ▶ 792,980sf
- ▶ 16 US Cities
- ▶ Canada, Brazil, Mexico, UK

a much better understanding of what it takes for every member of our team to deliver their best," commented Sarah Bader, principal, Gensler.

Structure Tone meets Edelman's workplace development needs through our **global account services** model. This has enabled us to provide Edelman with a uniform standard of project planning, execution and quality regardless of its location, meeting their mandate to support a global real estate portfolio through

the consistent application of design and construction standards, processes and procedures.

Clearly, it's working. Edelman was named one of the Best Places to Work in 2010 and 2012 by *Advertising Age* and among *Glassdoor's* top 10 Best Places to Work in 2011 and 2012. Edelman is the world's largest public relations firm with 67 offices and more than 4,800 employees worldwide, as well as affiliates in over 30 cities. <

“I cannot thank Structure Tone, Emile Keller and Renee Regan enough for coordinating the vendor summit for Edelman. Having everyone in one room and walking through the process really helped us capture some key learning for all parties involved...This was such a great meeting we may have to repeat it annually.”—*Alice Hogueisson, CFM, senior vice president, global environmental manager, US director of facilities, Edelman*



Shoppers aren't the only crowds in Macy's Herald Square. Renovation of the landmark Macy's flagship includes 150 trades personnel daily and 100 overnight.

Accessorized

Lipstick and hoop earrings aren't usually the focus of our construction teams. But, for our dedicated group managing the **Macy's Herald Square NYC** renovation Phase II, this, and much more, is their concern.

As part of the 190,000sf, \$100 million renovation, we recently extended and connected the mezzanine areas, installed curved staircases and two escalators and built-out the new cosmetics, fragrances, fine jewelry, handbag and watch sections of Macy's main floor—or the 'great hall.'

"Extending the mezzanines and renovating the cosmetics area was much more complex than any make-over," said project superintendent, Eric Gulak. To complete the mezzanine work above, the cosmetics vendors below were temporarily displaced to accommodate construction barriers and protective shielding. This required coordinating the moves of over 50 separate vendor beauty companies throughout the course of the mezzanine work. "It was like studying a chess board. Our team, the design team, Macy's representatives and facilities staff from each of the cosmetics companies were all involved in orchestrating the moves and getting the renovations completed on time."

Joining the north and south mezzanines to create a seamless shopping experience for Macy's clientele was the key focus of the Phase II effort. It entailed many challenges, which our team successfully resolved while keeping the project on schedule.

To level and extend the mezzanine, the floor slab of the great hall had to be lowered. Extensive structural work entailed drilling into the original cast iron columns of the Herald Square structure to secure steel reinforcement for the new 15,000sf mezzanine. This was noisy and disruptive work that could only be completed on overnight shifts.

"Once this new cantilevered section was built it was fit-out with four new curved staircases and two new escalators, all of which were connected to the new steel. Installation of the escalators required additional structural work, including even more steel below the floor and escalator pits to support the heavy loads. Performing, and creating protection around, all this work displaced cosmetics counters in the hall below," explains Gulak.

Planning and executing the cosmetics moves around the mezzanine construction was a daily challenge. With each of the 50 vendor companies and Macy's staff monitoring sales closely, our team stayed very agile with regard to logistics and schedule of the moves. If there was any (real or perceived) impact to customer flow or sales, the entire team regrouped, re-evaluated and found an alternative swing solution that alleviated any bottleneck.

After the mezzanine and cosmetics areas were completed, we then renovated the 10,000sf fashion jewelry and 3,000sf fine watch departments on the Seventh Avenue side of the building. This encompassed fewer vendors but entailed similar logistics planning.

In addition to the complex structural and infrastructure work, our renovation efforts entailed new ceiling finishes, wall covering upgrades and new lighting fixtures, including different types of chandeliers. For the mezzanine, cosmetics, jewelry and watch retail areas the renovation has created a new, world-class shopping experience within the iconic Herald Square store. ◀



©John Baer/Building Images Photography

“This is a very complex remodel project with numerous phases and the on-site Structure Tone team has been up to the challenge. The project has many challenges that are presented daily and the team is always very light on their feet and willing to work with our Macy’s teams at a moment’s notice. Customers and sales associates have an expectation of their shopping experience here at the Macy’s flagship store, and the Structure Tone team is minimizing impacts by maintaining scheduled turnovers and keeping everyone safe. To the Structure Tone project team, I say thank you for your hard work and dedication.”—**Tony Riese, director of construction, Macy’s**



©John Baer/Building Images Photography

Curved staircases (top) and new escalators (above) were integral to connecting the mezzanine areas.



©John Baer/Building Images Photography

The \$100 million renovation is being performed while the store is open to 50,000 daily shoppers.

↓
The renovation included a sleek new bar and restaurant.



Updating an *ICON*

Managing the \$30 million renovation of the iconic **Milford Plaza** lobby, Structure Tone finds itself ‘in the center of it all.’ The Milford Plaza is a 1,300-room **Manhattan** hotel located in the heart of the city’s theater district. Its 1980s commercial jingle, “The Lullaby of Broadway,” is renowned and is on the tips of our tongues still.

But, the Milford Plaza of today is transformed from the one of that celebrated ad campaign. That is evident as soon as one enters its spectacular new lobby.

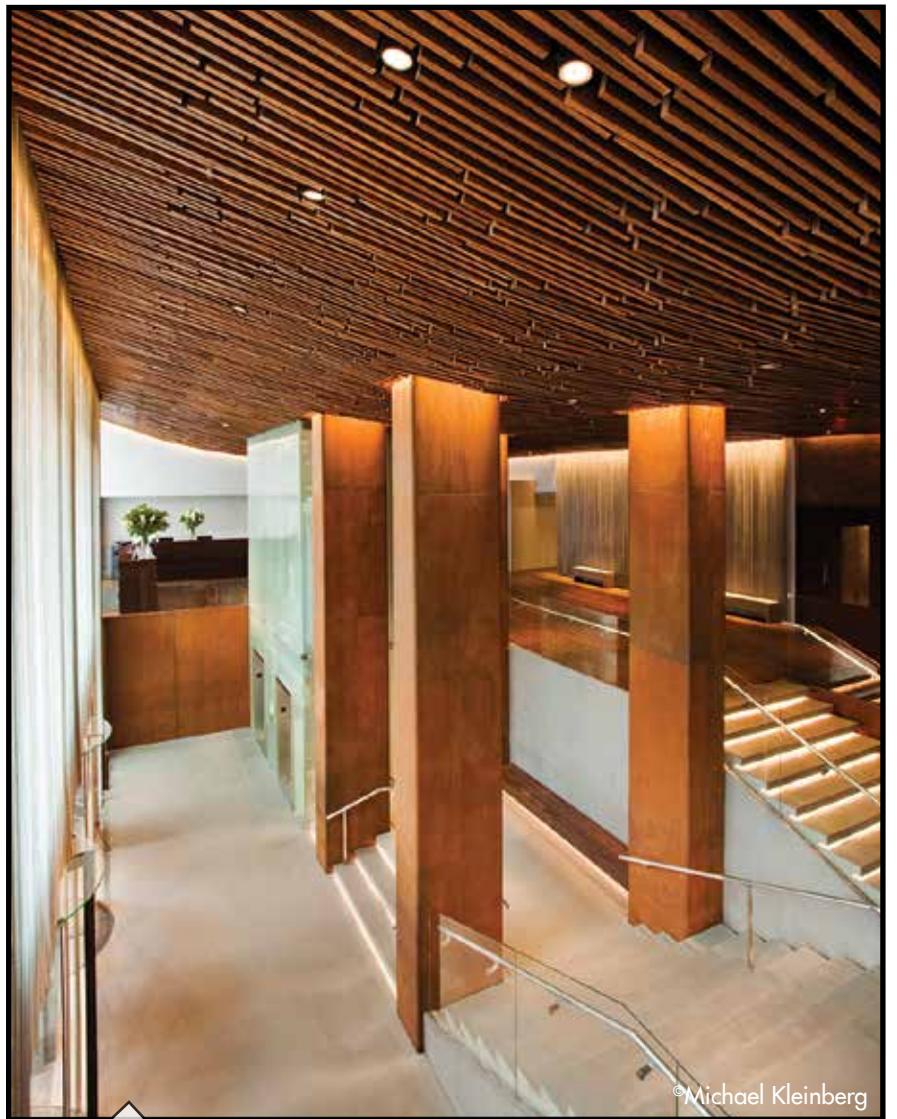
The one-year, two-phase project encompasses 20,000sf. Phase I was renovation of the existing lobby. Phase II is the addition of retail box space.

The key aspect of the renovation was structural. We removed columns and added transfer girders. We also installed new Pilkington glass exterior walls, high-end wood ceilings and custom interior finishes.

The key challenge was accommodating guests and staff. The hotel was open and fully occupied for the complete construction duration. Given its location and popularity, it is occupied and functioning almost 24/7/365. Access, egress, safety, sightlines and general appearance were paramount project considerations. <



Milford Plaza is located in the heart of Manhattan’s theater district.



The beautiful new Milford Plaza lobby features custom high-end finishes.

Special in *Every Way*



Bill Barry (L) and Blase Catalano (R) building the new bedroom.

Blase Catalano and Bill Barry recently represented Structure Tone as Special Spaces volunteers. Special Spaces builds new (home) bedrooms for seriously ill children so that they can have place of their own free of doctors, exams and medical equipment. In addition to Blase, Bill and the Special Spaces team, Al Roker, Natalie Morales and Willie Geist from the Today Show were among the volunteers.

The new bedroom was for Gianni, a Long Island boy fighting childhood leukemia. Special Spaces builds rooms around the wishes and dreams of the child. So, Gianni's room featured Ironman and Legos...some of his favorite things. A unique feature, and one that Gianni declared his favorite, was a slide from his (newly) suspended bed.

Blase and Bill sawed, framed, painted, sewed, installed lights, hung décor—did any and everything to help create Gianni's special space. The smile on Gianni's face says it all about how valuable their efforts were. <



Bringing a smile to a child's face is something to cherish.

Sustaining *Leadership*

Jennifer (Jenn) Taranto, director of sustainability, was awarded a fellowship through the Environmental Leadership Program (ELP). The mission of ELP is to support visionary, action-oriented and diverse leadership for a just and sustainable future. The fellows come from a variety of personal and professional backgrounds thereby broadening the voices within the sustainability movement.

“I see sustainability as much more than reducing construction waste or increasing recycled content. In a broader context, it is about how the work we do affects our communities, and Structure Tone has a very strong community eth-

ic. Personally and professionally it is very rewarding to me to explore ways to combine and strengthen both aspects in order to help lead our company's sustainability and community positions,” said Jenn.

