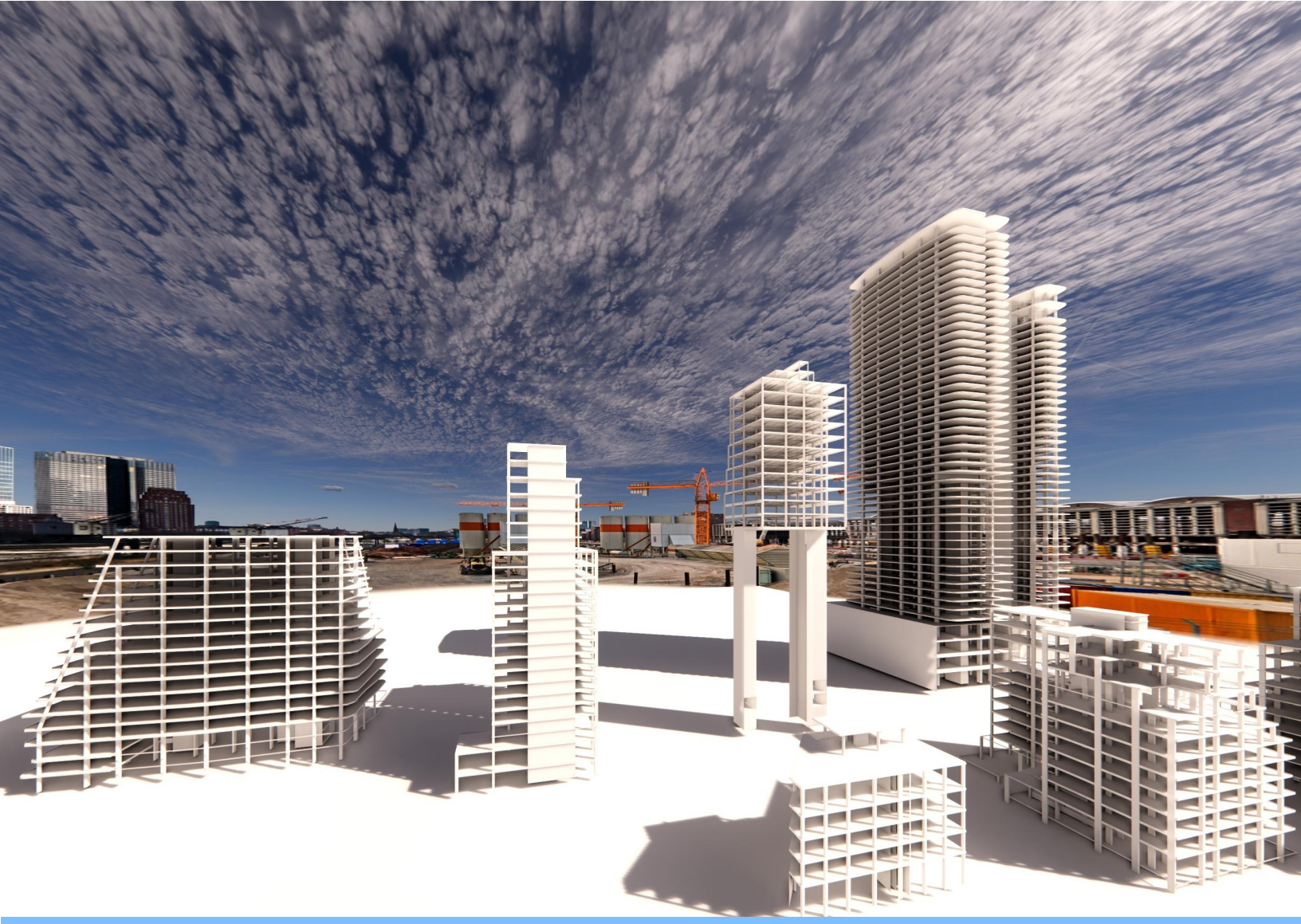

EXCELLENCE IN STRUCTURAL ENGINEERING AND DESIGN

EXPERIENCE AND QUALIFICATIONS

ACTIVE DESIGN GROUP ENGINEERING

INTEGRITY COMMITMENT VALUE DRIVEN

I.
FIRM PROFILE

Active Design Group Engineering (ADG) is a Structural Design and Engineering firm providing exceptional quality engineering services. ADG provides all aspects of structural engineering: feasibility study, planning, design, condition assessment, investigation and forensic analysis, across a broad range of projects and industries. We offer specialized expertise in the design of high-rise, long-span and special structures, failure analysis, blast analysis, seismic analysis, wind/hurricane condition assessment as well as in the renovation, rehabilitation, retrofit and repair of existing structures. ADG also has experience and expertise in the performance of Peer Review, Design Verification and Value Engineering Services for large, complex projects of various types. ADG provides a variety of structural design services to governmental, industrial, commercial and institutional owners as well as Developers, Contractors and Architects. Active both nationally and internationally committed to providing the highest quality consultancy services and firm's commitment to serving Clients worldwide. ADG has a broad spectrum of structural engineering experience that enables us to efficiently meet the needs of our Clients.

Our projects represent highlights in the world of modern mega-project design and engineering. ADG's wide range of projects include Hospitality facilities, Hotels, Residential buildings, High-Rise buildings, Mixed-use Commercial developments, Educational facilities, Healthcare facilities, Airport, Transportation projects, Shopping centers, Convention centers, Arenas, Stadiums and Entertainment facilities. Significant projects in New York, New Jersey, internationally, and in the surrounding areas add to the diversity of our project portfolio and emphasize our commitment to participate in the process of design and development of buildings and infrastructure.

ADG is led by a group of Principals who are widely recognized leaders in the field of structural design and engineering and are licensed design professionals, with cumulative experience among them in their fields of expertise in excess of one hundred and fifty years. We have an intuitive sense for out of the box structural solutions during early design phases. We live to make projects successful even with the aggressive deadlines.

Some of our relevant projects are:
Doubletree Hotel, 8 Stone St, New York, NY: A 43 story hotel building (450,000 ft^2), in downtown Manhattan.
Hampton Inn & Holiday Inn, 339 W 39th St, New York, NY: A 36 story hotel building (225,000 ft^2), near Manhattan's Time Square.
Element by Westin, 311 W 39th St, New York, NY: A 39 story hotel building (165,000 ft^2), near Manhattan's Time Square.
Lexington Hotel, New York City: 25 story hotel in midtown Manhattan adjacent to NY City underground subway tunnels.
Bronx Terminal Market, Bronx, NY: one of the largest retail centers in NY City.
We have designed a large number of mid-rise to high-rise buildings in New York and New Jersey.
Columbus Tower, Jersey City, NJ: A 35-story residential tower (450,000 ft^2), and a 7-story concrete parking structure with a rooftop recreational area including a pool.
The Veneto at 250 East 53rd St, New York, NY: A 31-story concrete flat-slab luxury condominium building located at 53rd Street and 2nd Avenue in New York City with provisions for a future 2nd Avenue MTA Subway station.
Two North Side Piers, 164 Kent Ave, Brooklyn, NY: A 30-story concrete flat-slab luxury condominium building located (225,000 ft^2), in New York City.
12 story addition on Existing 15 story Building, 30 E 60th St, New York, NY: A 12-story steel structure addition on top of an existing 15-story occupied commercial building in midtown

New York City. The new 12 story addition is supported only by two concrete legs within the light wells of the existing building and is supported by new foundations independent of the existing building. Vertical post-tensioning and rock anchors are used to control the horizontal movement of the building.

241 Fifth Ave, New York, NY: A 19-story concrete high-end luxury condominium building located in the historic Landmark District of mid-town Manhattan in New York City.

529 W 29th St, New York, NY: A 14 story building in the heart of New York City's Hudson Yards area, 100% affordable mixed use with **LEED** Silver designation. The structural system consists of Girder – Slab technology, a custom fabricated steel framing with hollow core precast concrete plank floors which enabled quick and economical construction with low floor to floor height. Steel braced frame were used as lateral force resisting system.

275 Fourth Ave, Brooklyn, NY: A 10-story residential development (80,000 sq.ft.) located in the upcoming neighborhood of Brooklyn. The cascading geometry of the building poses structural challenges on column layout to support these setback floor plates. A series of thin concrete wall-columns were used in combination with a cantilevered 9-inch thick concrete flat plate slab to transfer the floor loads down through the building without comprising the integrity of the original architectural design.

Lotus 315, East Orange, NJ: A 300,000 SF, 7-story residential development in East Orange, NJ.

258 South Harrison, East Orange, NJ: A 220,000 SF, 17-story residential development in East Orange, NJ.

Four Seasons Centre, Kuala Lumpur, Malaysia: 58 Story Hotel and residential tower.

Menara Carigali (Lot C), Kuala Lumpur, Malaysia: a 60 story mixed-use tower with office and residential spaces serving the Kuala Lumpur City Centre Complex.

Marriott Hotel, Ajman, UAE: a beach resort hotel buildings clustered on a common podium.

Digicel Development, Kingston, Jamaica: Digicel corporate headquarter facilities.

State-of-the art computer technology is an integral part of our operation. Our office is fully networked to provide engineering information to all users. ADG uses computer modeling, design and analysis procedures to validate and refine various aspects of the structural design.

ADG's dependable performance and reliability are recognized each year by a large number of repeat Clients. ADG solves structural engineering problems for Architects, Contractors, Engineers, private Owners, governments and industry. We practice in as wide a field of opportunity as possible, using only sound up-to-date engineering principles. Projects of all sizes are approached with creative thinking, leading to the best solution possible consistent with the economics, construction techniques and aesthetic qualities desired. ADG understands its Clients' project objectives in order to deliver optimal engineering solutions.

Active participation on code committees, attendance at and presentation of seminars and providing instruction for engineering courses are what keeps ADG on the cutting edge of the most recent developments in the structural engineering design community. ADG continues to evolve and grow to meet the needs of its clientele. Our commitment to keep abreast of technological advances and engineering trends allows us to provide the highest quality engineering services.

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II.
PROJECT

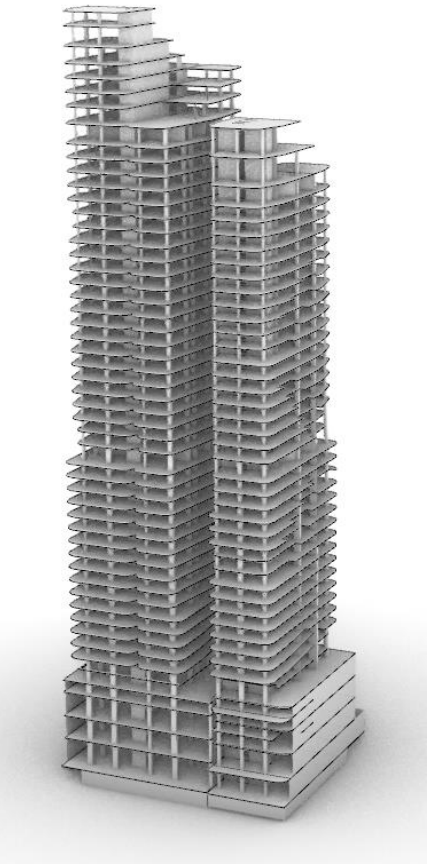
II.A
US PROJECT

LOTUS 315, EAST ORANGE, NEW JERSEY

A 300,000 sf, 7-story residential development with curvilinear design by the design firm INOA. A large retail component is located on the ground floor. The concrete flat plate floor slabs follow the contour with each floor offset individually. The green roof over the parking deck in the rear follows similar amorphous layout.

258 S HARRISON ST, E ORANGE, NJ

A 220,000 sf, 17-story residential building with an 81,000 SF integral parking and green roof structure on a sloping site. Concrete flat plate floor slabs are employed throughout to achieve high ceilings. Round sloping columns support the tiered façade at the front and rear elevations of the building.



HALO PROJECT

Newark, New Jersey

The project by 289-301 Washington Street Urban Renewal, LLC is a 38-story tower, a 42-story tower, and a 46-story tower to the Central Ward. The towers would include a total of 949 residential rental units atop a six-story podium base including automated parking, terraces, "garden level amenities," and "sky lounge amenities" such as rooftop pools are also in the works. ADG provides structural engineering services.

292 Fifth Avenue Hotel, New York

A 21-story hotel building with two below-grade level is located in midtown New York City. Concrete flat plate floor slabs are employed throughout to achieve high ceilings. The gross construction area of the building is approximately 104,000 square feet. The building will house a 4-star hotel with more than 200 rooms. The façade system consists of window wall and modular brick. The structural system is flat-plate concrete floors with shear walls around the elevator core and the stairs.

