

Exhibit VIII.C.18.a (Information on Associated Project Firms):

Submit as Exhibit VIII.C.18.a. names, addresses and relevant experience of the architects, engineers, contractors and designers of the proposed Gaming Facility and related proposed infrastructure improvements.

Information on Associated Project Firms

ARCHITECTURE

Perkins Eastman
115 5th Avenue, 3rd Floor
New York, NY 10003

CIVIL ENGINEERING, LANDSCAPE ARCHITECTURE, TRAFFIC

Langan
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, NY 10001

PRECONSTRUCTION SERVICES

Gilbane Building Company
88 Pine Street
New York, NY 10005

MEP

JB&B
80 Pine Street
New York, NY 10005

STRUCTURAL ENGINEERING

Thornton Tomasetti
91 Madison Avenue
New York, NY 10010

BRIDGE ENGINEERING

HDR
16 Corporate Woods Blvd., First Floor
Albany, NY 12211

INTERIOR DESIGN

CLEO Design
5935 Edmond Street, Suite 115
Las Vegas, NV 89118

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PROJECT MANAGEMENT

Development Management Associates LLC
Suite 302
1201 N. Clark Street
Chicago, IL 60654

See the following attachments for relevant experience of each firm:

Attachment "A"	Perkins Eastman
Attachment "B"	Langan
Attachment "C"	Gilbane Building Company
Attachment "D"	JB&B
Attachment "E"	Thornton Tomasetti
Attachment "F"	HDR
Attachment "G"	CLEO Design
Attachment "H"	Development Management Associates LLC

Firm Profile

Perkins Eastman is an architecture, interior design, and planning firm with more than 750 employees and 13 offices around the world. The firm was founded in 1981 and is now one of the largest and most respected design organizations in the world.

Perkins Eastman and our network of affiliates have been developed and structured in response to 10 core beliefs about our clients' needs and our role in helping them achieve their objectives:

1. The built environment impacts the quality of life and the ability of our clients to achieve their mission.
2. A building's relationship to its site and context as well as the design of its interior are as important as its architectural exterior.
3. Design excellence is an essential factor in a project's success.
4. We are most effective when our services begin prior to physical planning, as many important decisions are made during planning, feasibility analysis, and programming prior to the start of design.
5. To be effective advisers and designers, we must understand the key parameters of our client's mission and operations.
6. Deep knowledge of a building type enables us to focus on innovation and each project's unique issues.
7. A broad practice is important because there are many areas of convergence where expertise and concepts from one project type can be successfully applied to other building types and mixed-use developments.
8. Our interrelated expertise in planning, urban design, and multiple building types supports innovative placemaking.
9. We must continue to facilitate delivering worldwide expertise locally to our clients.
10. Environmental stewardship is one of our basic responsibilities.

These 10 core beliefs are the primary motivation behind our decision to build a national and international, multi-office architectural, interior design, and planning firm. We have structured our capabilities so that we often serve as a strategic adviser to our clients long before we become their architects. In all of our work, we aspire for design excellence where we achieve more than baseline successes in function, operations, environmental stewardship, cost, and schedule. We have developed deep expertise in over a dozen major project types that has been combined with a broad array of other planning and design services that our clients need to accomplish a successful project. Our practice is focused in the following areas:

- Planning and Urban Design
- Office, Retail, and Mixed-Use Development
- Corporate Interiors
- Housing
- Hotels and Resorts
- Senior Living
- Healthcare
- Science and Technology
- Education
- Public and Cultural

Because of the large scale of many of our projects, we are often asked to apply several of our core areas of expertise on a single project. Our design recognition, expertise, and geographic diversity have enabled us to work on fascinating assignments around the world.



Firm Profile cont'd

Hospitality

As travelers become more discerning, hotels have been challenged to become more unique and personal. Whether it is a business or leisure destination, the successful hotel ignites the imagination and elevates the typical stay to one which is unexpected. Successful hotels surpass guest expectations and create unforgettable experiences which are at once both familiar and inspiring.

Perkins Eastman approaches each project as an opportunity to create a customized solution. Attention to design, detail, and service are the factors which connect the traveler with the hospitality destination. Our design process engages the owner, operator, and team to collaborate and develop the project through stages that strengthen and refine the design.

The destinations we create draw upon a sense of place, with enlightened sensitivity to human scale and emotion. As seasoned travelers ourselves, we understand how to cater to the changing needs of both new and repeat guests.

We understand that successful properties rely on highly functional back-of-house operations, which most guests never see. An efficient facilities design directly contributes to excellent customer service and an economically successful property. Our in-depth knowledge of hotel operations across a variety of price points allows us to look at each design from an individualized operational standpoint for best efficiency and layout. How is the restaurant served? What is the guest experience from check-in to guestroom, and from spa to outstanding dining experience? Through our immersive design process, we put ourselves in the shoes of both the guest and the operator to experience the hotel from every angle, enabling us to create facilities that serve the highest aspirations of guest experience and operational function.

Retail & Entertainment

Perkins Eastman has designed a wide range of office/commercial, and mixed-use projects for an international roster of clients, including high-rise towers; mid-rise mixed-use centers in suburban contexts; and large-scale mixed-use developments that incorporate commercial office space, retail, residential, parking, and site amenities. Focused on creative thinking and a big picture perspective, the urban design practice at Perkins Eastman is focused on creating places and buildings of enduring memory and economic resilience that enrich the communities they serve. Committed to engaging new and old together, we bring in-depth understanding of clients' needs and an integrated design approach for projects at every scale.

The firm has worked with developers on speculative office developments as well as with corporations on their head-quarters and operations centers. The range of services includes feasibility studies, zoning analyses, large-scale master planning, building design, interior design, and adaptive reuse and repositioning. As advocates of urban life in all its variety and complexity, in cities large and small, we relish the chance to contribute to a city's unique fabric and to create opportunities for people to connect with place. Our firm's services typically begin prior to architectural design phases and are strengthened by a variety of complementary capabilities.

Firm Profile cont'd

Placemaking

Our designs emphasize the spaces created by the buildings we design. Every building has a profound impact on the spaces around it and should work in concert with the landscape. The manner in which they work with the buildings around them can create the vitality we prize in urban life. These spaces are formative in creating the lasting memories and long-term value that transcend any individual building feature. The key to maximizing the value of the individual parts lies in creating compelling place-based experiences. EE&K's diverse portfolio allows us to engage all aspects of the mixed use program with creativity and flexibility. We know how to orchestrate the various teams of specialists that seem to be an inevitable part of mixed-use development and how to creatively balance complex technical requirements. Above all, we have the vision to create mixed-use developments that transcend individual uses, achieve an overall coherence, and produce long-term economic value. Our retail work has taken us from Hollywood, the entertainment capital of the world, to the Strip in Las Vegas; from Downtown Indianapolis in America's heartland to the historic Bund in Shanghai. Together, these experiences have deepened our understanding of the needs of retailers. They have also give unique insights into how retail, culture and entertainment can be combined to create places of remarkable quality, economic resilience and long-term value.

Diversity

Perkins Eastman is dedicated to the principle of promoting diversity on our project teams and in our consultant teams to reflect a cross-section of the communities and the clients we serve. Each member of the team brings a depth of experience directly related to all of our projects. Our consultant teams' success and their development are integral to the success of all of our projects.

It is the policy of Perkins Eastman to achieve MBE/WBE/SBE participation to the fullest extent possible where, based on the requirements of the project, these firms are capable of providing competitive quality products and services in a timely fashion. Perkins Eastman has developed an effective approach to achieving maximum involvement of MBE/WBE/SBE suppliers and subcontractors in our contracts. Implementation of project-specific strategic programs has allowed our firm to achieve significant MBE/WBE/SBE participation on some projects. Recognizing the significant MBE/WBE/SBE participation goals of both public and private clients, we will work with the support and assistance of the client and the local communities, to develop an effective MBE/WBE/SBE program for each project and ensure its implementation.

Perkins Eastman tracks all information through our company-wide relational database called VISION; we can provide a detailed report of our MBE/WBE/SBE consultants as per your request.

Staff Qualifications

Peter David Cavaluzzi, FAIA

Principal and Director

Peter Cavaluzzi, FAIA helped to establish EE&K Perkins Eastman's unique approach to architecture in which buildings and public spaces are conceived together to create extraordinary iconic places. Cavaluzzi's designs are sparked by a creative understanding and insight of each site and place, and usually begin with a simple analytic sketch. His expertise covers the spectrum from complex urban infill sites to sweeping waterfronts in the US and abroad.

His designs for MGM City Center, which brought urbanism for the first time to the Las Vegas Strip, and other transformative large-scale projects have garnered national recognition and numerous national awards. Projects of note include Battery Park City, Beijing Mini City, China; Moynihan Penn Station, New York; Target Field Station Minneapolis, the "Grand Central Terminal for Minneapolis", Science City Union Station, Kansas City; Denver Civic Center Square Transit Station and Market Hall, and Queensway Bay, Long Beach. His awards include: AIA's Honor Award for Science City Museum and Mixed Use at Union Station in Kansas City; a Certificate of Merit Innovative Design from the International Council of Shopping Centers for Circle Centre; Vanke Best Architecture Design award for Beijing Minicity, Weisman Art Museum Plaza ASLA award, and a National AIA Honor Award for Baltimore Inner Harbor East. He has lectured extensively on the design concept of "Open Transit" and on how this design approach is transforming the development of great places within cities across the globe.

Cavaluzzi is a Fellow in the American Institute of Architects, and holds a Master of Science in Architecture from Columbia University, and a Bachelor of Architecture from the University of Minnesota. He is a Ralph Rapson Fellow at the Minnesota Architectural Foundation. He was a co-founder of New York New Visions for the redevelopment of the World Trade Center in New York and is registered in New York, New Jersey, Maryland and Nevada and is NCARB certified. He is a ULI member of the Transit Oriented Development Council and a ULI Rose Center Fellowship Faculty member.

Barry McCormick, AIA

Principal

Throughout his more than 30 years of architecture and interiors practice, Barry McCormick has developed strong design skills, as well as significant management and technical expertise. He brings a unique perspective to his work, understanding how a project evolves through each phase and facet, from design, programming and scope to staffing, cost analysis, and construction administration. Mr. McCormick's project experience spans a wide range of building types, such as corporate, commercial, law firms, retail, institutional, and residential. He provides strong leadership and careful supervision throughout a project's duration, ensuring a high quality of both creativity and practicality. His designs have been profiled in many industry publications, including Architectural Digest, Architectural Record, Casabella, Interior Design, Interiors, The New York Times Magazine, and VM+SD.

Staff Qualifications cont'd

Michael Imranyi, AIA

Senior Associate

Michael Imranyi has broad experience in the practice of architecture and in all phases of design and construction. His work in New York and Berlin includes conceptual and schematic design as well as construction administration, and ranges from large scale waterfront, transit and town center redevelopment to single family residences, high-end retail, interior architecture, and memorial and furniture design. Mr. Imranyi brings a design sensitivity that strives toward a better understanding of the complexity of the environment in which we live and to improve the quality of that environment through thoughtful design, planning, and construction at any scale.

Matthew Seybert, AIA

Associate

Matthew Seybert utilizes professional experience in architecture, planning and landscape architecture to help coordinate the production of multi-disciplinary solutions to complex urban challenges. Mr. Seybert has worked on a wide range of project types from the construction of streetscapes and individual buildings to the creation of new visions for global cities. His diverse design background allows him to engage each project at a range of scales to create design solutions that are socially equitable, environmentally responsible and economically sound.

TKTS Booth: Times Square New York, New York

SIZE 1,500 SF | SERVICES ARCHITECTURE (DD-CA), INTERIOR DESIGN

Perkins Eastman created an icon for the city of New York—the sculptural centerpiece of a major urban renewal project transforming Times Square. The design, based on a competition-winning concept drawing by Choi Ropiha, raises the profile of the Theatre Development Fund (TDF), which operates the booth to provide a discount outlet for tickets to Broadway and Off-Broadway shows. The all-glass structure rises over a fiberglass shell. This component, emblazoned with the TKTS signage on the walls and even etched into the glass, houses all the ticket office functions with twelve windows for distribution. The booth includes LEDs to illuminate the red glass and a geothermal system with two parts—radiant panels to provide heating and cooling that regulates extremes under the steps, and an air handler for comfort in the booth. The design cleverly uses custom-made pieces that can be assembled on-site with minimal disruption to the high-traffic site.

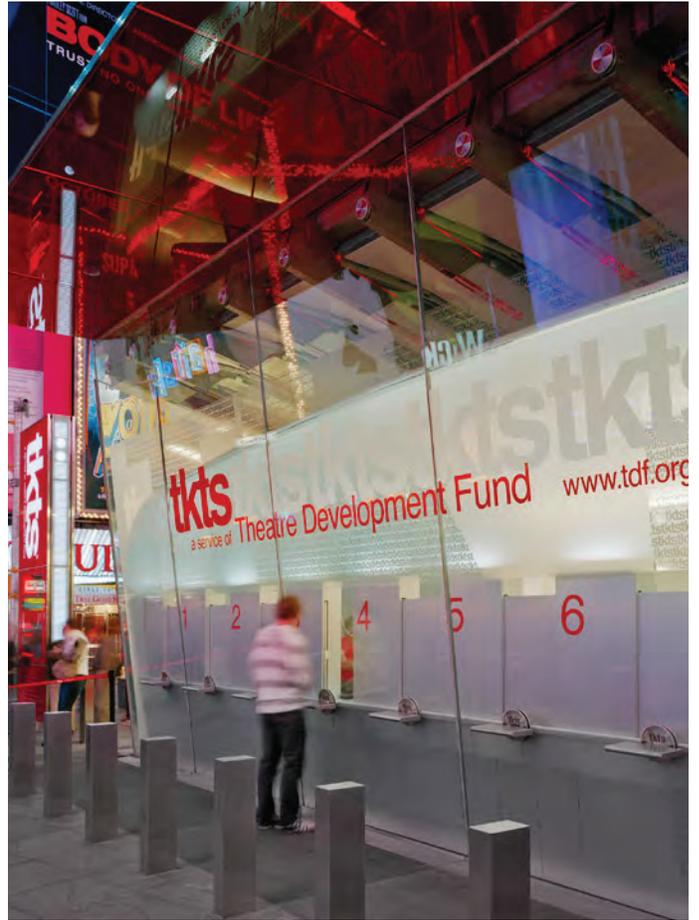
Awards

- ACEC of New York, Engineering Excellence Award: Diamond Award, Structural Division, 2010
- AIANY Design Award, Merit Award in Architecture, 2009
- *Interior Design Magazine*, Best of Year Awards, 2009

Publications

- *Architectural Record*, September 2011
- *Travel + Leisure*, “Best Public Space,” March 2009
- *The Architect’s Newspaper*, “Times Square Shuffle,” November 2008





TKTS Booth: Times Square
continued





Aqueduct Queens, New York

SIZE 192 ACRES | SERVICES MASTER PLAN

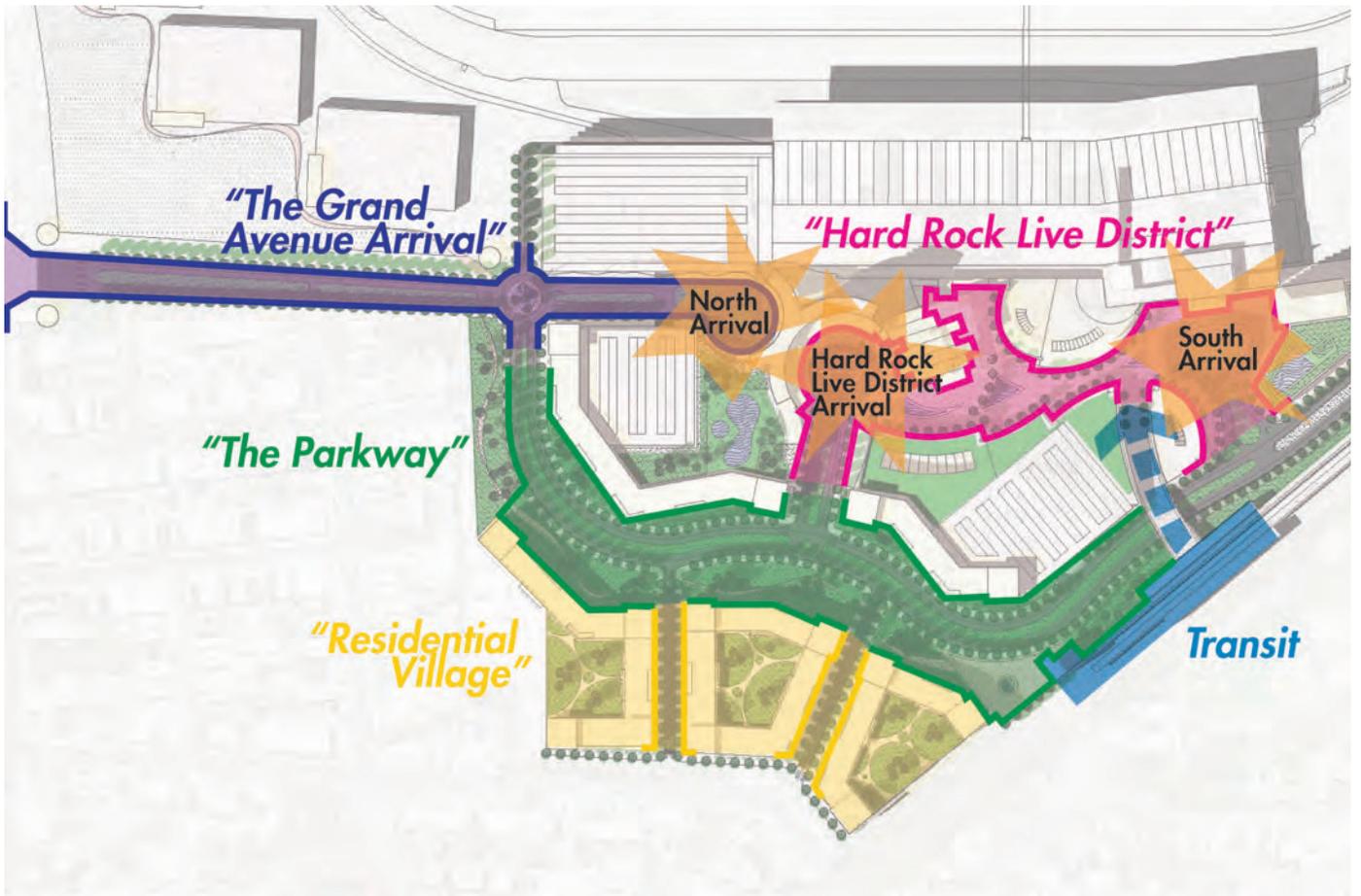
Aqueduct, New York City's race track and one of America's legendary racing facilities, first opened its doors in 1894. Situated on approximately 192 acres in Queens, New York, the present facilities on-site include a multi-level Grand Stand Building with open-air seating and a Multi-level Club House Building with enclosed seating. The facility and the ongoing racing operations are currently managed by the New York Racing Association. New York State authorized Aqueduct to operate a "racino" in 2001.

SL Green and Hard Rock International submitted a bid to operate the "racino" and develop gaming entertainment options at Aqueduct. Working with JCJ Architecture, EE&K developed a concept for the racino and related mixed-use development at Aqueduct Race Track. The goal is to develop a multi-phased entertainment destination at the race track.

In addition to the gaming activity, the development includes a new retail district with entertainment venues and restaurants, a 500-key hotel, a 350-key boutique hotel, and a mixed use district all capitalizing off of Hard Rock's brand by including nodes of "energy" throughout the development. A new parkway address creates a residential district that buffers existing neighborhood residents from the mixed use environment, while creating a seamless infrastructure which ties the development into the local street network. Improvements to the adjacent subway station provide a direct transit connection to nearby JFK Airport and into Manhattan, while the site also provides parking for over 10,000 vehicles.

This project was completed by the Principals and staff of EE&K prior to merging with Perkins Eastman.





Coney Island Brooklyn, New York

SIZE 10 ACRES | SERVICES PLANNING

With the goal of transforming Coney Island from a seasonal to a year-round destination complete with hotels, restaurants and stores, EE&K created a future vision of Coney Island for Thor Equities. The ten-acre site will be converted into a mixed-use entertainment complex that includes movie theaters, an indoor water park, hotels, residential towers, and the first major roller coaster to be built in the city since the Cyclone in 1927. A carousel with canopies overhead and glass walls for year-round use provides a three-story centerpiece.

The design team's plan re-envisioned Coney Island as an exciting urban district by the sea with walkable streets, easy subway access and convenient parking. The focal point of the development is Stillwell Walk, a wide pedestrian boulevard that will greet visitors arriving by subway and leads directly to the boardwalk and beach. Opposite the subway is a futuristic, 150-foot water tower with

a mermaid hologram. Stillwell is flanked on either side by new buildings – including a hotel attached to an indoor waterpark – with a roller coaster dramatically suspended above it.

The new development will preserve and enhance Coney Island's famous attractions and rides such as the Wonder Wheel, while providing a bridge between Keyspan Park on one end of the strip and the New York Aquarium on the other.

This project was completed by the Principals and staff of EE&K prior to merging with Perkins Eastman.



City Center Las Vegas, Nevada

SIZE 18M SF | CLIENT MGM MIRAGE

Prior to merging with Perkins Eastman, EE&K was asked by MGM MIRAGE to design a multi-billion dollar urban metropolis that will significantly accelerate the evolution of Las Vegas into a sophisticated multi-dimensional city.

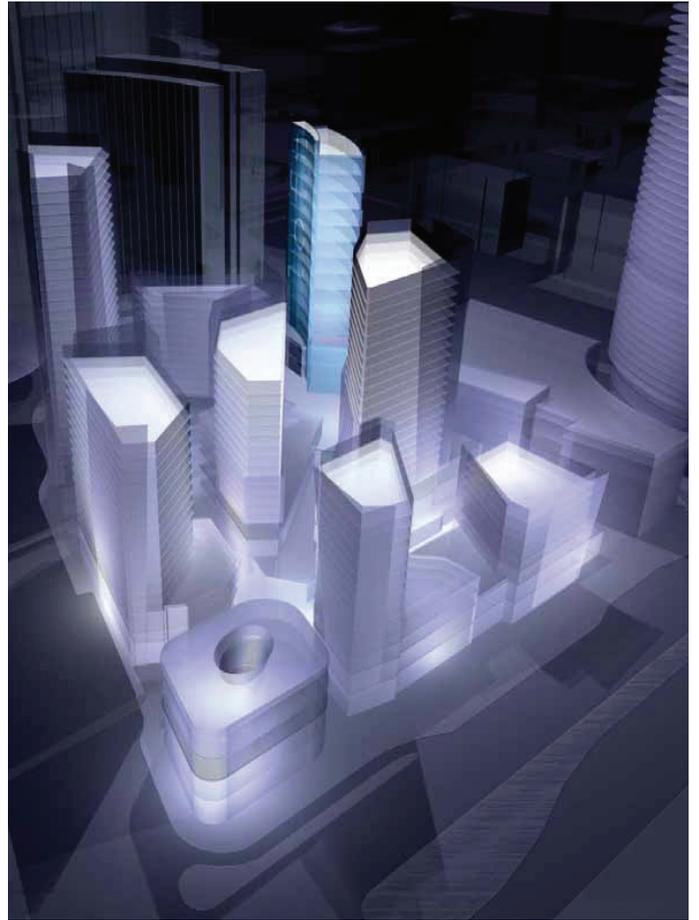
The 66-acre site, designated as CityCenter, was developed into a master-planned urban complex defined by a variety of avenues, places and experiences. As envisioned, CityCenter represents the most significant privately funded project in the United States at this time.

The first phase of CityCenter includes the development of 18 million sf of space consisting of a 4,000-room hotel/casino, three 400-room boutique hotels operated by world-famous hoteliers not currently represented in Las Vegas, approximately

550,000 sf of retail shops, dining and entertainment venues, and 1,650 units of luxury condominium, hotel/condominium and private residence clubs.

Significant project features include a pedestrian-friendly series of streets and blocks; a dynamic “city-within-a city” offering the best Las Vegas has to offer in shopping, chic small hotels, and residential options; a rooftop park system; and “Casino Centre,” a true town square for Las Vegas, full of activity, and the foyer to the new casino.