As a fellow, Jenn will participate in multiple retreats over the course of the year focusing on a variety of leadership competencies such as diversity, coalition building, systems thinking and strengths-based leadership. These retreats will, ultimately, contribute to the formation of Jenn's personal leadership plan. Upon completion of the fellowship program Jenn will graduate to senior fellow status and will be eligible for additional opportunities through the program. <



Jenn Taranto, director of sustainability, Structure Tone



Custom
high-end
cherry millwork



© Mark Menjivar Photography

SOUND COUNSEL

Our **San Antonio** office recently had the opportunity to expand its law firm portfolio when it successfully completed an inaugural project for the mortgage law firm **Polunsky Beitel Green LLP**. The office build-out was completed in a new shell space and encompassed private principal offices, reception area, conference rooms, corridors and kitchen.

“It is a very elegant space with intricate vaulted ceilings and custom high-end millwork,” commented Armando Aguilar, project manager. “The architect was Staffelbach. They did a great job creating just the right look and feel for the firm.”

Bringing that aesthetic to life was a challenge, primarily due to the schedule. “We had a 10-week construction schedule for almost 8,000sf,” noted Armando. “That kept our foot on the accelerator throughout. I am really proud of the quality we achieved. Our superintendent, Mark Wilson, did a terrific job.”

Some of the finishes that contribute to the sophisticated feel of the new office include stone counter tops, fabric wall coverings, cherry woodwork and high-end lighting. The space also features wood portals at door entries, crown molding, glass and wood trim sidelites and stair-step and tegular ceilings. Our work also included new plumbing for a wet bar and the kitchen and new VAV units. <

“Structure Tone took on a very intricately designed construction project with a highly compressed completion schedule. The finished space was not only magnificently built-out, but came in ahead of schedule. I couldn’t be more pleased with the relationship and product. The team that oversaw our project was the most professional group of contractors that I have ever dealt with.”—**Allan B. Polunsky, managing partner, Polunsky Beitel Green, LLP**



© Mark Menjivar Photography

High-end finishes and an elegant design create an ambiance of stately sophistication.



↓
This project eclipsed 450,000 safe man-hours and was completed with no lost-time or recordable incidents. Work was completed via three shifts, seven days per week—carried out by 1,100 individual workers.

Convergence

According to Conway Data (a leading real estate strategy and economic development siting source), Texas is the top state for data center development. It leads the next closest contender, North Carolina, by double.

Digital Realty Trust (DLR), a data center solutions provider for many leading enterprises, is at the forefront of much of Texas' data center development activity. DLR offers innovative solutions for its customers, recognizing that data centers are not solely technical investments but also strategic platforms for success.

“The Texas mission critical market has been strong throughout the economic downturn. Recently, as our recovery has strengthened, it has really begun to boom and Houston, as these projects for Digital Realty illustrate, is at the epicenter. I feel very confident about the Houston mission critical market and know that we are poised to be a leader in meeting its construction needs,” said Joe Cribbin, executive vice president.

Structure Tone Southwest (STSW) Mission Critical has been providing construction services to DLR for over five years. Our expertise and unblemished record for quality delivery has led to our evolution from general contractor to design-build and BIM manager.

CHALLENGES

One of the most recent projects that STSW managed for DLR was development of DLR's **Houston** campus on the North Freeway. We delivered two new hurricane-resistant tilt wall data centers, as well as a campus-wide medium voltage electrical distribution upgrade, in less than six months. This was the fastest delivery ever of a fully commissioned ground-up facility for Digital Realty in its history.

The tilt wall structures included a 90,000sf shell containing four data centers and a second 60,000sf shell containing three data centers. The tilt walls are comprised of site cast concrete wall panels. The roof and frame is structural steel. The interior utilizes raised floor and includes redundant power systems for 125W/sf.

At the same time, STSW managed installation of a campus-wide 35kV electrical upgrade. This entailed bringing in eight new circuits from the public utility to a central electrical mall, and then distributing service out to various buildings on the campus.

SOLUTIONS

One of the most significant challenges was coordinating construction inside a fully occupied development bounded on all sides by either active data cen-

ters or an interstate highway. Throughout the six months of construction there were considerable daily technical, safety and logistics hurdles to clear to complete this work and keep all other facilities open for business.

The schedule was another formidable challenge—six months. “We could not have done it without the utmost in collaboration with the design team,” noted Andrew Riela, project manager. “Syska Hennessy, SP Architects and ESD Engineers all were integral to the project's success.”

Further, the project was built to LEED® Silver criteria. This required a highly skilled subcontracting team that was carefully prequalified during the preconstruction phase. Pursuing LEED certification required exacting early coordination and planning with the trades to ensure appropriate sourcing and delivery of materials, proper handling at the site and subsequent commissioning and documentation.

“Our relationship with Digital Realty is one that we value greatly,” said Lane Anderson, mission critical group manager. “No matter how successful a project is we collectively debrief each and every one to find even just one thing that we can do better the next time...which is going to be tough on this Houston job. Our team—Andrew Riela and Collin Scott, project managers; Jesse Perez, MEP coordinator; David Cannon, Marty Watson, John Erickson, Glenn Burley and Danny Jones, superintendents; Colt Granquist and Ryne Wastl, project engineers; and Lynn McLaren, safety—did a fantastic job. We couldn't have asked for better.” <

“The Structure Tone team exceeded my expectations on this very challenging, yet critical, data center project. They maintained a cadence of efficient collaboration and professionalism that I have yet to experience on a project with such an aggressive schedule. This attitude was vital toward overcoming several obstacles that would have surely derailed the project's cost and schedule objectives. Furthermore, the construction management team was unapologetically committed to delivering the highest quality solution, quickly and without sacrifice to the safety of the construction team.”—**Erik V. Stockglauer, director enterprise sales, Digital Realty Trust**



A major feature of the five acres of new landscape work was an outdoor picnic area. The 2,000sf dining venue includes custom concrete furniture and pavers and offers a beautiful view of the harbor from the plaza level.

photo by Dhara Vaidya



Full Steam Ahead

“The project at **600 Steamboat Road in Greenwich, CT** was quite an experience as it involved all aspects of construction and was a unique building structure in an even more unique location—a harbor,” said Eli Lejb, director. “It is always a great experience to be involved in a project from very conceptual stages through completion and with this total gut and upgrade, plus tenant fit-out, we had just that.”

Eli is referring to **Pavarini’s** work providing complete core and shell renovation of a 1974 building that sits on a landscaped, four-acre waterfront site. The complex consists of three above-grade floors of office space (180,000sf) and two levels of parking (202,000sf). An at-grade plaza extends from Steamboat Road to a seawall and provides access to Greenwich Harbor. It is a steel and cast-in-place concrete structure with recessed glass exterior walls with ledges.

The design (SOM exterior and Gensler interior) focused on creating a more pleasant experience for both workers and visitors at 600 Steamboat Road. This entailed significant work on plazas, walkways and outdoor areas, as well as building new lobbies and other visitor/access accommodations. “For aesthetics and amenities it is a tremendous improvement,” notes Lejb.

Two new lobbies, each 1,500sf, are glass enclosed. They are located on either side of a central covered plaza and provide immediate access from visitor parking. Lighting was improved in the parking/drop-off area and vehicular access to the on-site parking garage was enhanced via a new two-lane entrance and access control gates on both the north and south sides of the building.

From the plaza level the site transitions to a 700ft walkway along the harbor. Our reconstruction efforts for the walkway included new drainage and

382,000sf Encompassed...

- ▶ Installing a New Curtainwall System
- ▶ Upgrading MEP, FP and IT Systems
- ▶ Updating 24 Core Bathrooms, 8 Elevators, 14 Elevator Lobbies
- ▶ Improving Landscaping and Hardscaping (Plaza, Walkways, Picnic Area)
- ▶ Managing 35,000sf of Tenant Fit-Out
- ▶ Creating a New 5,000sf Commercial Kitchen and Café

railing systems. Also, the City of Greenwich required a running Bond pattern that is achieved with 12x24 custom pavers.

Construction was executed to fulfill energy conservation requirements. The key components of this effort were a renovated rooftop, new curtainwall system and ductwork repairs. In addition, throughout construction our team exercised extreme care to ensure that all waste water and construction/demolition materials were carefully captured to avoid impact to the harbor.

In addition to the core and shell renovation, we also managed build-out for several of the first tenants to take office space in the building. This work encompassed 20,000sf, 9,000sf and 6,000sf projects, respectively.

Lejb noted that his team was the key to success. “There were a number of challenges to overcome and we had a very talented and dedicated team with Michael Donnelly, Brian Boyce and Michael Krantz. In addition, we had terrific support from Jim Hurley who was totally involved in each aspect of the project. That personal touch is invaluable.” ◀



One of two new 1,500sf glass-enclosed lobbies.

“It was a privilege to collaborate with Pavarini in a shared vision to restore a classic modern example of architecture... The schedule was a challenge, particularly working against winter conditions to complete new roofing and getting window replacements weather tight and bringing the completed project to market on time. Without Pavarini being on board throughout the design and approvals process, providing swift estimating allowing the owner and consultant team to make decisions, the demanding schedule couldn’t have been met. Additionally, the dedication and responsiveness of the field super, Mike Krantz, handling unforeseen conditions, trouble shooting and problem solving was a key factor in meeting the schedule.”—**Karen A. Pedrazzi, AIA, LEED® AP, senior associate, Gensler**



The patio and plaza extend to Greenwich Harbor.

Proving Our Case

The venerable law firm **Miles and Stockbridge P.C.** has eight offices; Baltimore is its oldest and largest with over 120 lawyers. The firm's roots in the city extend back over 70 years to one of its founders, Clarence Miles, who was the first president of the Baltimore Orioles. Until 2013, the firm had spent its entire 81 year history in the same office building. The decision to move to a new location, Baltimore's Inner Harbor, and to construct new space was a monumental one for the firm.

Structure Tone's Washington, DC-based team managed construction of the OPX-designed 115,000sf HQ renovation. Echoing Miles and Stockbridge's commitment to community and sustainability, the project is pursuing LEED® Certified certification.

Our work encompassed a total of seven floors and featured new offices utilizing full view glass office fronts to maximize natural light, open workspaces, multiple conference rooms, a law library, training rooms, main reception area and elevator lobbies on each floor. New support spaces included a server room, print/copy and production areas, catering pantry and employee pantries on each floor. There are also comfortable lounge areas overlooking the Inner harbor.

"The biggest challenge and most unique feature of this project was a new internal staircase independent from the building core," said lead superintendent, Don Vincent. "It connects floors three through eight." The stair is enamel painted structural steel highlighted with walnut treads, risers and landings. It is enclosed with tempered glass panels and finished with stainless steel handrails and trim. In addition, it is adorned by a dramatic six-story walnut feature wall accented with state-of-the-art LED lighting.