DOUBLETREE HOTEL AT 8 STONE STREET

New York, New York

This project in downtown Manhattan is a new 43-story Hotel Building, with two below-ground levels, located at 8 Stone Street in New York City. A 4-star DoubleTree Hotel with 424 rooms and restaurants in the building. Typical floor construction is a concrete flat-plate system with core shear walls functioning as the lateral system. The structure sits on 400-ton caisson foundations.

THE VENETO

250 East 53rd Street, New York, New York

ADG provided complete Structural Design and Engineering Service for this project, which consists of a new 31-story flat-slab concrete framed luxury residential condominium building located at 250 East 53rd Street in New York City. A special feature of the design was the inclusion of provisions within the building for a future New York City subway station to serve the long-anticipated Second Avenue Subway line.

TWO NORTHSIDE PIERS AT 164 KENT AVENUE

Brooklyn, New York

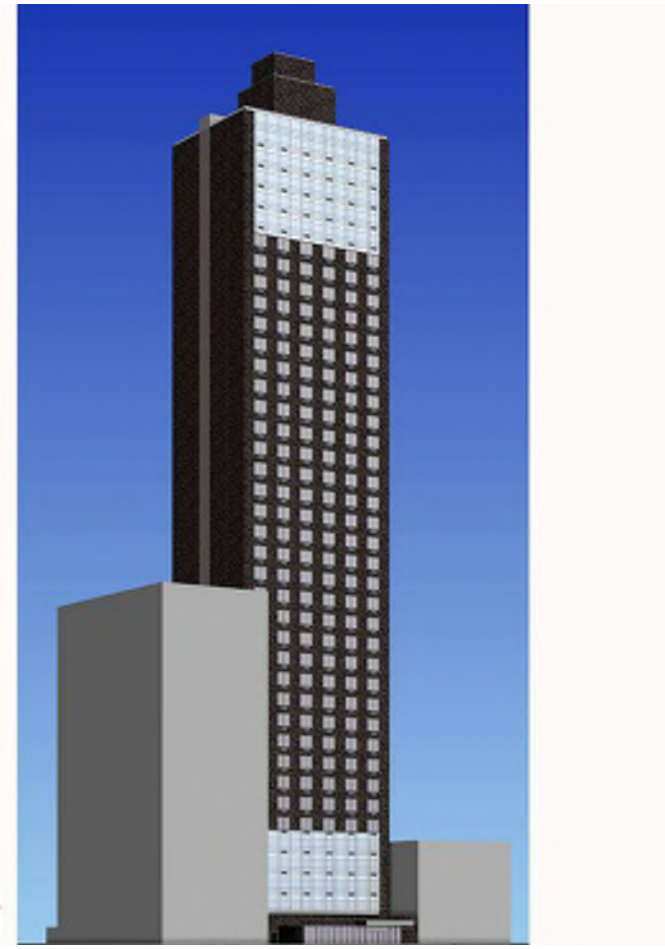
This project consists of three new residential towers: two 30-story buildings and one 40-story building. The approximate gross floor areas of the 30-story towers are 225,000 square feet each and the 40-story tower contains approximately 300,000 square feet.

HAMPTON INN, HOLIDAY INN & CANDLEWOOD SUITES
339-343 West 39th Street, New York, New York

The complex comprises 32-story to 36-story adjoining hotel buildings with one below-grade level. Located near Manhattan's Times Square, the gross construction area of the building is 224,000 square feet. These three distinct hospitality brands offer a total of more than 500 rooms. Typical floor construction system is concrete flat-plate, with shear walls at the core providing a lateral bracing system. The structure sits on 400-ton mini-caisson foundations. ADG was initially directed to perform a Value Engineering Review of the structure as originally designed by others. ADG was subsequently asked to redesign the structural system to incorporate our innovative Value Engineering concepts. Coordinating closely with the Architect and the other Design Consultants, ADG was readily able to develop an elegant and cost-effective structural design.

THE BROMPTON
206 East 86th Street, New York, NY

This Upper East Side project is located at 86th Street and Third Avenue in New York City and consists primarily of residential condominium units, with retail space on the Ground Floor. The 20-story building provides 308,800 square feet of space, including Ground Floor retail units. In addition, there is a Cellar level with a gross construction area of approximately 20,000 square feet. The total gross construction area of the development is approximately 328,800 square feet



ELEMENT BY WESTIN

311 West 39th Street, New York, New York

This new 39-story hotel building, with two below-grade levels, is located near the famous Times Square in New York City. The gross construction area of the building is approximately 164,000 square feet. The building will house a 4-star Element by Westin hotel with more than 400 rooms. The façade system consists of window wall and modular brick. The structural system is flat-plate concrete floors with shear walls around the elevator core and the stairs.

COLUMBUS TOWERS COMPLEX

Jersey City, New Jersey

ADG's work on Columbus Towers included comprehensive Structural Design and Engineering services for a 35-story concrete residential tower (42,000 m^2), a 7-story concrete parking structure (33,000 m^2) with a recreational facilities on its roof, including a swimming pool, and an adjoining 3-story steel-framed office building (3,400 m^2).

NJ PUBLIC HEALTH ENVIRONMENTAL AND AGRICULTURAL LABORATORY

West Trenton, New Jersey

The laboratory is located on a 16-acre parcel at the New Jersey State Police Headquarters Campus and has a gross floor area of approximately 250,000 square feet. This $100 Million facility serves as the primary research and analysis operation for the State's Health Department. As such, the facility is used to analyze suspicious substances for all types of events, including those thought to be used as terrorist weapons.

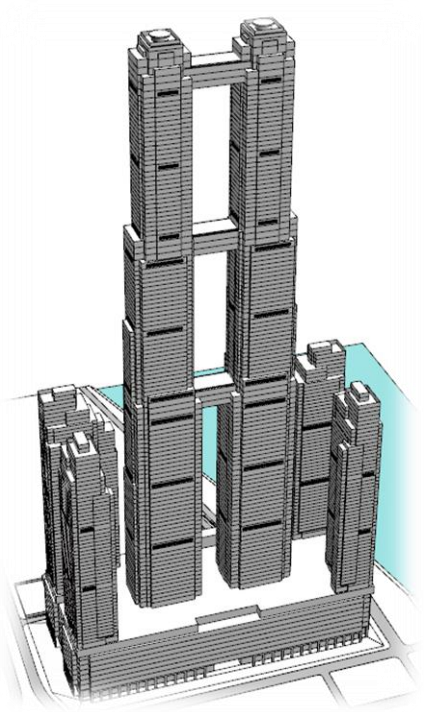
II.B
INTERNATIONAL PROJECT

TBR Twin Towers World Trade Centre
Phnom Penh, Cambodia

ADG is working jointly with SGI to engineer the structural system for this landmark mixed-use development in the heart of Phnom Penh city. The 1,600,000 m^2 project will include

a) 4-level underground parking and mechanical spaces
b) 12-story retail and office podium
c) Four 55-62 story residential towers
d) 133-story mixed-use twin towers connected by three skybridges.

The structural system includes a combination of steel-frame and concrete shear walls supported on a concrete mat-pile foundation



TBR Twin Towers World Trade Center
Phnom Pehn, Cambodia

The project is in Phnom Penh, Cambodia. It is a multifunctional complex, including 570m super high-rise multifunctional twin towers (133 floors) and four 62-story residential buildings. The 6 towers are located above an 11-story podium, and the basement is 4-6 stories.
ADG is working jointly with SGI to engineer the structural system for this landmark mixed-use development in the heart of Phnom Penh city. The 1,600,000 m2 project will include

a) 4-level underground parking and mechanical spaces
b) 12-story retail and office podium
c) Four 55-62 story residential towers
d) 133-story mixed-use twin towers connected by three skybridges.

The structural system includes a combination of steel-frame and concrete shear walls supported on a concrete mat-pile foundation. In collaboration with Sardini Group Inc. (SGI)

SAIPAN GARAPAN CASINO & RESORT

Central Northern Mariana Islands. USA

SAIPAN GARAPAN CASINO HOTEL & Resort was planned as a land mark building that combined classic architecture and construction technologies with numerous architectural references to the project's location on the central pacific and its rich marine treasure. The development comprises of 14-story hotel buildings clustered on a top class casino podium. Set on the coastline, the structure was designed using steel at the prime construction material and concrete shear wall. Approximate total gross area of the complex is 80,000 square meter.

MENARA CARIGALI MIXED-USE DEVELOPMENT

Kuala Lumpur, Malaysia

Menara Carigali, constructed on Lot C of the Kuala Lumpur City Centre, is a 60 story mixed-use tower in Malaysia with retail at lower levels, 4 below grade parking levels, and office/ residential upper levels serving the Kuala Lumpur City Centre Complex. The project scheme envisions a curvilinear triangular plan for the residential portion of the tower. At the base of the residential tower, the floor plan expands to a rectangular shape to house the office portion of the building. The net area of the building is 1,224,000 square feet.

FOUR SEASONS CENTRE
Kuala Lumpur, Malaysia

ADG provided Structural Design Services. The Four Seasons Centre in Kuala Lumpur, Malaysia has a total Floor Area of approximately 210,000 square meters. The project includes a hotel of approximately 140-keys, 110 service apartment units, 300 residential units, 80,000 square meters of retail space and parking facilities to accommodate more than1,800 vehicles. The project comprises two buildings that share a common Podium: a 43-story Tower and a 70-story Tower.

MENARA CARIGALI MIXED-USE DEVELOPMENT

Kuala Lumpur, Malaysia

Menara Carigali, constructed on Lot C of the Kuala Lumpur City Centre, is a 60 story mixed-use tower in Malaysia with retail at lower levels, 4 below grade parking levels, and office/ residential upper levels serving the Kuala Lumpur City Centre Complex. The project scheme envisions a curvilinear triangular plan for the residential portion of the tower. At the base of the residential tower, the floor plan expands to a rectangular shape to house the office portion of the building. The net area of the building is 1,224,000 square feet.

LA NACION OFFICE TOWER

Buenos Aires, Argentina

A 16-story addition was constructed above an existing 8-story urban office building; the existing offices were occupied throughout the project. The development of an extremely light steel frame for the new floors, in combination with the reinforcement of existing concrete shear walls and the design of a unique system of transfer trusses, minimized the need to retrofit the existing concrete columns, which made the project feasible. As part of the work, the existing foundations were upgraded.

*One or more of the Principals of ADG had management responsibility for this project while in the employ of another design and engineering organization.

MABARAK CENTER
Lahore, Pakistan

Mabarak Center at Ferozpur Road in Lahore is the first development of its kind in Pakistan, one that fulfills the needs of most daily activities of the people of Lahore within a single modern 21st century state-of-the-art facility. Patrons can shop, dine, work and pursue recreation and leisure activities within a single complex that also provides high-class office space as well as luxury hotel and residential accommodations. The total built-up area is 605, 064 m^2.

ADG provided Peer Review and Value Engineering services for this project. ADG was responsible for multi-million dollars savings in construction cost. Our review skills were applied to foundation systems as well as structural steel and reinforced concrete structures.

SHAHBAZ AIR BASE FOR THE PAKISTAN AIR FORCE

Jacobabad, Pakistan

The Shahbaz Air Base Project encompassed the construction of new facilities as well as the design of improvements for certain existing facilities. The Base will cover an area of approximately 607.20 hectares (1,500 acres), including both air base facilities and associated residential structures. There are more than thirty new maintenance facilities to be constructed, sixty new administrative structures and twenty different types of residential buildings. The project includes above-ground structures as well as below-ground tunnel/shelter type facilities.

CRYSTAL COURTS
Islamabad, Pakistan

Crystal Courts is the first residential project designed according to latest seismic codes in Pakistan. The project consists of eleven buildings connected by a common Podium. The height of the buildings is 18 stories from the base (including the Podium). There is also below-grade parking. The total gross construction area is 2 million square feet.

DAELIM ACROVILL ONE, TWO AND ACROTEL

Seoul, Korea

A 1.75 million square foot complex consisting of two 46-story apartment buildings, a 32-story office building, a 1 million square foot shopping complex and 6 levels of underground parking and mechanical areas.

*One or more of the Principals of ADG had management responsibility for this project while in the employ of another design and engineering organization.

MARRIOTT HOTEL BEACH RESORT

Ajman, UAE

Marriott's hotel and beach resort complex in the Emirate of Ajman combines contemporary planning and construction technologies with numerous architectural references to the project's location and its rich cultural heritage. The development comprises 18-story hotel buildings clustered on a common Podium structure. The approximate total gross area of the complex is 500,000 square feet.