New Vegas Las Vegas, Nevada

SIZE 52 ACRES | SERVICES MASTER PLAN

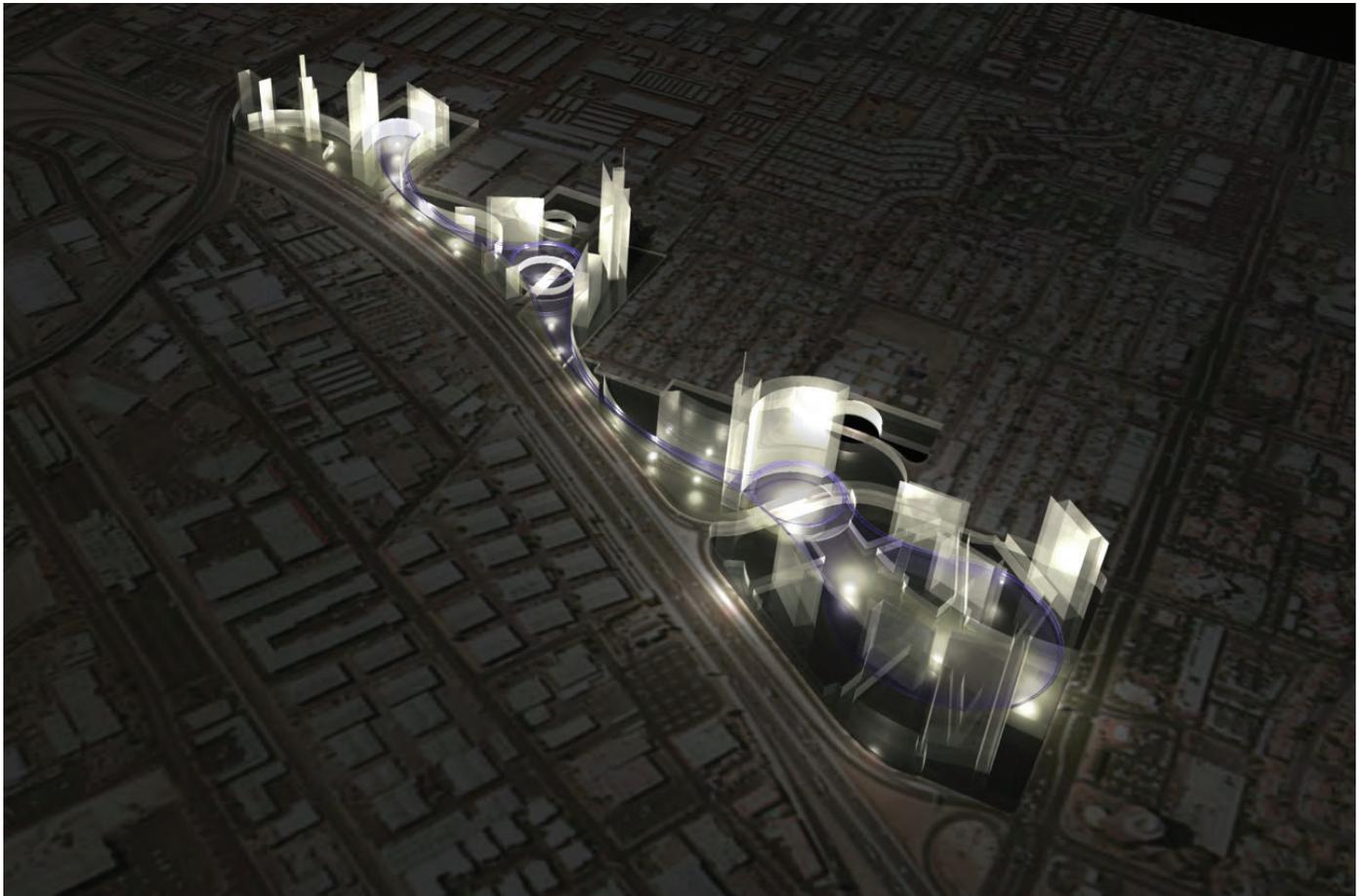
Project New Vegas is a new mixed-use development that creates an intelligent urban experience and lifestyle. The design creates a series of distinctive public spaces and environments that are iconic and reflect community and culture while creating extraordinary real estate value throughout the plan.

Project New Vegas leverages the Stations Casino and Hotel as a brand to maximize the value throughout the entire site. This is achieved by redeveloping the Casino Hotel and locating it as an anchor much deeper into the site. This orientation maximizes the value of the property in front of the casino as well as establishing the entire development to the south. The result is an authentic urban neighborhood where residents enjoy convenient access to the Las Vegas Strip in a new sustainable neighborhood built on an emerging desire to blend culture and community. New Vegas is an idealized, compact, modern city relying on progressive transit and circulation, and defined by artful and highly prized public spaces.

Primary entry to New Vegas is on the Cultural Strip which is the grand new arrival to the entire district. The Cultural Strip is an idealized Las Vegas Strip that creates a world class street on par with the Champs Elysee in Paris. The street is filled with a mix of uses and cultural amenities all along the street edge.

The public spaces of Project New Vegas are designed in concert with the buildings so that a more powerful spatial experience is achieved. Project New Vegas distinguishes itself from the strip by creating an environment where autos, pedestrians, and intelligent transit share the streets. Convenience and connection are fundamental components of the plan. New Vegas is charged with imaginative compact spaces employing bold buildings and forms that create maximum value.

This project was completed by the Principals and staff of EE&K prior to merging with Perkins Eastman.





MGM Mirage Las Vegas Master Plan Las Vegas, Nevada

SIZE 240 ACRES | SERVICES PROGRAMMING, ARCHITECTURE, INTERIOR DESIGN
CLIENT MGM GRAND MASTER PLAN COMPETITION

MGM Resorts International contracted Perkins Eastman, in association with Hamilton Anderson, to develop a masterplan for their land at Las Vegas Boulevard South; 'Las Vegas Strip'. The site contains 240 acres, of which 110 acres is underdeveloped. The site currently houses MGM's well-known brands Mandalay Bay Resort and Convention, theHotel, Luxor and Excalibur. The exercise was to maximize land use, develop exciting connections through new and existing properties with a mixture of activities not limited to simply gaming which redefine the typical 'Las Vegas Experience', and create properties which broaden and strengthen MGM Resort International's portfolio.

Perkins Eastman with Hamilton Anderson provided a design which included the addition of 29,000 keys over 11 towers, an mega 100,000 sf event center, an exciting 'Canyon' experience, which provided an additional 1 mile extension of the Las Vegas Strip, for retail, restaurants, gaming, fitness and wellness zones. The design also included a re-skinning and repositioning of existing properties Luxor and Excalibur, emphasising less of thematic experiences and more of a cultural one.



Six Harbors of Hengqin Island

Macao

SERVICES MASTER PLANNING

Macao has long been a vacation destination - especially for the Asian mainland. The island has experienced substantial growth in recent years with new developments arising along its coast. Wanting to capitalize on the increased interest in this part of the world, Venetian-Sands Casino purchased 900 acres and plans on creating a unique resort destination.

As part of a design competition, EE&K developed a vision for the resort destination: the Six Harbors of Henquin. Each Harbor would have a distinct character and with an complementary environment and activities all connected to the water. The Harbors are connected to each other and the mainland by an extensive water taxi system.

Sports Harbor focuses on the active lifestyle and features jet skis, sailing, scuba diving and deep sea fishing excursions and other sporting facilities. Hengqin Harbor is the water entertainment destination where the tall ships festival would be hosted and people can embark on private dinner cruises. With a focus on open space and floating gardens, Eco Harbor appeals to those who would like to enjoy the natural environment of the island. The Cultural Harbor contains the museum district. Golden Harbor would accommodate luxury private yachts and would focus on high-end dining facilities and shopping destinations. Expo Harbor contains the new convention center and accompanying amenities.





Hollywood & Highland Los Angeles, California

For the design for Hollywood & Highland, EE&K looked to both historical and fictional elements of Hollywood Boulevard's 1920s heyday and created a script that unites the two and turns story into reality.

The site for this one-of-a-kind destination occupies one and a half city blocks at the foot of the Hollywood Hills, along a boulevard famed for its historic theaters—Mann's Chinese, El Capitan, Pantages, and Egyptian. The story begins by reviving the original pedestrian-friendly streetscape, with simple and restrained façade that respond to the Art Deco, streamline, and modernist neighbors, respecting their height and emphasizing vertical articulation in the pilasters and marquees. To break up the potentially overwhelming scale of the project, we echoed the bay rhythms typical of other buildings along Hollywood Boulevard and articulated the facade with canopies, windows, signage, and decorative motifs.

Once within the project's precincts, visitors are treated to a series of public spaces which serve both as forecourts and as outdoor stages. Spaces and buildings in turn are linked by three promenades,

each with its distinctive character and narrative, creating a complex circulation pattern yielding surprise and discovery. To retain the pedestrian character of the boulevard, we located the vehicular entrance on the side street, creating a court landscaped as an orange grove. Linking the court with the public spaces, Actors' Alley is an open-air paseo with a back-of-the-house atmosphere.

From the boulevard, flowing upward and extending the sidewalk into the site, the Monumental Stair leads visitors to Babylon Court, the central public space designed as a recreation of the epic set of D.W. Griffith's "Intolerance." The court is dominated by a dramatic arch, framing the famed Hollywood sign in the hills beyond. Further down the boulevard, the Orchid Portal leads to Orchid Walk, a processional arcade whose "red carpet" of terrazzo, leads to the central rotunda and, beyond it, to the state-of-the-art Premier Theater, the new home of the Academy Awards and the heart of the reality and the myth of Hollywood.

This project was completed by the Principals and staff of EE&K prior to merging with Perkins Eastman.





Paseo Colorado Pasadena, California

SIZE 600,000 SF | SERVICES ARCHITECTURE

As American cities look for ways to revitalize their downtowns, one of the most challenging problems has been how to deal with obsolete shopping malls built in the 1960s and '70s. Lacking scale and inward-facing by nature, these malls have had an especially damaging effect on their surroundings. Prior to merging with Perkins Eastman, EE&K provided the design for Paseo Colorado, transforming the failed Pasadena Plaza in downtown Pasadena into a vibrant, mixed-use precinct—in the process creating what the *Los Angeles Times* has called a “model for urban redevelopment across the country.”

The team’s plan turned the mall inside out, knitting the new development back into the downtown street grid and reestablishing the central axis connecting the Civic Auditorium and the historic Public Library. By introducing a mix of offices, hospitality, retail, and residential above the existing retail, the design reused much of the mall’s existing structure as well as its underground parking garage. The architecture of Paseo

Colorado belongs unmistakably to Pasadena, with varied facades that reinforce the street grid and echo Pasadena’s distinctive palette of pale yellows and pinks, and a lively variety of trellises and canopies that create a rich play of shadow in the Southern California sun.

When it opened, Paseo Colorado was described as “a case study on whether Southern Californians will abandon their gardens and gas grills to live within walking distance of the grocery store, gym and train station.” EE&K took full advantage of Pasadena’s temperate climate by designing the new development around a series of outdoor places that have since become a highly successful destination for people-watching, strolling and discovery.

Awards

- Pasadena & Foothill Chapter AIA 2004 Renovation Merit Award







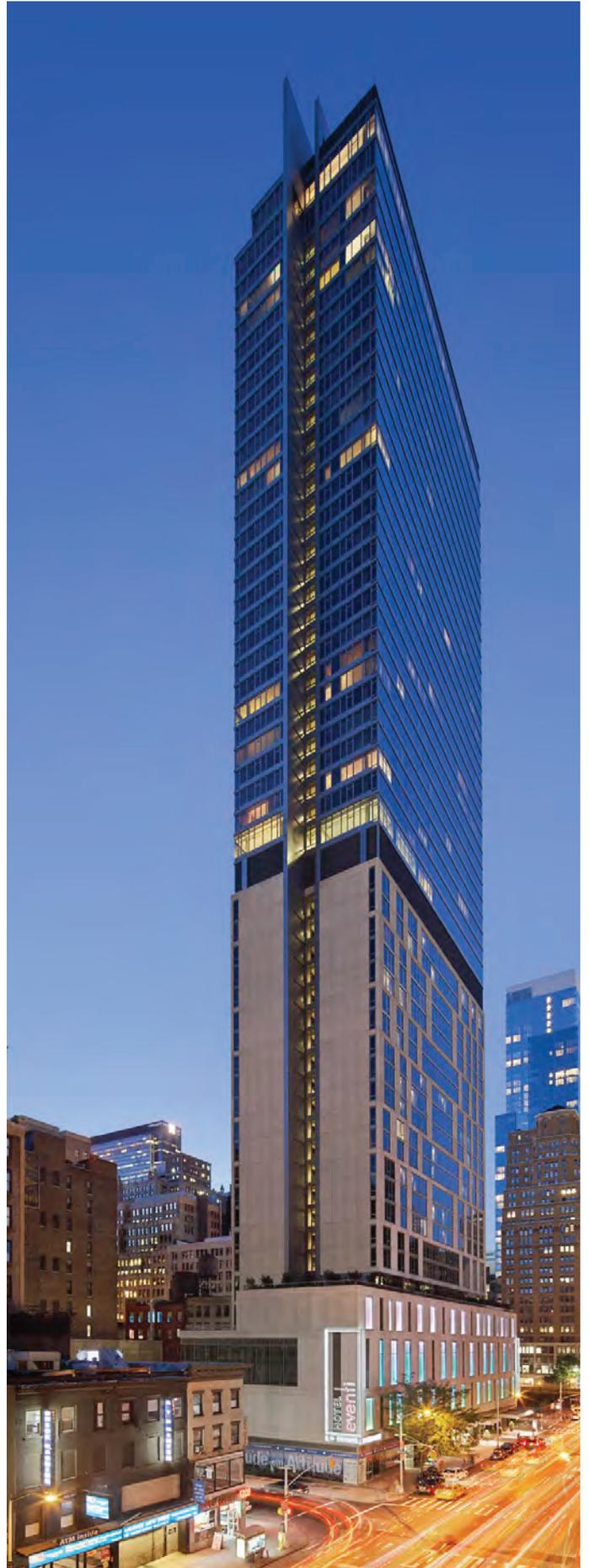
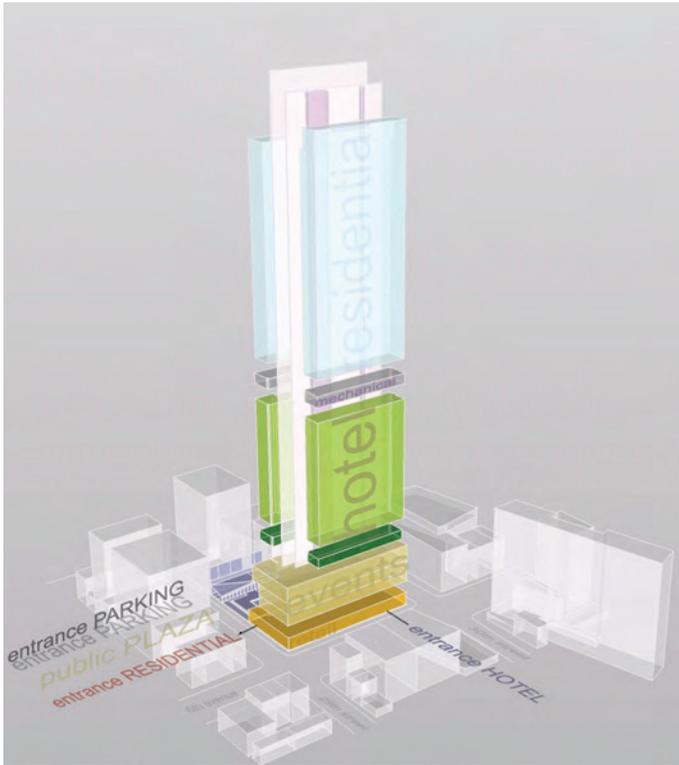
835 Sixth Avenue: Eventi Hotel and the Beatrice Residences New York, New York

SIZE 620,000 SF | SERVICES ARCHITECTURE | CLIENT 835 AVE OF AMERICAS C/O JD CARLISLE LLC

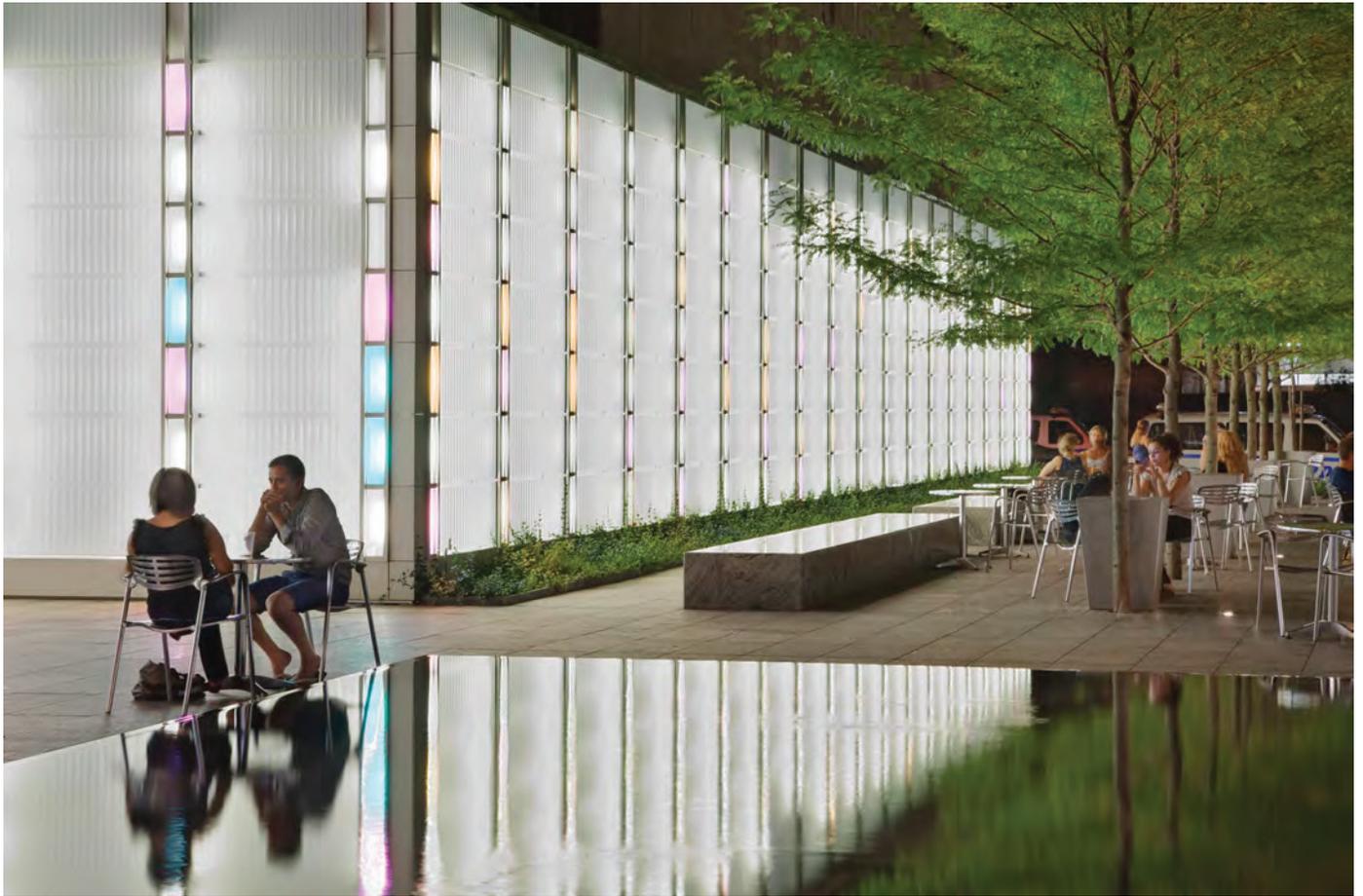
In an emerging residential area at the edge of Manhattan's bustling Chelsea neighborhood, Perkins Eastman's new 620,000 sf tower creates a vibrant destination with its mixed-use program. Rising out of a landscaped 10,000 sf urban plaza that extends 200 feet from 29th and 30th Streets, the 53-story building comprises 32 floors of 302 luxury rental apartments, a 290-key hotel with banquet facilities and meeting rooms, two floors of restaurants, entertainment space, retail space, additional amenities, including a spa, and four levels of parking. The second floor includes a restaurant that opens on to a long dining terrace overlooking the plaza. The hotel comprises the lower half of the tower and is entered via a lobby on Sixth Avenue. In addition to meeting rooms and banquet facilities, the hotel includes a spa, number of large suites, and private landscaped terraces. Separate lobbies on Sixth Avenue provide access to the parking garage, retail space, and restaurant. The apartments are entered via a residential lobby on 29th Street. Residents have access to two floors of amenities. The entire 53rd floor is devoted to a lounge and terrace that provide sweeping 360-degree views of Manhattan and beyond.

The building not only celebrates its urban context but also enriches it. The neighborhood has experienced major new development since the area was rezoned about ten years ago. 835 Sixth Avenue is the most successful building from an urban context of all of these new buildings because of the integration of the hotel and restaurants with the public plaza make it a destination and public amenity--it enlivens and enhances its surroundings. The plaza is open to the public and leads to a lobby entrance, used to access the second-floor restaurant and retail space visible from the street outside.









One Hotel—Brooklyn Bridge Park Brooklyn, New York

SIZE 160,000 SF | SERVICES ARCHITECTURAL DESIGN

The new One Hotel in Brooklyn Bridge Park, is a joint venture development by Starwood Capital and Toll Brothers Development. Perkins Eastman provided design services in conjunction with executive architect Rogers Marvel. The new 193-key hotel is part of a larger mixed-use complex that includes multi-family residential. As part of the new Brooklyn Bridge Park, the hotel offers stunning views over the East River towards New York City. The new hotel includes an all-day dining venue overlooking the park, a specialty restaurant on the 10th floor, rooftop bar and pool, spa/fitness center, ballroom, and various meeting, hospitality suites and private dining rooms. The One Hotel will be a new destination for this area of Brooklyn, continuing to help revitalizing the waterfront and creating new activity. Designed as a

LEED Gold development, the design pays homage to the industrial character of the Brooklyn waterfront as well incorporates the local art, craft, cuisine, and other characteristics that make this destination uniquely “made in Brooklyn.”



Park Hyatt Saadiyat Beach Resort Abu Dhabi, UAE

SIZE 40,000 SM | SERVICES ARCHITECTURAL DESIGN

The Park Hyatt Saadiyat Beach Resort is a benchmark of luxury in a memorable seaside setting. Located along the prestigious Saadiyat Beach on Saadiyat Island in Abu Dhabi, the design brings together all the elements of a unique, luxury destination where architecture and landscape design complement each other, blurring the lines between indoors and outdoors. The resort's well-defined entrance from the main road leads guests to an environment of style, luxury, and sophistication.

The resort includes 307 guestrooms and suites, ballroom and meeting facilities, Park Hyatt meeting residence, an all-day dining restaurant, two specialty restaurants, and a luxury spa. Eighty-eight of the hotel guestrooms are located in "Ryads", exclusively located along the beach—each with private entrance, creating a resort within a resort. Three private two-bedroom villa suites and one private presidential suite are located along the beach. Amenities such as swimming pools, gardens, and a beach boardwalk take advantage of the seaside location, celebrating the views to the Arabian Gulf and providing outdoor space that blends with the architecture.

Awards

- Interior Design, Best of the Year: Merit In Hospitality, 2013
- "One of the Best New Hotels in the World" and "One of the Best New Spas in the World," *Conde Nast Traveler*, 2012
- "Best of the Year: Merit in Hospitality," *Interior Design*, 2013
- "Best Interior Hotel-Arabia," International Hotel Awards, 2012
- "Hospitality Interior Design of the Year," Commercial Interior Design Awards
- "Best of Category: Hotel Honorable Mention," IIDA/The Office Exhibition Interior Design Competition





Park Hyatt Saadiyat Beach Resort
Abu Dhabi, UAE





The Quin New York, New York

SIZE 124,000 SF | SERVICES ARCHITECTURE, INTERIOR DESIGN | CLIENT CARO ENTERPRISES

New York City's newest boutique hotel, the Quin, is located in the heart of Midtown Manhattan near the City's most beloved destinations—Carnegie Hall, Central Park, and Fifth Avenue retail among them. Perkins Eastman provided architecture and interior design services to transform the former Buckingham Hotel property into an upscale luxury destination with 208 guest rooms including 28 suites, restaurant/bar, fitness center, meeting facilities, and other amenities. The hotel pays homage to its unique history and location at the intersection of art, music, and fashion through its understated and elegant design, capturing the essence of New York past and present.

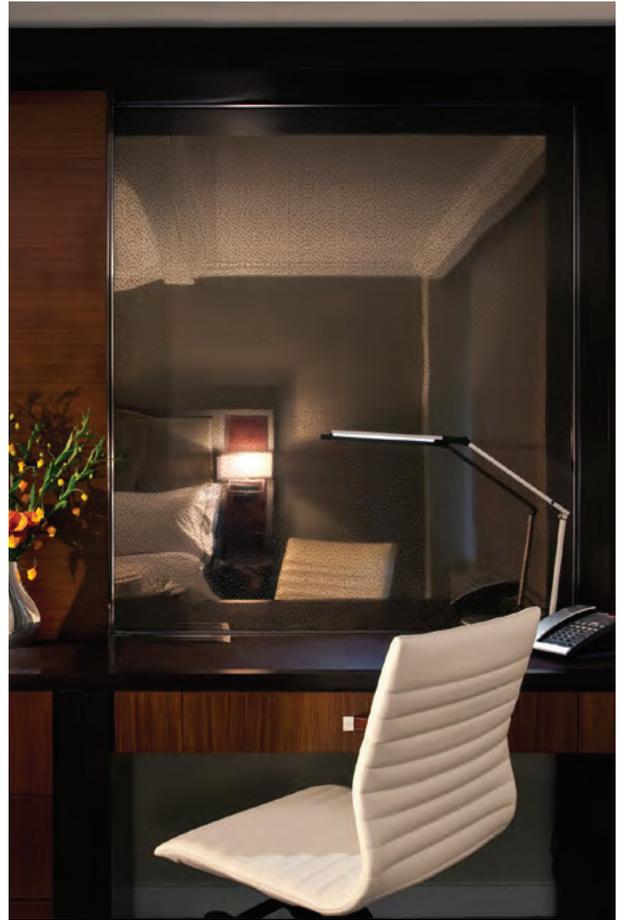
The existing building façade was carefully restored to highlight historic details common to Midtown's historic buildings, while the interior spaces are a study in understated sophistication. The hotel draws equal inspiration from its location and the artistic heritage of past cultural icons that called it home: public spaces are typified by grand gestures—rich finishes and custom-painted walls—and invite the bustling city in through double-height windows at the street level, while guest rooms and suites are thoughtfully appointed to reflect the discerning tastes of the global traveler.

The project is seeking LEED Silver certification.