Adding the new connecting stair required careful coordination between Structure Tone, OPX, Big D Stairs, Theobald and Bufano Engineers and building management to install the required structural reinforcement. All existing mechanical/electrical items were relocated prior to reinforcing the existing floor slabs and cutting new openings. Reinforcing steel was installed, existing windows were removed and the new stair was loaded onto the 3rd floor and distributed so as not to overload the floor. It was then constructed upward to the 8th floor using mechanical hoists.

The demanding schedule was a big challenge and the successful completion was made possible only through the dedication and hard work of the entire team. Noted Vincent, "It demonstrates what can be accomplished when the client, design team and contractor communicate effectively and work together as one cohesive team with the same goal in mind. My thanks to the efforts and sacrifice of my fellow superintendents Jeff Keenan and Jack Strobel for their roles making this project a success." <

“Don and the whole Structure Tone team delivered what most thought impossible—a great final result on an exceptionally compressed time frame. Every job has its challenges and ours was no exception. I couldn't be more pleased and relieved by what was accomplished. We are so very pleased with our new space.”—

Bill Psillas, director of administration, Miles and Stockbridge



Our **Washington, DC** office also recently completed build-out of 8,000sf for **KCIC** on NW 10th Street. Work in the occupied building was completed in nine weeks and the OTJ Architects design features new offices, team rooms, conference room, open work spaces and reception area. Work also included a new MEP system and carpet tiles, as well as A/V coordination.

↓
Miles and Stockbridge sought a construction partner with the capacity to deliver this pivotal project in Baltimore within their aggressive five-month schedule! Structure Tone was that firm.



Smooth Production

With offices in Hong Kong, Shanghai, Shenzhen, Suzhou, Chengdu and Wuhan, **Structure Tone Asia/S&techs** has been providing construction services in the Asia Pacific region for over 13 years. Our clients span a broad spectrum of business sectors from finance and law, to retail and hospitality, to mission critical and manufacturing.

Structure Tone Asia is the interiors and technology arm of the business specializing in interior fit-out. S&techs focuses on the manufacturing and industrial sectors providing design and construction services for plants, clean room facilities, warehouse and logistics centres and R&D facilities and labs.

Recently, S&techs (Suzhou) Construction Company Limited undertook construction of a new 600,000sf manufacturing facility for **Brother Industries**, a Japanese multinational machinery company headquartered in Nagoya in the Aichi Prefecture in Japan.



The consolidated manufacturing and distribution facility is in Xian, China.

The new facility consolidates the firm's industrial sewing machine and machine tool manufacturing facilities that were previously located in different areas of Xian, China. The new, single, state-of-the-art complex enhances manufacturing operations and business efficiency for Brother allowing them to effectively meet growing demand in the Asia market. Approximately 1,200 employees are based at the new facility, which operates as Brother Machinery Xian Co., Ltd.

“There were three major challenges associated with the project,” *said Masaaki Hamamoto, vice president.* “One was the very aggressive schedule—13 months from our start to Brother commencing operations. The second was that the project was located in the Hi-tech Industries Development Zone in Xian, which meant rigorous government compliance submissions. Lastly, the type of structural construction—complete steel structure—was relatively new to the local workforce.”

In order to overcome these challenges our team focused on mentoring and knowledge transfer. We engaged local engineers, technical staff and subcontractors for day-to-day construction delivery. They were mentored and educated by our veteran engineers and other technical staff from our Shenzhen and Suzhou offices. At peak in excess of 500 workers were on site working around-the-clock shifts.

The process was quite successful on all fronts. Brother Industries took possession of their new facility on time and began operating in late spring of this year; the local work force gained invaluable knowledge and hands-on expertise; Xian's Industries Development Zone boasts a best-in-class manufacturing facility; and S&techs has yet another extremely satisfied client. <



WINNER

International Facility
Management
Association (IFMA)
PA/NJ/DE Chapter
Exemplary Element Award

ACE Mentor Program of
Eastern Pennsylvania
Project of the Year

MONUMENTAL

Five Crescent Drive at The Navy Yard is the new office in **Philadelphia** for **GlaxoSmithKline (GSK)**, a global leader in the development and manufacture of a wide range of prescription medicines, vaccines and consumer healthcare products. Construction of the new four-story, glass encased 208,000sf building was managed by **L.F. Driscoll** over a 22-month period.

NEW PARADIGMS

The new facility is an activity-based work environment with no offices and unassigned seating for everyone, including the president of North American pharmaceuticals. Employees are based in neighborhoods with their department colleagues but they can work in a variety of settings throughout the building. Employees can sit or stand at customized work stations, or they can even work while walking at treadmill desks. Each of the four floors features meeting areas, a centralized social hub and quiet rooms. The building design makes it easy for employees to collaborate with colleagues from all departments and hold impromptu meetings.

The design also facilitates movement throughout the day. A dramatic central stair and glass footbridges entice employees away from elevators. All printers and trash bins are centrally located. Recreation spaces, a large park with Wi-Fi access and rooftop plaza promote outdoor activity and meetings.

Collaboration was a key part of the development of the building as well. The developer/owner, Liberty Property/Synterra LP, is a JV of Liberty Property Trust and Synterra Partners. The design team was a result of the synthesis of Robert A. M. Stern Architects (design architect), Francis Cauffman (interior designer/workplace strategist) and Kendall/Heaton Associates (architect of record). Faithful+Gould was the owner's representative for GSK.

The building is the first in Philadelphia to be awarded double LEED® Platinum certification for both the Core and Shell and Commercial Interiors rating systems from USGBC. Sustainable features include a planted vegetative roof; energy efficient lighting; whole building metering; high-efficiency, low-flow plumbing fixtures; and electric vehicle charging stations. Natural light filters into 75% of the facility.

On achieving Platinum certification John Donnelly, project manager, says it "required meticulous management. Vince Collura did an outstanding job developing Indoor Air Quality (IAQ) and detailed waste management plans and implementing and rigorously monitoring them with our subcontractors."

Five Crescent has many unique features, including a custom curtainwall; 80ft-high central atrium; monumental four-story sculptured staircase; three 50ft glass footbridges; access flooring and internet technology anywhere in the building; and dramatically more cabling and electrical for controls and energy management. Amenity spaces include a café/coffee bar, virtual bank teller, pantries, health clinic, company store, help lounge, production studio, conference center, quiet rooms and fully equipped fitness center.

VIRTUAL REALITIES

“One of the tools that was invaluable in managing the job, delivering the quality and maintaining the schedule was virtual construction,” *said David Rhoda, general superintendent.* “L.F. Driscoll and Kendall/Heaton were tasked with modeling the project in 3D, which we took advantage of to precoordinate construction of the building's most complex components.”

Fabrication and installation of the curved, four-story staircase was significantly aided by virtual construction. The steel frame was laser scanned and exact dimensions were inputted to the model. The millwork subcontractor worked in the (real time) model to ensure that the millwork was pre-



The unitized curtainwall and roofing materials were custom fabricated to accommodate the curves and angles of the building's unique design.

cise and to carefully coordinate connections and assembly with the steel frame. This resulted in flawless installation and connection of the finishes and supports.

Rhoda also notes, "The staircase appears to float in the atrium." To accomplish that we had to eliminate visible supports and utilize knife beams at each level. "This construction detail and application is rare; I've only encountered it once in my 25 years." Shop drawings were completed in 3D allowing the team to expedite fabrication and guide assembly with the highest degree of accuracy.

The already complex unitized curtainwall was made more challenging by many curves and angles. The façade has a 423° radius, 40° slope and is parabolic. Construction in areas where water tight seals are crucial, such as the façade-roof connection, was quite challenging. Both curtainwall and roofing materials had to be custom fabricated.

Working with the entire team and our subcontractors we utilized the 3D model to measure and test angles of the roof and façade and to work out the design virtually. This eliminated costly, time-consuming re-work in the field. We also used the 3D model to design and "layout" the curtainwall to identify connections and stresses on the mullions to ensure proper assembly and long-term performance. "With this collaborative effort we were able to bring the building shell on line a month ahead of schedule," said Mike Napolitano, assistant superintendent.

Our virtual construction efforts were not limited to the building shell. "The entire fourth floor, which includes a state-of-the-art conference center that can be subdivided into training/meeting rooms,

was built virtually and precoordinated in advance of bidding and construction," noted Michael Hanna, project manager. Using the 3D model we were able to identify and resolve many MEP conflicts between the sloping roof and the ceilings before subcontractors got involved and were also able to

“The Five Crescent Drive project required exceptional collaboration from all team members throughout the visioning, design and construction processes. As a fast-tracked project, L.F. Driscoll’s real time estimating and construction expertise during the project’s design phase was critical to ensuring that the project remained on budget while maintaining a very aggressive schedule. As the project transitioned from design to construction, L.F. Driscoll’s executive and project management team were invaluable in providing seamless delivery of a project that included many unique and elaborate design features, which required constant coordination and immediate feedback from the project management team.”—Brian Cohen, vice president and city manager, Liberty Property Trust

reroute MEP system runs to create a lean project, reducing the amount of materials required.

Another major challenge associated with the GSK fit-out was the access flooring that is provided throughout the building, including the roof deck. This is an unusual feature. Further, because the building has so many complex curves and angles, the façade had to be connected to concrete curbing rather than directly to the floor, which is typical. The access flooring, like the roof, has complex geometries where it meets the interior walls. Flooring materials were custom fabricated and adjusted to fit on site. "You had to conceptualize what this was and how it was connected to build it," recalls John Rush, superintendent. "Typically, walls are constructed at straight angles and meet the floor effortlessly at right angles. Here, every wall-floor connection was at a different angle and nothing was plumb."

Wiring and cable management in the access flooring was also challenging in terms of the sheer volume and density. For this project there was at least twice the amount of cabling and wiring than what typically is provided.

"Five Crescent Drive is like nothing I have ever built," notes John Donnelly, senior project manager. "Not only is it visually stunning, it embodies GSK's mission to help people 'do more, feel better, live longer.' With this office they turned that philosophy inward and provided their employees with a spectacular workplace that truly stimulates collaboration and creativity and exemplifies health and well-being. It was special to be part of the team bringing that vision to life." <



IF YOU BUILD IT...



©John Baer/Building Images Photography

The new fields will be put to the test when Fordham hosts the 2014 Atlantic 10 Softball Championship — the third time that Fordham has hosted this championship event.

Home field advantage has taken on a whole new meaning for a number of **Fordham University** teams. Over the summer **Structure Tone's NYC** staff managed renovation of the playing surfaces at Bahoshy softball complex and Murphy field.

Bahoshy is home to the Lady Rams, winners of the Atlantic 10 softball title in 2013. Murphy Field includes a practice field for both the football and soccer teams, and is home to a number of Fordham's club and intramural sports.

Renovating the fields first involved stripping the existing synthetic surfaces. We then regraded the bases. The Bahoshy base complies with NCAA guidelines and is a sand and clay aggregate. At Murphy it is a stone mix. We also improved drainage and pitch at both locations.