DIGICEL DOWNTOWN DEVELOPMENT

Kingston, Jamaica

The Digicel Downtown Development project in Kingston, Jamaica is intended to follow a Master Plan for a complex of buildings and gardens comprising three parts: Digicel corporate facilities, a hotel or other commercial building and an entrance plaza. The Digicel corporate buildings occupy the first third of the site facing out onto the waterfront. An eighteen-story tower standing on a white stone plinth houses office accommodation, call center and training facilities, etc., with views out across the bay to the south and west. A separate two-story building houses the switch / battery / UPS and the staff canteen, all kept at the lower level for ease of access and servicing.

Planned hotel buildings will be about six stories high, positioned along the east side of the site to enclose an entrance space at the front of the Digicel tower, making a proper entrance to the Digicel building and setting it up as the most important building on the site. To be clad in red sandstone, surrounded by dark green trees, the ensemble structure will feature the Digicel colors. The future entrance plaza will provide an entrance space appropriate to the size of the Digicel tower. The plaza is conceived as a garden, entered through a large gate at the city end of the site, with a long shallow pool down the middle. The pool will be used to collect rainwater and will provide water for fire-fighting. The Digicel tower will be reflected in the water, and to either side will be lawns and rows of trees for shading.

Project Statistics

Digicel Tower	18 stories	13,500 m2 (145,314 sq. ft.) gross area
Future IT & Catering Bldg.	2-3 stories	2,500 m2 (26,910 sq. ft.) gross area
Future Hotel or Other Commercial Bldg.	5-6 stories	10,000 m2 (107,640 sq. ft.) gross area
Basement Car Park	1 story	10,500 m2 (113,022 sq. ft.) gross area
TOTAL		36,500 m2 (392,886 sq. ft.) gross area











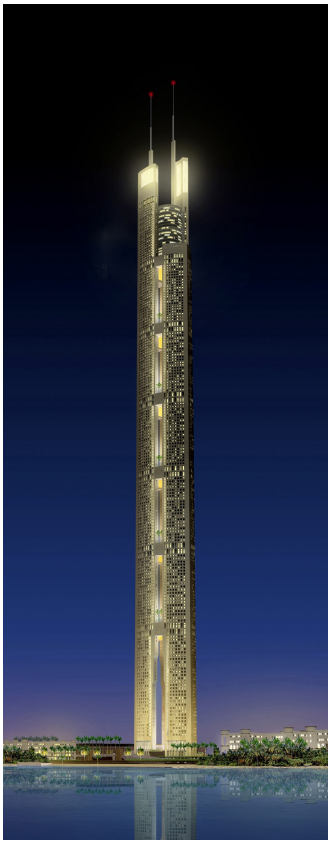





RECONSTRUCTION OF THE MARCHE DE FER (IRON MARKET)

Port-au-Prince, Haiti

The city's Iron Market served as a retail hub for more than a century. The original components were prefabricated in France and assembled locally into two sheds flanking a central Clocktower featuring four minaret-like towers. Fire destroyed the North Market shed in 2008 and after the earthquake of 2010 severely damaged the South Market shed, ADGI was authorized to begin work on the $12 million restoration in March of that year. Extensive field investigation and a careful evaluation of the complex suggested a project approach which required the design of a new North Market. ADG designed IBC 2006 upgrades for the project, including diagonal rod bracing and supplemental anchorage details for the columns. Close inspection of salvageable original materials allowed the project's historic character to remain. Cast-iron coupons were taken to the U.S. for testing. ADG's responsive style allowed on-time Project completion, with an inauguration held on January 11, 2011.

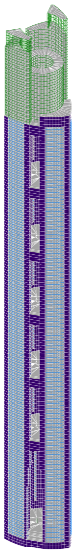


Al Burj
Dubai, United Arab Emirates

ADG performed the structural design of this 6.8 million square foot (approximately 670,000 square meter) residential tower, which was proposed to be the tallest building in the world. This building was the centerpiece of the world's largest man-made island, The Palm Island, located offshore of the Jumeirah Beach coastline in Dubai, United Arab Emirates. It rises out of a lagoon within the central canal of The Palm Island.

In addition to the residential portion of the building, an observation deck was planned at one of the top floors.

The structural form of Al Burj evolved from the structure of the bamboo plant. The tower's footprint is composed of three triangular shapes with curvilinear sides and a hollow circular interior. The stiff exterior shell with the hollow core results in an extremely efficient structural system. The sides of the triangular shell are opened up to create three sub-towers. To achieve cohesive structural behavior between these sub-towers, they are tied together intermittently at six points using "sky bridges", or solid floor areas inside the core. These sky bridges also provide two alternate means of egress for the occupants in the event of an emergency situation.



AL BURJ
Dubai, United Arab Emirates

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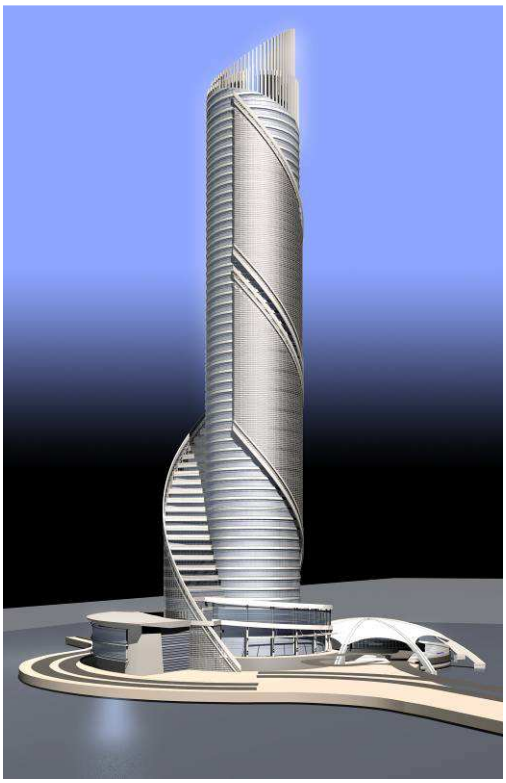
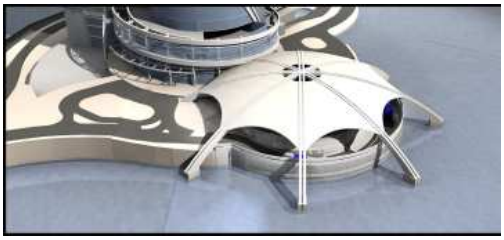
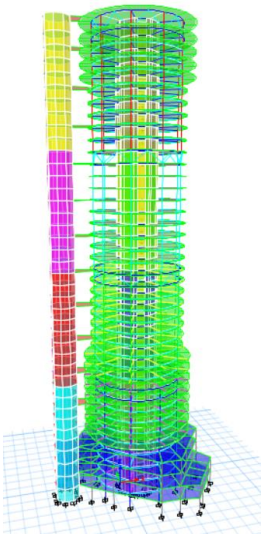




DUBAI METALS & COMMODITIES CENTRE

Dubai, United Arab Emirates

Providing the focal point of an expansive man-made lake, this 60-story Mixed-Use Tower houses premium office space and a world-class luxury hotel in more than 100,000 square meters of space. The 7,700 square meter Diamond Exchange enjoys a dramatic 90 meter clear span space at the base of the tower. Three levels of parking are provided in 44,000 square meters of space located below grade and below the water level of the lake. ADG provided Structural Design and Engineering Services up to Design Development phase.



Kundu Tower
Port Moresby, Papua New Guinea

Kendu Tower is a 40 story commercial building located in high seismic zone, Port Moresby, Papua New Guinea. ADG has performed Performance Base Seismic Design (PBSD) adopting the state of art finite element software for nonlinear history analysis.

The PBSD requires sophisticated finite element analysis with parallel process computing technology so that the speed of solution using the multi-threaded solver has been substantially increased for direct-integration time-history and other multi-step load case.

ADG Design team performs the review of structural design criteria, building code and PBD guideline, and develop project performance objectives and PBD process, intensity-based assessment, and post-earthquake considerations in collaboration the stakeholders.

In collaboration with Sardini Group Inc. (SGI)

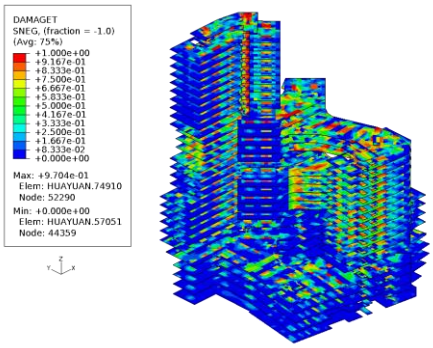
Thai Boon Roong 540m Sihanoukville World Financial Center

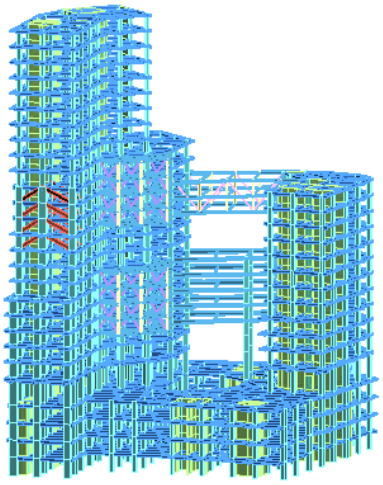
Sigang City, Cambodia

Cambodia Thai Boon 540m Westport World Financial Center 107 Building Project is located in Sigang City, Cambodia. It is a multi-functional complex, including a 107-story, 540-meter-high super high-rise multi-functional tower and four residential buildings.

Five towers are located above a 6-story podium, and the basement is a 1-story. the main tower is about 540 meters high with 107 floors; the four residential towers are about 250 meters high with 72 floors.

In collaboration with Sardini Group Inc. (SGI)





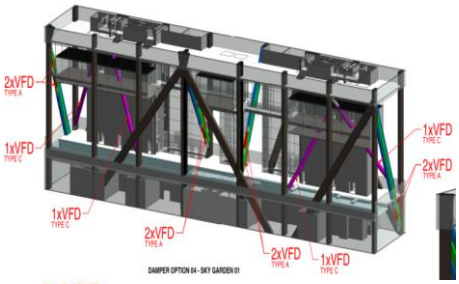
Huayuan – Huazhong North District Phase II
Changsha, China

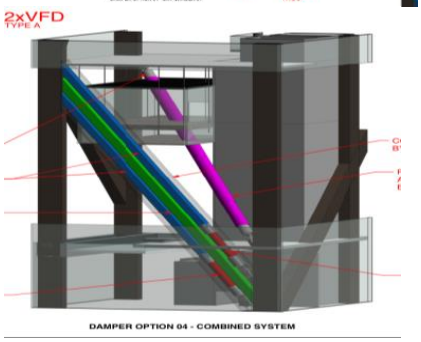
Located on the banks of the Yangtze River in Changsha, the capital of Hunan Province, China, this building is a complex of commercial and creative offices.

The second phase of Huayuan has a construction area of 123345 m2 and a total height of 129.2m. The structure adopts steel concrete and steel trusses to realize complex architectural design such as complex high-rise conjoined, large-span cantilever and high-level conversion.

SGI is responsible for the design review and optimization of this project, and is responsible for the design of the complex steel structure.

In collaboration with Sardini Group Inc. (SGI)





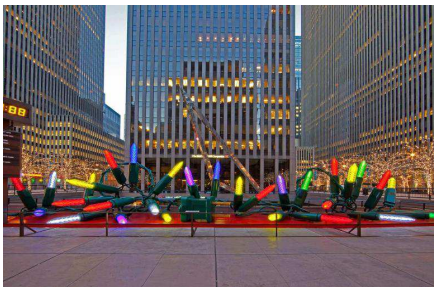
Soontareeya Hotel Apartment
Thailand

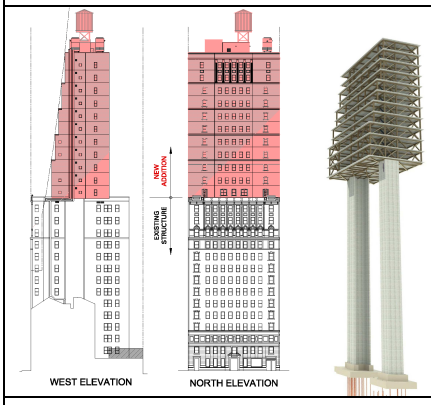
ADG provided structural VE service and optimization service for saving construction time, and construction cost.