Conrad New York New York, New York

SIZE 617,000 SF | SERVICES ARCHITECTURE, INTERIOR DESIGN | CLIENT EMBASSY SUITES HOTEL-BATTERY PARK CITY

The Conrad New York, originally designed as an Embassy Suites Hotel, is part of an entertainment complex in Lower Manhattan's Battery Park City. The hotel was designed as a 14-story, 463-room atrium hotel built over a retail and entertainment base that includes a 16-screen multiplex movie theater, a 30,000 sf health and sports club, a 10,000 sf conference center, and 90,000 sf of retail space. The development group was led by Forest City Ratner and included the Promus Hotel Corporation, Regal Cinemas, and the NYSC Health Club.

The development is north of the World Financial Center, on a site bounded by Vesey Street, North End Avenue, and Murray Street. Among the many public amenities offered by the complex is a 10,000 sf, 14-story atrium extending a full block in length. The hotel offers parlor-bedroom suites in an attractive location convenient to the World Financial Center, Wall Street, and Battery Park City.

Awards

- New York Association of Consulting Engineers, Engineering Excellence Award, 2001
- Associated Landscape Contractors of America, Environmental Improvement: Grand Award, 1990





Perkins Eastman

Huizhou Huamao Center Huizhou, China

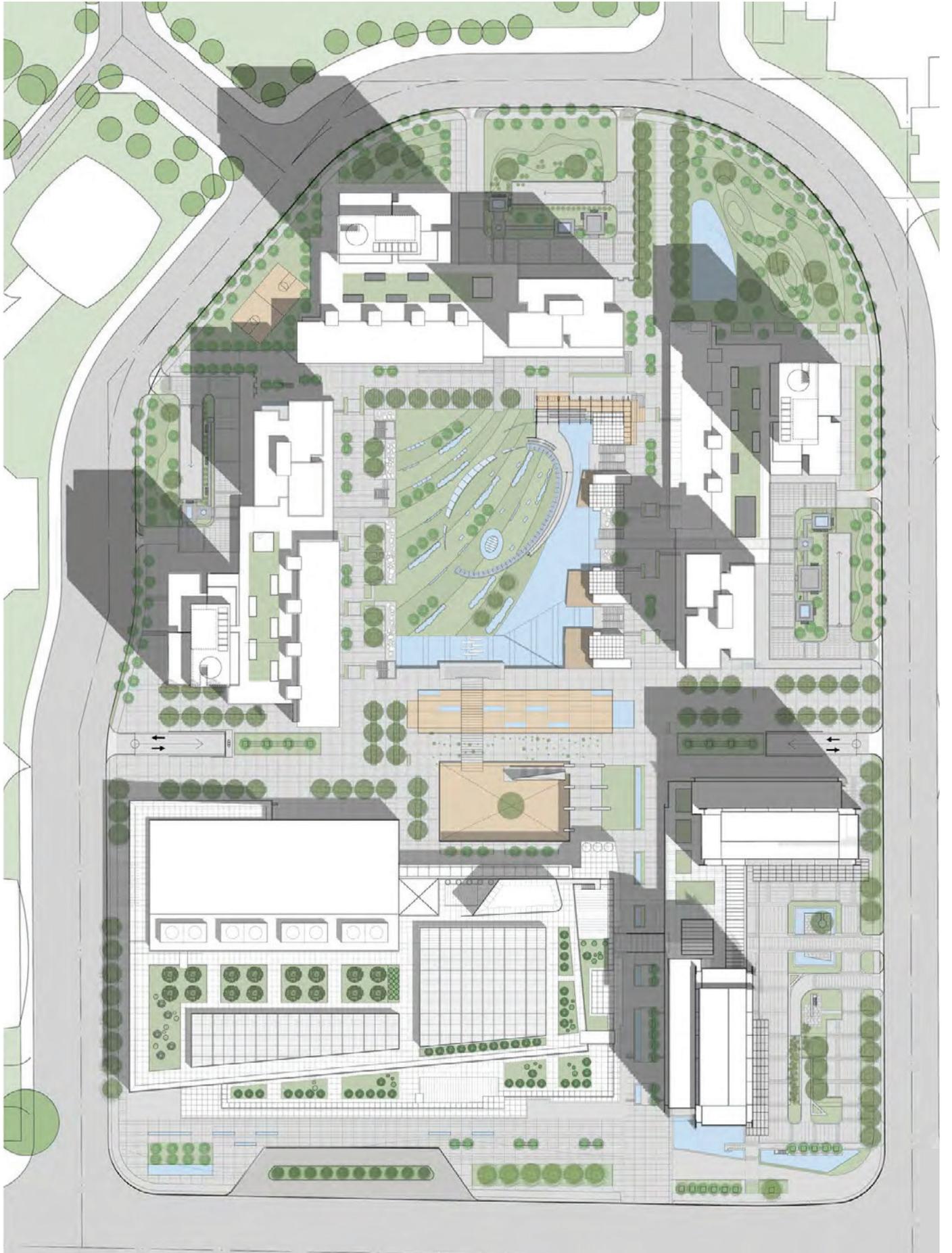
SIZE 470,000 SM | SERVICES PLANNING, ARCHITECTURE | CLIENT CHINA BEIJING GUOHUA-HUIZHOU HUAM

Huizhou Huamao Center is a new mixed use development in the heart of the central business district of Huizhou City South River cultural center. The program components include a 100,000 sm office building, a 100,000 sm retail center and 270,000 sm of residential development. The below grade program has both parking and amenity spaces.

The development consists of a group of buildings with a sleek and contemporary aesthetic. Sited around a large, open, public, and activated pedestrian space that functions as a major organizing element, the buildings also bolster this space as an identifiable focal point. Together, the open space and buildings allow for a variety of civic activities. The development's proximity to major sports and cultural facilities help make it a widely-sought destination. Many of the new developments in the district have adopted a bold and visually contemporary architectural language. Others have incorporated

quieter and more neutral, but generous open spaces in and around the buildings. We seek to emphasize and distinguish these urban styles on levels of both city planning and architecture creating a vibrant mixed-use pedestrian environment.













Walt Whitman Shops Huntington, New York

SIZE 100,000 SF | SERVICES ARCHITECTURE

Prior to merging with Perkins Eastman, EE&K was enlisted by The Simon Property Group to design an outward facing retail addition integrating both traditional and modern elements at the existing Walt Whitman Mall on Route 110 in Huntington. Creating an exciting, new, valuable address for Long Island, the design includes an approximately 100,000 sf single-story addition and repositions the exterior (parking) environment surrounding the project into a high quality, landscaped outdoor setting. The design incorporates Walt Whitman's memory in a garden landscape and provides easy connections between the interior and exterior spaces.

The new addition extends the entire length of the existing mall and is organized around a grand central space. The new façade gently curves on both sides providing a continuous experience and

maximum retail visibility from streets, parking and sidewalks. The design incorporates the existing entrances and conceals the required service program. Retail is anchored at each end with restaurants and uniquely articulates each individual retail tenant along the row, utilizing a variety of quality materials and finishes into a universal structural framing system.

The design successfully transforms what is currently the backside of the mall into an expression of "Relaxed Luxury", positioning the Walt Whitman Mall for the future.





Wanliu Shopping Center Beijing, China

SIZE 1,000,000 GSF | SERVICES ARCHITECTURE, INTERIOR DESIGN

The Beijing Wanmao Real Estate Development Company retained Perkins Eastman in alliance with Belluschi Consulting to design a new seven-level retail destination in the northeast section of Beijing. The 93,000 sm (1 million sf) Wanliu Shopping Center is a dynamic urban destination featuring an unparalleled array of entertainment choices.

Venues are thoughtfully arranged into distinct neighborhoods to inspire a sense of place—the selection of personalized and relatable interiors unites the distinct areas into several districts. Balconies that line the corridors are stepped back on one side as each level rises, creating an amphitheater experience that affords shoppers views of live entertainment in the center court. Cinemas on the fourth level utilize state-of-the-art technology and stadium-style seating. Their proximity to the themed restaurants makes this theater complex an exciting family destination.

Wanliu also features a high-energy entertainment district where progressive merchandising combines with high technology, interactive products, performance spaces, and food arts.





Firm Profile

Founded in 1970, Langan employs more than 800 professionals in its Elmwood Park, NJ headquarters and among 22 offices throughout the world. Our team provides an integrated mix of engineering and environmental consulting services in support of land development projects, corporate real estate portfolios, and the oil and gas industry. Our clients include developers, property owners, public agencies, corporations, institutions, and energy companies around the world.

Over the past 40 years, Langan has worked on a wide variety of projects, with different project team members and team structures. We welcome the opportunity to be part of the project team and collectively work with all members towards the common goals for this exciting development. Team work is critical to successful projects, without team work, redevelopment solutions are typically not fully vetted and in the long run, unworkable and ripe for cost overruns. The Langan team has demonstrated success in completing projects for large scale developments and our team's technical expertise and ability to implement cost-effective solutions yield measurable value for our clients.

Our project experience is coupled with our unique familiarity with the site, which has been gained through previous experience on the site and in the Newburgh region. The Langan team has provided professional services for developments including work for Matrix Development, Stewart Airport, Stop and Shop, The Newburgh Mall, The Marketplace at Newburgh, Target and various smaller developments in the area.

Langan's in-house team is capable of the providing Site/Civil, Geotechnical, Environmental and Survey Engineering, Natural Resources and Landscape Architecture and is experienced in working in a multidisciplinary atmosphere to form and implement a cohesive design package.

The team will be led by **Richard Burrow, PE, LEED AP**, a Senior Principal with over 21 years of experience in site/civil engineering. Mr. Burrow has been involved in a number of site design projects in New York, New Jersey and Pennsylvania and completed a number of detailed feasibility studies in these states. This work has enabled him to become familiar with the state and local regulations and procedures for development. Mr. Burrow is experienced in development of projects from the early feasibility planning stages, through

LANGAN

design and permitting, and through construction. Key aspects of this coordination include an understanding and identification of critical development issues early in the planning process, maintenance and management of project schedules through the permitting processes, and knowledge of construction-sensitive issues.

Managing the project will be **Jerame Secaras, PE, LEED AP**, a Senior Project Manager with over 12 years of experience in site development engineering. His experience includes a broad range of land development design for commercial and residential development, regulatory permitting processes, and construction support and coordination. Mr. Secaras has been the lead design engineer on several complex multi-discipline projects and is experienced in the coordination of numerous and varied disciplines to create a comprehensive and cohesive design and currently leads a small team of technical staff.

Leading the landscape team of the project will be **Michael Szura, LLA, ASLA, LEED-AP**, bringing more than 25 years of experience in landscape architecture and planning and has orchestrated the design, management and construction of numerous complex projects throughout the Northeast. He has handled all aspects of project development as the lead designer on numerous campus planning projects for major developments for corporations, entertainment destinations, universities, institutions and schools. He is also an expert on community planning and regeneration work, urban and sustainable design issues, and waterfront and Brownfield redevelopment projects. Mr. Szura's practice focuses on designing and constructing inspiring landscapes that connect people to the places his group designs. Every site is unique and has a history or 'genius of place' that's often hidden or partially erased. Mr. Szura's passion is to find a way to bring those buried elements back to the surface in a relevant and readable way. Identifying these features and balancing them with the real-time jurisdictional and economic goals of the project feed his practical side and challenge him to translate design ideas into sustainable and memorable built landscapes.

The Survey team will be led by **Gary Veenstra, PLS**. Mr. Veenstra's 26 years of experience have exposed him to all phases of land surveying, including boundary, topographic, subdivision, and construction stake-out. He has spent many years in the field collecting survey data and has extensive experience with software systems for computer aided drafting. The majority of Mr. Veenstra's experience has come as a survey project manager in responsible charge of field and office personnel involved with gathering and manipulating existing conditions information for residential, retail, and commercial properties. He has

mainly focused on boundary surveying which includes historic record research and deed analysis.

Ron Boyer, PE, will oversee the geotechnical engineering of the development. With over 21 years of experience, Mr. Boyer's practice involves coordination and supervision of subsurface investigations; establishment and monitoring of geotechnical instrumentation; design of shallow and deep foundation systems; evaluation of earth slope stability; design and inspection of subgrade improvement applications; preparation of geotechnical engineering reports and construction specifications; performance of pre-construction conditions documentation; coordination and supervision of construction inspection services; and monitoring of adjacent structures during demolition and construction.

Additionally **Arthur Roesler, PE** will assist with the management of the geotechnical engineering team for the development. Mr. Roesler has over 15 years of experience providing coordination and supervision of subsurface investigations; establishment and monitoring of geotechnical instrumentation; design of shallow and deep foundation systems; evaluation of earth slope stability; design and inspection of subgrade improvement applications; preparation of geotechnical engineering reports and construction specifications; and coordination and supervision of construction inspection services. He has recently been working extensively in New Jersey and New York and has experience in large scale development projects.

Daniel Disario, PE, PTOE, will provide transportation planning and traffic engineering for the project. Mr. Disario has over twenty years of management, planning, and design experience with land development and transportation projects. His experience allows him to identify the critical access and circulation issues at the conceptual stage of each land development project and to develop cost-effective solutions to those issues during project design. Mr. Disario's land development projects have included almost every conceivable land use in all types of settings. His primary areas of expertise include transportation operations, state and local permitting procurement, preparation of traffic impact studies, and traffic signal design. He has prepared well over 1,000 traffic studies for various developments throughout the Northeast and has extensive expert witness experience before various Boards in NJ, NY, CT, PA, MA, NH, and RI

David Charette, PWS, LEED AP, will be responsible for the Natural Resources and environmental analysis services required of the project. Mr. Charette has over 27 years of experience, both in private and public sector work, in project management of environmental

and engineering consulting services for projects with significant wetland and natural resource related issues. Specific consulting services completed include environmental assessments; wetland delineations and jurisdictional determinations; preparation of environmental impact statements; preparation of Federal, State, County and local permit applications; responding to public comments and regulatory requests for additional information and studies; compliance with approvals and permit conditions; providing expert testimony and environmental issue resolution; due diligence evaluations; wetland mitigation project and environmental restoration services; project design guidance; preparation of construction plans and specifications; and preparation and presentation of environmental workshops and seminars.

Langan will utilize a full team of project engineers, surveyors, landscape architects, environmental staff members and any additional resources as required to fully engage our team in this project. We feel that our multi-discipline approach will benefit the entire Saratoga team.

Environmental

Technical and Regulatory Knowledge



Langan works with project teams to provide leading-edge, focused, streamlined investigations and risk-based remediation. We excel in promoting and gaining regulatory acceptance of risk based strategies to obtain cost effective site closures. Langan possesses expertise in a wide variety of projects including state Voluntary Programs, Brownfields, RCRA, State and Federal Superfund, Manufactured Gas Plants (MGP) and Storage Tank programs.



Langan Environmental Services:

- Risk-Based Corrective Action
- Brownfields
- Storage Tank Management
- Due Diligence Support
- Environmental Assessments
- Site Characterization
- Permitting/Regulatory Approvals
- Remediation Design/Oversight
- Water Resources/Supply
- Hydrological Investigations
- Wastewater and Stormwater Permitting
- Air Modeling
- GIS/Database Management
- Environmental Impact Statements (EIS)



- Manufactured Gas Plant Remediation Services
- Asbestos/Lead-Based Paint Abatement
- Management of PCB-Containing Materials
- Indoor Air Quality/Mold
- Demolition
- Waste Management
- Compliance Auditing
- Ecological Risk Assessment
- Human Health Risk Assessment
- Site Feasibility Studies
- Remediation by Natural Attenuation
- Expert Witness
- Exposure Assessments
- Free Product Volume and Mobility Modeling

Geotechnical

Foundations You Can Trust



Langan was founded as a geotechnical consulting company in 1970, and geotechnical engineering remains a core discipline at Langan today. We work closely with our clients and the design and construction team to engineer cost-effective geotechnical solutions appropriate for proposed structures and the governing site conditions.



Our reputation as a premier geotechnical consultant has been earned by managing hundreds of projects involving complex, technically challenging sites where highly specialized site preparation, foundations, and fast-track engineering solutions are required.

Langan Geotechnical Services:



- Subsurface Investigations
- Foundation Design
- Materials Analysis
- Soil and Rock Mechanics
- Retaining Structures
- Slope Stabilization
- Soil Improvement/ Ground Modification
- Dewatering Design and Permitting
- Subsurface Structure Design
- Excavation Support and Underpinning Design
- Earthquake/Seismic
- Geological Mapping of Rock Slopes
- Mine Investigations/ Studies



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- Hydrogeology
- Earth and Rock Fill Dams
- Tunnels/Microtunneling
- Seawalls, Piers and Bulkheads
- Dredging
- Vibration Monitoring
- Pre-Construction Conditions Surveys
- Value Engineering
- Construction Documents
- Contractor Support Services
- Engineering Services During Construction
- Forensic Engineering/Expert Testimony
- Cost Estimates

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- Cost Estimates

Landscape + Planning

Sense of Place



Langan Landscape Architects and Planners understand what makes places work. We shape effective design solutions that range from regional or city scale down to the most intimate courtyards and garden spaces. In every project we strive to identify and enhance the “sense of place,” which makes every site unique and memorable. This places us at the forefront of the rebirth of our cities and aging downtowns, guiding their revitalization as destinations where people live, work, shop and play.



Langan Landscape Architecture + Planning Services:

- Site Feasibility and Yield Studies
- High Performance Site Planning
- Land Development Approvals
- Brownfield Redevelopment
- Waterfront Design
- Park and Playground Design
- Complete Streets, Streetscape Design and Traffic Calming
- Landscape Planting and Irrigation Design
- Landscape Restoration Design
- Contract Documents
- Rooftop Garden Design
- Site Lighting Design
- Water Feature Design
- Construction Administration and Inspection
- Expert Testimony and Zoning Reviews
- Community Outreach



Natural Resources/ Permitting

Navigating Policy and Nature



Langan has developed strong relationships with federal, state and local regulators through our experience in more than 1,000 wetland and permitting projects. Our Natural Resource staff consists of certified professional wetland scientists, ecologists and wildlife biologists with extensive experience throughout the United States. Our federal and state permitting specialists work closely with our engineers to design a "permissible" project while providing the most economic return to our clients. Our ability to identify critical natural resource issues early in the design process and our in-depth understanding of regulatory programs and policies result in an expedited application and approval process.

Langan Natural Resources/Permitting Services:

- Wetland Delineation
- Army Corps of Engineers Section 10/404 Permit Applications
- State Permit Applications to Agencies, including SEQR
- Environmental Assessments / Environmental Impact Statements (EIS)
- NEPA Environmental Review Documents
- Alternatives Analysis
- Wetland Mitigation Design (Creation, Restoration, Enhancement)
- Wetland Mitigation Banking





- Coastal/Waterfront Development Permitting and Planning
- Dredge – Cut / Fill Analysis
- Wildlife Surveys and Habitat Assessments
- Threatened and Endangered Species Surveys and Habitat Assessments
- Essential Fish Habitat Assessments
- Baseline Ecological Evaluations (BEE)
- Natural Resource Damages Assessments
- Ecological Risk Assessment
- Wetland Functional Assessments
- Streambank Restoration / Bioengineering

Site/Civil

Responsiveness that Delivers Results



As an integral component of the design team, Langan works closely with the owner to develop conceptual site plans and realistic cost estimates. Our deadline-oriented professionals are available to our clients 24/7 to ensure timely approvals and permits to advance projects toward construction, occupancy, and ultimately revenue. Langan also supports projects with construction inspection and overall project management.



Langan Site/Civil Services:

- Project Management
- Site Feasibility Studies
- Conceptual Planning
- Site Engineering & Planning
- Grading & Drainage Design
- Stormwater Management Design
- Value Engineering
- Sanitary Treatment Plant Design
- Utility Infrastructure Design
- Water Supply/Hydrological Investigations
- Permitting/Regulatory Compliance
- Wetland Delineation/Mitigation
- Landscape Architecture
- Regulatory Negotiation





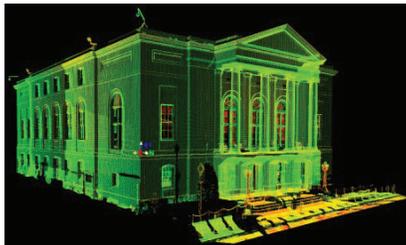
- Survey-Boundary/
Topographical/GPS
- Traffic/Transportation
Engineering
- Waterfront Systems
Design
- Property Acquisition
Support
- Conceptual Reuse
Planning
- Funding
Identification/Grant
Assistance
- Regulatory Coordination/
Compliance
- Decommissioning/
Demolition Design
- Construction Management
- Construction Inspection
- CADD/GIS/Computer
Animations
- SITEOPS® Optimization
Services

Surveying/Mapping

Accuracy and Efficiency



Langan's survey group provides rapid response times and flexible schedules to meet client needs and maintain schedules for fast-track projects. Our field crews utilize state-of-the-art surveying equipment including electronic data collectors, global positioning systems (GPS), robotic and prismless total stations, and BIM-compatible 3D Laser Scanning.



Equipped with Internet-enabled laptops, field crews accommodate design changes in real time and download data into Langan's network where it is edited, adjusted, analyzed and plotted. This allows for mapping that accurately reflects existing site conditions and boundary/legal issues, which could reveal potential problems early in a project's development.

Such technology, coupled with the seamless integration with other firm technical disciplines, enables Langan's survey group to save time and money for our clients.



Langan Survey/Mapping Services:

- Boundary Surveys
- ALTA/ACSM Land Title Surveys
- Topographic Surveys
- GPS
- GIS/LIS Data Acquisition
- Deformation/Monitoring Surveys
- Wetlands Location Surveys
- Utility Surveys
- Construction Stakeout
- Hydrographic/Bathymetric Surveys
- Environmental Surveys
- As-Built Surveys
- Photogrammetric Control
- Riparian Surveys
- Highway/Route Surveys

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- Subdivisions
- 3D Laser Scanning

- Geographical Information Systems

Transportation Engineering

Safe, Efficient, Innovative



Access is critical to any facility and Langan possesses decades of experience in total transportation engineering and planning services. In fact, from hospitals to universities to shopping centers to stadiums, we have developed programs, designs, and creative solutions that enhance access and circulation for facilities and major transportation systems throughout the United States.



Langan's transportation engineering and planning work includes highway and local street design, as well as the design of parking, transit, and non-motorized transportation facilities. For the planning and design of these types of facilities we have provided simulation modeling, master plans, traffic impact studies, operational analysis, signal design, traffic calming measures, signage and wayfinding studies, origin/destination surveys, travel demand modeling, corridor studies, urban transportation plans, transit station and route planning, terminal planning, bikeway planning, and permitting services through counties, municipalities, and the various transportation agencies.



Langan Transportation Services:

- Vehicular Traffic Studies
- Stadium and Event Planning
- Traffic Modeling & Simulation
- Master Planning
- Transit Studies



- Station Planning
- Environmental Impact Statements
- Parking Studies
- Corridor Studies
- Site Access / Site Engineering
- Airport Studies
- Site Feasibility Studies
- Streetscape Improvements
- Traffic Calming
- Value Engineering
- Bicycle & Pedestrian Safety Studies
- Toll Facilities
- Urban Development
- Grading & Roadway Design
- Infrastructure Rehabilitation
- Cost Estimates
- Contract Documents
- Construction Administration & Inspection
- Permit Application Packages
- Technical Specification
- STEPS
- SimTraffic
- Paramics
- VISSIM

RESORTS WORLD CASINO AT NEW YORK AQUEDUCT RACETRACK

SERVICES:

- *Geotechnical Engineering*
- *Surveying*

LOCATION:

Queens, New York

OWNER:

New York Racing Association

CLIENT:

Genting New York, LLC

ARCHITECT:

JCJ Architecture

STRATEGIC PARTNER:

D'Amato Builders + Advisors

AWARD:

*2012 Engineering News-Record
Best Sports/Entertainment
(Resorts World Casino)*

*2012 Queens Chamber of Commerce,
Building Award*



Named after a former conduit of the Brooklyn Water Works that brought water from Long Island to the Ridgewood Reservoir, the Aqueduct Racetrack is a thoroughbred horse-racing facility (approximately 76-acres) dating back to 1894.

The new casino complex, five-story garage (2,365-spaces) and bus drop-off/lobby have a combined footprint area of approximately 144,000 SF with a total gross area of over 700,000 SF. In addition to the precast concrete "racino" structure, a 7,200 SF pedestrian bridge was created to connect the new garage with the New York City Transit (NYCT) A-line subway platform (with connecting AirTrain services to JFK Airport). The balance of the site development includes a modern porte-cochere structure (20,000 SF) with wide spans and considerable loads, an elevator tower, a large sign marquee, and an electrical vault.

Langan's work at the site included a comprehensive geotechnical investigation that provided recommendations for foundations, seismic design, and below-grade construction. Langan assisted in the design of tie-down anchors to resist potential uplift forces associated with a transformer explosion event. A secondary investigation was conducted in association with subsequent phases of site development.

Langan surveyors conducted boundary and topographic investigations for the portion of the site where the parking garage and porte-cochere structures were constructed.

SERVICES:

- *Geotechnical Engineering*
- *Site-Specific Seismic Study*
- *Pile and Footing Load Testing*
- *Special Inspections of Foundation Systems and Excavation Support Systems*

LOCATION:

Brooklyn, New York

CLIENT:

Forest City Ratner Companies

ARCHITECTS:

*SHoP Architects
Ellerbe Becket*

AWARDS:

*2014 ACEC NY Platinum Award
2013 ENR Best Projects – Winner
(Sports/Entertainment)
2013 ENR Best Projects – Winner
(Airports/Transit), Infrastructure
Improvements to Barclays Arena
2013 American Institute of Architects
New York Chapter Design Awards:
Honor Award
2013 Building Brooklyn Award:
Economic Development
2013 Municipal Arts Society of New
York MASTerworks Awards for
Neighborhood Catalyst*



Photo Courtesy of SHoP Architects/Ellerbe Becket

The Atlantic Yards project consists of the redevelopment of six city blocks in the Prospect Heights section of Brooklyn, NY. This massive development occupies over 22-acres, and is bordered by Atlantic Avenue and Flatbush Avenues. Active New York City Transit (NYCT) and Long Island Rail Road (LIRR) tunnels immediately about the site.