The new surfaces are comprised of the state-of-the-art FieldTurf Revolution® fiber product. A decorative Fordham "F" graces centerfield at the Bahoshy complex.

Additional work included reconstructing the bullpen areas at Bahoshy Field, installing a sliding gate in the bullpen fence for infield tarp storage and replacing the outfield wall. The new structure is removable. At Murphy Field we also demolished and replaced the existing track. Sidewalks and curbs were replaced at both locations. <

“This was a very exciting project for us,” *said Tim McGee, project executive.* “Field renovations are unique and not as common as some other types of work. Bob Rush, our project manager, did a great job and we were very fortunate to have had the best subcontractor in this highly specialized area, the Landtek Group.”



©John Baer/Building Images Photography

State-of-the-art FieldTurf Revolution® is the new playing surface.



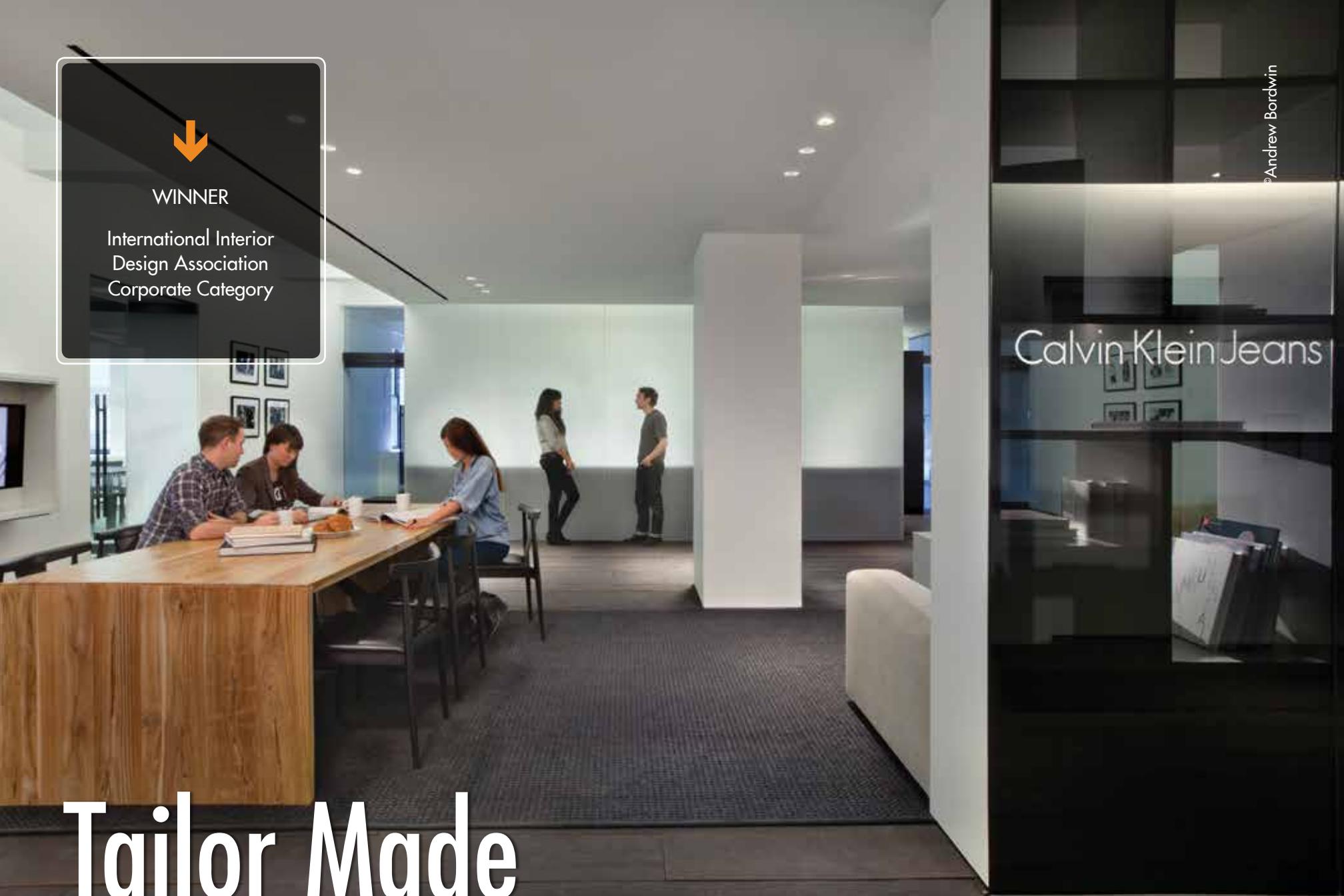
©John Baer/Building Images Photography

The Fordham "F" is prominent in centerfield.



WINNER

International Interior Design Association
Corporate Category



©Andrew Bordwin

Tailor Made

The staff at **Calvin Klein Jeans** knows that finding the perfect fit is hard work. For build-out of their **New York City** design center we were able to do just that...find the right fit, that is.

Structure Tone worked closely with staff from Calvin Klein and its parent company, PVH Corp, as well as their consultant team to construct a modern space for over 60 employees. In addition to office and amenity space, the workplace included elements unique to a high fashion design center.

Located in a 1920s-style garment factory, the new design center featured an industrial style that included polished concrete floors and open ceilings containing exposed spiral ductwork. In addition to open workstations and design studio areas, the fit-out encompassed conference rooms with high-tech A/V, a high-end elevator lobby and reception area with Poggen pohl millwork, presentation space, work rooms with tack boards and a stainless steel garment hanging system, vendor rooms, a new IDF room and high density file storage areas.

“Working with the architect, Gensler, and the engineer, Robert Derector, early on in the design phase we were able to address and resolve PVH’s budget and schedule concerns. The schedule was a major concern because Calvin Klein was moving staff from other locations and the move-in date was inflexible,” said Jason Blau, superintendent. Other efficiencies were gained by prepurchasing the sheet metal before the final drawings, direct-purchasing the French wood flooring and competitively bidding lighting directly to manufacturers.

Like a great pair of Calvin’s, our team was just the right fit. <

“The job was destined for greatness from the beginning. The IIDA award validates all the hard work and dedication from everyone involved. From day one the schedule was extremely challenging. Thanks to the talent and guidance from the Gensler team and the hard work and professionalism of the Structure Tone team, the project had a great flow to it.”—**Gary Seidensticker, director of facilities, PVH Corp**



©Andrew Bordwin

A stainless steel garment hanging system was one of the unique features of this office build-out.

Top Shelf

There are never too many cooks in the kitchen for **Pinnacle Foods Inc.**, a leading producer, manufacturer and marketer of shelf-stable and frozen foods. Over 85% of American households purchase their iconic brands, which include, among others, Duncan Hines, Vlasic, Log Cabin, Birds Eye, Aunt Jemima Frozen Breakfast and Hungry-Man.

Pinnacle Foods' mission is *Reinvigorating Iconic Brands*—always striving to renovate and innovate their beloved brands to bring their consumers the best products possible. They selected a mirror image in **Structure Tone** when they chose us to manage construction of a new clean room, analytical food lab and grab-n-go cafeteria in their **Cherry Hill, NJ** office. Other project partners included Avison Young (formerly The Walsh Company—owner's rep), Gensler (architect) and The Rock Brook Consulting Group (engineer).

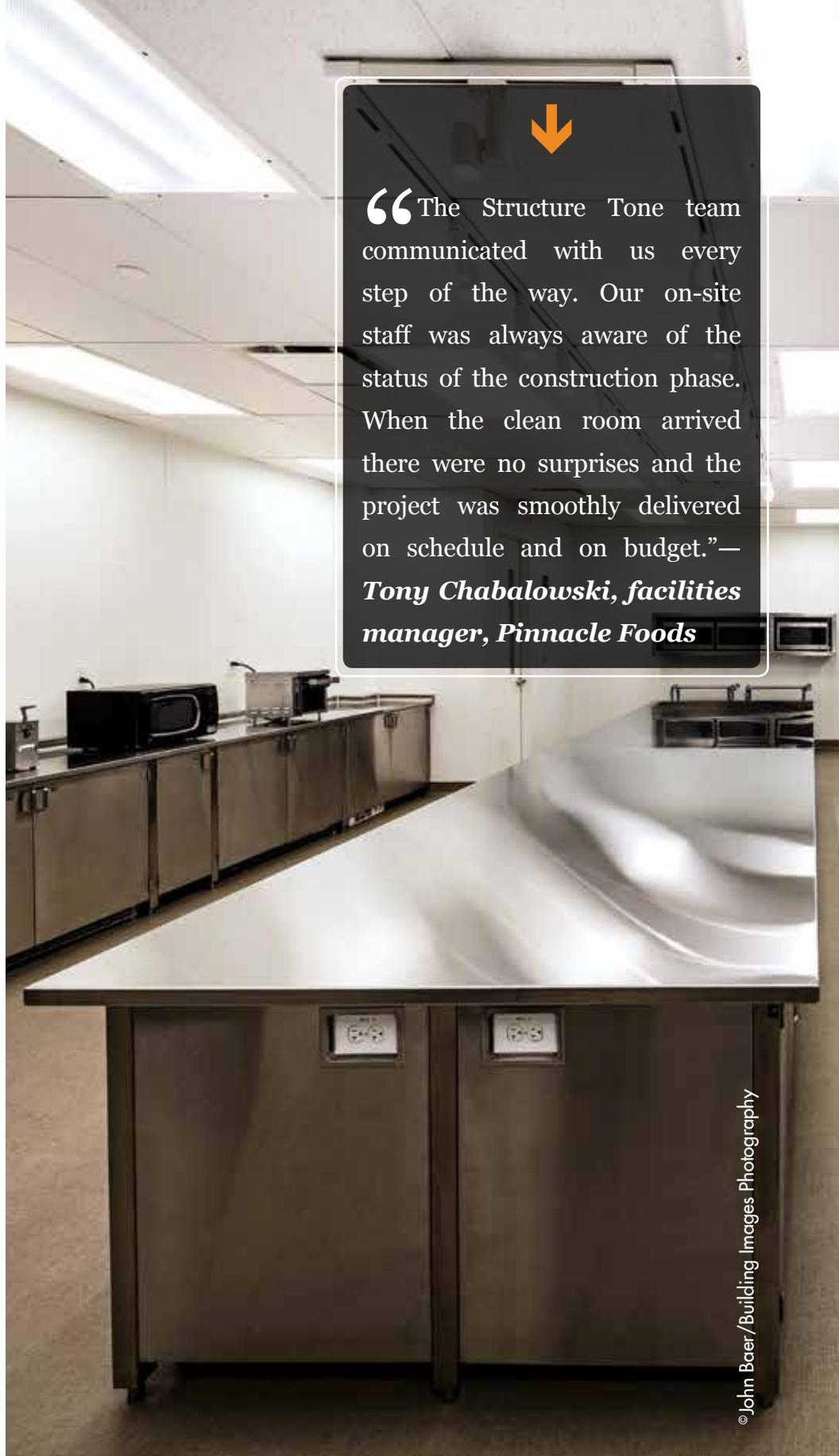
A major focus of the 12-week project was the installation of a modular clean room. "While we were fitting-out the Cherry Hill space the modular clean room was actually in use at another location," said Matthew McHale, project manager. "To prepare for its relocation we built a new mechanical room to specifically support the clean room. We also installed two rooftop air handling units and dedicated humidifier, water heater and sterilizing units for the lab equipment... as well as provided minor finish work, new ceiling tiles and fixtures."