In collaboration with Sardini Group Inc. (SGI)

II.C
ADDITIONS/ATERATIONS/ RETROFIT/RENOVATION/ FORENSIC INVESTIGATION PROJECT

REPRESENTATIVE RETROFIT/RENOVATION PROJECTS

	**TOP OF THE ROCK, ROCKEFELLER CENTER OBSERVATION DECK, NY** ADG provided structural engineering services for this prestigious project, which consisted of renovations throughout the historic 70-story building at Rockefeller Center. Work included the creation of an observation deck, extension of four elevators, New escalators, 9 foot high cantilevered glass panels around the perimeter of each of three rooftop terraces, new three-story atrium was created, extending from the Concourse to the Mezzanine Level. The atrium featured a self-supporting curved floating stair and two shuttle elevators.
	**MUFG Bank– 1221 Avenue of the Americas, New York, NY** New Trading floors at 1221 Avenue of the Americas. Project plans involved renovation of 210,000 sf of space on three existing floors. Structural alterations involved reconfiguration of an interconnecting stair, closure of existing floor openings, dunnage and support framing for new rooftop cooling towers and interior MEP equipment, penetrations through existing steel beams and girders for HVAC ducts, reinforcing of framing, review of floor load capacities.
	**Deloitte Facility Expansion at 30 Rockefeller Plaza, New York, NY** :30th-37th Fl., 50th Fl. Renovation of 30th – 37th floors and 50th floor. Structural modification involved: Condition assessment, evaluation of floor load capacities, design of new floor penetration, closure of existing floor openings, design of notches and penetrations through existing steel beams and girders and reinforcing of the existing steel framing.
	**200 Park Avenue, New York, NY** – Various Renovations for Building Owner and for Tenants Investigation of undocumented framings and determining their structural load capacities. Deletion of elevator bulkhead and new extension, deletion of existing mezzanine on 58th floor space, construction of new mezzanines, construction of new MEP equipment and coding towers on roof terraces, relocation of water tanks, new enclosure around new HVAC units, investigation, condition survey of garage structure and performed repair design of deteriorated structure, structural modifications for various tenants in the building such as AT&T, Freddie Mac, SL Green, Magnitude Capital, Café Centro, Barclays Capital, Northrop Gruman, MetLife, Basin Holdings, etc.

	**30 East 60th Street, New York, NY** – 12 Story Addition On Top Of Existing 15 Story Building ADG designed a unique framing system for 12-story steel structure addition on top of an existing 15-story occupied commercial building in midtown New York City. The new 12 story addition of 45,000 SF building is supported only by two concrete towers within the light wells of the existing building and is supported by new foundations independent of the existing building. Vertical post-tensioning and rock anchors are used to control the horizontal movement of the building. All work was completed without any disruption to the existing tenants occupying the existing floors.
	**Ironside, Newark, NJ** The six-story warehouse building was built in 1906 as a freight delivery and terminal facility for Central Railroad of NJ. It was connected to an elevated railroad track that entered the building on the 2nd Floor. The new Owner decided to convert this facility onto a Class A office and retail hub between Newark Penn Station and the Prudential arena in downtown Newark. Large sections of the existing concrete façade are removed to incorporate large window units on the office floors and the concrete façade is almost completely removed at the retail levels. New penthouse floor is added, new stair and elevator cores and a new two-story atrium space. The new building will have a commercial and retail area of over 450,000 sf. ADG provided structural engineering services.

	**The CNN Studio at 1271 Avenue of the Americas, New York, NY** It posed a unique challenge for ADG's Engineers. Studio space requirements dictated the removal of an existing column at the Ground Floor of an 8-story building. A standard transfer system was not possible without overloading the adjacent columns and footings. Remedial reinforcement work at the floor below was also not possible, due to the presence of critical equipment serving an adjacent 48-story office tower. Any disruption at all to the mechanical systems on the floor below was not acceptable. Engineers at ADG developed a unique double-transfer system to resolve these issues. The upper column is picked up at the Second Floor framing and the load is transferred via two end posts to a second set of transfer girders underneath the First Floor that returns all the load back to the original column below.

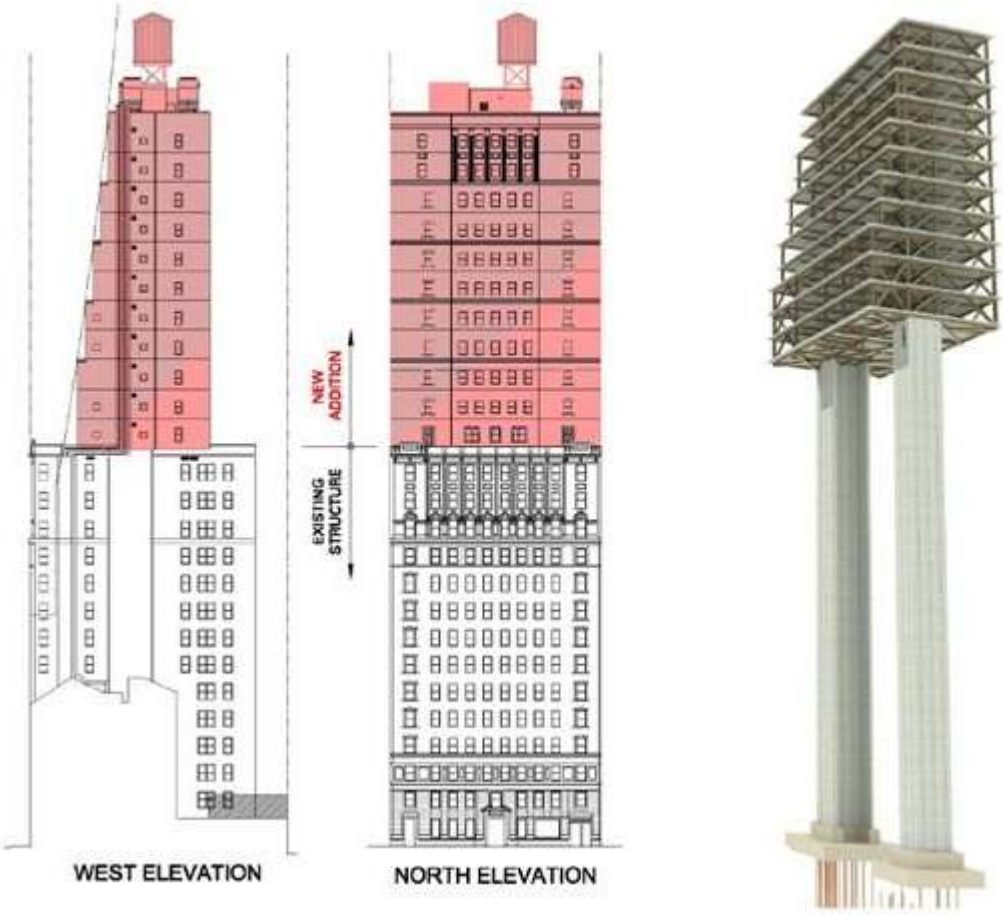
	**NYC Dept. of Sanitation Manhattan District II Garage 2495 Second Ave**- New York, NY ADG provided Structural Engineering services for a New addition of DSNY Vehicle maintenance facility and renovation of existing Potamkin auto dealership building for DSNY administrative and ancillary spaces. The new Garage will be supported on drilled piles. The Construction Design Documents for the new addition of DSNY Garage and renovation of existing building have been completed. The building is located in upper Manhattan's historic Harlem neighborhood, The four-level structure includes a Cellar and is supported on a mat foundation. The design uses interior ramps and a rooftop parking area to make optimum use of its tight urban site. The facade system incorporates a custom-designed precast concrete panel system to enhance the building's durability and allow an accelerated construction schedule.
	**10 Jay Street, Brooklyn** This ten-story 1898 sugar refinery building was upgraded to Class A office space. The main feature proposed by the architect was removal old brick façade and recladding it with a crystal-inspired curtainwall on the north face that overlooks the East River and Manhattan. The jagged faced required reconstruction of the slab edges to fit the profile of new curtain wall. In-depth inspection and probes revealed that the condition of the existing steel framing was deteriorated severely at many locations. An elaborate steel remedial work program was executed to restore the old framing. New elevator and stair cores and a new penthouse level is added also.

	**Columbia University – OPH Chiller Plant** – New York, NY ADG contributed to many aspects of a major reconfiguration and upgrade program for a complex multi-functional mechanical plant for the University's New York City campus. Key features of the project include the design of new foundation systems for massive pieces of equipment within the shells of existing buildings, the design of an entirely new interior mezzanine structure and the design of pipe supports and hoist beams to serve the new equipment. Three separate buildings were integrated into the new facility, and ADG designed a variety of large dunnage structures as well as alterations to the structural framing of the existing buildings.

NBCU SPORTS PRODUCTION FACILITY - Stamford, Connecticut

NBC Universal undertook the renovation of an existing building complex on Blachley Road in Stamford in order to create a new centralized 240,000 gross square foot broadcast production facility for NBC Sports. The existing 1966 buildings were steel-framed structures with a total area of approximately 200,000 square feet. Modifications to the base buildings included new metal and glass curtainwall along the north elevation of the warehouse, a Second Story addition to the connector link between the office building and the warehouse with a new stair and elevator and a new Mezzanine within the warehouse of approximately 40,000 square feet. The end result provided approximately 120,000 gross square feet of broadcast/technical, studio space and 120,000 gross square feet of administration / support office space.

Key elements of ADG's role in the design of the project were the structural framing of the new Mezzanine within the warehouse, framing and shoring design for removal of approximately (9) nine existing columns to accommodate proposed production studios, structural framing for proposed satellite antennae, cooling towers and electrical switchgear equipment.



30 E. 60th Street, New York, NY

12 STORY ADDITION ON TOP OF EXISTING 15 STORY BUILDING

ADG provided Structural Engineering Services for 12-story steel structure addition on top of an existing 15-story occupied commercial building in midtown New York City. The new 12 story addition of 45,000 SF building is supported only by two concrete towers within the light wells of the existing building and is supported by new foundations independent of the existing building. Vertical post-tensioning and rock anchors are used to control the horizontal movement of the building.

https://youtu.be/QsV2_5UXYR4

744 Broad Street, 19th Floor • Newark, N .792.9194 • NY 212.288.7120 • Fax 973.792.9499

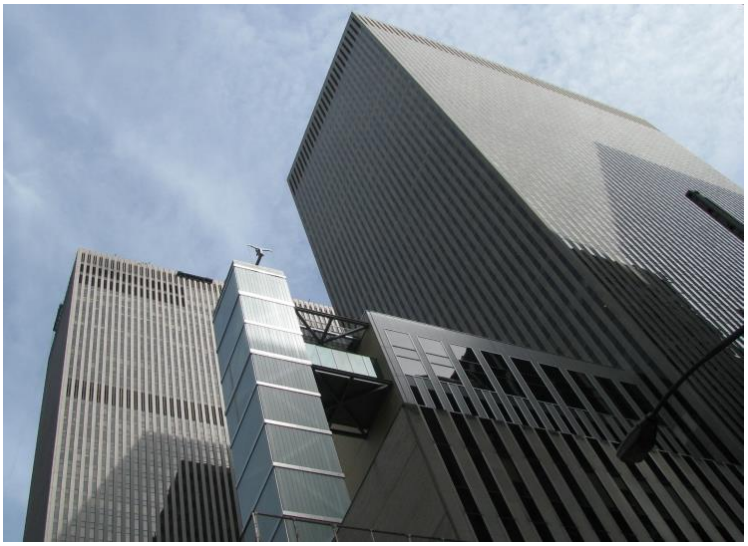
NBC UNIVERSAL SPORTS – TELEVISION STUDIOS AND BROADCAST FACILITY, STAMFORD, CT

ADG was responsible for the design of structural alterations to convert the existing Clairol Shampoo factory into the new consolidated broadcast facility for the Sports operation of NBC-Universal. Scope of work included creation of seven studios and a host of support areas. Six interior columns were removed using 90-foot long transfer girders on the roof in order to create large 90 ft X 75 ft column-free studios. A 100,000 sf mezzanine office space was added in the tall factory floor. Over 300 linear feet of structural masonry wall was replaced by a new glass curtainwall to allow light inside. Loss of lateral rigidity was provided by architecturally exposed cross-bracings behind the curtainwall. A 150-ft long, thin-profile entrance canopy that appears to float like a wing above building and supported by a three-prong tree support adds a striking individuality to the facility.

CHRISTIE'S
New York, New York

This project involved a 300,000 square foot, $45 million renovation. An existing parking garage with sloping floors was converted to an auction house with level floors. Three floors were reconstructed after the removal of the garage ramps. Two of the auction rooms required the removal of four columns from the 17-story building. Also included were the introduction of new garage ramps, a loading dock and a mechanical chiller plant in the former parking garage.

*One or more of the Principals of ADG had management responsibility for this project while in the employ of another design and engineering organization.