The project entails the construction of ten high-rise structures, relocation of the LIRR rail yards, construction of a new LIRR platform and substation, a new NYCT subway station, as well as the Barclays Center, an entertainment center that will also be the new home arena of the professional NBA team the Brooklyn Nets. Six of the high-rise structures will be constructed on top of active LIRR rail yards at the Vanderbilt Yard.

Langan is serving as the geotechnical engineer for the arena and high-rise structures at the Vanderbilt Yard. The arena foundation consists of isolated spread footings bearing on the dense glacial till subsurface. The high-rise structures' foundations will be a hybrid system consisting of spread footings, mat foundation, and strategically located high capacity drilled pile elements to support the superstructure, while satisfying bearing capacity requirements and minimizing settlements. Special load tests were performed to maximize footing and pile capacities.

The isolated spread footings at the arena and the combination of isolated foundation elements around the LIRR tracks was made possible by performing a site-specific seismic study that resulted in a favorable seismic designation, thus avoiding unnecessary seismic detailing and connections, and more importantly, foundation ties, saving the client millions of dollars.

SERVICES:

- *Site/Civil Engineering*
- *NYS Brownfield Cleanup Program*
- *Phase I/II Environmental Assessment (ESA)*
- *Geotechnical Engineering*
- *Fast-Track Project Management*
- *Land Use/Permitting*
- *Waterfront/Marine Permitting*

LOCATION:

Bronx, New York

CLIENT:

The Related Companies

OWNER:

New York City Economic Development Corporation

ARCHITECT:

*GreenbergFarrow Architect
Brennan Beer Gorman Architects*



Langan provided site/civil, geotechnical, environmental and natural resources/permitting assessments related to engineering design of the on-site and off-site improvements and infrastructure at the 913,000 SF Bronx Terminal Market retail center. Redevelopment of the 18-acre portion of the site included demolition of several existing site buildings and development of approximately one million square feet of new retail, restaurant and neighborhood services; structured parking for 2,600 vehicles and off-site utility improvements including a 1,000-linear-foot New York Department of Environmental Protection (NYC DEP) sanitary sewer, 2,200-linear-foot NYC DEP storm sewer and a new storm outfall to the Harlem River.

Site/Civil engineering services included on-site and off-site engineering design and regulatory permitting. Gateway Center Boulevard (formerly, Exterior Street) was reconstructed and included the design and construction of new NYC DEP storm and sanitary sewers. The work required close coordination and design interaction with the New York State and New York City Department(s) of Transportation, New York State Department of Environmental Protection (NYSDEP), Con Edison and MetroNorth. Langan performed resident engineering for the infrastructure work.

Geotechnical engineering services included a pier/bulkhead evaluation, geotechnical subsurface investigation and engineering design of the proposed improvements.

Environmental engineering services included Phase I/II Environmental Site Assessments, remedial investigation and construction oversight. The remedial investigations (soil, groundwater and soil vapor) were implemented and a NYCDEC-approved Remedial Action Work Plan was generated under the New York State Brownfield Cleanup Program.

SERVICES:

- *Site/Civil Engineering*
- *Surveying*
- *Environmental*
- *Traffic Engineering*
- *Landscape Architecture*

LOCATION:

West Hartford, CT

CLIENT:

The Matos Group



Langan is providing a variety of land development services for the Delamar Hotel, which will be the gateway to Blue Back Square, and is situated overlooking Trout Brook. The boutique hotel will include approximately 130 rooms, a 250-seat banquet facility, 140-seat restaurant, and significant outdoor seating and amenities.

Langan is providing site/civil, survey, environmental, traffic engineering, and landscape architecture for this Public Private Partnership (PPP) project. Because of the PPP nature of this project, detailed design elements have been required for the entitlement process and extensive coordination with Town staff.

The site architectural and landscape components have been the focus of the site design, which includes fountains, outdoor seating, an event lawn, pavilion, and extensive landscaping.

The site engineering challenges also include an extensive stormwater management system to account for the development of the existing pervious lot. The project will have both water quality and quantity control measures incorporated into the drainage system to meter flows from the development and polish stormwater before discharging to Trout Brook.

Traditional European landscape elements such as a parking court, extensive gardens, and a pleached hedge and parterre support the Parisian-style hotel architecture.

The project is being designed to LEED Gold standards.

SERVICES:

- *Site/Civil Engineering*
- *Surveying*
- *Environmental*
- *Traffic Engineering*
- *Landscape Architecture*

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Traditional European landscape elements such as a parking court, extensive gardens, and a pleached hedge and parterre support the Parisian-style hotel architecture.

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SERVICES:

- 3D Laser Scanning
- Information Modeling

LOCATION:

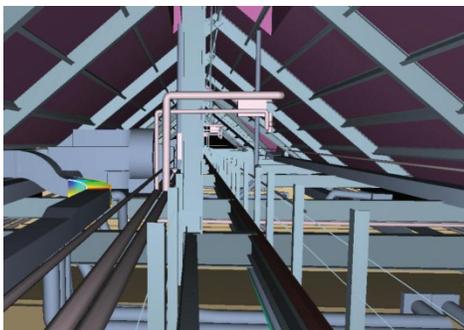
*Foxwoods Great Cedar Hotel
Mashantucket, Connecticut*

CLIENT:

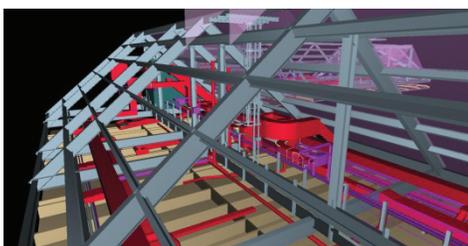
Standard Builders



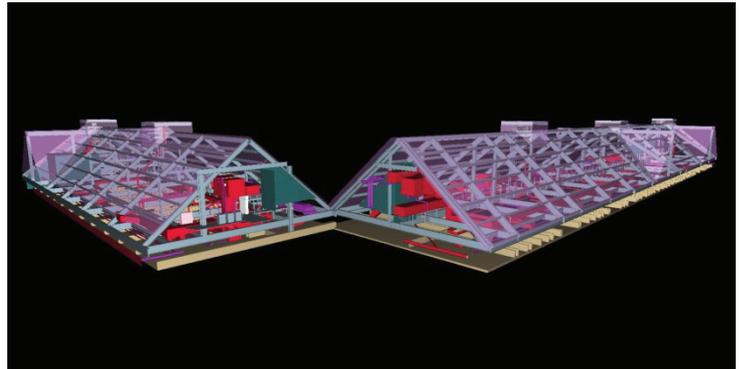
Photo



Model



Model



Foxwoods Resort Casino is the second largest hotel casino complex in the United States with an area of approximately 4,700,000 SF. The casino areas (approximately 340,000 SF) have over 380 gaming tables for blackjack, craps, roulette, and poker, more than 6,300 slot machines and several restaurants. The complex has 2,266 hotel rooms and a two-story arcade for children and teens.

Langan was tasked with providing a complete 3D model of the 8th floor ceiling/attic space of the hotel building. The generated model is to be used as part of a larger effort to correct specific code remediation issues. This 3D model was merged with a Building Information Model (BIM) for utility design and clash detection. Langan employed the use of 3D High-Definition Laser Scanning to capture the complex features within the space.

The scan data was reduced into the final 3D model which includes all accessible structural steel, access walkways and ladders, HVAC ductwork, fire protection piping, wall surfaces and other utility conduits that were visible to the scanner.

Deliverables on the project were detailed 3D AutoCAD drawings of the interior space. A video fly through of the scanned space was also provided.



SERVICES:

- Geotechnical Engineering
- Site/Civil Engineering
- Topographic and Boundary Surveying
- Transportation Engineering
- Seismic Site Classification and Design
- Environmental Engineering
 - Phase II ESI
 - HazMat Inspection

LOCATION:

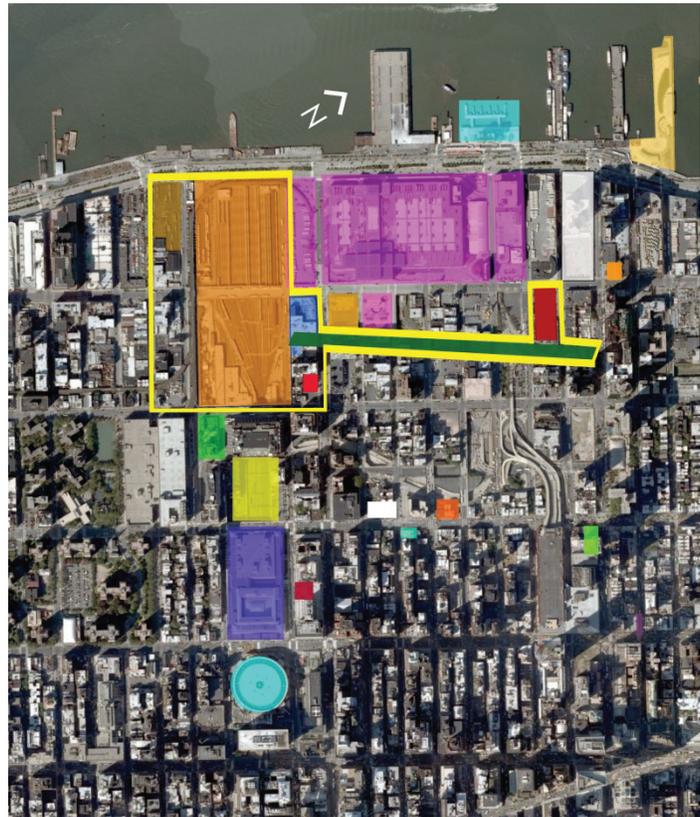
New York, New York

CLIENTS:

Hudson Yards Development Corporation
Hudson Yards, a Related Oxford venture
Extell Development Company
The Moinian Group
Jacob Javits Convention Center
The Georgetown Company
Coach Inc.
New York Jets Development
Brookfield Development
Alloy Development
Silverstein Properties
Madison Square Garden
Moynihan Station Redevelopment Corp
Hudson River Park Trust
Port Authority of NY and NJ



Rendering courtesy of Kohn Pedersen



This major New York City rezoning and redevelopment, under the joint guidance of The City of New York, the Metropolitan Transportation Authority (MTA), Hudson Yards Development Corporation (HYDC) and State of New York initiatives, is in the process of reinventing the Hudson Yards area in midtown Manhattan.

Langan is providing geotechnical, site/civil, transportation and environmental engineering as well as surveying consulting Special Inspection services in support of numerous developers and various agencies.

Langan's extensive knowledge and understanding of the overall Westside redevelopment plans, MTA No. 7 subway line design, and Eleventh Avenue Viaduct reconstruction has been critical to private development and agencies alike. Interaction and close coordination with agencies such as the MTA, HYDC, New York City Department of Transportation (NYCDOT), New York City Department of Environmental Protection (NYCDEP), and Amtrak are paramount to success of each project.

In addition to the construction of several mixed-use and commercial buildings, Langan is also providing support services for the third segment of the High Line, NYC's elevated park, which will extend through the southern portion of the redeveloped site.

SERVICES:

- *Site/Civil Engineering*
- *Geotechnical Consulting*
- *Construction Management*
- *Surveying*
- *Landscape Architecture*
- *Traffic Study/Engineering*

LOCATION:

Newburgh, New York

CLIENT:

Garden Commercial Properties



Newburgh Plaza is a redevelopment of the former Lloyd's retail building. This site is located at the intersection of Union Avenue (NYS Route 300) and Old Little Britain Road, in the Town of Newburgh, Orange County, New York. Newburgh Plaza consists of three (3) retail stores at total of 122,103 SF including Kohl's and Petsmart, a 7,558 SF restaurant, a redevelopment of 3,023 SF retail and gas station, associated parking areas and utilities necessary for development.

Langan provided a wide range of services for this project including site/civil engineering, geotechnical consulting, construction management, surveying services, landscape architecture, and traffic study/engineering.

The stormwater management and stormwater quality design is based upon requirements from the NYSDEC Stormwater Management Design Manual and Interim Strategy for Redevelopment Projects. The water quality for this project was designed under the parameters that the drainage areas mimic the existing drainage areas so that the drainage area consisting of the former Lloyd's building is considered a 'Redevelopment' project and the drainage area for the remainder of the site (green field) is considered a 'New Development' project. Based upon these parameters, Langan was able to design water quality treatment systems that addressed the Redevelopment and New Development requirements.

SERVICES:

- *Site/Civil Engineering*
- *Geotechnical Engineering*
- *Transportation Engineering*
- *Parking Garage Design*
- *Landscape Architecture and Lighting*
- *Surveying*
- *Natural and Cultural Resources*
- *Land Development Permitting*
- *Construction Observation*

LOCATION:

Bensalem, Pennsylvania

CLIENT:

Parx Casino

ARCHITECT:

Kling Stubbins/SOSH



Langan provided engineering design, land-use and natural resource permitting, master planning and construction-phase services for the Parx Casino in southeastern Pennsylvania. This gaming facility is the largest casino gaming complex in the state.

The Phase 2 casino expansion consisted of a 90,000 square foot addition located off the north face of the existing building. The expansion features a service tunnel within the expansion area, connecting to a new below-grade loading dock.

Langan supported other associated projects including:

- Parking garage (design/build)
- Site-wide pavement restoration
- Off-site roadway improvements
- Stormwater facility enhancements
- Off-site utility improvements

Geotechnical engineering services included subsurface investigations, foundation recommendations, and reports. All borings were conducted under the full-time observation of Langan's field engineer.

Traffic improvements consisted of road widening, turn lanes and intersection improvements. Additions and modifications to the sidewalk and curb, grading and drainage, and pavement marking were made.

SERVICES:

- *Geotechnical Engineering*
- *Site/Civil Engineering*
- *Phase I Environmental Site Assessment (ESA)*
- *Builders Pavement Plan*
- *ConEd Vault Application*
- *Topographical & Boundary Survey*

LOCATION:

New York, New York

CLIENT:

The John Buck Company

ARCHITECT:

Ennead Architects

AWARD:

*2011 AIA New York Design Award:
Architecture Merit Award*



The prestigious 18-story Standard Hotel site is located in the historic Gansevoort Market district on Little West 12th Street in Manhattan. Spanning recent developments for the Highline elevated railway garden project, the hotel is a stunning addition to Manhattan's celebrated Greenwich Village.

Langan performed a geotechnical investigation, prepared the geotechnical report and associated technical specifications; developed foundation recommendations for drilled high-capacity mini-caissons to support the super-columns in the vicinity of the Highline and drilled mini-piles for the remaining columns and floor slab areas, and rock anchors.

Langan also developed site/civil design drawings including the Builder's Pavement Plan and ConEd Vault Application.

Pre-construction conditions documentation reports were prepared for the structures bordering the site, and monitoring of the adjacent structures was performed during construction. Langan also performed Special Inspections for pile foundation and load testing during construction.

Challenges included a foundation design that needed to consider potential settlement impacts to the pile-supported Highline structure as well as the adjacent buildings.

SERVICES:

- *Site/Civil Engineering*
- *Infrastructure Evaluation*
- *Stormwater Management*
- *Geotechnical Engineering*
- *Construction Inspection*
- *Permitting*

LOCATION:

Verona, New York

CLIENT:

Oneida Indian Nation



Langan provided geotechnical and site/civil engineering services for the expansion of the Oneida Indian Nation Turning Stone Resort Casino. The phased project included a new main entrance with a winter garden atrium and expansion of the existing events arena. New buildings in the resort expansion include a 22-story high-rise tower hotel, 4-story suites hotel, luxury spa and a 5-story parking garage.

Langan's geotechnical engineering services for the expansion include the investigation and evaluation of the subsurface conditions on the site, recommendations for foundation support of the new structures, technical specifications as related to excavation and drainage for the building and parking garage foundations.

Langan also provided on-site construction support throughout the duration of the project, which helped maintain the project schedule.

The extensive site development associated with the building program includes reconfiguration of the internal drives and parking areas adjacent to the casino. Additionally, the grounds surrounding the suites hotel and luxury spa were designed to provide a lush landscape featuring ponds and waterfalls at various levels.

The impact of the expansion program to the existing infrastructure is significant and presents serious challenges with regard to storm water management and phasing of both new and relocated utilities. The infrastructure system design required coordination with construction phasing, while maintaining the daily operations of the casino. Langan's scope involved evaluating the existing infrastructure system and providing site civil engineering design for the site sewers, water, gas, electric and communications systems from schematic design through construction documents and construction administration.



Company Overview

- ▶ 141 years in business; 65 years in the State of New York
- ▶ Family-owned and operated – 4th and 5th generation management
- ▶ 60 offices worldwide; Full service office in Albany
- ▶ Annual revenue approaching \$4 billion
- ▶ More than 2,500 employees; 92 employees in the Capital Region
- ▶ 428 LEED Accredited Professionals on staff; 14 locally
- ▶ Our EMR is 0.53 - well below the national average of 1.0
- ▶ Ranked Top 10 in 2013 by the *Albany Business Journal* as area's largest general contractor
- ▶ Associated Builders and Contractors (ABC) and Associated General Contractors (AGC) Safety Excellence Award

FIRM INFORMATION

GILBANE AT A GLANCE

Gilbane began in 1873 as a family-run carpentry and general contracting business. Since then the company has grown into one of the nation's largest full-service construction firms with annual revenues approaching \$4 billion.

- ▶ Gilbane is a top provider of construction management services in New York
- ▶ Gilbane's local office is located in Albany, currently employs 92 employees in the Capital Region, and is supported by 200 additional employees in the State.
- ▶ We bring a depth of national experience blended with a local presence and unquestionable knowledge of regional subcontractors and established relationships with local and state authorities.

Gilbane's core competency is in managing complex construction activities. We've been in business since 1873 and helped invent the construction management delivery process. Today, we are helping deliver facilities in a variety of ways that meet the needs of our clients.

You have our personal commitment!



William Gilbane III
Senior Vice President



John LaRow
Vice President



GILBANE'S MISSION

Gilbane's people deliver outstanding client satisfaction. We practice our core values in our work, giving our clients a unique experience of trust and advocacy. Our commitment to achieving sustained growth enables us to provide enhanced value to clients and opportunities for our people. We will:

- ▶ *Exhibit unshakable integrity in all our practices.*
- ▶ *Embrace discipline and a passion to excel in delivering our services.*
- ▶ *Leverage the knowledge and experience of our company's global resources.*
- ▶ *Instill a spirit of teamwork and entrepreneurship to deliver creative solutions.*
- ▶ *Attract, retain and develop a diverse workforce.*
- ▶ *Provide a healthy work environment in which all employees are treated with dignity, fairness and respect.*
- ▶ *Ensure the safety and well-being of our employees and others with whom we work.*
- ▶ *Demonstrate respect for the environment, using sustainable building techniques.*

We live this mission with a commitment to be a prominent business entity in our industry as well as an active partner in communities where we work.

COMMUNITY ENGAGEMENT

Our professionals not only work in the community, they proudly support local organizations across the state through volunteering of their time or making monetary donations. These organizations include:

- ▶ *Upstate NY ACE Mentor Program*
- ▶ *Malta Business and Professional Assoc. 5K*
- ▶ *Rebuilding Together Saratoga County*
- ▶ *Albany Medical Center Foundation*
- ▶ *MiSci of Schenectady*
- ▶ *Schenectady County Community College Foundation*
- ▶ *Ronald McDonald House Charities*
- ▶ *Epilepsy Foundation Northeastern New York*
- ▶ *Capital District Sports Foundation*
- ▶ *Siena College*
- ▶ *Syracuse Say Yes to Education*
- ▶ *Golisano Children's Hospital*
- ▶ *Salvation Army*
- ▶ *United Way*
- ▶ *Susan G. Komen for the Cure*
- ▶ *Regional Food Bank of Northeastern New York and Southern Tier*
- ▶ *Rochester City Schools Scholars Programs*
- ▶ *American Cancer Society Relay for Life*
- ▶ *Pro-Action of Steuben & Yates Counties*
- ▶ *Elmira Southside Community Center and Pathways*
- ▶ *Boy Scouts of America*



98.3%
OF OUR CLIENT
SURVEYS **MEET**
OR **EXCEED**
EXPECTATIONS
2014 TO DATE

RELEVANT EXPERIENCE

With a portfolio that includes over 25,000 hotel keys and multiple hospitality/gaming projects, Gilbane is focused on completing your project beyond your expectations.

Gilbane understands your goals - to provide your guests with a superior experience so that your facility will be the property of choice for future stays. As your hospitality/gaming construction services provider, everything we do supports that overall mission. We have the depth of experience to deliver a flawless ramp-up to opening day.

Gilbane has the proven experience, a team of national experts and the depth of resources to complete your project on-time and within budget!



CASINO/GAMING EXPERIENCE



MTR Gaming Group, Scioto Downs Racino, Columbus, OH

- ▶ This 127,000 SF fast-track, one-story gaming and entertainment facility that incorporates high end finishes.
- ▶ Sitework improvements included: soil stabilization of the entire site, all new utilities including high voltage gear, standby generators, water, sanitary, storm, gas and storm retention, new entrance pylon sign, 2,000 space at grade paved parking lots, along with complete landscaping.
- ▶ Gaming/Entertainment area included: 2,100 Video Lottery Terminal (VLT) machines, located on access flooring, three food venues, two high bars, High Limit area, Center Bar and Lounge area, retail area.
- ▶ Back of House included: Racino Management offices, employee dining area, independent rack room for surveillance, security, audio visual and information technology.
- ▶ The entire construction process from ground breaking to grand opening was accomplished in six and one half months while working adjacent to an operational race track.



Hard Rock Rocksino™ Northfield Park, Northfield, OH

- ▶ New 182,000 SF ground up facility encompassing a unique "design/build - fast-track approach" to assure the facility was operational in nine months from facility from start of construction.
- ▶ Sitework improvements included all new underground utilities, high voltage substation, emergency generators, relocation of existing support power, data, audio visual facilities.
- ▶ Interior work included: 64,000 SF gaming area, High Limit area, Hard Rock Café, 2,000 seat "Hard Rock Live" venue, Rock Shop retail area, "Bernie Kosar" themed steakhouse and lounge. All interior areas are being designed and constructed to high end quality finishes.
- ▶ Back of House included: Rocksino Management offices, themed EDR, three kitchens including two show kitchens, employee uniform and laundry, IT, AV, security and surveillance areas.



CASINO/GAMING EXPERIENCE



Potawatomi Bingo Casino, Milwaukee, Wisconsin, Phases I and II Milwaukee, WI

- ▶ Project located in a brown field site requiring environmental remediation.
- ▶ A new 550,000 SF two-story gaming and entertainment facility along with a 3,200 precast and cast-in-place parking deck, and sky bridge to connect facilities.
- ▶ Gaming/Entertainment area included: 75,000 SF gaming area for 3,200 slots and 125 gaming tables, four restaurants, 600 seat buffet, convention/meeting area and 2,500 seat high stakes bingo venue.
- ▶ Sitework Improvements included: New public roadways and utilities, 2,000 at grade paved parking spaces, underground valet parking.
- ▶ Back of House included: Management Offices, surveillance and IT support facilities, cooling towers, interior standby generators, food and beverage support facilities and four commercial kitchens.
- ▶ Current work includes, 18-story all-suite hotel and spa.



Mohegan Tribal Community and Government Center Uncasville, CT

- ▶ New Mohegan Tribal Community and Government, facilities and state-of-the-art community center for all Mohegan tribal members
- ▶ Features include offices for judges, court clerks, and tribal chief, courts, meeting rooms, exhibition room, and library
- ▶ Community center includes multi-purpose gym, recreation rooms, and locker rooms

S *“The project team did an outstanding job delivering the project on schedule. The entire team had both integrity and drive. Their ethic is second to none and a pleasure to work with. I look forward to working with them in the future.”*

T

Craig McIntyre
McIntyre Management Group, LLC

O *“The project team has done a wonderful job. They continually stressed doing whatever the client needed as their first priority. Gilbane demonstrated that they are completely knowledgeable of the building process and will do whatever is necessary to guide the client through this building process with thoughtful direction.”*

Q

Robert Schmitt
Greenfire Management Services, LLC

HOTEL EXPERIENCE



Hilton Americas Hotel Houston, TX

- ▶ Connected to the George R. Brown Convention Center
- ▶ The \$20 million project consists of 1.2 million SF of space including 1,200 guest rooms
- ▶ Includes a 40,000 SF ballroom, 26,000 SF junior ballroom, 30 meeting rooms, and express elevators



Flats East Bank Development Cleveland, OH

- ▶ A 854,500 SF, \$122 million, six-story hotel, three-story parking garage, and 22-story office building
- ▶ Hotel features top-quality room design and a high-tech conference center
- ▶ High-rise core and shell building including retail space on the first floor
- ▶ Exterior infrastructure, parking lots, roads and recreational park leading to a boardwalk on the Banks of the Cuyahoga River



Sturbridge Homes Grandview - Annapolis Towne Center Gambrills, MD

- ▶ Located in the heart of the new Annapolis Towne Center
- ▶ Premier 16-story, \$60 million, 390,000 SF complex
- ▶ Includes two levels of retail space, 200-room hotel, 4,800-car parking garage, 120,000 SF office space, 150 luxury condominium units
- ▶ High-end finishes throughout
- ▶ Completed in a 30-month schedule, retail space opened one year ahead of schedule



Moody Gardens Galveston, TX

- ▶ A \$850 million, multi-purpose, mix-use facility, including: hotel, arena, conference center, dock facility, conservatory, aquarium
- ▶ Hotel includes 88,000 SF expansion, 128 guest rooms
- ▶ A 500,000 SF, 1,000-car parking garage, new warehouse building, restaurant/retail, site utilities, and paddle boat deck were also included

NEW YORK EXPERIENCE



Albany Capital Center Albany, NY

- ▶ A 82,000 SF, multi-story facility with an enclosed pedestrian walkway linking to the DeWitt Clinton Hotel, the Empire State Plaza, and the Times Union Center
- ▶ Public spaces includes: Porte Cochere, a 6,300 SF Pre-Function Space, 25,000 SF Multi-Purpose Room on the first level; 9,700 SF Pre-Function room, 9,000 SF Meeting Rooms, 10,000 SF Junior Ballroom on the second level
- ▶ Additional spaces includes: administrative and storage area and a 3,500 SF Kitchen



Lake Placid Olympic Committee XIII Olympic Games-1980 Lake Placid, NY

- ▶ A \$68 million, 80,000 SF renovation and addition
- ▶ Scope included replacing the original ice sheet with an international-sized rink, upgrading the dressing facilities and constructing a new roof. Seating was expanded from 600 to 1,200 permanent seats.
- ▶ The project team completed the 14 individual projects on time and within budget.
- ▶ Gilbane met the inflexible deadline and strict budget challenges by providing feasibility studies, estimating and value engineering services and coordination for more than 60 major contractors and 1,880 trades people.