One of the key challenges was ensuring that the rough-in directly corresponded to the needs of the room once it was delivered to Cherry Hill. Our team coordinated closely with the other location's staff responsible for breaking down, labeling, packing and shipping the clean room. "We were ready for the installation when the pieces arrived," noted McHale. "It was a very seamless process." Following the installation our staff worked with a third party to conduct air balance tests and certify the room for Pinnacle Foods.

Another challenge was that the new room was constructed in a raised access flooring area that supplied critical tele/data service to the rest of the facility. These systems could never be taken offline. During construction materials were brought in by hand to protect the integrity of the raised floor and the same was true during installation of the lab equipment.

Further, all construction was conducted directly adjacent to occupied office space. We carefully planned disruptive work, such as cutting the in-slab sanitary system, off hours to avoid impacting Pinnacle employees.

The analytical lab was another unique project element. The lab is used to test food products. Our work included installation of commercial grade refrigerators, cooktops and microwaves, as well as stainless steel counters. <



“The Structure Tone team communicated with us every step of the way. Our on-site staff was always aware of the status of the construction phase. When the clean room arrived there were no surprises and the project was smoothly delivered on schedule and on budget.”—
Tony Chabalowski, facilities manager, Pinnacle Foods

©John Baer/Building Images Photography



©John Baer/Building Images Photography

The analytical lab (top) and clean room (above) are key areas of this facility.



↓
A set of newly cleaned “baby spires” gleams brightly against Manhattan’s 5th Avenue below.

InSPIRational

The iconic **Saint Patrick’s Cathedral**, a national historic Landmark, is one of the most instantly recognizable structures in New York City. For over a year, much of the exterior has been encased in scaffolding as part of a \$177 million multi-year, multi-phase, multi-discipline restoration being managed by our **New York City** office.

For all the work still to be done to fully restore all aspects of the Cathedral’s magnificence, two breath-taking examples of its splendor have recently been revealed—the 330ft north and south spires and the 9,000lb main bronze doors. Both are the result of a unique juxtaposition of precision planning and execution and delicate, manual cleaning and restoration. “It’s amazing that in this day and age of hyper technology, these massive structures were restored, a foot at a time, *by hand*,” said Eileen McCarthy, project manager.

Before the spires could be cleaned and repaired they were surrounded by the most complex scaffold structure in the city. It took six months to erect. “There were 47 levels up to the tops of the spires,” noted McCarthy. “The levels varied,

some as high at 13ft some as short as eight. It was like a wedding cake, it stepped as it went up. It was wider at the bottom and narrower at the top, surrounding the spires.”

McCarthy climbed that scaffolding many times to oversee progress or, sometimes, escort press. “I didn’t know a fitness plan was part of this assignment,” she laughed.

Discolored and darkened by age and exposure, the spires now gleam white and pristine standing out prominently amidst the glass and steel skyscrapers. The bronze crosses atop each were repatinated to provide an even patina and finish absent of pitting and blackening on the surface.

In addition to the main spires there are 343 finials, what Eileen McCarthy calls her “baby spires.” They run along the roofline and, recently, many were exposed as work was completed and the scaffolding was dismantled. “Every single finial is different. Each has four elevations with each face portraying an individual image, and no two images repeat,” said Eileen. “One is an ear of corn, another a shamrock, and so

on. It’s mind boggling to think of the artisans who created them.”

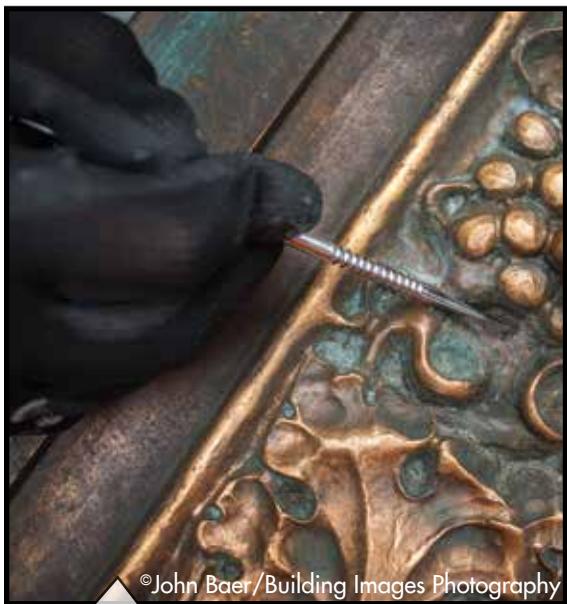
Another feature of the restoration that has come full circle is the main bronze doors. Each is 16’8”x 6’9” and weighs 9,000lbs. They were originally built in 1949 and had severely deteriorated.

Sixty years of pollution and anti-corrosion efforts left the doors pitted and covered in deposits, dirt and numerous coats of paint. Also, the structure of the doors had failed to the point that three or four men were required to open or close them.

Over eight months the doors were cleaned and restored almost single-handedly by Lucia Popian of G&L Popian of Long Island City. “The devotion and loving care that was given to this work by Lucia and everyone at G&L Popian created absolutely breath-taking results. The doors, like the spires, are magnificent,” enthused Eileen.

The (re)installation was carried out over three days, one to assemble the gantry and one each for the right and left doors, respectively. Work was scheduled for the very early morning hours because closures were required on 5th Avenue to minimize impact to traffic and daily Cathedral operations, respectively. ◀

“Apart from Eileen’s obvious expertise, it is a pleasure to work with someone who is so passionate about Saint Patrick’s Cathedral whether she’s on the job, taking photos for a passing tourist, or giving an interview for the *New York Times*. Eileen has been a wonderful person to get to know and we are thrilled to have her on board.”—**Kate Monaghan, communications director, Saint Patrick’s Cathedral**



©John Baer/Building Images Photography

Doors were painstakingly cleaned and restored by G&L Popian of Long Island City, NY.



©John Baer/Building Images Photography

The finished doors were reinstalled by hand.

Compelling Argument

How do you successfully build-out 300,000sf in one of the most prestigious, occupied buildings in **Boston**? “Preconstruction planning,” says Ryan Caffyn-Parsons, project executive. Ryan goes on to note, “In preconstruction we address every aspect of the project—logistics, safety, manpower shifts and peaks and ebbs, movement of materials and workers through the occupied building, mock-ups, inspections...as well as the typical items people think of...budgets, value engineering, materials availability from Europe, direct and prepurchasing, you name it. We basically build it on paper before field operations begin.”

For a distinguished **Boston law firm**, our staff provided comprehensive preconstruction and construction services for a fast-track build-out that spanned 12 floors. Ryan notes, “Because of the schedule and the high sensitivity to the occupied building, once we were in the field there was zero margin for impacts. Our project manager, Jim Custodio, and chief estimator, Jeff Hart led the team in an exhaustive precon effort that really paid off.”

Our work across all floors encompassed office space, a conference center, fitness center, data center, kitchen/servery and general support spaces. Additionally, major infrastructure upgrades were required, including replacement of mechanical, electrical and plumbing systems throughout all 38 floors and on the roof. The conference center features a sound-proof meeting room and state-of-the-art A/V.

In addition to our team’s efforts with each other, the planning process involved extensive coordination with Gensler, the architect, particularly vis-à-vis constructability review, alternatives analysis and the evaluation of mock-ups. The owner’s representative, Legatt McCall Properties, was also integral to the planning process. And during construction, we met regularly with Equity Office Properties (EOP) to update and coordinate construction activities around the needs of EOP and its other building tenants. <



Also in **Boston** we successfully completed the build-out of **MFS Investment Management’s (MFS)** new LEED® Gold-certified corporate HQ. The premier asset management firm relocated 1,400 employees to a 310,000sf, 11½-floor Boston Properties-managed building on Huntington Avenue. This unique space includes:

- ▶ Executive Office Suites
- ▶ State-of-the-Art Boardroom
- ▶ 3,000sf Reception Area (opens for internal functions)
- ▶ Full-Service Catering Kitchen
- ▶ 8,000sf Trading Area (65 desks)
- ▶ Client Conference Center (nine varied-sized conference rooms)
- ▶ Four Training Rooms (open to a 100-seat auditorium)
- ▶ 410 Prefabricated Walled Offices (DIRTT system with 7,900lf of wall)
- ▶ Central Cafés on Each Floor
- ▶ IT Labs
- ▶ New MEP Infrastructure
- ▶ Sophisticated A/V and Communications Systems

↓
New 300,000sf
Boston law firm
interior spanning
12 floors

©Chris Leonard





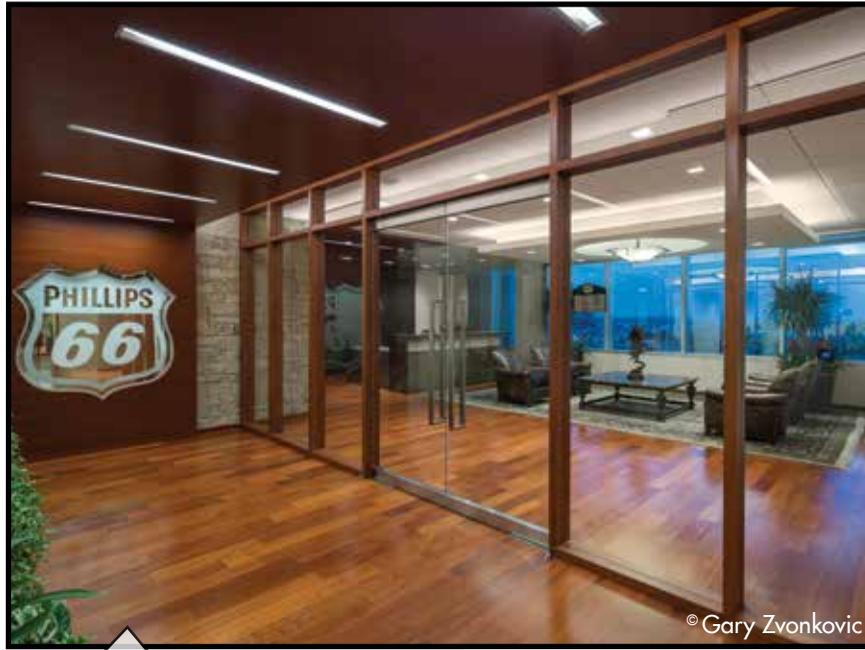
Headquartered in Houston, Phillips 66 is a growing energy manufacturing and logistics company with high-performing midstream, chemicals, refining and marketing and specialties businesses.