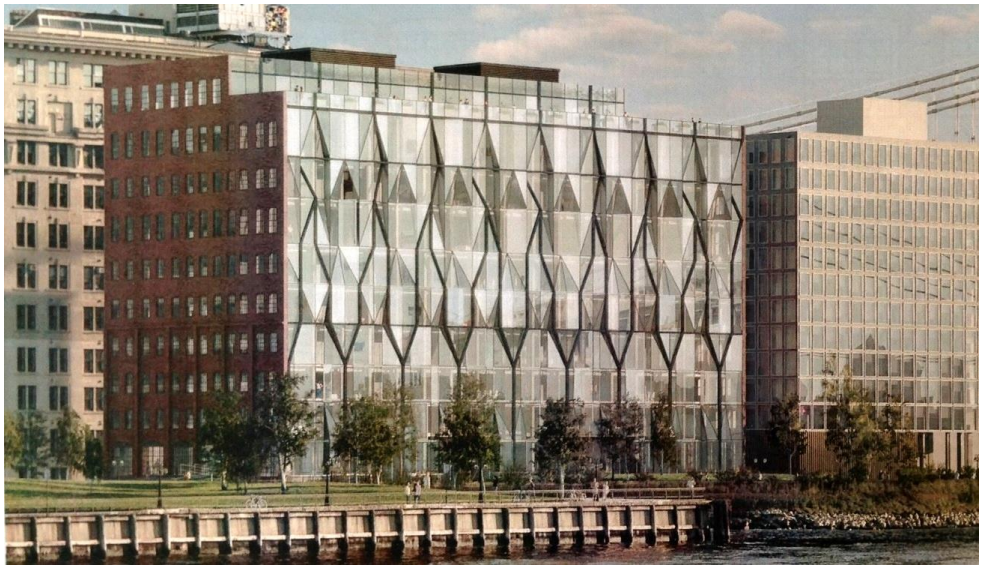
VERTICAL EXPANSION, 1211 AVENUE OF THE AMERICAS

New York, New York

A complex and sophisticated renovation and expansion program was undertaken at an existing midtown Manhattan tower to provide state-of-the-art television studio and broadcast facilities. A tall vertical addition above one portion of the building provided the necessary volume. Independent access and circulation was provided by a new elevator in a distinctive glass-enclosed shaftway. ADG developed not only the structural engineering solutions required for the building shell modifications, but also supplied the support schemes for massive new heating and cooling equipment and emergency back-up power generators.

51 JAY STREET, BROOKLYN

This three-story landmark pre-War industrial/warehouse building in the Dumbo District of Brooklyn was converted into a 7-story residential condominiums. Landmark requirements necessitated that the existing façade had to be maintained. Interstitial concrete flat plate floors were added within the tall existing floors. The existing steel roof truss framing was removed and replaced by concrete floors. Penthouse level with large terrace area was incorporated into the program also. The total area of the finished construction was 136,000 sf. New windows with structural backup framing were introduced. As per NYC Building Code stipulations, the existing structure was reinforced to meet the new seismic requirements. ADG provided structural engineering services.



10 JAY STREET, BROOKLYN

This ten-story 1898 sugar refinery building was upgraded to Class A office space. The main feature proposed by the architect was removal old brick façade and recladding it with a crystal-inspired curtainwall on the north face that overlooks the East River and Manhattan. The jagged faced required reconstruction of the slab edges to fit the profile of new curtain wall. In-depth inspection and probes revealed that the condition of the existing steel framing was deteriorated severely at many locations. An elaborate steel remedial work program was executed to restore the old framing. New elevator and stair cores and a new penthouse level was added also.

CNN STUDIO, 1271 AVENUE OF
New York, New York

The CNN Studio at 1271 Avenue of the Americas in New York City posed a unique challenge for ADG's Engineers. Studio space requirements dictated the removal of an existing column at the Ground Floor of an 8-story building. A standard transfer system was not possible without overloading the adjacent columns and footings. Remedial reinforcement work at the floor below was also not possible, due to the presence of critical equipment serving an adjacent 48-story office tower. Any disruption at all to the mechanical systems on the floor below was not acceptable. Engineers at ADG developed a unique double-transfer system to resolve these issues. The upper column is picked up at the Second Floor framing and the load is transferred via two end posts to a second set of transfer girders underneath the First Floor that returns all the load back to the original column below.

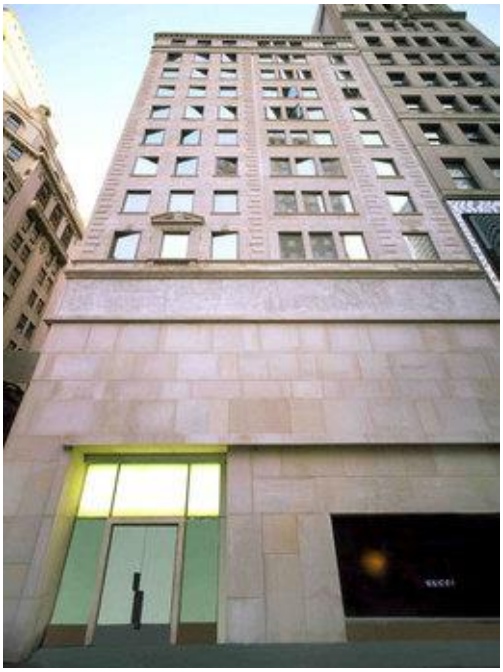
Sounds confusing? Not so, says Joseph Lieber, the Principal-in-Charge of this project. Two 30-inch deep plate girders below the Second Floor straddle the column to be removed. The girders were hydraulically jacked up and locked into place. Then, the lower set of plate girders was installed, again straddling the column. Two new end posts were installed to complete the load path. The intermediate section of the column inside the studio space was then cut and removed.

The system is entirely symmetrical, but to prevent any unbalanced loads, four sets of "weak" shear connections at the ends of the transfer girders prevent any rotation of the transfer system but do not allow gravity loads to shift to the existing columns on the sides.

RADIO CITY MUSIC HALL (ROCKEFELLER CENTER)

New York, New York

ADG plays an ongoing role in assisting the management of this historic landmark, providing design, engineering and consultation services for projects consisting of various renovation efforts throughout the building, which includes the largest auditorium in the world.



GUCCI FLAGSHIP STORE

New York, New York

Gucci staked out an enviable location when it undertook the total rehabilitation of an existing twenty-two story commercial building on Manhattan's Fifth Avenue and the construction of an adjoining new reinforced concrete building, connected to the older steel-framed structure at every floor. Extensive structural design and engineering services were required in support of the restoration of the highly detailed glazed brick and terra cotta façade. Special provisions were required to achieve adequate seismic performance by the highly articulated original façade. The new addition to the south of the original building received a complementary façade treatment that seamlessly joined the historic building. The scope of the work done included the complete replacement of all mechanical, electrical, plumbing, fire protection and vertical transportation systems. The new reinforced concrete structure was employed to resist wind and seismic lateral forces affecting the whole building. This was accomplished by the use of both shear walls and moment frames. The use of a concrete flat-slab structural system was critical to achieving adequate interior ceiling heights while also matching the original floor-to-floor spacing.

The resulting 100,000 square feet of space houses a mix of uses; the lower floors accommodate retail activities and the upper floors provide first-class office space for Gucci and for outside Tenants.

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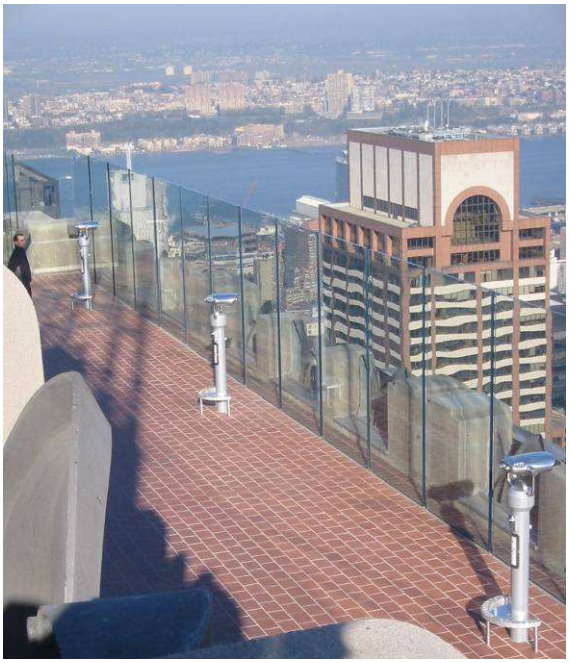
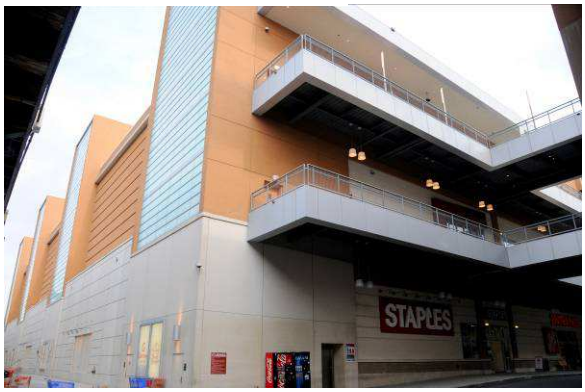


TOP OF THE ROCK
ROCKEFELLER CENTER OBSERVATION DECK
New York, New York

ADG provided structural engineering services for this prestigious project, which consisted of renovations throughout the historic 70-story building at Rockefeller Center. Work included the extension of four elevators by raising their motors two floors and the re-support of eight existing elevators in place while reworking their supports. New escalators were installed to provide access to the roof and an elevator bulkhead was extended to allow a fifth elevator to be raised. Structural supports were provided for 9 foot high cantilevered glass panels around the perimeter of each of three rooftop terraces. Mechanical and electrical equipment was relocated throughout the space. A new three-story atrium was created, extending from the Concourse to the Mezzanine Level. The atrium featured a self-supporting curved floating stair and two shuttle elevators. The project also entailed the demolition and reconstruction of a 10,000 gallon water tank and the provision of new dunnage support framing associated with the tank.

IRONSIDE, NEWARK, NJ

The six-story warehouse building was built in 1906 as a freight delivery and terminal facility for Central Railroad of NJ. It was connected to an elevated railroad track that entered the building on the 2nd Floor. The new Owner decided to convert this facility onto a Class A office and retail hub between Newark Penn Station and the Prudential arena in downtown Newark. Large sections of the existing concrete façade is removed to incorporate large window units on the office floors and the concrete façade is almost completely removed at the retail levels. New penthouse floor is added, new stair and elevator cores and a new two-story atrium space. The new building will have a commercial and retail area of over 450,000 sf. ADG provided structural engineering services.



GATEWAY CENTER AT BRONX TERMINAL MARKET

Bronx, New York

One of the most respected development firms in the northeast commissioned ADG and other Consultants to develop plans for the construction of a new mixed-use destination retail center in the Bronx. The site is near the Harlem River and was historically home to numerous heavy warehousing and distribution facilities, including railroad sidings and loading docks serving those buildings. The new 2,000,000 square foot complex includes 'big-box' retailers, pedestrian plazas, connecting elevated bridges and a multi-level parking structure.

The Venetian Plaza

Brooklyn, New York

The Venetian Plaza is located at 431 Avenue P in the Borough of Brooklyn, NY. It is a high-end luxury residential condominium development with a total area is approximately 150,000 square feet. It comprises six stories above grade and two Cellar levels.

VERTICAL EXPANSION, 1211 AVENUE OF THE AMERICAS

New York, New York

A complex and sophisticated renovation and expansion program was undertaken at an existing midtown Manhattan tower to provide state-of-the-art television studio and broadcast facilities. A tall vertical addition above one portion of the building provided the necessary volume. Independent access and circulation was provided by a new elevator in a distinctive glass-enclosed shaftway. ADG developed not only the structural engineering solutions required for the building shell modifications, but also supplied the support schemes for massive new heating and cooling equipment and emergency back-up power generators.
















RECONSTRUCTION OF THE MARCHE DE FER (IRON MARKET)

Port-au-Prince, Haiti

The city's Iron Market served as a retail hub for more than a century. The original components were prefabricated in France and assembled locally into two sheds flanking a central Clocktower featuring four minaret-like towers. Fire destroyed the North Market shed in 2008 and after the earthquake of 2010 severely damaged the South Market shed, ADGI was authorized to begin work on the $12 million restoration in March of that year. Extensive field investigation and a careful evaluation of the complex suggested a project approach which required the design of a new North Market. ADG designed IBC 2006 upgrades for the project, including diagonal rod bracing and supplemental anchorage details for the columns. Close inspection of salvageable original materials allowed the project's historic character to remain. Cast-iron coupons were taken to the U.S. for testing. ADG's responsive style allowed on-time Project completion, with an inauguration held on January 11, 2011.