Staybridge Suites Colonie Center Mall Colonie, NY

- ▶ New construction of a six-story, 112 room Staybridge Suites Extended Stay Hotel on four acres adjacent to the North Colonie Mall
- ▶ Room arrangements will include one-and two-bedroom suites with kitchens
- ▶ Amenities include a pool, outdoor patio, gazebo, basketball courts and a fitness center

Marriott Inn Albany, NY

- ▶ Construction of a new 10-story, 213,887 SF hotel
- ▶ 300 rooms and suites,
- ▶ Amenities include a 10,000 SF convention/banquet meeting space, health club and pools, night club and restaurants

1964 World's Fair New York, NY

- ▶ The 646-acre site was distributed into five separate exhibit areas: the Lake Area, the Industrial Area (representing nearly 200 U.S. Companies), International Exhibits, Federal and States Exhibits and the Transportation Exhibit
- ▶ Gilbane is proud to have played a significant role in the Fair with the construction of the India Pavilion (109,200 SF), the Hawaii Pavilion (38,000 SF), New England States Exhibition (35,000 SF), and the IBM Corporation Pavilion (8,000 SF)

William J. Gilbane, III

SENIOR VICE PRESIDENT, REGIONAL MANAGER
GILBANE BUILDING COMPANY

William J. Gilbane III, is a senior vice president for Gilbane Building Company. A fifth generation family member, Mr. Gilbane leads the company's New York offices for all sales, operations and client relations. A Brown University graduate with a Master of Science in Construction Management from New York University, Mr. Gilbane is celebrating his tenth year in the construction industry.

Mr. Gilbane joined the company in 2003, gaining valuable experience working on-site on several high profile projects in Washington, D.C., Maryland, Rhode Island and New Jersey. He joined the New York Leadership team in 2011, bringing a talent-centric management style to a traditional brick and mortar industry - a transformative approach for his company and the construction industry.

Under Gilbane's entrepreneurial leadership, he has built a diverse regional presence in New York, with projects across multiple markets, including hospitality, healthcare, education, office buildings and public destinations. Since 2011, under Mr. Gilbane's leadership, the company's New York region has doubled its revenues annually, significantly diversified its portfolio, and firmly established Gilbane as a leading New York builder. As a result, Gilbane Building Company was recently named ENR New York's 2014 Contractor of the Year.

Mr. Gilbane is also committed to numerous organizations outside of Gilbane. He is an active Board Member in New York City's ACE Mentor Program, the New York Building Foundation, Construction Management of America Associations' local and national board and ORT's America Engineering and Construction Chapter. He is also a Trustee for the Citizens Budget Commission, an organization whose mission is to facilitate government reform and be a catalyst for positive change.



Qualifications | Education

- ▶ Joined Gilbane in 2003
- ▶ BS/Brown University
- ▶ MS/Construction Management/New York University

Licenses | Certifications

- ▶ OSHA 10-Hour Trained

John LaRow, LEED AP

VICE PRESIDENT, UPSTATE
GILBANE BUILDING COMPANY

Mr. John LaRow has over 20 years of experience working in the construction management industry since joining Gilbane. He began his career at Gilbane and has since held several roles including assistant superintendent, project manager and project executive. A Vice President and Business Unit Leader, Mr. LaRow is focused on growing our upstate New York operations. He has overall accountability for all projects in upstate New York including the Staybridge Suites Colonie Center Mall, Rochester City Schools, and Corning Museum to name a few. Since assuming leadership in Albany, John has demonstrated dramatic success in increasing client satisfaction.

Mr. LaRow's major strengths include integrity, leadership, strategic and operational planning, project management and communication skills. His specialized knowledge includes procurement/contracts, negotiations, planning, and operations. He has a proven ability to simplify challenges, collaborate with the core team and stakeholders on innovation and decision-making and integrate lean construction principles. An exceptionally skilled manager, he motivates his project team to the best of their performance, continually improves process and keeps the client's goals on track. Mr. LaRow will ensure the availability of the right resources for your project.

An active participant in the community, Mr. LaRow is on the Board of Associate Trustees for Siena College, Ballston Spa Education Innovation Fund for Early College High School Program and St. Clement's Regional Catholic School.



Qualifications | Education

- ▶ Joined Gilbane in 1994
- ▶ BS/Physics/Sienna College
- ▶ MS/Mechanical Engineering/Boston University

Licenses | Certifications

- ▶ OSHA 30-Hour Trained
- ▶ LEED Accredited Professional

James S. Murphy

SENIOR PROJECT EXECUTIVE

Jim brings nearly 45 years of construction experience with a significant steel tower portfolio. He has a broad range of diverse construction and technical services experience from field operations to senior management in numerous market sectors, including major mixed-use/residential tower projects, as well as complex projects requiring subgrade construction methods. Jim is highly experienced in the leadership of high profile construction projects, and has a track record of achievement that minimizes risk for his clients. His breadth of experience in various roles, including manager of estimating, senior cost manager, and senior project manager in addition to operational leadership, ensures that all aspects of high profile projects are planned and executed with a focus on quality and safety while exceeding clients' expectations. His strength in leveraging project controls and accurate cost reporting helps his clients achieve their 'speed to market' investment strategies and project goals.

Representative Experience

FEATURE PROJECT



The Bloomberg Tower at 731 Lexington in New York City is a major accomplishment for Jim. He served as vice president on the project which was constructed adjacent to an active subway and involved remodeling a station.

The Bloomberg Tower at 731 Lexington, New York, NY

As vice president, Jim provided senior level oversight for a \$450 million, 1.4 million SF, 59-story tower in Midtown Manhattan. The superstructure is steel-framed through the 37th floor and then transfers to concrete. The tower was constructed adjacent to an active subway and scope of work included remodeling a station. Through Jim's leadership of a robust cost reporting and change event system, the project was completed on schedule and within budget.

AOL Time Warner Center (Fire Damage Claim/Reconstruction), New York, NY

As project executive, Jim was assigned to manage reconstruction and interface with insurance companies for a fire damage claim that involved several floors on the East side of the northern tower during construction of the superstructure. Over an eight month time frame, his focus encompassed reconstruction of the damaged floors and a portion of the steel structure. In addition to the primary claim, Jim managed eleven other loss claims involving the base building and tenant areas.



Career Highlights and Relevant Experience Summary

- ▶ Nearly 45 years in construction
- ▶ Significant steel tower experience
- ▶ Management of projects that exceed one million square feet
- ▶ Mid/High Rise construction experience
- ▶ Residential experience
- ▶ Casino Experience

Qualifications | Education

- ▶ Northwestern University Business/Pre-Law Studies

Torre Reforma Tower, Mexico City, Mexico

Jim serves as project director on an 800-foot tall, 59-story concrete/steel office structure, anticipated to be the tallest building in Latin America. He mobilized the first Gantry Cranes to Mexico City from New York for this project and implemented U.S. style procurement, contracting and cost control measures. The project involves 50-meter deep slurry wall foundations. There are 10 sublevels including 5 levels of subsurface parking constructed utilizing a top-down method. The building is triangle-shaped with the back legs of the triangle composed of cast-in-place concrete and a front leg which is a steel dia-grid frame structure with curtain wall facade. The value of this 800,000 square foot project is \$220 million (USD).

Waterfront Corporate Center, Hoboken, NJ

Jim served as senior project manager for the \$120 million, 1.1 million SF waterfront commercial project. Scope included subgrade construction below the Hudson River level which required dewatering systems and complete sheet piling and lagging. The project consisted of two 13-story steel framed towers. Jim's management of the project earned his team internal safety awards and recognition for innovative use of project controls.

Mitikah Phase I, Mexico City, Mexico

Jim served as project director for a 23-story, 370,000 SF apartment building with 300 units and a 11-story, 180,000 SF medical office building with 100-bed clinic and 6 levels of subsurface parking. The apartment building is a steel structure, precast and curtain wall façade, roof top amenities and subsurface commercial area. Bottom up construction techniques were required for the deep foundations and 60-meter deep slurry walls. Under Jim's leadership, the project achieved 800,000 man-hours without a lost time incident which is a high level team accomplishment for a project based in Mexico. The value is \$180 million (USD).

Mitikah Phase II, Mexico City, Mexico

As pre-construction leader, Jim oversaw budgeting, scheduling, program review, logistics development and value engineering for this multi-structure project. Total square footage of all structures is 1.3 million SF valued at \$1.4 billion (USD). Structures include:

- ▶ 34-story steel office structure
- ▶ 60-story hotel/condo concrete structure
- ▶ Two 21-story residential structures
- ▶ 4-story, 700,000 SF, retail mall constructed on top of 6 levels of subsurface parking containing 11,000 parking spaces.

The Venetian Hotel and Casino Project, Las Vegas Nevada

Jim served as senior project manager/senior cost manager for a 6,000,000 SF casino, exposition center, and hotel with more than 3,000 suites. Jim was a senior management core team member with primary responsibility for development and adherence of GMP; overall management of total value; and cost reporting/negotiations with owner with regard to cost impacts. Other responsibilities included management of project managers, the estimating department; bid package development, contractor buyouts/ close-outs, change order negotiation, trade cost forecasting and administrative management.



Jim mobilized the first Gantry Cranes to Mexico City from New York for the Torre Reforma Tower project.



Jim has had significant leadership during preconstruction and construction phases for the multi-structure, phased mixed-use development, Mitikah, in Mexico City.

Bob Diener

PROJECT EXECUTIVE

Robert brings over 30 years of construction experience in value engineering, scheduling and constructability processes. Robert provides the leadership and collaboration skills to work with client groups, architects and subconsultants, ensuring that all parties are working towards common goals and objectives. Most recently Robert was responsible for the \$160 million Mohegan Casino & Resort, \$285 million Henry J. Carter Specialty Hospital and Nursing Facility, the \$250 million Orange Regional Medical Center replacement hospital, and a \$75 million Mt. Sinai Hospital Addition and Renovation. Robert Diener has a proven ability to manage large complex projects on constricted urban sites, and he understands the complexity and detail of executing the construction of very large projects in healthcare settings. From preconstruction through construction he will be an asset to any team as he provides the leadership and direction necessary to get the job done on-time and budget.

BFC Partners - Empire Outlets Staten Island Development, Staten Island, NY

Preconstruction services for one 200-key hotel and a 350,000 SF outlet mall on top of a 1,250 parking garage.

Mohegan Casino & Resort, Uncasville, CT

\$160 million world class casino and resort. 26-acre site, five bridges, major rock cuts, and a five story parking garage. Two stories of underground parking facilities, 1,000,000 SF of gaming, five restaurants, food court with waterfalls, 50,000 SF kitchen, and 200,000 SF for back of house offices. \$20 million interior theme work that was designed and built in one year.

Henry J. Carter Specialty Hospital and Nursing Facility (LTACH), New York, NY

Full preconstruction and construction phase services for Long Term Acute Care Hospital (LTACH) replacement facility in NYC. Joint venture with McKissack & McKissack. Renovation of existing North General Hospital and new 200,000 SF adjacent facility.

Mount Sinai Hospital, New York, NY

\$75 million addition and renovation on uptown Manhattan Mount Sinai campus. The location was on a tight urban site and the facility remained occupied during construction. Project involved a demolition of the existing structure.

Orange Regional Medical Center, Middletown, NY

\$200 million new hospital, 7-story, 625,000 SF facility built on a Greenfield site. Scope included 375 bed, new emergency department, radiology center, 12 operating rooms, oncology, NICU, ICU floors, same day services, Cath Lab, IR Department, MRI. Project also included construction of a new medical office building. Under Robert's leadership, this project was completed on-time with a 30% cost savings to the owner.

Pocono Medical Center, East Stroudsburg, PA

\$31 million new addition that included Emergency Department, eight Operating Rooms, PACU, Cath Lab, IR Rooms and MRI. New construction of four-floors of patient rooms totally 100-beds. Logistical challenges involved relocating the loading dock in order to construct the addition while keeping the hospital operational.



Career Highlights and Relevant Experience Summary

- ▶ Over 34 years in construction
- ▶ Significant steel tower experience
- ▶ Mid/High Rise construction experience
- ▶ Hotel experience
- ▶ Casino experience

Licenses | Certifications

- ▶ OSHA 30-Hour Trained
- ▶ 40 Hour NYC Building Site Safety Course

International Gateway Facility, Logan International Airport, Boston, MA

\$195 million new terminal and existing terminal upgrades: 4,000,000 SF expansion and 500,000 SF renovation of existing terminal, elevated departures roadway and two parking lots. Oversaw all field operations, logistics and coordination with existing airport operations of the roadways and the international terminal including management of the safety and quality control quality assurance program. Additionally, Robert managed the schedule review, claims and TIA review and comments. Following the attacks of Sept. 11 I moved over to the Hold Baggage Screening Project, following the successful completion of that project I returned to this project. I assumed my old role for completion and added to my responsibilities was over site of the design team for design addition review and coordination. New design packages due to the changed conditions and operations needs.

International Terminal 4, JFK International Airport, Jamaica, NY

\$680 million new terminal, roadways and existing terminal renovations. Ensured elevated roadway construction with train through building was on schedule and ensured ceilings and finishes were on schedule and coordination was completed.

Hold Baggage Screening Project, Logan International Airport, Boston, MA

\$140 million renovation and expansion of eleven baggage rooms to install and commission full baggage screening systems to meet new government mandate.

Otis Bantam Correctional Facility 500 Cell Addition, New York, NY

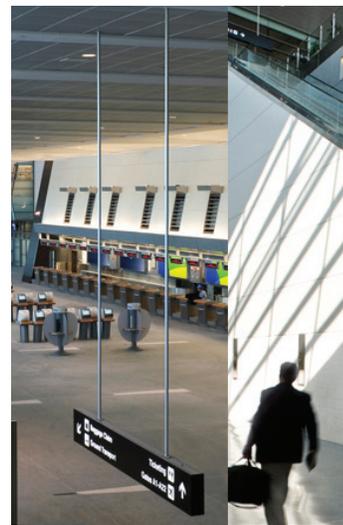
\$140 million 500 cell addition.

Millcreek Community Hospital, Erie, PA

\$12 million one floor addition on top of existing medical facility. Hospital remained operational and there was added emphasis on infectious disease control.

Jersey Shore Hospital, Jersey Shore, PA

\$12 million addition to existing facility. New Emergency Department and patient floor. Campus remained open during construction and required challenging logistics to keep loading dock operational.



Robert oversaw all field operations, logistics and coordination with existing airport operations of the roadways and the international terminal including management of the safety and quality control quality assurance program.

Conceptual Design and Basis of Design Documentation

Casino, Hotel and Entertainment Center
Newburgh, New York

JB&B Statement of Credentials



Photos Credits: Saratoga Casino and Raceway

June 5, 2014

Firm Profile

Jaros, Baum & Bolles (JB&B), established in 1915, is an autonomous, full-service Mechanical and Electrical Consulting Engineering firm. The 220-person firm is located at 80 Pine Street, New York, New York 10005.

We provide a full range of mechanical and electrical services, including:

- Heating, Ventilating and Air Conditioning (HVAC)
- Sanitary Engineering
- Electrical Engineering, including UPS and Emergency Generator Systems
- Lighting Design
- Building Transportation (Elevators and Escalators) and Materials Handling
- Building Automation and Control Facilities and Systems
- Environmental Engineering
- High-Reliability Critical Systems and Infrastructure
- Office Technology and Telecommunications
- Central Utility Systems
- Sustainable Design Strategies
- Integrated Life Safety Systems
- Special Engineering Services (including Energy Systems Analysis, Feasibility Studies, and Investor/Owner Consultations, and Building Security Systems)
- Commissioning
- Special Inspection Services

We have provided these services on many diversified building types, including:

- College and University Academic Mixed-Use Facilities
- Financial Services Headquarters and Support Facilities
- Hospitals and Laboratories
- Commercial and Institutional Buildings
- High- and Low-Rise Office Buildings
- Airport and Transportation Facilities
- Government Buildings
- Residential Buildings
- Data Centers
- Hotels
- Retail Complexes
- Museums and Galleries

The senior management group at JB&B (listed below) is comprised of widely known and highly respected engineer-businessmen who have earned their leadership roles after long years of intensive training and testing in the firm. They provide the solid commitment to client satisfaction, and the resources, both managerial and technical, to back that commitment.

Partners

Mitchel W. Simpler
Augustine A. DiGiacomo
Brendan P. Weiden
Anthony M. Arbore
Scott E. Frank
Walter J. Mehl, Jr.
Mark R. Torre
Christopher J. Prochner
Richard M. McFadden



Jaros, Baum & Bolles Philosophy

Jaros, Baum & Bolles, in almost a century of practice, has been privileged to work with many of the foremost architectural firms throughout the world. Diversified building types for which we have completed designs include: Airports and transportation facilities, commercial and institutional buildings, high- and low-rise office buildings, colleges and universities, high- and low-rise residential projects, retail spaces, hotels, hotel/casinos, conference centers, computer centers, department stores, museums and galleries, hospitals and laboratories, and specialty projects.

With over 14,000 projects to its credit, Jaros, Baum & Bolles is capable of providing a full range of services for every conceivable kind of structure, new or old. Buildings for which JB&B has served as Consulting Engineers would include many of the foremost architectural achievements of the 20th century. Moreover, JB&B has had involvement with major projects, both inside and outside the United States. It is the experience and capability of this major volume of work that we bring to any project.

The cutting edge of a great engineering firm is formed by its senior management. The Partners of Jaros, Baum & Bolles are widely known and highly respected engineer-business-persons who have earned their leadership roles after long years of intensive training and testing in the Firm. They are the key people, providing the solid, dependable foundation for all that is done at JB&B. They are the people who combine technical proficiency with experience and strong interpersonal skills. They are the people who form the basis for the commitment by Jaros, Baum & Bolles to any project.

In addition to basic design services, JB&B is called on increasingly for installation supervision and for such specialties and services as sustainable design, architectural lighting design, feasibility studies, building systems development and evaluation, energy conservation, life safety and building security, and vertical transportation and materials handling systems.

Jaros, Baum & Bolles enjoys a high degree of client confidence in its ability to perform to unfailingly high standards with imagination and skill. Clients know from experience that even the most technically complex and innovative JB&B designs will honor the Architect's vision and creative concepts and will respect the user's operational and financial objectives.

Professional and personal integrity are the core of client confidence in JB&B. Professional and personal integrity mean that JB&B is fully qualified for every assignment it accepts. Integrity, to Jaros, Baum & Bolles, means also that the Firm has no financial interest in the manufacture or sale of any product, never functions as the Construction Contractor, and never acts as the representative of any manufacturer.



Engineering Excellence

Jaros, Baum & Bolles maintains state-of-the-art capabilities in all aspects of our engineering services. We invest significant resources on an ongoing basis in order to maintain a leadership position in all areas of our practice. These efforts have contributed to our enduring reputation for engineering excellence in all that we do.

Sustainable Design

In recent years, concern over the detrimental impact that buildings have on the Earth's environment have propelled our decades-long experience with energy conservation into the broader area of reducing the consumption of all natural resources by buildings through all phases of the building life cycle, while improving and maximizing the quality of the indoor built environment. To this end, JB&B has been very active in the efforts of the U.S. Green Building Council, and has implemented the LEED Rating System on a multitude of projects, at all performance levels. Through extensive staff training, we are able to offer cutting-edge advice and services to our Clients in this important area.

Building Information Modeling

The wide-ranging innovations of information technology during recent years have allowed great strides to be made in the management and exchange of information throughout the building industry. JB&B has been at the forefront of providing industry leadership and support in maximizing the benefits of technology to our industry. Since 1995 we have served as founding Board Members of the International Alliance for Interoperability, a global initiative to encourage the creation and adoption of vendor-neutral standards for communications between information tools that are used throughout the building industry. Recent product strategies by many technology vendors in the building industry under the title of Building Information Modeling (BIM) are a manifestation of the next generation of information tools that are now available to the building industry in a form that offers open information exchange. We have enjoyed a longstanding relationship with Autodesk, the author of the dominant emerging BIM tool for the building industry: Revit. We anxiously await the complete transition of our industry from a paradigm of 2D paper drawings as the common denominator for information exchange to one of exchanging intelligent object-oriented data models that grow in value to building Owners upon completion of each stage of the building life cycle. Toward that end, we are currently utilizing Revit as the MEP design platform on a number of large, complex design projects.

Specialized Modeling and Simulation

Technological advances have also opened the door to significant advances in virtual prototyping capabilities that can be implemented on desktop computers. JB&B has been a leader in the implementation of energy simulation and modeling techniques since its inception in the 1970's. We have utilized the DOE-2 energy simulation tool as a standard part of our design process since the early 1990's. In recent years, we have expanded this capability to include computational fluid dynamics (CFD), which allows the prediction and visualization of the movement of air within conditioned building spaces—to great benefit of our HVAC design capabilities. Our dedicated PhD staff of CFD engineers are involved in most of our current design projects, providing strategic input for arriving at sophisticated solutions for airflow distribution within building spaces.



Firm Experience

Jaros, Baum & Bolles has significant experience with all types of commercial and institutional buildings, both new construction and renovation/retrofit, located within the United States as well as abroad. These projects have consisted of a wide variety of program types, including office, classroom, arts, athletic, healthcare, laboratory, retail, residential, public amenity and technical infrastructure. Included in this experience is all aspects of evaluating and upgrading existing buildings for a variety of purposes:

- System evaluations for investor due diligence.
- Deficiency evaluations that include identifying Code violations, design deficiencies, operational deficiencies, deferred maintenance, and programmatic limitations.
- MEP infrastructure upgrade feasibility analyses, including life cycle costing.
- Energy audits, including ASHRAE Level I, II and III analyses.
- Feasibility analyses for proposed re-purposing and/or changes in building use or occupancy.
- Master planning for MEP infrastructure to support future program requirements.

Relevant Experience

Hotel, Convention and Casino Projects

- Baha Mar Resort, Nassau, Bahamas
- Bali Inter-Continental, Bali, Indonesia
- Borobudur Inter-Continental, Jakarta, Indonesia
- Brussels Hilton, Brussels, Belgium
- Cleveland Clinic All Suites Hotel, Cleveland, OH
- Disney Dolphin Hotel, Walt Disney World, Orlando, FL
- Essex House Hotel Renovation, New York, NY
- Four Seasons Hotel, New York, NY
- Golden Nugget, Atlantic City, NJ
- Hilton Inn, Woodcliff Lake, NJ
- Hotel Dublin Inter-Continental, Dublin, Ireland
- Hotel Sofitel, Philadelphia, PA
- Houston Inter-Continental, Houston, TX
- IHC Hotel and Conference Center at Cleveland Clinic, Cleveland, OH
- Inter-Continental Frankfurt, Frankfurt, Germany
- Inter-Continental Geneva, Geneva, Switzerland
- Inter-Continental Karachi, Karachi, Pakistan
- Jeddah Inter-Continental, Jeddah, Saudi Arabia
- Mandarin Oriental Hotel at Grand Avenue, Los Angeles, CA (Currently on Hold)
- Mandarin Oriental Hotel at Mandarin Oriental Tower, Chicago, IL (Currently on Hold)
- MGM Mirage, Renaissance Pointe, Atlantic City, NJ (through Design Development)
- Omni Berkshire Hotel, New York, NY
- Paris Hilton, Paris, France
- Radisson - Plaza 7, Minneapolis, MN
- Scanticon at Pennsylvania State College, State College, PA
- Scanticon Center, Princeton, NJ
- Scanticon, Minneapolis Hotel/Conference Center, Plymouth, MN
- Scanticon, Denver, CO
- Sheraton Manhattan, New York, NY
- Sheraton Meadowlands Hotel, Meadowlands, NJ
- Sheraton Meadowlands Renovations, Meadowlands, NJ
- Sheraton New York, New York, NY
- Sheraton Towers, Jakarta, Indonesia
- Sonesta Beach Hotel, Bermuda
- Sonesta Beach Hotel, Nassau
- St. Regis Hotel, New York, NY



- St. Regis Hotel, New York, NY
- The Broadway Hotel, New York, NY
- The W Hotel, New York, NY
- The Westin Hotel at Rio Mar, Peer Review, Puerto Rico
- The Westin Hotel at Times Square, New York, NY
- Tokyo Hilton, Tokyo, Japan
- Tropicana Hotel and Casino (Phase I), Atlantic City, NJ
- Tropicana Hotel and Casino (Phase II - Trop World), Atlantic City, NJ
- Victoria Inter-Continental, Warsaw, Poland
- Vista International Hotel, New York, NY
- W Hotel (Formerly Planet Hollywood Hotel), 1567 Broadway, New York, NY
- W Hotel at Union Square, New York, NY
- Warsaw Sheraton Hotel, Warsaw, Poland





Revel Casino Hotel Resort Atlantic City, New Jersey

Architect:

Arquitectonica

The facility includes one (1) hotel tower with approximately 1,900 rooms, 150,000 sq.ft. of casino space, and 500,000 sq.ft. of dining, retail and entertainment space. Amenities include a 5,500-seat theater, an expansive health club and spa, meeting space and an outdoor oceanfront beach on approximately one acre. The project totals approximately 7.3 million sq.ft. A second hotel tower totaling 950,000 sq.ft. is planned in the near future.