A HQ by Any Other Name...

On May 1, 2012 Phillips 66 spun off from ConocoPhillips and became a separate and publicly-traded company. While it is a “new” company, Phillips 66 has more than 130 years of experience. Following the spinoff, the company needed a (temporary) HQ, and it chose the Pinnacle Building in the Westchase District of Houston.

Structure Tone Southwest’s (STSW) Houston office managed construction and build-out of the temporary space, which consisted of 210,000sf and encompassed five floors. All five floors had to be demolished prior to the new build-out. The five-phase project had a tight deadline to complete the work in just five months. The construction team worked three shifts a day to make it happen.



The reception/lobby area welcomes staff and visitors to the temporary HQ.

In keeping with Phillips 66’s unrelenting emphasis on safety, our vigorous safety-first culture throughout all facets of the project allowed us to complete 16,717 man-hours without any lost time injuries.

In Just Five Months

- ▶ Executive Suites
- ▶ Offices on Multiple Floors for Corporate Departments
- ▶ New Reception Area
- ▶ Conference and Training Rooms
- ▶ Kitchens and Pantries for All Floors
- ▶ Medical Office
- ▶ Video Production Studio
- ▶ Credit Union Suites
- ▶ Emergency Operations Center
- ▶ Power and Data Infrastructure
- ▶ Emergency Power
- ▶ Sophisticated A/V and Sound-Masking Systems

“Our field team did a phenomenal job,” commented Butch Nesmith, project manager. “Our superintendents, Rollie Kunc and Winston Hesch, were at the top of their game from day one through supporting Phillips 66 after their move-in. Our talented team allowed us to accomplish a very high level of work during such a short time period.”

Butch also noted that project was completed on a design-build basis for electrical and mechanical trades. “Since Phillips 66’s programming and design needs were evolving, we had to work hand-in-hand on an almost daily basis with HOK (architect, TD Industries (mechanical engineer) and Walker Engineering (electrical engineer) to ensure that design intent and constructability dovetailed

so that we could meet the move-in schedule and ensure that Phillips 66’s expectations were met.”

If the schedule, design-build delivery and design weren’t challenging enough—the rest of the building was occupied and there was only one freight elevator. We worked closely with the property manager to develop a coordinated dock/elevator schedule that ensured basic building operations were not impacted and that construction operations were supported. In addition, our team was scrupulous in minimizing impacts to other tenants. <

“STSW was able to meet our deadline in getting the Pinnacle Westchase building ready for our move-in. This space provides our team with a great place to work until our permanent headquarters building is completed.”—**Greg Cardwell, real estate manager, Phillips 66**



The board room features state-of-the-art A/V equipment and high-end millwork.



West Side Story

The High Line has played an important role in the history of the City's lower West Side beginning in 1929. Then, it was a central part of the West Side Improvement Project when freight rail was lifted 30ft off city streets. In 1980 trains stopped running and in the mid to late '90s the elevated structure was targeted for demolition.

Enter Friends of the High Line, a community based non-profit group that worked arduously with the City to preserve High Line and create a public park. Their efforts were successful and today High Line is a one of New York City's most sought-out park spaces enjoyed by locals and visitors from around the world.

Since the park's opening in June 2009 its popularity and renown has grown exponentially and a **High Line HQ and administration building**

was needed. **Pavarini McGovern (PMG)** is managing construction of this feature of the High Line's new era, officially known as the Diller-von Furstenberg Building.

In keeping with the unique park and history that it represents, the 20,000sf HQ facility is a presence all its own. Designed by signature architectural firm Renzo Piano Building Workshop, and brought to life through architect of record Beyer Blinder Belle, the four-story building is a steel structure with glass curtainwall and brick façade.

This new LEED® Silver-certified facility will house offices and a maintenance area to manage, maintain and operate the High Line, as well as public amenities including a visitor information area, glass enclosed elevator to access the park from the third level, roof deck, public meeting room

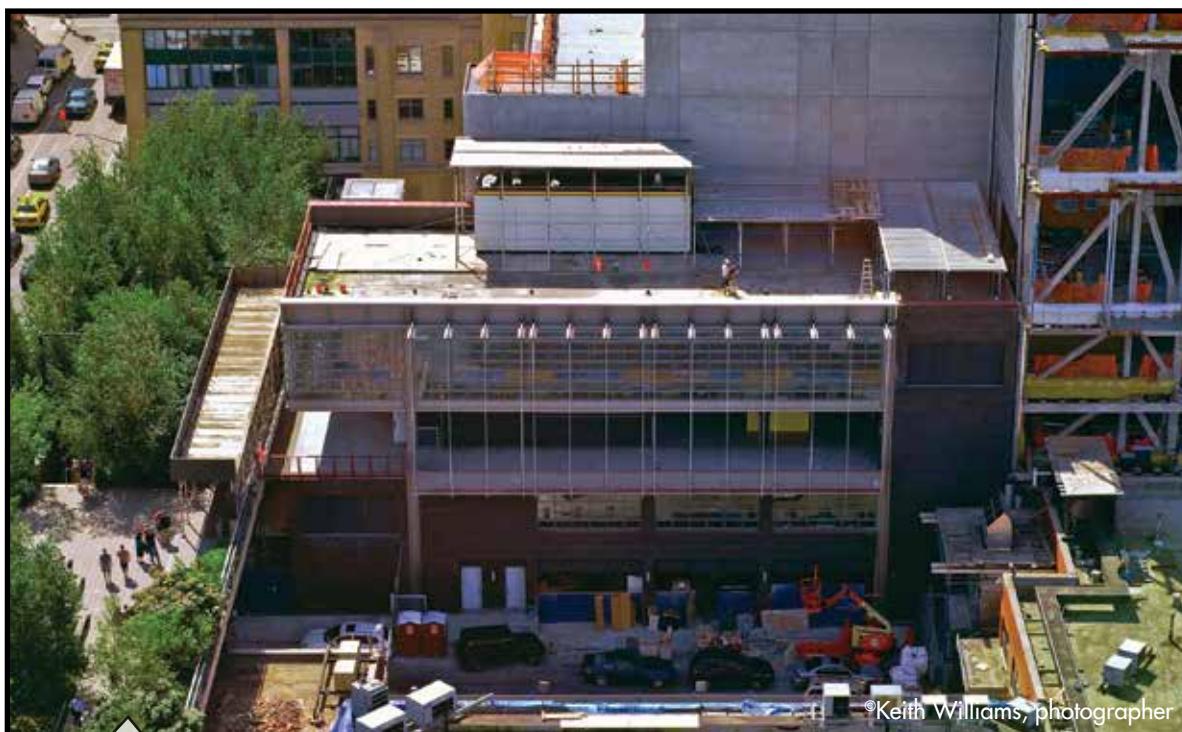
High Line spurred tremendous investment in the area, including the new 20-story, 205,000sf Standard Hotel, which spans a section of the High Line and was also built by Pavarini McGovern.

and public restrooms. Our team is also managing construction of a new restaurant/cafe located below the viaduct.

The roof deck was designed to evoke the High Line structure. Massive steel girders, with a combined weight of over 1,000 tons, were installed on the roof. The girders serve as unique handrails for visitors on the deck and also support the lower floors via steel cables. Due to this structural design, the construction was performed top-down after the primary steel was put in place.

The new HQ building also shares a property line and was constructed simultaneously with the new Whitney Museum of American Art. "This was a major coordination challenge," said Greg Smalling, project manager. "We worked daily with the Whitney's base building contractor, NYCDOT and the Department of Buildings to coordinate safety and access plans, including addressing public safety, coordinating trucking and delivery logistics (in the Meat Packing District) and keeping the site secure for trades as well," continued Smalling.

The effort was detailed and complex. "Our construction was progressing more quickly than the museum. At one point, the wall for the HQ was on the property line next to a 40ft-deep foundation for the museum. When cranes were in motion for steel erection for the High Line building, our team was in constant contact with the adjacent project site," explains Smalling. <

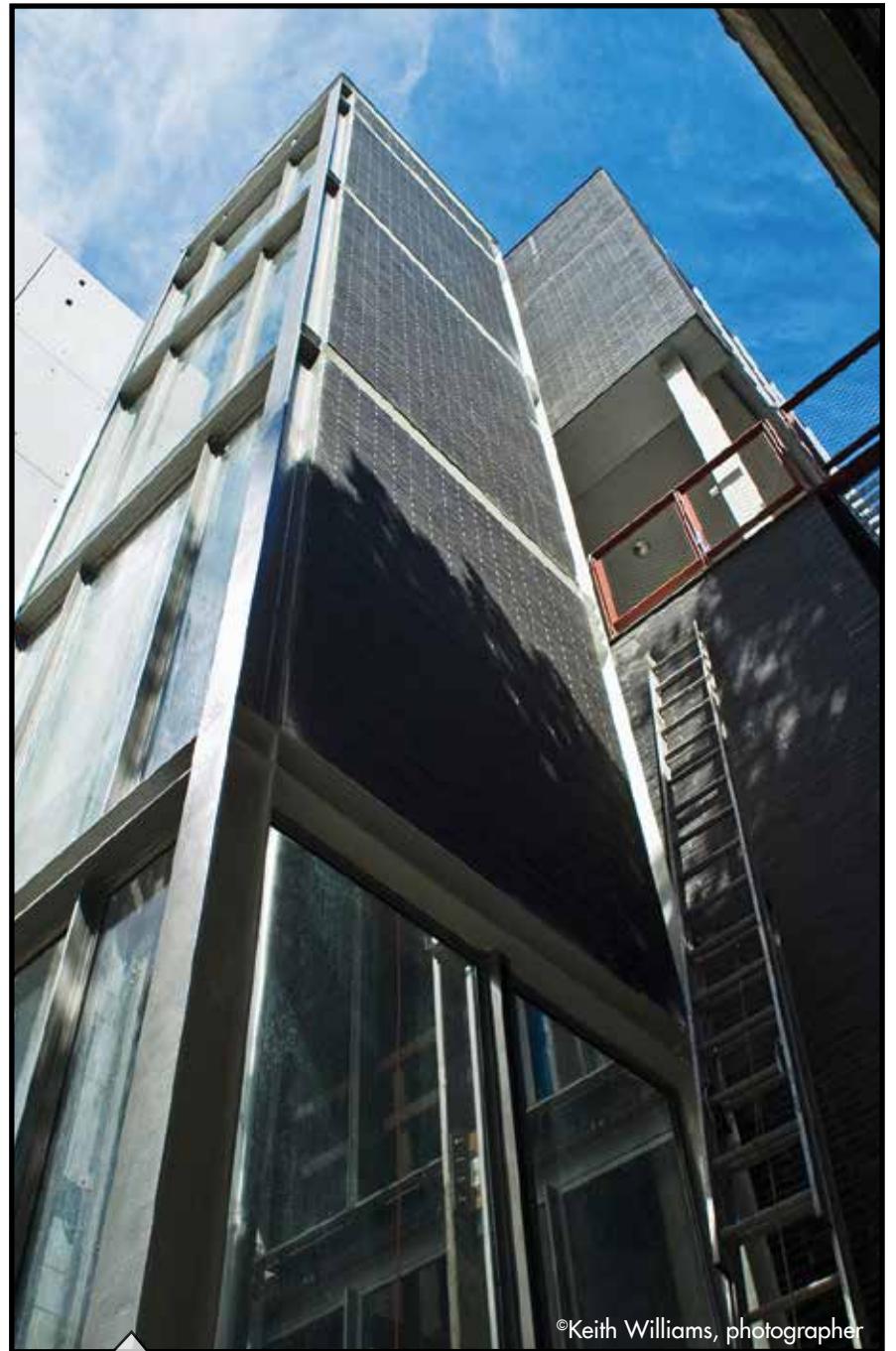


The new High Line HQ building rising above its namesake park.