II.D
SPECIAL STRUCTURE

"TEAR DROP" MONUMENT

Bayonne, New Jersey

ADG is performing structural design services for the "Tear Drop" Monument located at The Peninsula at Bayonne Harbor in Bayonne, New Jersey. The monument comprises an approximately 100 foot high sculpture mounted on a pedestal that is approximately 60 feet wide at its base. Many international craftsmen and Engineers are helping facilitate the installation of the monument, formally entitled "To the Struggle Against World Terrorism" and designed by sculptor Zurab Tsereteli. The monument has been donated by the artist and the Russian people to the United States.

III.
CV OF PRINCIPALS

Summary of Professional Experience and Qualifications for

Aamer Islam, P.E.
Principal

Mr. Islam has over twenty nine years of experience in the design of new high-rise office buildings, residential buildings, health care facilities and other types of structures, as well as in the rehabilitation of existing buildings. He has managed all phases of the structural design of a project, from the development of conceptual framing schemes to administration during the construction phase. He has broad depth of experience in handling a wide variety of projects all around the world, including the Petronas Towers, which are currently the tallest buildings in the world. Mr. Islam's knowledge has enabled him to develop creative, economical structural solutions that have contributed to the success of many projects.

Education

Master of Science in Engineering, 1985, Cornell University, Ithaca, NY.
B.S. in Engineering, 1984, N.E.D. University of Engineering & Technology, Karachi, Pakistan

Registrations

Registered Professional Engineer in New York, New Jersey, Pennsylvania, Connecticut, Massachusetts, Rhode Island, Virginia and Florida.

Professional Activities

Keynote Speaker at engineering conferences in Brazil, Mexico, Pakistan, Columbia and USA.
American Society of Civil Engineers (ASCE), member
Fiber Composites & Polymers Standards Committee, member
American Concrete Institute (ACI), member
American Institute of Steel Construction (AISC) member
American Council on Tall Buildings & Urban Habitat (CT BUH)

Awards

"Hero at Ground Zero Medal" from New York Construction News

Representative Project Experience

Mixed-Use and Commercial Projects

Petronas Towers, Kuala Lumpur, Malaysia. This project included the two tallest buildings in the world, with a two-level interconnecting bridge at the 42nd Floor. The development also included an 8-story, two million square foot steel-framed retail complex at the base of the towers. Work responsibility included: setup and management of a 20-engineer on-site office for all construction administration services for this project, providing technical advice to Contractors, developing testing and inspection procedures, training Local Engineers in Shop Drawing review services and inspection procedures and helping to resolve constructability issues and establish guidelines for the Contractors.

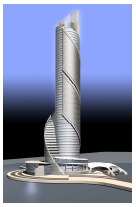
Menara Carigali, Kuala Lumpur, Malaysia. Menara Carigali is a 60-story mixed-use tower to be built in Kuala Lumpur, Malaysia with retail, parking, office and residential spaces for the Kuala Lumpur City Centre Complex. The architectural design scheme envisioned a curvilinear triangle form of the building in plan for the residential portion of the tower. Below the residential tower, the floor plan expands to a rectangular shape at the office portion of the tower. The net area of the building is estimated to be 1,224,000 square feet.

Four Seasons Centre, Kuala Lumpur, Malaysia. Four Seasons Centre in Kuala Lumpur Malaysia is approximately 210,000 square meters in total building area. The project consists of a Hotel having approximately 140-keys, 110 Service Apartment units, 300 residential units, 80,000 square meters of retail space and parking facilities to accommodate more than 1,800 vehicles. The project includes two buildings: one 43-story building and one 70-story building. The two towers share a common Podium.

Random House World Headquarters, New York, New York. The structure of this 840,000 square foot, 56-story building transitions from steel framing to concrete construction at the 27th Floor. This combination of materials allowed the Owner to provide longer clear spans at the office floors and a greater number of floors at the residential levels above by using concrete flat slab construction. This building also had the first set of Liquid Column Mass Tuned Dampers ever used in a building in the USA. The damper system was built at the roof level to mitigate wind-induced vibrations in the building.

Times Square Site One (Ernst & Young), New York, New York. Located on a narrow trapezoidal site in Times Square, the 48-story building rises 770 feet above grade and descends below grade to provide two Basement levels. The site is surrounded by existing subway lines. Super-diagonal exterior bracing provided the tower with the necessary resistance to lateral forces, using only 27 pounds of structural steel framing per square foot for the overall structure. The northern one-third of the building is constructed in and around an existing subway entrance and concourse. Structural Design Services included provisions to re-support the subway structures as necessary.

Canary Wharf Buildings, Phases II & III, London, England. Provided structural design of five new buildings, two of reinforced concrete and three steel-framed structures, each 12 stories high with two levels of underground parking supported on pile foundations. Also completed preliminary design for two steel-framed highrise buildings (48 stories and 22 stories).



Dubai Metals and Commodities Center (DMCC), Dubai, United Arab Emirates. Providing the focal point of an expansive man-made lake, this 60-story mixed-use tower houses premium office space and a world-class luxury hotel in more than 10,000,000 square feet of space. The 83,000 square foot Diamond Exchange enjoys a dramatic 300 foot clear span space at the base of the tower. Three levels of parking are provided in 474,000 square feet of space located below grade and below the water level of the surrounding lake.

Al Burj, Dubai, United Arab Emirates. The structural form of Al Burj has evolved from the structure of the bamboo plant. The tower's footprint is composed of three triangular shapes with curvilinear sides and a hollow circular interior. The stiff exterior shell with the hollow core results in an extremely efficient structural system. The building will house 724 apartments, ranging from 300 square-meter (3000 square feet) simplexes to 600 square-meter (6,000 square feet) triplexes with individual swimming pools. In addition to the residential portion of the building, an observation deck is planned at one of the top floors.

Ted Weiss Federal Building, 290 Broadway, New York, New York. This 35-story, steel framed tower is the first seismically designed high-rise in NYC. The structure employs numerous column transfers and is supported on a mat foundation up to eight feet in thickness.

Lot 6 Tower, Sudirman Central Business District, Jakarta, Indonesia. This complex includes a 6-level, 1 million square foot underground car park, a 5-level, 1 million square foot retail complex above ground and a 1.8 million square foot tower.

- Developed preliminary design of the structural system for the 81-story office and hotel building, rising to a height of more than 1300 feet, in a severe seismic zone.

La Nacion Office Tower, Buenos Aires, Argentina. A 16-story addition was constructed above an existing 8-story urban office building. The existing offices were occupied throughout the project. The development of an extremely light steel frame for the new floors, in combination with the reinforcement of existing concrete shear walls and the design of a unique system of transfer trusses which minimized the need to retrofit the existing concrete columns, made the project feasible. As part of the work, the existing foundations were upgraded.

Plaza V, Jersey City, New Jersey. One of a series of buildings being built at the **Harborside Financial Center** along the Hudson River waterfront. This project consists of a 35-story building of approximately 915,000 square feet with a seven-story, 1,270-car parking garage pedestal.

- In charge of full management of structural design from concept to completion of construction
- Steel bid documents were prepared in an extremely short six week period from Project inception

Dhaka International Plaza, Dhaka, Bangladesh. A one million square foot hotel, office and retail complex. It includes a 23-story hotel and a 20-story office tower with a six-level podium base.

Morgan Guaranty Trust Headquarters, 60 Wall Street, New York, New York.

- Design Engineer for 60-story steel framed building employing 4-story high space trusses in the core for lateral bracing.

Residential Buildings

Columbus Towers Complex, Jersey City, New Jersey. This project includes the design of a 35-story concrete residential tower (42,000 m^2), a 7-story concrete parking structure (33,000 m^2) with a rooftop recreational area including a pool. and a 3-story steel office building (3,400 m^2).

Riva Pointe Condominiums, Weehawken, New Jersey. Phase III design for an apartment complex situated on an existing pier on the Hudson River. Reviewed existing conditions and provided design for a new base over the existing structure to receive five levels of modular units.

Daelim Togok Complex, Seoul, Korea. A 1.75 million square foot complex consisting of two 46-story apartment buildings, a 32-story office building, a 1 million square foot shopping complex and 6 levels of underground parking and mechanical areas.

- Developed structural system for three tower structures
- Managed the design production team and coordinated with the Architect and other consultants

Expansion of Hotel Thayer, West Point, New York. Rehabilitation of an historic existing building and design of a new five-level addition to the hotel, which is located within the U.S. Military Academy.

34 Crooke Avenue, Brooklyn, New York. A new 7-story residential building. The project also includes one attic level and one cellar level. The gross building area is approximately 31,500 square feet.

25 Great Jones Street, New York, New York. A new luxury residential tower to be built on top of an existing building. The new building will have 10 double-height floors with an intermediate mezzanine level at each floor. It will have a gross area of 16,500 square feet.

2145 Frederick Douglass Boulevard, New York, New York. The project consists of a new 10-story building with one cellar level. The gross building area is approximately 24,000 square feet.

222 Parkville Avenue, Brooklyn, New York. This project consists of a new residential building and consists of an 8-story building with one cellar level. The gross building area is approximately 24,500 square feet.

3620 Oxford Avenue, Bronx, New York. A new 14-story residential building A two-level podium is used for parking, lobby and garden terrace areas. The gross building area is approximately 96,000 square feet.

Institutional Facilities

Chongqing Public Library, Chongqing, China. The Chongqing Public Library will be an important educational, cultural and social center. ADG is providing structural design services and coordination with local engineers. Some of the unique and challenging structural features of this Library include a customized waffle slab system that complies with moment frame requirements of the Chinese Building Code, a 4,000 square foot cantilevered Lecture Hall and a 4-story tall glass enclosed Auditorium. The building will encompass a total of 540,000 square feet.

The Kimmel Center, Philadelphia, Pennsylvania. Supervised detailed design review, seismic analysis and floor vibration analysis for the 152-foot high structure that encompasses two acoustically isolated halls. Each hall has multi-level tiered balconies and boxes for audience seating. The building combines a concrete structural system at the Basement and Ground Floors and a steel structural system for the levels above. A barrel-vault roof skylight encloses the entire building with a suspended-cable-supported glass wall at each gable end. The total area of the building is approximately 100,000 square feet.

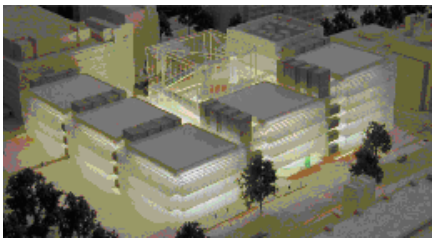
Federal Building and U.S. Courthouse, Islip, New York. A new 850,000 square foot, 14-story steel-framed building with a 750-car concrete parking garage.

New York University Sports Center and Residential Facility, New York, New York. This 400,000 square foot multi-story student housing project with a sports facility is 18 stories in height above grade with three basement levels. The structure is cast-in-place concrete flat slab from the roof down to the 4th Floor, where it transitions to structural steel framing. Long span steel transfer trusses allow over 10,000 square feet of column-free space in the basement levels for a competition-sized swimming pool and basketball courts.

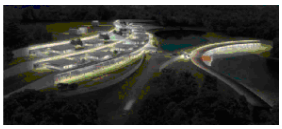
- In charge of full management of structural design from concept design through completion of construction

New York University School of Law, New York, New York. This project is a mixed-use facility consisting of classrooms, offices and faculty housing with a total floor area of approximately 170,000 square feet. The new structure is nine floors above grade plus a mechanical penthouse and has two basement levels. Also included in the project is the recreation of several historic façades, including a portion of an Edgar Allan Poe residence.

- In charge of full management of structural design from concept design through completion of construction



John Edward Porter National Neuroscience Research Center, Bethesda, Maryland. This center will house several institutions with separate spaces under one roof, while allowing for a smooth and effective flow within the facilities. It is expected that scientists from all clinical departments, including neurology, psychiatry, neurosurgery, medicine and anesthesiology, will interact with one another in order to facilitate parallel research.



Howard Hughes Medical Institute – Janelia Farm Research Campus, Ashburn, Virginia. This state-of-the-art campus will provide research facilities for a staff of 200 to 300 scientists. The Institute will include laboratories, a vivarium and numerous meeting, education and support spaces. New conference and housing components will also be part of the campus. Parking for the campus will be provided in the form of an enclosed structure accommodating approximately 320 vehicles.

Kings County Hospital Center, Brooklyn, New York. A new 14-story, 2,100 bed, 1.8 million square foot hospital designed for seismic forces as a steel frame supported on individual footings.