RESORT/GAMING

Engineering relaxation
and enjoyment

JBB
JAROS BAUM & BOLLES



Baha Mar Nassau, Bahamas

Architects:

Michael Hong Architects

RMJM

This new 1,000 acre resort-casino is located in the city of Nassau on New Providence Island. When completed, it will consist of 3,500 rooms in six hotels and a number of condominium buildings, as well as restaurants, spas, a water park and golf course. The complex also includes a 100,000 sq.ft. casino and 200,000 sq.ft. convention space.



RESORT/GAMING

Engineering relaxation
and enjoyment

JBB
JAROS BAUM & BOLLES



Isle of Capri Casino Coventry, England

Architect:

Friedmutter Group

Isle of Capri Casino consists of 10,900 square meters of floor space within the Coventry Arena development. Facilities include gaming tables, slot machines, restaurants, gift shops and toilets, as well as supporting back-of-house areas (kitchens, security, counting, repairs, staff dining, storage and administration).



RESORT/GAMING

Engineering relaxation
and enjoyment

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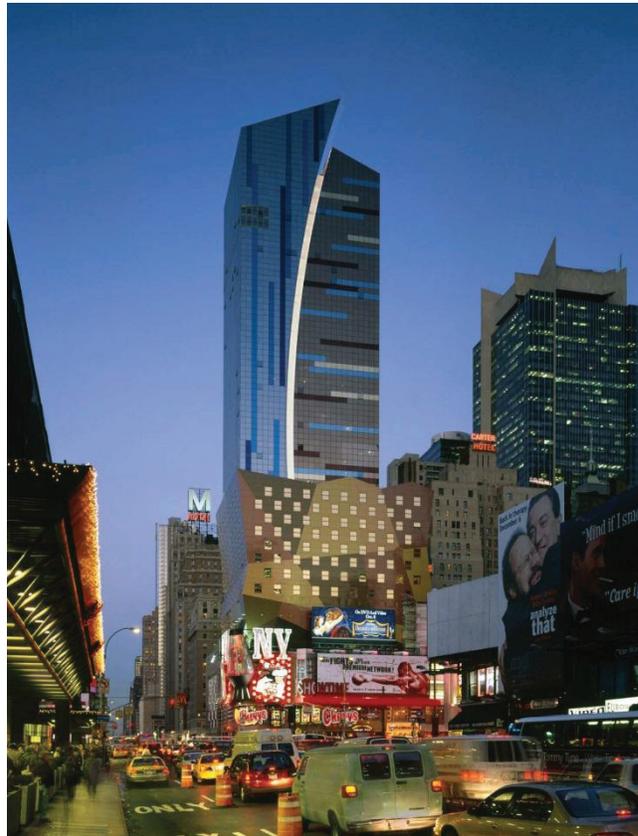


Westin New York at Times Square New York, New York

Architect:

Arquitectonica

This is a 867,000 sq.ft., 45-story hotel on a retail and entertainment podium, located in the heart of Manhattan. Amenities include restaurants, retail, full-service spa and fitness center.



HOSPITALITY/HOTEL

Engineering greater
comfort and convenience
for every guest

JBB
JAROS BAUM & BOLLES



Walt Disney World Swan and Dolphin Resort Lake Buena Vista, Florida

Architect:

Michael Graves & Associates

This 1.4 million sq.ft. hotel and conference center includes over 1,500 guest rooms, a 57,000 sq.ft. ballroom, a 50,000 sq.ft. exhibit hall, meeting rooms, restaurants and retail. Other amenities include swimming pools, spa facilities and health clubs.



HOSPITALITY/HOTEL

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comfort and convenience
for every guest

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Cleveland Clinic InterContinental Hotel and Conference Center Cleveland, Ohio

Architect:

Brennan Beer Gorman Architects, PC

Situated on the campus of the Cleveland Clinic, this 16-story hotel and conference center totals approximately 300,000 gross sq.ft., including 263 guest rooms, 26 suites, a ballroom, meeting rooms and below-grade parking.



HOSPITALITY/HOTEL

Engineering greater
comfort and convenience
for every guest

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About Thornton Tomasetti



Thornton Tomasetti provides engineering design, investigation and analysis services to clients worldwide on projects of every size and level of complexity. Our integrated practices can address the full life cycle of a structure. Founded in 1956, today Thornton Tomasetti is an 800-person organization of engineers, architects and other professionals collaborating from offices across the United States and in Asia-Pacific, Europe, Latin America and the Middle East.

Building Structure: We collaborate with architects, owners and builders to design elegant solutions that meet the demands of challenging projects of all sizes and types – new structures, renovations and conversions. We focus on achieving the optimal balance among multiple objectives – form, function, schedule, sustainability, constructability and budget.

Building Skin: We apply expertise in systems and materials to integrate building skin and structural designs in new buildings, renovations and recladding projects. We provide façade consulting and engineering services to architects, building owners and developers; perform a suite of specialty analyses to solve complex design challenges, improve constructability, maximize energy efficiency and increase security; and offer a range of construction support consulting services to assist contractors during bidding, negotiation, value engineering, post-contract review and site supervision.

Building Performance: We assist property owners, managers and other stakeholders with technical support for existing structures through our renewal and forensics services. Our multidisciplinary professionals – structural engineers, architects and MEP engineers – specify maintenance regimens and assist owners with upgrades, repairs, expansions, adaptive reuses and historic preservation. We also evaluate losses in strength, functionality and value; perform materials testing and reliability and risk analyses; develop repair solutions; and provide expert opinion and litigation support.

Property Loss Consulting: We assist insurance companies, their representative attorneys and executive general adjusters in evaluating the scope and nature of losses related to natural and man-made events. We offer scope of damage determination, covered-loss assessment, cause and origin investigation, expert witness testimony, green claims consulting and multihazard risk assessment.

Construction Support Services: Integrating design and construction teams through the use of technology helps projects move smoothly from concept to completion, while supporting construction safety. We develop project delivery strategies customized to each client's priorities. Our advanced project delivery services coordinate complete structures, using a single model to create design drawings and construction deliverables, from fabrication-ready models to shop drawings and sequencing plans. We provide erection and stability engineering, lift design, fixture design, equipment and logistics planning, and field engineering support.

Building Sustainability: We collaborate in the design, construction and operation of sustainable buildings to provide innovative solutions that balance economic, social, and environmental factors. Our experienced team provides integrated services, including sustainable design strategies, energy modeling and building physics, green building certification, and education and training.

Relevant Experience

Thornton Tomasetti is a leading engineering firm founded in New York City in 1956. Since its inception, the firm has established a history and culture of innovation and continues its work in design, investigation and analysis of some of the most significant buildings throughout the city.

Working in various markets, Thornton Tomasetti offers design teams a unique perspective on the constants and differences in structural framing for commercial construction. Our multidisciplinary team of specialists understands the similarities and differences among building types – corporate campus buildings and ballparks have some common and some divergent design issues – and the structural systems which may be applicable to them. We apply both traditional and cutting-edge building materials and structural systems, and consider both indigenous and newly-introduced construction methods on international projects. The challenge and level of mental flexibility involved with working in such a diverse practice provides professional excitement that translates into special project designs.

The firm's diverse portfolio encompasses a wide range of building types and services that demonstrate a deep understanding of the city's unique urban environment. We have designed structural systems for award-winning office buildings that have redefined the Manhattan skyline including the 17-million-square-foot Hudson Yards Mixed-Use Development, 11 Times Square, the New York Times Building and the Bloomberg Headquarters at 731 Lexington Avenue.

Diversity Profile

Equal Employment Opportunity Statement

Thornton Tomasetti is an equal opportunity employer. Employment decisions are based on merit without regard to characteristics such as, age, sex, gender, sexual orientation, race, color, creed, national origin, citizenship status, veteran status, religious persuasion, marital status, political belief, physical or mental disability, or any other factor protected by law. Thornton Tomasetti complies with the law regarding reasonable accommodation for disabled employees. Any employees, including managers, involved in discriminatory practices will be subject to appropriate disciplinary action.

Minority- and Women- Owned Business Enterprise Participation

Thornton Tomasetti ensures that Minority- and Women- Owned business enterprises have the maximum opportunity to participate in the performance of our contract. We possess an excellent track record in meeting and/or exceeding MBE/WBE goals, and we have developed strong working relationships with several MBE/WBE firms to utilize on different projects.

Las Vegas CityCenter, Block A

Las Vegas, Nevada

Owner

MGM Resorts International and
Infinity World Development Corp

Executive Architect

Gensler

Design Architect

Pelli Clarke Pelli Architects

Production Architect

HKS, Inc.

Completion Date

2009

Construction Cost

\$8.5 billion

Total Area

20 million sf

Awards

Novum Design Excellence Award,
Specialty Clad Structure Category,
Novum Structures, 2009

National Recognition Award,
Engineering Excellence Awards, ACEC,
2011



Photo courtesy of Perini

Thornton Tomasetti provided structural engineering services for the LEED Gold certified Aria Resort and Casino project, Block A, the crown jewel of the 76-acre CityCenter development on the Las Vegas Strip. It consists of a 61-story, five-star hotel tower of unique intersecting curved wings with 4,000 rooms and elegant entrance canopies, a convention center, a casino, a theater, a retail podium, a bridge, and a central plant serving the entire complex. The resort-casino also features approximately 300,000 square feet of technologically advanced meeting and convention space.

Structural systems are varied to suit multiple building functions. Structural steel long-span trusses provide column-free spaces throughout the convention center and casino complex and cantilevered supports anchor a signature glass facade 500 feet long and 70 feet high. The post-tensioned concrete floors of the hotel tower are shaped as intersecting arcs to create four wings of varying heights, served by three separate elevator cores. This provides optimal guest access and required complex analysis to control differential movements of the four wings and cores during wind and seismic events.

On a fast-track delivery schedule, the CityCenter Development was one of the largest construction projects in the United States, with a total project cost of more than \$8.5 billion.



Photo courtesy of Perini

Redevelopment of Block 37

Chicago, Illinois

Owner

Media Office Tower: Golub & Company
Retail: Joseph Freed and Associates
Transit Center: Chicago Transportation Authority

Architect

Media Office Tower: Perkins+Will
Retail / Transit Center: Gensler

Total Area

Media Office Tower: 17 stories,
550,000 sf
Retail: 5 stories, 400,000 sf above
transit area
Transit: 4 below-grade levels

Completion Date

Media Office Tower: 2009
Retail: 2009
Transit: On hold

Construction Cost

\$500 million



The Redevelopment of Block 37 is a significant mixed-use retail, entertainment, office and transit project located in downtown Chicago. Thornton Tomasetti is the structural engineer for three segments of the project, working with three different owners and two architects.

The 17-story media office tower encompasses 550,000 square feet of Class-A office space with one basement level and includes a street-level, state-of-the-art television and radio station broadcast and operations center. The original 1920s mid-rise building on the media tower site contained three sub-basement levels. When the building was demolished, the below-grade structure and debris from the demolition was left in the basements, making it difficult to excavate the site for the new media tower. The new building reused many components of the original foundation, including hand-dug rock caissons and portions of the perimeter basement wall.

The retail portion of the project comprises 70 percent of the site and utilized an up-down construction technique. Up-down construction was chosen to accelerate the project schedule by enabling below-grade and above-grade construction to happen simultaneously. Below the 400,000-square-foot, five-level retail development is a four-level, below-grade concrete basement that provides space for retail, parking and transit. Excavation of the four-level basement was complicated by the need to keep local services active. An earth retention system was selected and designed to protect the active freight tunnel located eight feet from the property line, the transit tunnels, and a pedestrian tunnel during excavation of the four sub-basements.



Images courtesy Christopher Barrett and Gensler

A challenging aspect of the transit center was interconnecting two existing subway tunnels with the retail area. Large openings for the train tunnels were required at 45 feet below grade so the wall panels were designed to withstand the high soil and water pressures due to temporary loading before the train tunnels were installed.

The path of the trains requires a column-free space with long spans over 40 feet for the concrete slabs above. The resulting column grid at the transit level is irregular and on a diagonal. The project required story-deep Vierendeel trusses with 48-inch-deep plate girder chords to transfer out the retail and future development loads from above and took into consideration strict deflection criteria to accommodate escalator supports that connect the transit center to the retail area.

Resorts World Miami

Miami, Florida

Owner

Resorts World Inc., a Genting Company

Architect

Arquitectonica

Estimated Construction Cost

\$3.8 billion

Total Area

Parking: 1.9 million sf

Podium: 3.1 million sf

Cruise/Convention Hotel Tower: 1.9 million sf

Boutique Hotel: 475,000 sf

Luxury Hotel Tower: 923,000 sf

Residential Tower 1: 865,000 sf

Residential Tower 2: 904,000 sf

LEED Certification

LEED- NC Silver



Thornton Tomasetti provided structural design services through concept design for a 10-million-square-foot development that included retail, entertainment, meeting space, restaurants, hotel and multifamily residential space. The project included 5,000 guest rooms, 1,000 condominiums, 100 restaurants and luxury shops and a 3.6-acre rooftop lagoon.

The development would have been located on the North by 15th Street, on the South by 15th Street, on the east by Biscayne Bay and on the west by Biscayne Boulevard. The project was within the city's T6-36b urban core as defined by Miami 21 legislation. Plans called for multiple towers atop an eight-level podium. Because North Bayshore Drive bisects the site into two separate parcels, the podium spanned over the roadway at and above its third level. The project scope incorporated services to re-align the existing Metro-Mover (APM) and reconstruct the Omni station and other neighborhood improvements.

Gateway Center (Block F6.1, F6.2, F7)

Songdo IBD, Incheon, South Korea

Owner

GALE International

Architect

KlingStubbins(US)
Heerim Architects (Korea)

Contractor

POSCO E & C

Completion Date

2011

Total Area

5 million sf



Thornton Tomasetti is provided structural design for the Gateway Center, a mixed-use project in the master-planned Songdo IBD (International Business District), in Incheon, South Korea. It comprises three blocks (F6.1, F6.2 and F7,) along the edge of the 100-acre Central Park. The center is formed by the multi-level Gateway Plaza. Five office towers sit atop a multi-story retail base and underground parking facility. Each of the towers has a rooftop garden sheltered by 12-meter-high glass screen walls and a trellis of photovoltaic panels. The Gateway Center is targeting LEED Silver rating, incorporating innovative technologies to reduce and conserve energy and material, and create a healthful and sustainable environment.

The F7 tower accommodates 17 office floors and 10 “officetel” (a common type of studio apartment rental in South Korea) floors above grade and three basements below grade. The typical floor framing (i.e. 10.5-meter-by-12.7-meter bay) consists of 150-millimeter framed slab over the composite steel beam/girder supported by a reinforced concrete core wall and a composite column. Since the structure sits on reclaimed soil, the 2.5-meter-thick mat foundation sits on two-meter diameter piles. The overall lateral resistance and stability is provided by a reinforced concrete core wall designed to meet the code-defined wind of 30 m/s and moderate seismic load.

Shanghai New International Expo Centre, Hotels and Retails

Shanghai, China

Owner

Expo Shanghai Group

Client/Architect

John Portman Associates

Construction Manager

China Expo Co Ltd

Completion Date

2015

Construction Cost

HK \$23 billion

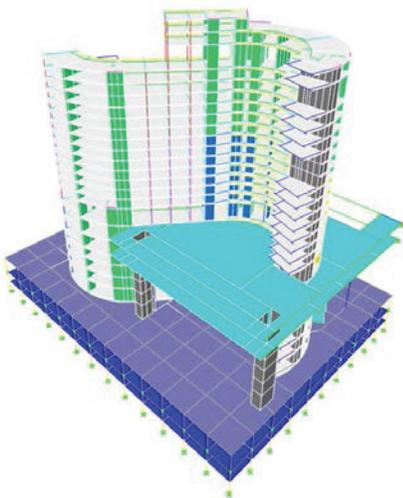
Total Area

500,000 m²



Located in the Qingpu District of Hongqiao Business Park, the Shanghai New International Expo complex will comprise 500,000 square meters of hotels, retail and exhibition space making it the city's largest exhibition venue and second largest in the world.

Thornton Tomasetti is providing structural design of four hotels located on Lot B-06 of a new expo complex with 400,000 square meters of indoor space and 100,000 square meters of outdoor space. The first hotel, Tower A, will have a half-circle footprint totaling 22 stories with a roof elevation of approximately 86.4 meters. The second hotel, Tower B, will have two concentric arcs offset at the midpoint and will have 28 stories with a roof elevation of 99.9 meters. The third hotel, Tower C, will have a complete circle shape and unique iconic bowl form with 13 stories with a roof elevation of 55.3 meters. The fourth hotel, Tower D, will have an S-shaped footprint totaling 30 stories at its highest level. It will have a step-up elevation from 72.8 meters at one end to 93.2 meters at the opposite end.



Baha Mar Resort

New Providence, Bahamas

Owner

Baha Mar, Ltd.

Executive Architect

AECOM

Design Architect

Michael Hong Architects

Contractor

China Construction America

MEP Engineer

Jaros Baum & Bolles

Completion Date

2014

Construction Cost

\$3.5 billion

Total Area

3.3 million sf

Total Heights

Morgan's Lifestyle: 17 Stories

Rosewood Luxury Hotel: 10 Stories

Hyatt Convention Hotel: 25 Stories

Casino Hotel: 26 Stories



This world-class resort is being developed on a fast-track schedule on a 600-acre beach-front property at Cable Beach in the Commonwealth of the Bahamas. On the resort are four associated but separately branded three to five-star concrete hotels ranging in height from 11 to 26 stories. A 100,000-square-foot casino hotel with associated food and beverage venues is nestled in between and has access to all four hotels. Lobbies, retail spaces, restaurants, a spa and other front and back house spaces occupy the rest of the large podium. The concrete structures have post-tensioned slabs to allow for maximum floor-to-floor height. Each hotel roof is differently shaped with slopes, point, copulas and arched windows to distinguish them from one another.

Lush tiered landscaping and structures with pools, cabanas and other outbuildings decorate the beach side of the hotels. Man-made lagoon twists and wrap around the hotels on the landward side with marine animals creating and outdoor zoo surrounding. Two vehicular arch-like bridges over a lagoon provide access to the casino and hotels. A spectacular waterfall structure with water cascading into the lagoons is prominently featured on both sides of the main porte cochere. When complete, Bahamar will feature the largest casino in the Caribbean.

An entertainment village, detached timeshare building, small chapel, and convention center featuring three ballrooms and exhibit floors complete the main parts of the development. Detached structured and surface parking with central mechanical plant and several other auxiliary structures provide all other necessary services for the facility. The entire facility is cooled using deep seawater providing significant savings.



King Abdullah Financial District Villas in the Sky

Riyadh, Saudi Arabia

Owner

The Public Pensions Agency

Client/Architect

Henning Larsen Architects

Developer

Rayadah Investment Company

General Contractor

SBG

Completion Date

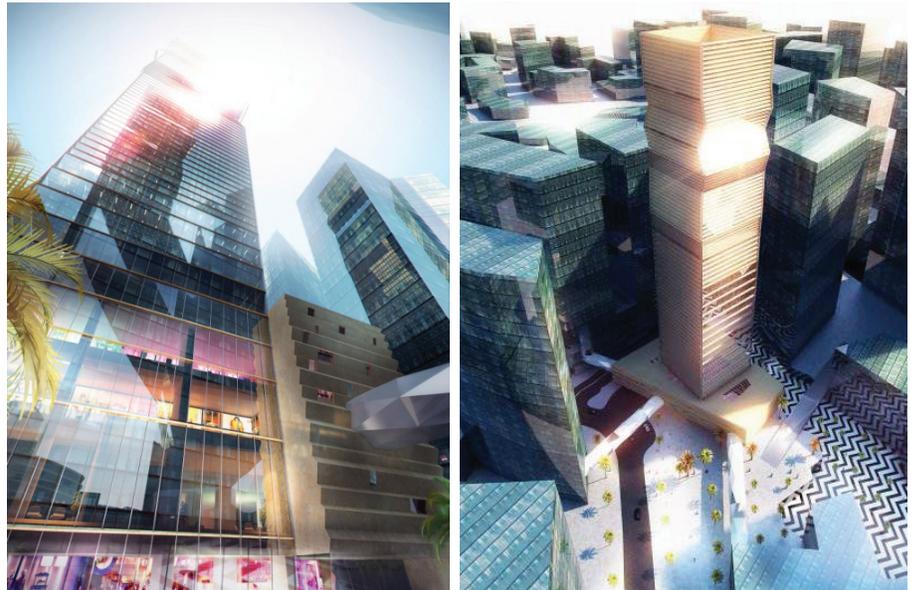
2012

Total Area

1.6 million m²

Awards

Bentley Systems Award for Innovation in
Generative Design



Courtesy Henning Larsen Architects

Designed to be the new center for Middle East trade and finance, the King Abdullah Financial District is a 1.6-million-square-meter mixed-use development consisting of 30 plots connected by a network of skywalks and green recreational spaces. Our work with Henning Larsen Architects includes the Crystal Towers, the Gem Buildings and Villas in the Sky, for which we are providing structural and building skin engineering services.

Parcel 2.13 is a 33-story tower named Villas in the Sky. The project consists of 13 floors of office with 12 floors of residential units above. It is crowned by a sky gym, spa and roof terrace.

The tower's cladding solution seamlessly integrates the shifting floor plates at the upper levels and the saw-toothed profile of the façade design. The latter was devised to provide self-shading to the glazed elements and thereby minimize solar gains and radiation.

Our use of BIM on this project affords several benefits including speedier modeling of complex building geometries; easier coordination with design team members, leading the faster clash detection and resolution; and easy generation of 3D visualization of the structure for more effective client presentations. Other benefits of BIM consist of higher quality shop drawings, interoperability of design platforms and greater design flexibility.

The project received the Bentley Systems Award for Innovation in Generative Design.

Wilshire Grand Center

Los Angeles, California

Owner / Developer

Korean Air

Architect

AC Martin Partners

General Contractor

Turner Construction Company

Completion Date

2017

Construction Cost

\$1 billion

Total Area

1,700,00 sf

Hotel: 900 rooms

Office: 400,000 sf

Retail: 45,100 sf

Total Height

1,100 ft

Number of Stories

73 above ground

5 below ground

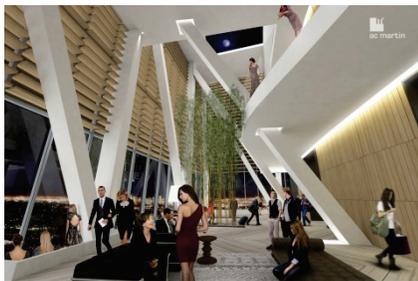
Certification

Pursuing LEED Silver

Awards

Design Concept Award 2013, Los

Angeles Architectural Awards



Renderings courtesy AC Martin Partners



The new Wilshire Grand Center will completely redefine the Los Angeles skyline. Located on the site of the recently demolished Wilshire Grand Hotel, the tower will be the tallest building in the Western United States. Reaching 73 stories and topped by an LED-illuminated, sail-shaped architectural feature, Wilshire Grand will house a four-star hotel on the upper floors and Class-A offices on the lower floors. A five-story podium will include retail and dining options and the building will offer five levels of subterranean parking. An upscale rooftop “sky lobby” will provide guests with sweeping views of Los Angeles that extend to Santa Monica.

Thornton Tomasetti provided structural engineering and performance-based design services to engineer-of-record Brandow & Johnston. The tower’s superstructure lateral system consists of a nearly rectangular four-cell cast-in-place reinforced concrete shear wall system. The gravity system consists of concrete-filled metal deck floor slabs supported by composite steel wide-flange framing. Thornton Tomasetti applied performance-based design principles to validate the tower’s seismic performance and successfully presented the design to the Building Department’s Peer Review Panel.

Thornton Tomasetti also established a parametric façade panelization strategy for the geometrically complex, all-glass façade. Contracted by AC Martin Partners, Thornton Tomasetti synchronized slab and façade geometry between the architect’s Rhino and Revit models and used the combined data to generate two Revit models; one for the architect’s documentation of the façade panelization and the other with information needed for the façade consultant.