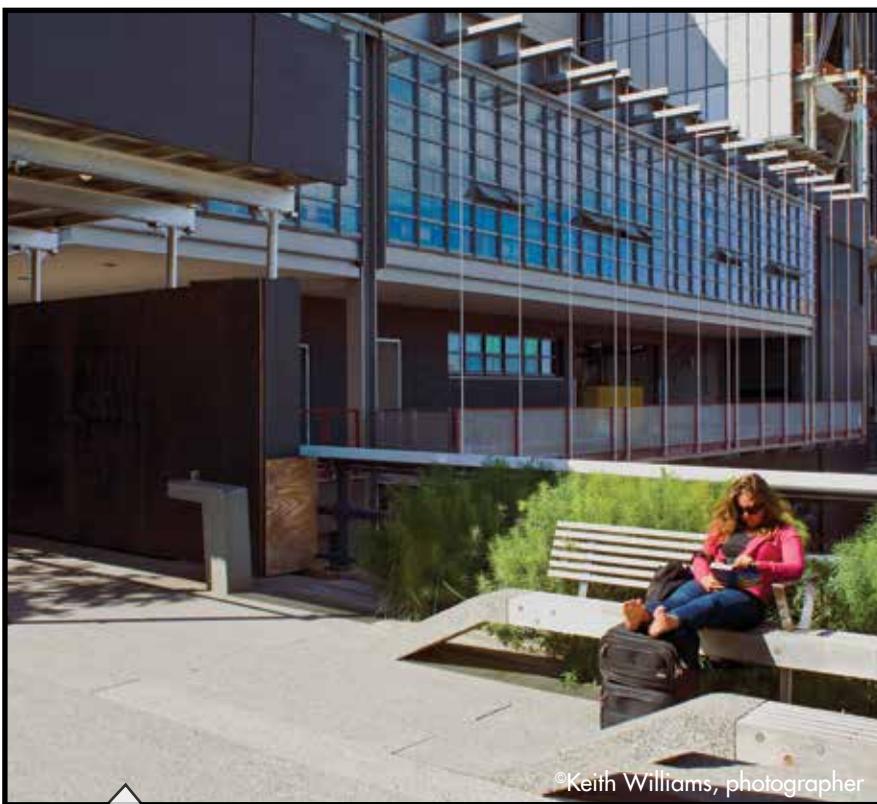


©Keith Williams, photographer

“Having PMG on-board early on in the project, providing preconstruction services, was critical to ensure the project could be delivered both on-budget and on-schedule. From day one, PMG brought such a high standard to all aspects of the project. As we approach completion, and the full realization of our architects’ design, we are pleased with the quality of the work and attention to detail that PMG brought to every step of the process.”—*Patrick Hazari, director of design & construction, Friends of the High Line*



©Keith Williams, photographer



©Keith Williams, photographer

A visitor enjoys the park next to the new High Line HQ building.

The new HQ will officially be known as the Diller-von Furstenberg Building.



Each floor has its own design aesthetic to reflect the individual department.

A Lot of Hardt

“I love renovation and I love old buildings,” said **Maura Taylor, superintendent**, with a big smile. “You get to use all your skills. No day is like the one before.”

Maura was deep in her, and **Structure Tone’s**, element as she oversaw an approximate 100,000sf renovation of the **Steinhardt School of Culture, Education, and Human Development at New York University**. The project encompassed the Education, East and Pless Buildings (the latter two originally built in the 1800s) in the heart of Greenwich Village.

The work had two main focuses—interior and infrastructure renovation. The overarching goal was to enhance work spaces, optimize space usage, consolidate departments and upgrade utilities and MEP systems serving these buildings.

THE PLAYERS

The eight-floor East Building is home to the: Media, Culture, and Communications and Teaching and Learning departments, as well as doctoral students conducting research. The focus of LTL Architects’ design was to give each its own personality, as well as meet their functional needs in modern, new space. Angled ceilings, fabric wrapped panels, varying color schemes and wood finishes all combine to both unify the building with a common sense of place, yet distinguish each department with its own ambiance.

Also, in keeping with NYU’s rigorous commitment to sustainability, the project is seeking LEED® Gold certification. Renewable materials, daylight harvesting and energy and water use management all figure prominently in the LEED-compliant design.

In the Education and Pless Buildings we built more specialized spaces to support Loewe Theater and the music and performing arts programs. These new spaces were primarily in basement levels.

“It’s been like solving a puzzle,” commented Maura. “We are reclaiming space for Steinhardt to better enable them to carry out their programs.” What Maura refers to are creative solutions such as converting an old elevator shaft to closets or accommodating a 1000-piece clothes carousel for the Loewe Theater scene shop.

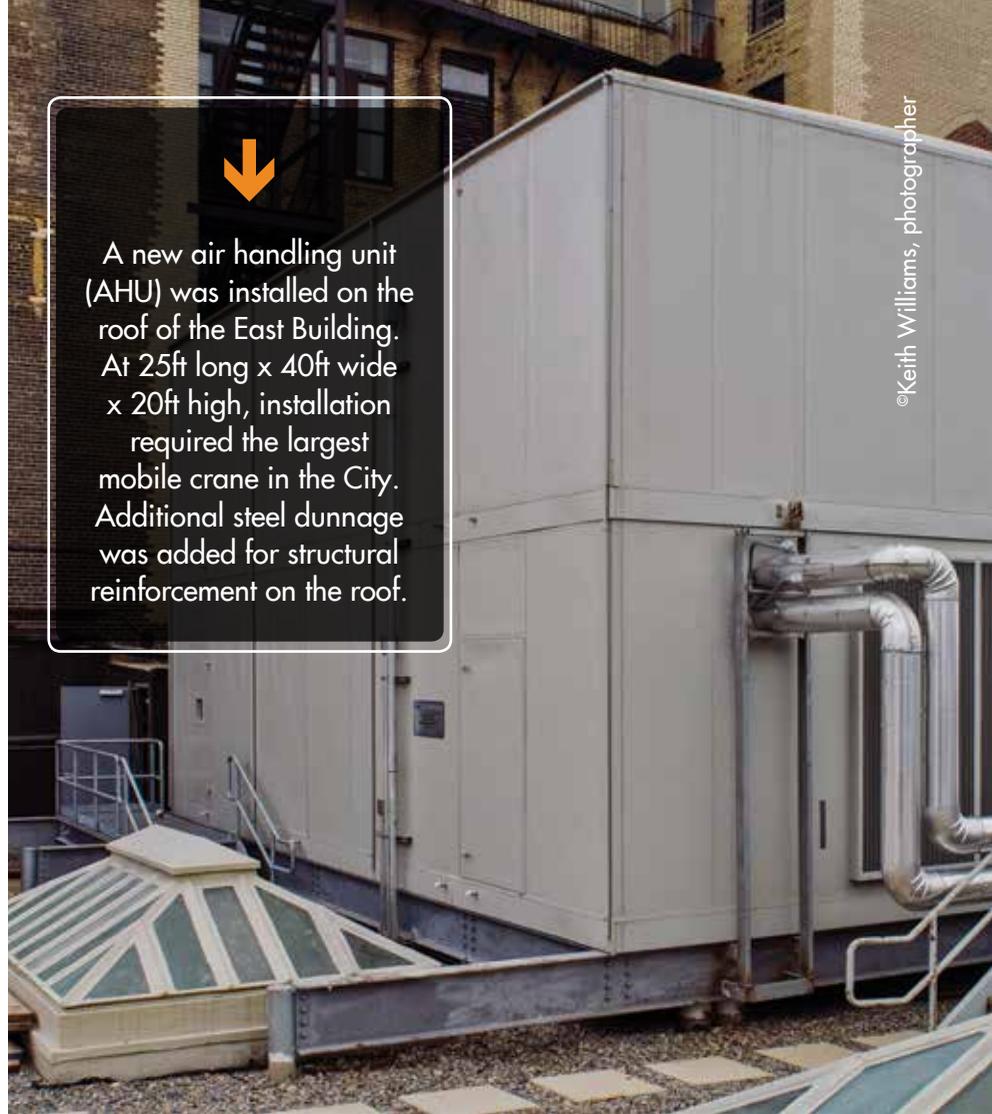
BEHIND THE SCENES

The infrastructure work began with hands-on inspection of all existing systems to provide an accurate basis for design. The work was divided into four areas: chilled water, high temp hot water (HTHW), the Education Building and the East Building. The design engineer was Thomas Polise Consulting Engineer (TPCE).

Michael Albanese was the MEP superintendent. “This job had everything,” reflected Albanese. “To complete the inspection we were literally crawling in

Interior Features

- ▶ Multi-Media Lounge with Stadium-Like Seating
- ▶ Self-Supporting Bench
- ▶ Global Network Communications Room
- ▶ Two-Way Observation Teaching Room
- ▶ Rolling Art-Glass Wall
- ▶ STEME Teaching Studio
- ▶ Sound-Attenuated Music Practice Studios
- ▶ Theater Scene and Costume Shops



©Keith Williams, photographer

©Keith Williams, photographer

↓
 A new air handling unit (AHU) was installed on the roof of the East Building. At 25ft long x 40ft wide x 20ft high, installation required the largest mobile crane in the City. Additional steel dunnage was added for structural reinforcement on the roof.

walls and ducts. For the East Building all service was run through occupied space; we were very creative in finding routes.”

Noted Taylor, “Michael and the MEP subcontractors were the real heroes of this job.” Albanese demurs about himself but concurs about the trade contractors, “The support of Interstate Mechanical and Sound AC was critical to our success.”