Purdue Pharmaceuticals Headquarters, Norwalk, Connecticut. A new 5-story steel-framed office building over a 4-story-parking garage.

Hoffman La Roche Administration Building, Nutley, New Jersey. An 8-story steel moment-frame office building with an emphasis on energy conserving design.

New York Hospital- Cornell Medical Center, New York, New York. Various renovation and addition projects for the many buildings located in this medical complex.

Renovation Projects

Rockefeller Center, New York, New York. Major renovation projects including: renovation of Lobby interiors, tenant modifications, provisions for upgrades and installation of new mechanical equipment and replacement and upgrading of exterior walls.

1585 Broadway, New York, New York. $75 million infrastructure upgrade of an existing 43-story building for its new Owner, Morgan Stanley.

J. Crew, New York, New York. Tenant renovations for new store located in the Rockefeller Center complex.

Rehabilitation of the Ed Sullivan Theater, New York, New York. Modernization and restoration of this landmark theater for the David Letterman TV show.

USTA Tennis Stadium, Flushing, New York. Renovation/modification of existing facility.

Christie's, New York, New York. This project involved a 300,000 square foot, $45 million renovation. A parking garage with sloping floors was converted to an auction house with level floors. Three floors were reconstructed after the removal

of garage ramps. Two of the Auction Rooms required the removal of four columns from the 17-story building. Also included were the introduction of new garage ramps, a loading dock and a mechanical chiller plant in the former parking garage.

Transportation Facilities

St. George Intermodal Ferry Terminal, Staten Island, New York. This project included the rehabilitation of the existing Waiting Room and Concourses, expansion of the NYC Department of Transportation's facility space and utility upgrades. A major design highlight of the project is the new arch structure, approximately 80 feet in height and 300 feet in length, that spans over the new and existing buildings and the new maintenance facility.

Washington Dulles International Airport, Concourse B West Expansion, Sterling, Virginia. Expansion of existing Midfield Concourse B by twelve gates to the west. Design of two new Automated People Mover (APM) Stations and two new International APM Stations to be used to transport all arriving and departing domestic passengers and all departing international passengers. Components of design also included a below-grade structural box, ventilation rooms, a temporary underground connector and a looped tug tunnel ramp.

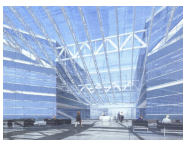
Cross Westchester Expressway, New York, New York. Structural Impact Study and Preliminary Design for the widening of the expressway.

Bruckner Boulevard Underpass, Bronx, New York. Design of structural rehabilitation of existing highway structure.

MTA Long Island Railroad, Queens, New York. Master Signal Tower and Signal Enclosures.

Bridges and Related Structures, Suffern, New York. Preliminary design of structures for the NYS Thruway/I-287/Rt. 17 Interchange.

Metricom, Inc., New York, New York. Site survey and preparation of leasing/zoning and construction documents for Metricom, Inc. at wireless access points (WAP's) throughout the New York metropolitan area. This wireless technology involves architectural, structural and electrical engineering assessment of sites.



Lucent Technologies Corporate Center, Allentown, Pennsylvania. A new 3-level office complex with one Basement for the Microelectronics Division. The steel-framed office building is complemented by a precast concrete 2,000 car parking facility. Various enclosed walkways connect different sections of this complex.

PSI Net, Long Island City, New York. 3,000 square foot facility for a new mega hub.

Telecom Data Centers, Various sites in New York, Boston, Philadelphia and Pittsburgh.

Special Structures

World Trade Center Disaster Recovery Effort, New York, New York. Provided immediate damage assessment of buildings in the collapse area. Assisted with demolition and temporary stabilization procedures. Designed grillages and analyzed existing structures for support of construction equipment. Coordinated the survey and monitoring of existing damaged structures and performed inspections of buildings in the area surrounding the collapse site.

9/11 Remembrance Monument, Bayonne, New Jersey. This 100 foot tall bronze monument was the creation of world renowned Russian sculptor Zurab Tsereteli and was presented by Russia to the United States

Owl's Head Water Pollution Facility, Brooklyn, New York. Design of special structure for the Control Project.

Homeport for Battleship USS Iowa, Staten Island, New York. Design of precast elements of the pier.

Summary of Professional Experience and Qualifications for

Joseph Lieber, P.E.
Principal

Mr. Lieber has 35 years of experience in Structural Design and Engineering and Project Management, including the review, design, analysis and administration of large commercial, industrial, hotel and retail projects. He is an asset in the fields of investigation, structural analysis, renovation and remedial repair of deteriorated or distressed structures. His capabilities include interpretation and analysis of the effects of lateral (wind, soil, seismic etc) and gravity loads. Mr. Lieber's experience includes the design of structures in structural steel, reinforced concrete, wood and masonry construction. His work experience covers the entire spectrum of building types ranging from from low-rise and high-rise buildings to long span structures and includes new construction as well as rehabilitation and alterations of existing structures.

Education

Bachelor of Science, 1978, Polytechnic Institute of New York
Graduate courses, City College of New York

Registrations

Registered Professional Engineer in New York, New Jersey, Connecticut, Pennsylvania and Wisconsin.

Professional Activities

American Society of Civil Engineers
Institute of Transportation Engineers
The Municipal Engineers of the City of New York
SEAoNY – Structural Engineers Association of NY.

Awards

James F. Lincoln Arc Welding Merit Award, for the welded column reinforcement solution devised to repair seriously corroded sidewall columns discovered during the course of renovating the Herald Square Subway Complex in New York City (1993).

Publications

"Renovation of Historic Structures," American Society of Civil Engineers, Metropolitan Section Structures Group, Spring Seminar 1991.

"Northwestern Atrium: Steel Adapts to Complex Geometry," American Institute of Steel Construction, Inc., Volume XXVI Number 3/Third Quarter, 1986.

"Inspection and Rehabilitation of Structures: Renovation of Historic Buildings"; presented at ASCE Spring Seminar, 1991.

"Restoration of 280 Broadway – Rebirth of the Marble alace" – The municipal Engineers Journal Vol 83 Issue 11/11 1996.

Representative Project Experience

Renovation Projects

'Top of the Rock' Observation Deck at Rockefeller Center, New York, New York. ADG provided structural design and engineering services for the redevelopment of the Observation Deck at Rockefeller Center, which allowed the reopening of the viewing terraces at 30 Rockefeller Plaza. This project consisted of multi-phase renovations throughout the historic 70-story building at 30 Rockefeller Center. These included extending four elevators by raising their motors two floors and re-supporting eight existing elevators in place while reworking their supports. New escalators were installed to provide access the roof and an elevator bulkhead was extended to allow an additional fifth elevator to be raised. Structural supports were provided for nine foot high cantilevered glass panels around the perimeter of each of three rooftop terraces. Mechanical and electrical equipment was relocated throughout the space. A new three-story atrium was created at the Concourse, extending to the Mezzanine level. The atrium features a curved floating stair and two shuttle elevators. The project also required demolition and reconstruction of a 10,000 gallon water tank and new dunnage support framing.

The Marble Palace, New York, New York. An extensive renovation and historic restoration of A. T. Stewart's landmark Marble Palace at 280 Broadway was undertaken for the New York City Department of General Services. Work included creation of a Galleria, extensive underpinning, reconstruction of sidewalk vaults and reconstruction of historic roof framing. A downtown New York City landmark, historic renovation of this 150 year old structure began in 1987. The project was central to the city's efforts to revitalize its civic center and downtown business district and after restoration, 280 Broadway helped to stimulate tourism and promote private enterprise in the area. The building was restored to its 1917 condition, the year the New York Sun began occupancy and installed its famous clock. Additions made in 1921 were removed, marble columns were recreated, and mansard roofs were reconstructed at four corners of the building. It is envisioned that eventually the existing entrance will be widened and brought forward along with the entrance doors to the marble façade.

Major Upgrade of Rockefeller Center Facilities, New York, New York. Included renovation of landmark bronze window-wall facade and lobby interior. restoration of Exxon fountain, tenant space modifications, provisions for upgrading and installing new mechanical equipment and replacement and upgrading of exterior walls.

Alterations at the Chrysler Building, New York, New York. ADG provided structural design and engineering services in support of various alterations, such as the closure of floor openings at the 6th Floor, closure of stairs at the 31st and the 53rd Floors and stair removal at the 65th level of the Chrysler Building at 405 Lexington Avenue in New York City.

Alterations for a New Studio for NBC, New York, New York. ADG provided structural engineering services to install new computer equipment and UPS equipment for a Studio built on the 9th Floor at 30 Rockefeller Plaza.

CNN Studio, New York, New York. The new CNN Studio at 1271 Avenue of the Americas in New York City posed a unique challenge for ADG Engineers. Studio space requirements dictated the removal of an existing column at the Ground Floor of an 8-story building. A standard transfer system was not possible without overloading the adjacent columns and their footings. Remedial reinforcement work at the floor below was also not possible, due to the presence of critical equipment serving an adjacent 48-story office tower. Any disruption at all to the mechanical systems on the floor below was not acceptable. Engineers at ADG developed a unique double-transfer system to resolve these issues. The upper column is picked up at the Second Floor framing and the load is transferred via two end posts to a second set of transfer girders underneath the First Floor that returns all the load back to the original column below.

Fit-up Alterations for Dance Space Center, New York, New York. 280 Broadway, New York, NY ADG designed alterations to 40,000 sq ft of existing 160-year-old landmark building at 280 Broadway in downtown New York City for a Tenant. The Project involved removal of load bearing masonry walls in several locations, removal of structural piers, new stair openings and structural reinforcement. Dance Space Center (DSC) later planned to renovate the Second Floor of the building to serve as a dance studio. Architectural plans for the project indicated a number of sensitive structural engineering tasks such as creation of a 4-ft. wide door opening through an existing load-bearing masonry wall north of the courtyard, creation of two 5-ft. wide door openings through existing load-bearing masonry walls and creation of an additional 8-ft. wide door opening through an existing load-bearing masonry wall. ADG was also called upon to create an opening through the Second Floor for a new stair adjacent to the existing Chambers Street entrance lobby and to design the installation of a suspended lighting grid over the stage area and prefabricated seating risers in the theater space.

Tony Award Preparations at the Beacon Theater, New York, New York. When the Beacon Theater planned to host the Tony Awards within its facility in 2011, project plans called for for the installation of rigging, stage sets, lighting equipment, etc in accordance with the requirements of the design team of the Tony Awards. Axis Design Group International, LLC has provided structural engineering services to review the proposed rigging installation for the Tony Awards, including the attachments and support framing provided by the basic structural frame of the building. There were no existing structural drawings for the theater portion of the building.

Cirque du Soleil Preparations at Radio City Music Hall, New York, New York. Radio City Productions sponsored Cirque De Soleil during 2011 at Radio City Music Hall in Manhattan. Project plans were developed by Cirque De Soleil and their design team. ADG reviewed the proposed installation and undertook the following tasks: review of plans proposed by Cirque De Soleil, attendance at meetings,

site inspections of installations by Cirque De Soleil, review of loads and calculations prepared by Cirque De Soleil and provision of documents pertaining to Radio City Music Hall to Cirque De Soleil.

Commercial Facilities

111 First Street, New York, NY – This project consisted of reviewing reports associated with the ongoing legal matter concerning extending tenancy in the building complex, conducting a visit to the building complex to examine its condition, preparing a report of ADG's findings and providing expert testimony concerning the matter.

The HUB, Bronx York, NY - The project comprises two separate elements - a derelict municipal parking garage on the site has already been assessed for structural integrity and will be completely renovated in the course of the project. Adjoining the parking garage, a new pile-supported building will be home to a warehouse-style retailer and office space for New York City government agencies will be provided on the Second Floor.

32-34 Broad Street, Red bank, NJ - The project consisted of design of structural alterations to the building to add 1,800 sq. ft. of new fourth floor construction on top of the three-story portion of the building. The existing building consisted of 15,000 sq. ft. of floor space above grade on three floors, plus a full cellar. It was originally built about 1900, and was expanded and altered in several building campaigns, resulting in portions of the building with three stories, one story, and two stories.

Al Burj, Dubai, United Arab Emirates. The structural form of Al Burj has evolved from the structure of the bamboo plant. The tower's footprint is composed of three triangular shapes with curvilinear sides and a hollow circular interior. The stiff exterior shell with the hollow core results in an extremely efficient structural system. The building will house 724 apartments, each having a floor area ranging from 300 square-meter (3000 square feet) simplexes to 600 square-meter (6,000 square feet) triplexes with individual swimming pools. In addition to the residential portion of the building, an observation deck is planned at one of the top floors.

Americas Tower, New York, New York. New 50-story high-rise building for Americas Tower Partners. This office building contained approximately 1,000,000 gross square feet above grade. Additionally, there were below-grade levels containing 150 parking spaces.