Relevant Experience in New York



10 Hudson Yards
New York, NY



30 Hudson Yards
New York, NY

Commercial

- **5 Times Square**, New York, NY. Structural design of a 38-story, 571-foot office and retail building totaling one million square feet. The tower with limited core dimensions uses exterior moment frame to achieve efficiency in the lateral system. The columns are closely placed along the faces of the building to form a tube-like effect that resists lateral forces.
- **7 Times Square**, New York, NY. Structural engineering of a 1.3-million-square-foot, 48-story, 800-foot Class-A office building with two below-grade levels surrounded by subway lines. The super-diagonal exterior bracing provided the tower with the lateral resistance with only 27 psf steel framing.
- **10 Hudson Yards**, New York, NY. Structural design of a 61-story office tower with a 180-foot mechanical penthouse. The tower is part of a mixed-use development on a site encompassing six city blocks. Four of the blocks are over active rail yards that will remain operational during construction. The project is the first major concrete high-rise office building in New York City. The building is designed to meet LEED Gold certification.
- **11 Times Square**, New York, NY. Structural design of a new 975,000-square-foot office building with 38 stories above-grade with one cellar level and a 55-foot-tall penthouse enclosure, bringing the building's total height to approximately 580 feet. The retail and mechanical are on the cellar level. The ground level has retail and office lobbies, the second floor is for commercial/retail uses, and floors three through 38 are for offices.
- **30 Hudson Yards**, New York, NY. Structural design of an 80-story, 2.6-million-square-foot office tower with a 1.3-million-square-foot podium. The building footprint is located over the LIRR "throat," which limits the locations for the building foundation and support columns. The project will have the city's highest observation deck.
- **745 Seventh Avenue**, New York, NY. Structural design of a one-million-square-foot steel-framed headquarters building acquired by Barclays Capital. Designed on a fast-track schedule, the 38-story steel building contains six levels of trading floors totaling 200,000 square feet.
- **Gucci Flagship Store and Offices, 685 Fifth Avenue**, New York, NY. Structural design of a concrete-framed structure connected to an existing steel-framed structure to create a single 100,000-square-foot, 22-story mixed-use structure. The award-winning project included a complete interior gut renovation and façade rehabilitation of the existing structure including seismic retrofit of the existing façade elements.



New York Times Building
New York, NY



731 Lexington Avenue
New York, NY

- **New York Times Building**, New York, NY. Structural design of an award-winning 52-story, 1.7-million-square-foot headquarters building. Its exoskeleton uses non-fire-protected bracing elements and exposes every structural beam. The curtain wall design acts as sunscreen and helps to reduce the heating and cooling usage.
- **World Financial Center**, New York, NY. Structural design of a four-million-square-foot office building complex with 34- and 44-story towers for Olympia & York. The complex has columns, foundations and building supports located directly over the Port Authority of New York and New Jersey Trans-Hudson (PATH) tube system. The project also contained two major pedestrian bridges spanning West Street and connecting to the World Trade Center and public transportation.
- **Associated Press World Headquarters**, New York, NY. Structural engineering services for a new 292,000-square-foot space, which included amenities such as a central café, fitness center, conference center accommodating 342 people, the company story, terrace, outdoor basketball/volleyball court, the boardroom and executive dining facility. An open interconnecting stair unites the news reporting process with the administrative and support functions on the upper floors.
- **Modernization of Rockefeller Center**, New York, NY. Structural renovation projects for the National Broadcasting Corporation which included a new structure for two 1500 kw emergency generators at the roof top of building No. 9 of Rockefeller Center and geneses relocation program for NBC at 30 Rockefeller Plaza.

Mixed-Use

- **731 Lexington Avenue**, New York, NY. Structural design of an award-winning 54-story, 815-foot mixed-use development for Bloomberg L.P.'s new headquarters. The concrete residential tower is built on top of a steel office and retail podium. It encompasses one full city block and features one tower with slender lateral system and a tuned mass damper, and another low-rise tower; both are separated by a unique seven-story atrium.
- **Queens Crossing**, Flushing, NY. Architectural design, structural design and MEP engineering of a new 475,000-square-foot mixed-use Class-A office and retail building. The retail space is visually distinct with a five-story granite clad podium featuring exposed glass atriums. The 17-story glass tower rises behind and houses office space. Approximately 400 parking spaces have been incorporated on two levels.
- **330 Hudson Street**, New York, NY. Structural design of a 130,000-square-foot addition on top of the existing historic building and the renovation of the existing 225,000-square-foot space. The project consists of retail, office spaces and luxury hotel.



Random House World
Headquarters/The Park Imperial
New York, NY

- **Random House World Headquarters/The Park Imperial**, New York, NY. Structural design of an 840,000-square-foot, 52-story, mixed-use office and residential building. The 26-story office portion is a steel structure in the lower half of the building, with a transfer floor at the underside of the 27th floor where the framing transitions to concrete flat slab construction for the residential portion.
- **Ridge Hill Village Center**, Yonkers, NY. Structural design of a 1.2-million-square-foot mixed-use entertainment complex consisting of retail, restaurant, cinema, entertainment, 350-room hotel and over 4,500 parking spaces in six multistory parking structures. The 80-acre-site also includes two 16-story residential towers housing over 800 apartments.
- **The Smyth, 85 West Broadway**, New York, NY. Structural design of a new hotel and luxury condominium in Tribeca. The building is approximately 75,000 SF with 15 residences and 110 hotel rooms. The building is 135 feet high with 13 stories
- **243 Lexington Avenue**, New York, NY. Structural design of a 17-story, multi-use building for the National Center Foundation. The building contains offices, living spaces, bedrooms, kitchens and laundry facilities. It was designed for office, residential and religious use.
- **101 Greene Street**, New York, NY. Structural design of a 25,000-square-foot retail and residential building. The project required retrofitting the new structure within the envelope of the existing structure while maintaining features of adjoining building.

Hospitality

- **Embassy Suites Hotel**, New York, NY. Structural design of a new 14-story hotel and retail facility featuring restaurants, stores and a 16-screen movie theater. Located in the heart of New York's downtown business district, the Embassy Suites is a 600,000 SF complex that includes a 13-story atrium with a glass curtain wall offering dramatic views of the Hudson River. The atrium separates the two wings of the hotel, which sits atop the movie theater and retail space.
- **Expansion of Hotel Thayer**, West Point, NY. The project included the rehabilitation of the existing historic building and the design of a new five level addition to this hotel located within the U.S. Military Academy.
- **Hampton Inn**, New York, NY. Designed 26-story hotel for McCann Real Estate/Equities Development Co. on Times Square, including three retail floors, a lobby, a mezzanine and 304 rooms.

Residential

- **Atalanta, 25 North Moore Street**, New York, NY. Structural design services for the renovation of a 17-story 1920s landmark building which was originally constructed as a cold storage warehouse with windows only on its top two floors that were used as office space. The challenge of renovating and adapting the building for residential use was the addition of windows to the formerly solid façade.



EDGE
Brooklyn, NY

- **The Azure**, New York, NY. Structural design of a 250,000-square-foot development consisting of 32 floors of residential units, two levels of retail and amenity space and two cellar levels for tenant storage and building services. The structural system consists of flat-plate concrete slabs, concrete columns and a rectangular concrete core wall in the center of the tower footprint.
- **BLUE, 105 Norfolk Street**, New York, NY. Structural design of a 16-story, 45,000-square-foot residential tower. To maximize the floor plates and natural light, the building cantilevers 21 feet to the south over the adjacent two-story brick buildings. Concrete flat-plate construction was used to maximize floor to ceiling heights.
- **EDGE**, Brooklyn, NY. Structural design of a mixed-use development complex consisting of four buildings. The LEED Gold development includes a 30-story and 16-story market-rate condominium towers constructed with flat-plate concrete, and two eight-story masonry and precast rental buildings. The project scope included ground floor retail space, below-grade parking and an open promenade that leads to a marina, which is open to the public.
- **The Westminster**, New York, NY. Designed new residential building located on 7th Avenue and 20th Street, 15 stories above grade and two sub grade levels of parking and mechanical space. This 265,100 SF structure consists of 252 residential units, with a terrace garden on the 15th floor and retail space on the first floor. Also oversaw controlled inspection of the project.
- **The Tate**, New York, NY. The 312,000 SF residential development project is located between 10th and 11th Avenues, from 23rd Street to 24th Street. Two residential towers, one 14 story and one 11 story will rise above a single story retail base covering the entire site at the ground floor. The two towers will have approximately 310 rental apartments, a 6,000 SF landscaped courtyard and residential lobby.
- **The Westport**, New York, NY. The 25-story building is located at 56th Street and 10th Avenue. The 270-foot high, 420,000 SF project includes a cellar level-parking garage to accommodate 75 cars, two retail floors and a residential tower housing 371-unit apartments.
- **106 Mott Street**, New York, NY. Design of nine-story, 125,000 SF, flat-plate concrete apartment building including two basement levels of parking. Retail will occupy the ground floor, with office space and terraces on the second. The remaining six floors will feature 63,000 SF of residential units.

Hudson Yards Mixed-Use Development

New York, New York

Owner

The Related Companies
Oxford Properties

Client/Architect

Kohn Pedersen Fox Associates PC

Site Developer

Kohn Pedersen Fox Associates PC

Completion Date

2017

Total Area

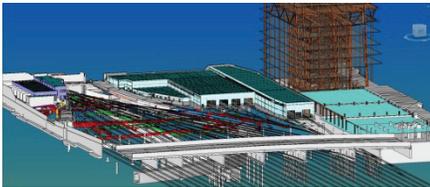
12.6 million sf

Services

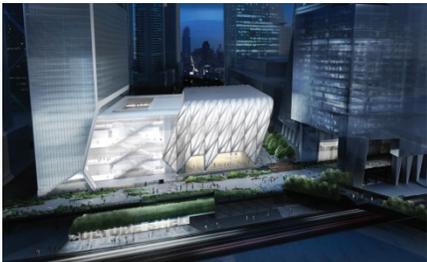
Structural Engineering



Image courtesy Related-Oxford



Rendering courtesy Thornton Tomasetti
Hudson Yards Platform



Rendering courtesy Diller Scofidio + Renfro/Rockwell Group
The Hudson Yards Culture Shed

The Hudson Yards Mixed-Use Development is the largest private development in New York City history and one of the largest in the United States. Construction for the Phase 1: Eastern Yard began in 2012. The 6.5-million-square-foot complex will comprise residential, commercial, retail and public space, as well as 16 acres of open space. The site encompasses three city blocks totaling 1.1 million square feet. Two of the blocks are over active rail yards that will remain operational during construction.

Thornton Tomasetti is providing structural design services for the platform, two commercial towers and a multipurpose museum/exhibition space within the complex. The 424,000-square-foot platform above the eastern edge of the rail yards allows for development of the new commercial and residential structures over existing rail lines. The two commercial office towers are 30 Hudson Yards, an 80-story, 2.6-million-square-foot office tower located over the LIRR “throat”, and 10 Hudson Yards, a 61-story mixed-use building that will be one of the first concrete high-rise office buildings in New York City. The Culture Shed is a new 198,000-square-foot museum/exhibition building with a deployable “shed” structure that slides out on rails to double the building footprint to create a unique and flexible performing arts venue.

HDR is an architectural, engineering, planning and consulting firm that excels at helping clients manage complex projects and make sound decisions.

As an integrated firm, HDR provides a total spectrum of services for our clients. Our staff of professionals represents hundreds of disciplines and partner on blended teams nationwide to provide solutions beyond the scope of traditional A/E/C firms.

HDR's operating philosophy is to be an expertise-driven national firm that delivers tailored solutions through a strong local presence. HDR's ability to draw upon companywide resources and expertise is a great strength in meeting and exceeding your expectations.

History and Size

- Founded in 1917
- More than 8,000 employee-owners
- More than 185 locations worldwide
- Full-service, multidisciplinary staff

Service Areas

HDR provides solutions that help clients manage complex projects in the following areas:

- Civic
- Community Planning & Urban Design
- Construction Services
- Design-Build
- Economics & Finance
- Environmental
- Healthcare
- Interior Design
- Management & Planning Services
- Power & Energy
- Program Management
- Project Development
- Science & Technology
- Security
- Sustainable Design
- Transportation
- Water/Wastewater

Bayonne Bridge Navigational Clearance Program Bayonne, NJ

PORT AUTHORITY OF NEW YORK & NEW JERSEY

KEY ELEMENTS

Structural Design
R.O.W. Impact Assessment
Mass Transit Considerations
Highway & Transit Alignment
Design
Cost Estimation
Environmental Screening
Alternatives Analysis

CLIENT REFERENCE

PANYNJ
Two Gateway Center, 16th Floor
Newark, NJ 07102
Catherine Britell, PE
973-792-4487
cbritell@panynj.gov

PRIMARY CONSULTANT

HDR

CONSTRUCTION COST

\$800M

START DATE

2008

COMPLETION DATE

February 2013

CONTRACT

415-11-301



The Bayonne Bridge, spanning the Kill Van Kull and connecting Bayonne, NJ with Staten Island, NY, was opened to traffic on November 15, 1931. With a span of 1,652 feet from pin to pin, it is the third longest steel arch bridge in the world and was the longest in the world at the time of its completion. Its current clearance is 150 feet measured at the centerline of channel; and the height of arch above water at the crown is 325 feet.

Studies were undertaken by PANYNJ to modify or replace the bridge in order to maintain the port's competitiveness. HDR completed a study to determine the feasibility of increasing the structure's vertical navigational clearance. In the initial study (March 2009), 23 options were evaluated based on three general schemes: (1) raising the roadway within the arch, (2) raising the arch by means of jacking and (3) constructing a new structure.

In an additional assignment, HDR was retained by the PANYNJ to perform an environmental screening and alternatives analysis to provide the foundation for developing a successful and defensible National Environmental Policy Act decision on no action or alternatives to modify or replace the bridge.

Most recently, HDR was retained to develop final design contract documents. The work is a continuation of the feasibility study, in which, in the end, close to 40 options were considered, and preliminary engineering. PANYNJ chose "Raise the Roadway," which also entails design and construction of entirely new approach structures—over one mile of elevated viaduct. The project will raise the roadway between the arch chords by 65 feet to provide a vertical clearance of 215 feet at the center line. Work also includes procurement of permits; in-depth inspection of the arch structure that will remain; electrical, mechanical and electronic systems designs; All Electronic Toll Collection, ITS, development of the RFQ and RFP documents; bidding assistance; and construction support services. HDR is providing PANYNJ with a full working Revit Model of the structure and developing a system to combine inspection data with the working Revit for future use.

Tappan Zee Hudson River Crossing Westchester – Rockland County, NY

NEW YORK STATE THRUWAY AUTHORITY

KEY ELEMENTS

- Twin three-mile structures
- Twin tower cable-stayed bridges with a 1,200-foot main span
- 350-foot steel girder approach spans
- Eight general traffic lanes, plus emergency lanes and extra-wide shoulders
- New toll plaza with at least three highway speed E-ZPass lanes
- Dedicated bicycle and pedestrian path
- Strength and capacity to accommodate various mass transit modes
- Strict environmental performance commitments

CONSTRUCTION COST

\$3.14 billion

START DATE

2013

COMPLETION DATE

2018

The new Tappan Zee Bridge between Westchester and Rockland Counties, New York will replace the existing crossing which handles more than 138,000 vehicles every day—far more than its design capacity. It will also improve safety on the crossing, where the accident rate is double the average accident rate on the rest of the 574-mile thruway.

Key features of the new bridge will include:

- ✓ Twin three-mile structures including twin-tower cable stayed structures with 1,200-foot main spans carrying eight general traffic lanes, plus emergency lanes and extra-wide shoulders for immediate express bus service when opened
- ✓ A new toll plaza with at least three highway speed E-ZPass lanes and a dedicated bicycle and pedestrian path on the northern span
- ✓ Scenic overlooks, with anti-climb fencing and security cameras that can be monitored 24 hours a day
- ✓ Strength and capacity provisions to accommodate various mass transit modes

The project team will follow strict environmental performance commitments to protect the Hudson River estuary, including noise, vibration and air quality monitoring.

The bridge is designed for a 100-year service life and will be mass-transit-ready for bus rapid transit on the span, or for commuter or light rail on structures between the two spans.

HDR is the lead designer, and a subcontractor, for Tappan Zee Constructors, a consortium that includes Fluor Enterprises, American Bridge Company, Granite Construction Northeast, and Traylor Bros. As lead designer, HDR is responsible for overall design project management, overall quality control including peer review and independent design check process, detailed design elements including deep foundations, main span and approach span structures, highway elements including alignments, tolling and ITS, utilities and facility design.



Major Rehabilitation of the Patroon Bridge (I-90 over Hudson River) & I-90/I-87 Interchange Albany, NY

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

KEY ELEMENTS

Rehabilitation Decision Paper
Project Scoping Report.

Capacity and accident
analysis.

Modular Deck System Review

Regional Traffic Analysis

Work Zone Traffic Control and
Staged Construction.

Preliminary Design
(Phase I-IV)

Final Design (Phase V & VI)

Seismic Assessment, Analysis
and Retrofitting



HDR was designated for project scoping, preliminary and final design for the rehabilitation/replacement of this vital link in the Capital Region connecting Albany and Rensselaer counties. The Hudson River Bridge is approximately 1,783 feet long and consists of 10 spans.

CLIENT REFERENCE

NYSDOT
Albany County Transportation
Maintenance
16 Maple Ave
Voorheesville, NY 12186
Douglas F. Rose, P,E,
(518) 765-2841



PRIMARY CONSULTANT

HDR

The I-90/I-87 interchange is a multi-level interchange comprised of six bridges ranging from 250 feet long to 700 feet long consisting of three to eight spans.

CONSTRUCTION COST

\$130M

SCOPING FEE

\$1.8M (HDR's Fee: \$1.1M)

START DATE

2008

COMPLETION DATE

2014

Project Scoping

HDR has evaluated the practicality and feasibility of rehabilitating the Patroon Island Bridge. The bridge was constructed such that widening of the existing structure is not practical; therefore, rehabilitation of the bridge is only feasible and practical if it can be staged within the existing deck width. Four key considerations were identified as having the potential to require widening of the bridge: safety conditions, operational conditions, structural conditions, and work zone traffic control. Each consideration was carefully evaluated to determine if it could be satisfied without additional bridge width and it was concluded that rehabilitation was practical and feasible. The results of this evaluation were summarized in a rehabilitation decision paper following the format of a project scoping report to ease the transition to the next phase of the project.

Upon acceptance of the rehabilitation decision paper, HDR further developed the rehabilitation decision paper into a project scoping report (PSR). Peak traffic volumes limit lane closures to off-peak hours and modular deck systems including: Exodermic™ Bridge Deck, Superstructure Units and Precast Concrete Deck Panels were examined. A work zone traffic control scheme using a movable barrier was developed to maximize the available work area and minimize the required set-up time to improve contractor productivity. The effects of diversions during construction on the regional transportation network were determined using the Capital District Transportation Committee's regional model and locations with constrained capacity were identified for further study during preliminary design.

Major Rehabilitation of the Patroon Bridge (I-90 over Hudson River) & I-90/I-87 Interchange Albany, NY

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

Environmental sensitivities within the project study area were collected and mapped allowing a qualitative assessment of the impact to environmental resources. The likely SEQRA action was determined (Type II) and the preliminary NEPA Class was a Categorical Exclusion with documentation.

The results of the engineering analysis and environmental assessment were documented in a Project Scoping Report recommending carrying only one alternative, Major Rehabilitation into Preliminary Design (Phase I-IV).

Preliminary Design (Phase I-IV)

The scope for Preliminary Design was expanded to include major rehabilitation of the six bridges comprising the I-90/I-787 interchange. Work zone traffic control schemes were developed to include the bridges in the interchange and the effects were evaluated. Peak traffic volumes, again, limit lane closures to off-peak hours and modular deck systems are required to replace the decks of these bridges.

The piers of the bridges in the interchange were assessed for their condition, design capacity and detailing and seismic resistance. Detailed recommendations for replacement, rehabilitation and/or repair of each pier were made.

The environmental documentation was updated to include the bridges in the interchange and the likely SEQRA action and NEPA Class were determined.

The results of the engineering analysis and environmental assessment were documented in a Design Report and Design Approval was requested.

Final Design (Phase V & VI)

HDR will prepare plans, specifications and estimates (PS&E) for the major rehabilitation Patroon Island Bridge and the I-90/I-787 Interchange in accordance with the following:

- Replacement of the existing structural deck, expansion joints, concrete barriers, safety walks and steel bridge railings, with prefabricated elements;
- Structural steel repairs, floor beam tie plate replacements and other deteriorated elements;
- Replacement of concrete approach slabs;
- Cleaning and painting of the steel, including lead paint abatement;
- Repair/replacement of existing bearings, including seismic isolation;
- Replacement of selected pier columns and capbeams
- Partial depth "Class D" repairs to remaining substructure elements
- Removal of Existing Pier Protection System and Installation of New Pier Protection System for BIN 1092839;
- Seismic retrofits including: support width or restraint, base isolation; additional confinement; and,
- Work Zone Traffic Control for staged construction.

Rehabilitation of the Northbound and Southbound Bruckner Expressway Bridges over CSX and AMTRAK Bronx, NY

NEW YORK CITY DEPARTMENT OF TRANSPORTATION

KEY ELEMENTS

- Bridge Design
- CSS
- MPT & Staging
- Railroad Coordination
- Design-Build
- Safety consideration
- Transition of lanes
- Street Lighting
- Bridge Monitoring
- Substructure Rehabilitation
- Hauling & Disposal
- Flag Repairs
- Traffic Maintenance
- Hazardous Waste
- Roadway Design
- Traffic Control

CLIENT REFERENCE

NYCDOT
Richard Solomon
Project Manager
2 Rector Street, 7th Floor
New York, NY 10006
T: 212.839.6369

CONSTRUCTION COST

\$60M

HDR FEE

\$4.5M

DURATION

8/2008-2/2010

PRIMARY CLIENT

Judlau Contracting, Inc.

SUBCONSULTANTS

Medina Consultants (MBE)
Environmental Planning &
Management (W/DBE)
Samuel Schwartz PLLC



The Bruckner Expressway, Interstate Route I-278, is a major connecting link in the Bronx from the Robert F. Kennedy (Triborough) Bridge/Major Deegan Expressway (I-87) to the New England Thruway (I-95). An oil tanker truck fire on the Northbound Bruckner Expressway Bridge caused a downward deflection of portions of the bridge, resulting in decreased vertical clearances over the Amtrak and CSX tracks underneath the bridge. The New York City Department of Transportation (NYCDOT) selected the design-build project delivery method to meet the accelerated construction schedule.

The project involved design, construction, and construction support services for the rehabilitation of the Northbound and Southbound Bruckner Expressway bridges. The Northbound bridge involves the replacement of the multi-girder steel superstructure, bearings, bridge seat, and backwall. The Southbound bridge involved the replacement of the existing deck, bearings, and backwall, as well as steel repairs to the existing truss superstructure, lead paint abatement, and bridge painting. Both bridges also involved approach slab and approach roadway replacement including replacement of barriers and railing, street lighting, frames and grates of drainage structures, and FDNY fire communications facilities.

HDR performed the engineering design for the bridges, which included analyzing the existing and proposed structures to account for the contractor's construction means and methods. Prefabricated bridge components, including precast concrete deck slabs, bridge seats, and backwalls, were utilized to eliminate concrete cure times. The design was coordinated with and approved by NYCDOT – Design Build, NYCDOT – Quality Assurance, NYCDOT – OCMC, public and private utilities, Amtrak, and CSX. The construction support services (CSS) included review of shop drawings, requests for information, contractor requests for substitution, and evaluation of and response to field conditions. The CSS was performed in coordination with NYCDOT, the Resident Engineering and Inspection consultant, the contractor, and public and private stakeholders including Amtrak and CSX.

NYS DOT Bridge Rehabilitation Services for MP31, New York

HDR was retained by the New York State Thruway Authority (the AUTHORITY) to perform Bridge Rehabilitation Services for the AUTHORITY Bridges at MP 31.78 and 31.79. The subject bridges, BIN 5014082 at MP 31.78 (Northbound) and BIN 5014081 at MP 31.79 (Southbound), are seven span structures carrying the New York State Thruway over New York State Route 17 (Span 2), a double set of railroad tracks (Span 3), and the Ramapo River (Span 6). Both bounds were originally constructed for three lanes with out/out deck widths of approximately 56'. A 1991 rehabilitation project included the addition of an acceleration lane on the right-hand (east) side of the northbound structure, bringing that deck width to approximately 66'. The overall lengths are 760' and 799' for the southbound and northbound bridges, respectively. The superstructures consist of cast-in-place concrete decks with an asphalt overlays composite with all-welded, simple-span, steel girders. Substructures consist of reinforced concrete abutments and multi-column piers.

During the preparation of the Preliminary Design a Field Inspection was undertaken to verify field conditions and from the findings of the inspection five alternatives were developed to address the deficiencies in the bridges. These alternatives included bridge replacement, but it was decided that the alternative to be carried through final design was the bridge rehabilitation alternative to maintain serviceability. The major items of work included:

1. Removal and Replacement of Asphalt Overlay.
2. Concrete Deck Repair and Waterproofing.
3. Deck Joint and Header Repair.
4. Scupper Replacement.
5. Bridge Barrier Repair.
6. Rehabilitation of Existing Girder Bearings.
7. Steel Superstructure Repairs.
8. Painting of Fascia Girders and Girder Ends.
9. Substructure Repairs.
10. Development of a significant Construction Staging and Work Zone Traffic Control operation plan.

The design was completed in 2013 with the construction cost estimated at \$30M.

Exhibit VIII.C.18.a.D. Cleo Design

CLEO
design

interior design portfolio

5935 edmond st
ste # 115
las vegas, nevada
89118-2862

Ken Kulas

Principal

Ken was born in Harford, Connecticut and encouraged to be creative at an early age. His first memories of designing are building Lego hotels complete with swimming pools. He moved to Las Vegas in 1968, and attended the University of Nevada, Las Vegas, majoring in art. During his school years, he worked part time as a runner, office manager, and designer, and created color boards for a well known Las Vegas interior designer. Early on, while he was still shaping his career, a mentor recognized Ken's talent with presentation material assembly - something that to this day, he enjoys being part of because of his love of the hands-on creativity.

Managing a team of design professionals, and expanding their portfolio to other countries, i.e., Australia and China, Ken challenges himself with every project.