MEP AT-A-GLANCE

Chilled Water: This entailed connecting to NYU’s CoGen facility via two 18-inch chilled water lines by traveling across five properties, a Landmarked cobblestone street and an active restaurant kitchen; repairing the street; traversing the Education Building foundation and terminating at East Building. Eighteen-inch wet taps into the central main from the CoGen were required for start-up and future connections.

HTHW: We installed three high temp heat exchangers off of the central CoGen HTHW distribution (400° water at 250lbs of pressure required x-ray quality welding). Ultimately this eliminated steam systems in the East Building and prepared the Education Building for the same in the future.

Education Building: We upgraded the HVAC system serving Loewe Theater as well as rebuilt support facilities, including new public restrooms and woodwork/scene and costume shops. In eight weeks we fabricated and installed all duct work and the AHU that feeds the theater—the equivalent of \$1 million in “tin”—as well as renovated the lobby and restrooms for use during intermission. The scene shop included installing a custom dust collection system, full wood shop, costume design sewing shop, laundry rooms, dressing rooms and storage areas. Work also entailed construction of a new ConEd POE and electrical distribution

room, as well as installation of an ATS system off the central CoGen electrical service.

East Building: Work here encompassed installation of new: domestic and fire water services, fire pump, combination standpipe risers, electrical/fire alarm spine, domestic water risers and external HVAC shafts. All service runs from basement level up through five occupied floors.

In reflecting on the intricate, multi-phase job, Maura Taylor noted, “These types of projects are complex and very challenging. It makes a tremendous difference to be doing them with a great client and amazing team. Jeffrey Lane, executive director of facilities planning and technology for the Steinhardt School, is a wonderful, involved client and Maria Lavin, NYU FCM’s PM, is a terrific, supportive team captain. Then, we’ve got the best labor foreman in the business in Tim Joy, great subs and fabulous young talent like Michael

Albanese and RJ Nardella. This job would not be a success without each of them.” <

“No matter what kind of challenges came their way in the project, Structure Tone leveraged extraordinary resources and experience to overcome them. These are old buildings and there were always surprises. Michael, Maura and Tim are my heroes!”—*Jeffrey Lane, executive director of facilities, planning and technology, Steinhardt School, New York University*



©Keith Williams, photographer

On the job, (L to R) Tim Joy, Maura Taylor and Michael Albanese.



OPEN FOR Business

Our **Dallas** office recently had the pleasure of building an office space of a different nature. It was for the **Dallas Regional Chamber** and, as much as it is an office for staff, it is a marvelous display space that puts the spotlight on the Dallas/Fort Worth area as a great environment for businesses.

The 25,000sf new office is all about meeting, greeting, sharing and promoting. It offers panoramic views of the city, as well as a: large conference room and several smaller ones, marketing gallery, board member display with interactive monitors, and general office and support spaces. The interior was designed (by HKS) and built to achieve LEED® Silver certification. Many products were reused or repurposed from the previous tenant's finishes. When entering into the space, one is greeted with the Chamber logo mounted on a natural stone chipped wall just behind the oval shaped reception desk made of granite countertop. Lastly, touchscreen monitors are installed to facilitate guest interaction and learning about the Chamber and its work. <

“Thanks to the superior construction services provided by Structure Tone, our office is an outstanding and exceedingly functional headquarters that meets the highest environmental standards and supports our initiatives as we promote economic development and prosperity throughout the region.”—*Amb (r.) James C. Oberwetter, president and CEO, Dallas Regional Chamber*



©Aker Imaging

The Dallas Regional Chamber offices provide ample space for meeting, greeting and sharing.



Eileen McCarthy, Project Manager
Featured Panelist: ENR
Groundbreaking Women in
Construction



Tim McGee, Vice President,
Education
Featured Panelist: Façades +
Performance Conference



John Marsicano, Director,
Project Financial Services
Featured Panelist: CFMA Annual
Conference



Jim Donaghy, Executive Chairman
Featured Panelist: ENR 2013 Top
Contractors Webinar

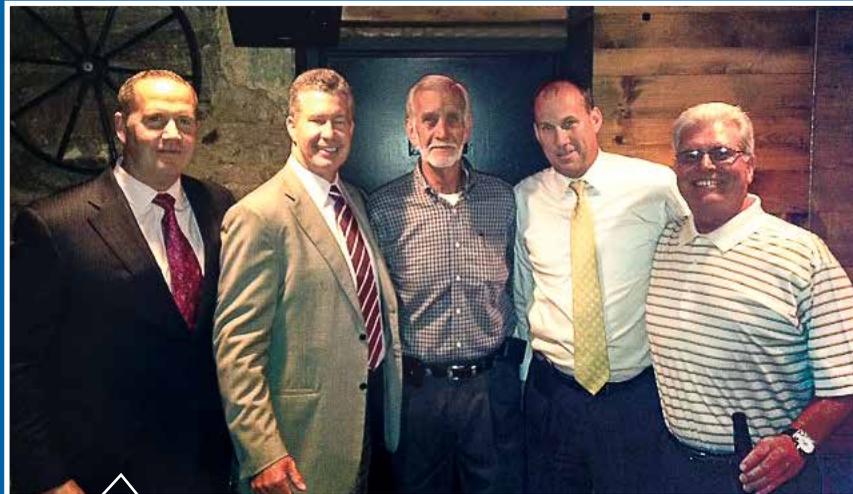


Bill Noonan, Vice President,
Risk Management
Featured Speaker: Willis/Pillsbury
Default Insurance Annual Forum



Ron Bowman, Executive Vice
President, Mission Critical
Featured Panelist: AGRION Green
Buildings and Energy Efficiency Day
World Green Energy Symposium

All the Best



Frank McCann (center) enjoyed celebrating with long-time colleagues.

After 40 years Frank McCann is hanging up his hard hat and heading for retirement. Spending 32 of those years with Structure Tone, Frank served as a project manager. He began his career with us in 1981 when the company only had 61 employees and one office in New York City. At Frank's retirement in 2013, Structure Tone employs over 1,550 professionals in 18 offices in the US and abroad. Today, only seven other Structure Tone employees have been with the firm longer than Frank.

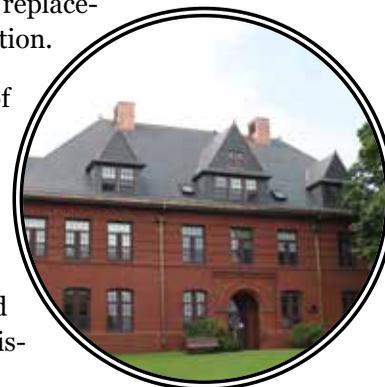
When Frank started at Structure Tone the project manager role did not exist. In 1984, Structure Tone adopted the position and Frank helped run the department along with a colleague. But, being a hands-on operations man through and through he later returned to the field as a project manager.

Notable projects from Frank's career at Structure Tone include Moody's at Seven World Trade Center, MetLife, Bloomberg, WPIX, Sony Music, Durst and Equitable Life, to name a few. ◀

Preserving Treasures

J.F. Driscoll received the **Grand Jury Award** from the Preservation Alliance for Greater Philadelphia for their preservation and restoration efforts at the **Rodin Museum**. Improvements to the building and its grounds included plumbing and electrical system upgrades, roof repairs, historic metalwork conservation, paving replacement, tree planting and new bench installation.

The Historic Preservation Commission of the City of Somerville, MA honored two **Tufts University** projects managed by our **Boston office** with **Good Stewardship Awards**. The projects were renovation of Bromfield-Pearson, an historic 140,000sf building, and repair and restoration of the 130,000sf Tufts Administration Building (TAB). ◀





L.F. DRISCOLL: PEREGRINE FALCON RESCUERS!

L.F. Driscoll was performing on-going renovation work at the Hospital of the University of Pennsylvania (HUP) when a pair of endangered peregrine falcons was spotted building a nest on the ledge of one of HUP's buildings. They donated a high-reach crane lift to allow **Pennsylvania Game Commission (PGC)** staff access to the nest. Reaching the seven-story ledge, PGC coordinators examined, treated and banded (for tracking purposes) the baby falcon. After receiving a clean bill of health, she was safely returned to the nest.



A DAY AT THE (MS) RACES

Structure Tone NY was once again a proud supporter of the annual Race Against MS for the **National Multiple Sclerosis Society**. This year's event honored Glen J. Weiss, executive vice president and director of leasing for Vornado Realty Trust. Also, Jim Donaghy presented Thomas D. Jacobson, chairman and CEO of Jacobson and Company, Inc., with a surprise Blue Ribbon Award for his generous support and dedication to the event over many years.



WASHINGTON, DC GEARED UP FOR REAL ESTATE GAMES

Structure Tone Washington, DC had a great day participating in the 24th annual **Juvenile Diabetes Research Foundation (JDRF)** Real Estate Games. More than 2,000 people from the commercial real estate community joined in the all-day Olympic-style sporting event.

STRUCTURE TONE NEW JERSEY SUPPORTS MARCH OF DIMES

Erik Sletteland of **Structure Tone NJ** served as golf chair for the New Jersey **March of Dimes** 2013 Real Estate Award Reception and Pynes Putting Challenge. The event was founded in 2000 and brings together more than 200 professionals from New Jersey's real estate community.

TEAM TEXAS

Mark Jones, vice president for **Structure Tone Southwest**, was a representative at the 2013 **Team Texas** Showcase in Dallas. The three-day event provides Team Texas and its representatives with the opportunity to network with prospects, existing industries, site consultants and developers that are invested in, or considering investing in, Texas as a home for business.



LONDON PÉTANQUE

Structure Tone London sponsored an industry Pétanque knock-out event at Hays Galleria London Bridge. The event was attended by clients, consultants, suppliers and London staff specialising in the mission critical sector. The successful event raised funds for the **Kent Association for the Blind**, a local charity that helps vision impaired individuals live independent lives.



DAMON RUNYON

For the second consecutive year **Structure Tone NY** participated in the Damon Runyon 5K at Yankee Stadium. The event raises funds for the **Damon Runyon Foundation**, which provides today's best young scientists with opportunities to pursue innovative cancer research.



The Structure Tone Journal is a publication of the Structure Tone corporate communications department
—770 Broadway, New York, NY

VICE PRESIDENT

Robin Malacrea
rmalacrea@structuretone.com

ART DIRECTOR

Sarah Lembo
sarah.lembo@structuretone.com



www.structuretone.com

Boston	Dublin
Dallas	Hong Kong
Hartford	London
Houston	Shanghai
New York	Shenzhen
Philadelphia	Suzhou
San Antonio	
Stamford	
Washington, DC	
Woodbridge	

The Structure Tone organization includes:
Structure Tone, Inc.
Structure Tone International
Structure Tone Southwest
L.F. Driscoll Company, LLC
Pavarini Construction Co., Inc.
Pavarini McGovern LLC
S&techs/Structure Tone Asia

© Copyright Structure Tone Inc., 2013