"We look at each space as an opportunity to create something unexpected and strive not to duplicate our previous work."

Education

University of Nevada Las Vegas
Art

Years in Industry

20+

Representative Projects

Crown at The West End Casino
Melbourne, Australia
Rivers Casino
Des Plaines, Illinois
Maryland Live!
Arundel Mills, Maryland
Indiana Live!
Shelbyville, Indiana
M8TRIX Casino
San Jose, California
Viva ELVIS! Cirque du Soleil
Las Vegas, Nevada



CLEO

design

Ann Fleming

Principal

In 2000, Ann and an associate from MGM Mirage, Ken Kulas, formed Cleo Design. Together, they have built a solid reputation as one of the leading Interior Design firms in the hospitality industry, with a client list including Seminole Hard Rock, Wynn Las Vegas, Wynn Macau, MGM Mirage, The Venetian, and many more.

Cleo Design has been ranked in Interior Design Magazine's Top 75 Hospitality Giants for 7 years, among earning other awards in the hospitality industry.

"We find a beautiful line, shape, or color that inspires us. We look beyond the image and interpret the space to make it our own."

Education

University of Nevada Las Vegas
School of Engineering
B.S. Interior Architecture

Years in Industry

20+

Registered Interior Designer

Nevada #068-ID
Florida #ID5565
Illinois #161.003388
Maryland #2234

MBE / DBE Certifications

Nevada #NV00896UCPN
Maryland #10-806

Certifications / Memberships

LEED Green Associate
NCIDQ Certified #015677
ASID Professional Member





CLEO
design

crown casino complex - melbourne, australia



CLEO
design

lumia bar
crown casino complex - melbourne, australia



casino gaming area
crown casino complex - melbourne, australia



CLEO
design

high limit table game salon
beau rivage resort & casino - biloxi, mississippi



eastside bar & lounge
wynn las vegas - las vegas, nevada
design collaboration with wynn design & development

CLEO
design



CLEO
design

vip bar and lounge
rivers casino - des plaines, illinois



CLEO
design

cirque du soleil viva elvis showroom
city center - las vegas, nevada



CLEO
design

cirque du soleil viva elvis showroom
city center - las vegas, nevada



CLEO
design

the prime rib
maryland live! casino - hanover, maryland



2014 | company overview

dma
development management associates



900 North Michigan | Chicago, IL



dma | who we are

Development Management Associates, LLC (DMA) manages commercial real estate projects to achieve top performance for owners and investors. With quality at the forefront of our work, we make development efforts simpler, swifter, and more profitable. At DMA, every project receives personal attention. Every solution is a custom one, drawing on innovations selected to improve outcomes and contribute to the highest levels of client satisfaction.

Our team has start to finish experience developing, improving, and managing diverse projects and properties across the US and Canada including:

- Mixed-use Buildings
- Offices
- Hotels
- Casinos
- Residential
- Solar Installations
- Retail Centers

Our clients are real estate investors, entrepreneurs, corporations, and investment trusts. They choose DMA for a unique set of strengths that enhance the quality and profitability of every project:

- Experienced Leadership
- Collaborative Skill
- Financial Discipline
- Design Expertise

dma | strengths

Our technology and reporting capabilities support project success and client satisfaction. Our clients are real estate investors, entrepreneurs, corporations, investment trusts and public entities. They choose DMA for a unique set of strengths that enhance the visibility, credibility, and profitability of every project:

Experience and Talent

Executives at DMA have built respected reputations in the real estate industry. Having worked as owners themselves, they fully understand the owner's perspective. Decades of experience handling complex projects position DMA to deliver optimal results for clients. The company's culture of high performance and collegiality attracts employees of exceptional talent.

Leadership and Communication

DMA's proven leadership and communication skills add value at every stage of a project, fostering government and community support, facilitating rapid project progress, managing operational challenges and resolving issues with high satisfaction across all parties.

Design Sensitivity and Sustainability

DMA executives have architecture degrees and experience that elevate the quality of project design and optimize operational efficiency. They understand the importance of sustainable development and its impact on operations and can advise clients on how to incorporate strategies with positive environmental and economic impact.

Collaborative Industry Relationships

A successful project requires many successful partnerships. DMA's collaborative relationships with leasing and marketing professionals, architects, designers, contractors and tenants make a measurable contribution to project results.



services | development

- Develop detailed project concepts
- Prepare project pro formas
- Prepare feasibility studies
- Establish project programs
- Select, contract with, and oversee design teams
- Oversee government entitlement and subsidy efforts
- Manage LEED and sustainability initiatives
- Manage energy conservation planning and renewable energy installations
- Prepare and maintain project budgets
- Prepare and maintain development schedules
- Plan and implement contractor bidding and selection processes
- Coordinate project commissioning and grand openings
- Plan and supervise grand openings



services | project management

- Select, contract with, and manage administration for all contractors
 - Plan and phase construction with contractor
- Coordinate needed design changes and user requirements
 - Schedule and coordinate public utility requirements
 - Coordinate work with tenants and neighbors
 - Establish and monitor quality control programs
- Coordinate resolution of design, construction, and governmental issues
 - Review and resolve change orders
 - Schedule compliance supervision
- Procure and supervise furniture, fixtures, and equipment (FF&E) decisions



services | tenant coordination

- Review tenant drawings, provide arch. and eng. guidance, and sensitively resolve design issues
- Monitor and track tenant construction
- Coordinate communication and issue resolution with all relevant parties
- Define scope of work and delivery costs for premises above shell condition
- Issue work orders to the base building contractor for leasing-related changes
- Review standard lease and relevant exhibits
- Consult with legal on tenant negotiations
- Create, publish, and maintain lease plan and project criteria
- Document tenant code and permit procedures
- Coordinate tenant permitting and inspection with municipality
- Perform tenant coordination training and develop training manuals
- Provide coordination help desk support
- Prepare detailed punch lists and process allowances to close each tenant project



services | building analysis | energy & cost savings

- Assemble and investigate base building systems
- Identify and review all sources, uses and metering of energy
- Assist in assembling base building information and executing preparation of a baseline energy model
- Identify all possible areas of cost savings over time
- Develop an integrated priority matrix of all possible areas of cost savings
- Discuss all alternatives with ownership and management teams
- Create an action plan using a baseline model, a priority matrix, and building management information
- Assist in preparation of documents to implement cost saving actions
- Oversee and manage the process of implementing cost saving items
- Review compliance and oversee punchlists, final testing and conformance



MGM Solar | Los Angeles, California



dma | current work

Clients have entrusted Development Management Associates, LLC (DMA) with significant roles on the following projects.

casino | entertainment

Rivers Casino, Des Plaines, IL: Comprehensive development management and project accounting services for the newest casino project in Illinois. The Nation's first LEED Gold certified casino for all elements of the 21-acre site and structure. Includes 1,300 gaming positions, eight restaurant and lounge venues, and a five-level structured parking deck immediately adjacent to the casino. Project opened in July 2011.

Sugarhouse Casino, Philadelphia, PA: Development management services for phased waterfront casino project with 1,700 slot machines and three food and beverage venues. Includes two hotels on a prominent site along the Delaware River. Opened in September 2010.

Rivers Casino, Pittsburgh, PA: Development management services and project accounting for waterfront casino project on Pittsburgh's north shore. Includes 100,000 square feet of gaming space, four restaurants, four lounges, and a 10-story, 3,800-space parking structure. Completed in August 2009.

Riverwalk Casino and Hotel, Vicksburg, MS: Development management and project accounting for \$100 million, mixed-use waterfront complex situated on a 22-acre site on the banks of the Mississippi River. Includes two restaurants, 80 hotel rooms and suites, and 800 gaming positions. Completed in October 2008.

retail | restaurant

Arbor Hills Crossing, Ann Arbor, MI: Development management and tenant coordination for a new mixed-use center in the Ann Arbor market. Includes 80,000 sf of retail space and 10,000 sf of second-story, Class A professional space.

Ignite Glass Studios, Chicago, IL: Development management for a world-class glass art studio, educational center, and event venue. Includes 15,000 sf space with a design by Epstein and construction services by Graycor Construction. Project opened in October 2012.

Chico Mall, Chico, CA: Development management services (design, construction, and project accounting) for a 500,000 square foot mall renovation. Includes feasibility study of potential expansion. Renovation completed in November 2012.

The Shops of Saddle Creek, Germantown, TN: Development management and consulting on the redevelopment of an existing retail facility into a mixed-use project. Includes potential retail, office, and hotel uses. Feasibility study projected for completion in Spring 2012.

Golden Square, Sao Paulo, Brazil: New construction development consulting for a 300,000 square foot retail mall. Currently under construction. Projected for completion in November 2012.

LK Bennett, Chicago, IL: Project management and tenant coordination for 1,765 square feet store location which is the brand's first stand alone store in the U.S. Completed in May 2011

900 North Michigan Enhancements, Chicago, IL: Project management of signage, exterior and interior improvements to enhance street presence and wayfinding for the retail component of the structure. Projected for completion in 2011.

Wheelhouse, Pittsburgh, PA: Project management services for sophisticated, fully wired sports bar within new Rivers Casino project. Opened in winter 2010.

Barneys New York, Chicago, IL: Development management services for the build-to-suit shell and core of Barneys New York's Chicago flagship store. Spans 100,000 square feet and includes Fred's restaurant on the sixth floor. Designed and built to achieve LEED-CS status. Completed in summer 2008.

Linden Square, Wellesley, MA: Tenant coordination for the renovation of 200,000 square feet of retail. Completed in 2008.

dma | property

Roosevelt Collection, Chicago, IL: Construction consulting, retail consulting, tenant coordination, and property management for an urban mixed-use development. Includes a 16-screen, state-of-the-art cinema, an open air plaza extending two city blocks, 350 apartments, a 1,500-car parking garage, and 310,000 square feet of retail space. Opened residential, cinema and plaza components in December 2009. Served as general manager--maintaining cost-effective operations and positive reputation in a challenging economic climate--through the property's sale to new ownership in May 2011.

Shoppes at Grand Prairie, Peoria, IL: Property management and tenant coordination for a regional, open-air shopping destination with over 1.2 million square feet of retail space. Includes more than 70 specialty stores and restaurants.

Shoppes at College Hills, Normal-Bloomington, IL: Property management and tenant coordination for an inviting, outdoor retail destination with a broad range of retailers and restaurants. Includes more than 25 specialty stores.

mixed use

Assembly Row, Somerville, MA: Tenant coordination and retail development consulting for a ground-up, multi-phase, mixed use development spanning 45 acres along the Mystic river just outside Boston. Planned to include 1.75 million square feet of build-to-suit office and lab space, up to 2,100 residential units, and a mix of outlet shopping, entertainment, and dining options exceeding 500,000 sf of gross leasable area.

Pike & Rose, Rockville, MD: Tenant coordination and retail development consulting for a multi-phase redevelopment of an existing power center. The project includes a 19-story residential tower, 160,000 sf of gross leasable area for retail and entertainment use, and four stories of office space above retail in phase one.

Century City Center, Los Angeles, CA: Development management services for a new 37-story office tower. The project is designed to achieve a LEED Platinum rating for its core and shell. After certification, Century City Center is positioned to be the first LEED Platinum high-rise office building in Los Angeles and sixth in the world.

The Residences at 900, Chicago, IL: Development, project management and project accounting services for \$75 million adaptive reuse of 160,000 square feet of office space, transformed into 47 high-end condominiums on Michigan Avenue. Includes an intensive green roof with 14,000 square feet of regional plantings. Completed in 2008.

Rockville Town Square, Rockville, MD: On site tenant coordination and project management for final phase of \$352 million, mixed-use urban project. Combines new town square with retail, restaurants, library, arts center and 600 residential units. Completed in 2008.

energy | green building

Rivers Casino LEED Certification, Des Plaines, IL: Management of project progress toward LEED certification under the new LEED v.3 system. Currently registered with GBCI and pursuing the goal of base-level certification for all site and structural elements at a negligible cost premium. Project opened in July 2011 currently awaiting LEED Certification.

900 North Michigan Green Roof East, Chicago, IL: Project management of a 15,000-square-foot green roof topping nine stories on the building's east side. Includes a 700-square-foot terrace and a variety of irrigated sedums, grasses, trees, and flowering perennials. Proceeding in conjunction with lower-level structural retrofits and a 9th-floor office re-configuration. Opened in October 2010.

Hotel Energy Reduction Consulting, Chicago, IL: Leadership in strategically reducing energy consumption for the Four Seasons and Ritz Carlton hotels based on the ownership's carbon emissions targets. Ongoing.

Century Park West Solar Installation, Los Angeles, CA: Project management of 495 kW AC-CEC rated photovoltaic installation on the upper level of a parking structure. Includes 2,200 Sharp PV panels over approximately an acre of parking deck. Completed in February 2010.

MGM Tower Solar Installation, Los Angeles, CA: Project management of 431 kW AC-CEC rated photovoltaic installation on the upper level of a parking structure—the third largest PV system in the city at the time of installation. Includes over 1,400 Schott PV panels. Completed in December 2009.

portfolio services

Federal Realty Investment Trust, Midwest portfolio of properties: Tenant coordination and construction oversight for retail properties in Illinois and Michigan totaling nearly one million square feet. Ongoing.

ServiceStar Retail Tenant Coordination, Greenwood Village, CO: Tenant coordination consulting to ServiceStar's retail group to assist in determining best practices and offer training and advice in broad aspects of tenant coordination procedures and systems. Ongoing.

McCaffrey Interests Tenant Coordination, Suburban Washington, DC portfolio of properties: Tenant coordination services for over 400,000 square feet of retail open air centers. Ongoing.

GEM/Budget Self Storage Facilities, Various locations in North Carolina and Ontario, Canada: Owner's representation on a portfolio of joint venture storage facility projects. Completed in summer 2009.



Rush Walton Collection



Rush Walton Collection



MGM Tower



Sun America Building



City Place



dma | portfolio



rivers casino | casino / entertainment

Development Management | Accounting

Location: Des Plaines, Illinois

Owner: Private Owner

Architect: Klai Juba

Contractor: Pepper Construction

Open: July 2011

- LEED Gold certified
- 147,000 square foot casino including 26,000 square feet of food and beverage uses
- 20-acre site which required tenant relocations and vacations
- 1,560 structured parking spaces and 860 desirable surface parking spaces
- Iconographic light towers and LED screens address the adjacent interstate highway



sugarhouse casino | casino / entertainment

Development Management

Location: Philadelphia, Pennsylvania

Owner: HSP Gaming, LP
Architect: Cope Linder & Floss Barber, Inc
Contractor: Keating

Open: September 2010

- 108,000 square foot facility, 1,600 slot machines, and 40 gaming tables
- Visitors now have access to the river and a landscaped riverwalk
- dma oversaw project design, construction, and accounting
- The interior blends luxury and urban elements, with rich metal hues, and distinctive industrial art



rivers casino | casino / entertainment

Development Management | Accounting

Location: Pittsburgh, Pennsylvania

Owner: Private Owner

Architect: Bergman, Walls & Associates, Ltd and Strada

Contractor: Keating

Open: 2009

- 400,000 square foot 3,000 slot waterfront casino project
- Adjacent to the Heinz Field football stadium on Pittsburgh's North Shore
- 100,000 square feet of gaming space, two themed restaurants and several casual dining venues and a 3,800 space parking structure
- dma played a significant role in performing due diligence for the project, which was 30% complete prior to stalling, in just 6 weeks



wheelhouse | entertainment

Project Management

Location: Pittsburgh, Pennsylvania
Owner: Private Owner
Architect: Bergman, Walls & Associates, Ltd
Interior Design: Floss Barber
Contractor: Keating

Open: 2009

- 10,000 square foot restaurant
- Adjacent to the Heinz Field football stadium on Pittsburgh's North Shore
- Over 40 video screens - including the 12' diagonal, retractable wide screen/multi-control panel
- Restaurant venue build out was accelerated using savings recovered from the larger casino project



riverwalk casino and hotel | casino / entertainment

Development Consulting | Accounting

Location: Vicksburgh, Mississippi

Owner: Magnolia Hill, LLC

Architect: Foil Wyatt

Contractor: Benchmark

Open: November 2008

- Project includes 80 room hotel, 800 gaming positions, 2 restaurants, and a multi-function room
- The complex incorporates a river walk that takes full advantage of a beautifully wooded site on the banks of the Mississippi River



900 north michigan | mixed use

Development Management / Tenant Coordination

Location: Chicago, Illinois

Owner: JMB Realty

Architect: Kohn Pederson Fox, Perkins + Will

Contractor: J A Jones, Walsh Construction, Turner SPD, DeWindt

Open: 1988

- 250,000 sf small shop GLA, Bloomingdales, 350,000 sf office, 340 key, Four Seasons Hotel, 150 luxury condominiums, and 1400 car parking structure
- Effective strategy to deal with City, Tenants, and Complex logistics on one of Chicago's tallest skyscrapers
- Phased opening over two years
- Current work includes project management of an assortment of signage, exterior and interior improvements to enhance street presence and wayfinding for the retail component of the iconic Gold Coast structure - project completion in 2011.

Initial phase of project completed by dma personnel while at previous company.



assembly row | mixed-use

Development Consulting | Tenant Coordination

Location: Somerville, MA

Owner: Federal Realty Investment Trust

Architect: Elkus Manfredi Architects | Spagnolo Gisness & Associates |

Open: Phase 1 is Scheduled for Spring 2014

- 50-acre mixed-use, multi-phased development
- Project will host 1.75 million sf of build-to-suite office space, up to 2,100 residential units and a mix of outlet shopping, entertainment, and dining venues



barneys new york | downtown retail

Development Management | Accounting

Location: Chicago, Illinois

Owner: M Development

Architect: Gensler

Contractor: W. E. O'Neil

Open: Spring 2009

- New Flagship Location of Barneys New York
- 100,000 sf of retail including luxury department store, 5,000 small shop and roof level restaurant
- Participant in City of Chicago Green Permit Program
- Certified with Silver Rating under LEED Core and Shell



Michael S Levin Principal

Mike Levin's leadership experience in real estate development spans more than 35 years and includes the successful completion of dozens of high-profile, large-scale projects: regional malls, life-style centers, casinos, hotels, high-rise office buildings, and more. As an owner and on behalf of client owners, Mike has been responsible for more than \$4 billion of development. His superior ability to work effectively with government and community groups ensures smooth project progress and well-received end results.

Mike founded Development Management Associates, LLC (DMA) in 2007 with Charles Porter and Martha Spatz. With his co-founders, Mike takes an active interest in every project. He directs overall business strategy, oversees key management decisions, and is responsible for building and sustaining numerous client relationships.

Mike led the development and 2010 opening of SugarHouse Casino in Philadelphia, Pennsylvania—a \$200 million waterfront project that transformed a former industrial site along the Delaware River, bringing dining, entertainment, and a landscaped river walk to an area that once housed the Jack Frost sugar refinery. More recently, Mike has been involved in overseeing the development of Arbor Hills Crossing, an 80,000-square-foot mixed-use center in Ann Arbor, Michigan; leading the renovation of Chico Mall in Chico, California; and consulting on a new shopping center in Sao Paulo, Brazil.

Before founding DMA, Mike led the development division at Urban Retail Properties, where he also oversaw tenant coordination services. He previously served as vice president of the planning department at Barton Aschman Associates. Mike's notable past work includes leadership roles in the following projects:

Recent Work

- Riverwalk Casino & Hotel, Vicksburg, MS: Mike directed the development of the hotel that offers 800 gaming positions, and hotel that sits along the banks of the Mississippi River. It includes an outdoor sculpture exhibit along the river.
- Hotels: Due diligence for a major real estate investment firm for several hotel projects including those in Boston, California, and Hawaii.
- Arbor Hills, Ann Arbor, MI: approximately 100,000 square foot boutique retail shopping experience on 7.5 acres. The project site work included 310 parking spaces, a rain garden, unique coreten architectural coreten steel elements, and four separate unique buildings. Each building houses high end retailers including Anthropology, Arhaus, Lululemon, the NorthFace, and Sur La Table along with two restaurants.

THE MAGNIFICENT MILE ASSOCIATION
MICHIGAN AVENUE DISTRICT | CHICAGO



DMA PROJECTS

- CASINO/ENTERTAINMENT
 - Riverwalk Casino & Hotel, Vicksburg, MS
 - Sugarhouse Casino, Pittsburgh, PA
- RETAIL
 - Chico Mall, Chico, CA
 - Arbor Hills, Ann Arbor, MI
 - The Shops of Saddle Creek, Germantown, TN
 - Golden Square, Sao Paulo, Brazil

Affiliations & Awards

- International Council of Shopping Centers (ICSC)
- The Greater North Michigan Avenue Association

Notable Past Projects*

Before founding DMA, Charles held leadership roles as executive vice president, development manager, and director of construction at Urban Retail Properties. Notable past projects in which Mike played a primary role includes:

- Branson Landing, Branson, MO: New development of a \$100 million, 500,000-square-foot lifestyle center (water-front retail and entertainment)
- Houston Galleria, Houston, TX: \$150 million expansion and renovation of a super-regional, mixed-use center
- MGM Tower, Los Angeles, CA: New development of \$300 million, 35-story office building totaling 710,000 square feet
- Sun America Building, Los Angeles, CA: New development of \$75 million, 34-story office building
- Oakbrook Center, Oakbrook, IL: \$100 million expansion including adding Nordstrom
- Galleria at Roseville, Sacramento, CA: New development of \$100 million, 1.1 million-square-foot hybrid mall (exterior retail and entertainment)
- The Streets at Southpoint, Durham, NC: New development of \$130 million regional shopping center with 1.3 million square feet of space.

Education & Certifications

- Master's degree in city planning – University of Pennsylvania
- Bachelor's degree in architecture – University of California - Berkley

Additional Experience

- Urban Retail Properties – director of development and tenant coordination services
- Barton Aschman Associates – vice president of planning

*Projects completed while at previous companies



Charles C Porter
Principal

With more than 30 years of leadership experience in real estate development and construction, Charles Porter has managed new development, expansion, redevelopment, and mixed-use projects in premier locations across the United States. Charles brings an in-depth knowledge of design, construction, and scheduling processes to every project. He creates productive partnerships with everyone involved to deliver optimal results.

Charles founded DMA in 2007 with Mike Levin and Martha Spatz. With his co-founders, Charles guides business strategy, oversees key management decisions, and cultivates client relationships. He regularly shares his expertise in real estate development with students in college-level and continuing education courses.

Charles leads national and international feasibility work for the company.

Recent Work

- Sugarhouse Casino Expansion, Philadelphia, PA: A \$120 million expansion of the highly successful sugarhouse casino with the addition of 4 food and beverage venues additional gaming area and a new poker room, a 1,500 cars structured parking deck, and significant related site development all while keeping the existing facility in operation.
- Ignite Glass Studio, Chicago, IL: DMA transformed an existing industrial building into a unique multi-purpose venue that spans 15,000 SF. This state-of-the-art working glass studio includes an integrated 5,700-square-foot event area, a rooftop deck, and a festive garden.
- Charles directed the development and 2011 opening of the Rivers Casino in Chicago. The first casino in the world to earn LEED Gold certification. The development includes 1,200 gaming positions and an adjacent, 5-level structured parking deck.
- Barneys New York, Chicago, IL: Development management for the build-to-suit shell and core of the high-end retailer's flagship Chicago store
- Rivers Casino, Pittsburgh, PA: Development management for a waterfront casino project with 100,000 square feet of gaming space and a 10-story, 3,800-car structured parking garage

DMA PROJECTS

- CASINO/ENTERTAINMENT
 - Rivers Casino, Des Plaines, IL
 - Rivers Casino, Pittsburgh, PA
- ENERGY/GREEN BUILDINGS
 - Constellation Place Solar, Los Angeles, CA
- OFFICE
 - Century City Center, Los Angeles, CA
- RETAIL
 - Barneys New York, Chicago, IL
- MULTI-FAMILY
 - The Residences at 900, Chicago, IL

Affiliations & Awards

- University at the Wharton School - lecturer,
- CenterBuild Conference
- Chicago Architecture Foundation
- Council on Tall Buildings and Urban Habitat (CTBUH)
- The Urban Land Institute

Notable Past Projects*

Before founding DMA, Charles held leadership roles as executive vice president, development manager, and director of construction at Urban Retail Properties. He also worked in project management with Turner Construction Company. Notable past projects in which Charles played a primary role include:

- 900 N. Michigan Ave., Chicago, IL: New development of a \$750 million, 66-story multi-use complex (luxury retail, office, residential, hotel) with more than 2.6 million square feet of space
- Branson Landing, Branson, MO: New development of a \$100 million, 500,000-square-foot lifestyle center (water-front retail and entertainment)
- Houston Galleria, Houston, TX: \$150 million expansion and renovation of a super-regional, mixed-use center
- Tabor Center, Denver, CO: \$35 million redevelopment of an urban vertical shopping center
- Old Orchard Shopping Center, Skokie, IL: \$350 million – Three Phase expansion and renovation of an outdoor Upscale shopping center featuring five anchors and totaling 1.8 million square feet
- Constellation Park, Century City Los Angeles, CA: pre-development of two 47-story condominium towers on a five-acre park with four levels of underground parking

- MIXED USE
 - Branson Landing, Branson, MO
 - Houston Galleria, Houston, TX
 - 900 North Michigan, Chicago, IL
- OFFICE
 - City Place, Hartford, CT
- RETAIL
 - Old Orchard Shopping Center, Skokie, IL
 - Tabor Center, Denver, CO

Education & Certifications

Bachelor's degree in architecture - Illinois Institute of Technology

Additional Experience

- Urban Retail Properties - executive vice president, development manager,
- director of construction
- Turner Construction Company - project manager

*Projects completed while at previous companies



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www.dmassociates.com