CNBC NOC Project - Englewood Cliffs, NJ- The project included design of structural reinforcement for the support of the files proposed for installation in an area approximately 40 ft. by 40 ft. involving two full building bays, and will be installed over a 12-inch high raised floor.

CNBC NOC Project – Englewood Cliffs, NJ -The project consisted of design of a concrete foundation and pad for the support four 9.3meter diameter antennae dishes on a knoll behind the building.

Sonnenschein Nath and Rosenthal, New York, NY - Renovating facilities at 1221 Avenue of the Americas, NY. Evaluate structural capacity of existing floor construction of C-1 level for support of high-density files weighing 161 psf., structural capacity of existing floor construction of C-1 level for support of files with fixed (non-moving) shelving, suitability of existing concrete fill for potential structural application. Design structural reinforcement for C-1 level floor to support proposed high-density files.

NBC Emergency Generator Replacement Study, New York, NY – Performing a due diligence study of the structural requirements of the project, of replacing two 1600kW emergency generators on the 12th floor roof of the building at 30 Rockefeller Plaza.

280 Broadway, New York, New York. Extensive renovation and historic restoration of A.T. Stewart's landmark Marble Palace for New York City's Department of General Services, including creation of a galleria, extensive underpinning, reconstruction of sidewalk vaults and reconstruction of historic roof framing.

One Mellon Bank Center (Dravo Building), Pittsburgh, Pennsylvania. 54-story, 1.7 million gross square foot office building for United States Steel Realty Corporation ($130,000,000).

101 Federal Street, Boston, Massachusetts. 32-story office building for Himmel/MKDG that connected to an existing 12-story office building, requiring matching floor to floor heights.

The Winter Garden at The World Financial Center, Battery Park City, New York. Four-story, U-shaped building which had a base with a 110 foot by 192 foot arched skylight roof structure, comparable to Grand Central Terminal. The Winter Garden was connected to World Financial Center Buildings B and C and to the World Trade Center by a pedestrian bridge.

Continental Center, New York, New York. 42-story, 1.2 million gross square foot office tower adjacent to the South Street Seaport in New York City ($75,000,000).

Tampa City Center, Tampa, Florida. Quad Block Development of General Telephone and Electronics. The four city block development encompassed two 40-story high-rise office buildings and a 500-room Hyatt Regency Hotel. ($170,000,000)

Liberty Center, Pittsburgh, Pennsylvania. A new urban project which consisted of a 619-room hotel, a 25-story office building and underground parking for 600 cars.

Battery Park City Commercial Development, New York, New York. New project in Lower Manhattan for Olympia & York which contained 4,000,000 gross square feet in two buildings, one 40-stories and one 50-stories high. ($1-billion)

The Northwestern Atrium Center, Chicago, Illinois. The project consisted of a 40-story office building containing 1,700,000 gross square feet above the commuter train terminal, two atria, pedestrian bridge renovation and renovation of the existing train shed and platforms. ($97,000,000)

Flushing Residential Towers, Flushing, New York. Two 19-story residential towers over retail and parking areas.

Office Addition to the Chicago Board of Trade Building, Chicago, Illinois. 23-story, 500,000 gross square foot structure. ($60,000,000)

Exterior Envelop

15 West 47th Street, New York, NY **-** Managing rehabilitation of building façade rehabilitation program, including inspection and design of repairs for structural steel framing.

1384 Broadway, New York, NY – Designed reinforcement for the damaged structural framing as part of an exterior envelope rehabilitation program.

1776 Broadway, Local Law 11 Investigation, New York, NY – Performed Critical Examination of Exterior Appurtenances pursuant to Local Law 11 of the Administrative Code of The City of New York.

22 West 48th Street, New York, NY – Managing rehabilitation of building façade rehabilitation program, including inspection and design of repairs for structural steel framing.

387 Park Avenue South Condition Survey, New York, NY - Conducted a visual due diligence condition survey on structural framing of the building at 387 Park Avenue South, New York, NY.

237 Park Avenue Façade Investigation, New York, NY – Performed an investigation of the façade of the building at 237 Park Avenue to evaluate the origins of deterioration, and designed repairs to correct the deterioration and its underlying causes.

Residential Facilities

18 Market Street, New York, NY – This project consisted of the design of a new 66 feet by 100 feet three story residential building. The new residential building was to be constructed of load-bearing cold-formed steel framing and a complete reconstruction of an existing 33 feet by 80 feet three story industrial building.

240-242 Adelphi Street, Brooklyn, New York - This project consisted of a new 10 story, 50 feet residential building with a cellar. The building is 65 feet long at its base, and steps back to 55 feet deep above the second floor. The building is built on an open site 50 feet wide by 100 feet deep. The building is divided into two separate properties; however, it is structurally a single structure.

25 Great Jones Street, New York, NY – The project consisted of two separate new additions to the existing building. The new building has a will ten double height floors with an intermediate mezzanine

level at each floor. It will have a gross area of 16,500 square feet. The other building also has ten floors and a gross area of approximately 16,500 sq. ft.

110 Third Avenue, New York, NY – The proposed development of a 5,000 square feet site consists of a 21-story residential tower with 7,000 square feet of gross floor area, a 5,000 square foot cellar, a bulkhead, and two setbacks.

351-353 21st Street, Brooklyn, NY - The project consisted of primarily a three level addition to be built on top of an existing building. The existing building consisted of a three story residential building with a basement on a 20-foot by 60-foot footprint.

Judicial Facilities

Appellate Court Building, Brooklyn, New York. Condition Survey of former Appellate Court building for the Police Athletic League.

Waterfront Projects

Long Wharf Condominiums, New Haven, Connecticut. Evaluation of damage to harbor promenade.

Hospitals

New York Hospital Expansion, New York, New York. Project consisted of the addition of 800,000 GSF of new construction and major renovations of the existing hospital. The new building included a 12-story air-rights structure spanning the FDR Drive.

New York Hospital Medical Center of Queens, Queens, New York: A $26-million ancillary addition to the existing facility formerly known as Booth Memorial Hospital. Project included new cardiac catheterization unit addition, new heater/chiller plant, new west addition to the ancillary building and new two-story pediatric emergency room building.

St. Joseph Mercy Hospital, Ann Arbor, Michigan. $41.7 million project contained 643,000 GSF of space and 570 beds. The facility was a completely new General Hospital and contained specialty clinics for Hemodialysis, Alcohol Therapy and Oncology.

Provident Hospital, Chicago, Illinois. ($30,000,000)

Jackson Heights Hospital, Jackson Heights, New York. Alterations and renovation.

Southside Hospital, Chicago, Illinois. Alterations and renovations to the Northwest Wing and the Gulden Wing.

Sisters of Mercy Hospital, Altoona, Pennsylvania. Project consisted of an $8,000,000 general care addition to the existing facility.

Rosary Hill Home, Hawthorne, New York. Convent and patient care facility for the terminally ill. ($12-million)

Educational Facilities

Manhattan College, Riverdale, New York. New dormitory building which consisting of approximately 7 to 12 levels containing 150,000 SF.

Hostos Community College, Bronx, New York. Alteration and rehabilitation of building containing classrooms and office space, including a new brick facade.

Borough of Manhattan Community College, New York, New York. Extensive additions of catwalks for access to mechanical/electrical equipment.

College of Staten Island, Willowbrook, New York. Design of a new gymnasium, pool, basketball, squash courts and day-care center. Project also included renovation of existing buildings for use as garage, maintenance and warehouse.

Hotel

Bally's Park Place Hotel and Casino, Atlantic City, New Jersey. Design of the new 750-room, $214-million hotel and casino entertainment complex.

Harrah's Holiday Inn Hotel/Casino, Atlantic City, New Jersey. Design of the new $85-million hotel and casino.

Liberty Center, Pittsburgh, Pennsylvania. The project consists of a 619-room hotel, 25-story office building and underground parking for 600 cars.

Renovation of The Bellevue (formerly the Bellevue Stratford Hotel), Philadelphia, Pennsylvania for Richard I. Rubin & Company. The project consists of the conversion of the landmark hotel to a mixed-use project containing approximately 150,000 SF of retail space, 250,000-SF of leasable office space, a luxury hotel and two atria.

Parking Facilities

Lakeview Parking Garage, Harlem, New York. Condition survey and major rehabilitation of the reinforced, concrete two-level garage for Grenadier Realty Co. Project included preparation of a maintenance program ($1,000,000).

Buena Vista Parking Garage, Yonkers, New York. Condition survey and major rehabilitation of the 3-level garage. Project included preparation of a maintenance program. ($1,000,000)

Bridges

Two bridges for the Battery Park City Commercial Development. The 420-ft. long North Bridge has a main span of 280 feet across the Westside Highway and involved extensive renovations to the Custom

House at the World Trade Center. The 340-ft. long South Bridge has a main span of 220 feet across the Westside Highway.

Entertainment Facilities

Major renovation of the former 4-story Fox Movietone Studios for the **Sony Music Studio** in NYC. The project includes 2 sound stages, 16 audio recording production rooms, 4 video editing rooms, a television control room, 2 rehearsal rooms, 4 songwriters' offices and an audio video library and archive ($40,000,000).

Major renovation of **Radio City Music Hall**, New York, New York, including support for theater equipment, HVAC upgrade and animated marquee figures.

Renovations to NBC Studios, New York, New York, including the new Today Show set.

Condition Surveys

PATH Tunnels at Exchange Place, Jersey City, New Jersey. Involves the construction of a new interlocking between five existing tracks. Project includes the design of new tunnel structures and survey of existing low and high rise buildings.

Rockefeller Center Complex, New York, New York. Performed due diligence and structural condition survey of all buildings between 5th and 6th Avenue that comprise the landmark complex.

New York Hospital Medical Center of Queens, Queens, New York. Condition survey of entire complex, consisting of 9 existing buildings.

World Trade Center Disaster, New York, New York**.** Immediate damage assessment of buildings in the collapse area, assistance with demolition and temporary stabilization procedures, design of grillages and analysis of existing structures to support construction equipment, coordination of the survey monitoring of existing damaged structures, and inspection of hundreds of buildings in the area surrounding the collapse site.

Hudson Street Complex (previously General Foods), Hoboken, New Jersey. Feasibility study and condition survey of existing buildings.

1290 Avenue of the Americas, New York, New York. Performed structural condition survey.

Colgate-Palmolive Complex, Jersey City, New Jersey. Due dilligence visual survey of 7 buildings in the complex.

Lakeview Parking Garage, Harlem, New York. Condition survey and major rehabilitation of the reinforced, concrete two-level garage for Grenadier Realty Co. Project included preparation of a maintenance program ($1,000,000).

Buena Vista Parking Garage, Yonkers, New York. Condition survey and major rehabilitation of the 3-level garage. Project included preparation of a maintenance program. ($1,000,000)

1776 Broadway, New York, New York. Performed structural assessment of existing 20-story building.

Prudential Complex, Horsham, Pennsylvania. Conducted structural survey of four office buildings.

21 to 25 W. 14th Street, New York, New York. Performed structural condition survey of existing two-story structure.

AT&T Building (now SONY), New York, New York. Performed due diligence for existing commercial building.

Utility Projects

Con Edison at various locations-Performed structural engineering services for Con Edison at Mott Haven, 230 Park Avenue, New York, NY, West 59th Street, New York, NY.

Transportation/Aviation Facilities

East Side Access, New York, New York. Project connected the LIRR to Grand Central Station and increased LIRR's capacity into Manhattan by 45%. It used the lower level of the existing 63rd Street tunnel and had connections to LIRR's Main Line and Port Washington branch. The project also included a new commuter rail station in Sunnyside, Queens. Engineering work included the analysis of 14 existing private buildings over the site and design of all superstructures in Manhattan, including service buildings, cooling towers, ventilation buildings, loading docks, etc. Included special consulting services for all column transfers and design of schematic concepts for tunnel platforms.

PATH Tunnels at Exchange Place, Jersey City, New Jersey. Involves the construction of a new interlocking between five existing tracks. Project includes the design of new tunnel structures and survey of existing low- and high-rise buildings.

St. George Intermodal Ferry Terminal, Staten Island, New York. This project includes the rehabilitation of the existing waiting room, concourses and the expansion of the NYCDOT facility space and utility upgrades. Major highlight is the new arch structures about 80 ft. in height and 300 ft. in length, spanning over the new and north building and new maintenance facility.

34th Street – Herald Square Subway Complex Station, New York, New York. In-depth structural inspection, design and construction support for the $60-million modernization and expansion of Complex which includes the IND, BMT and PATH Stations. The project included tunnel repairs, stair relocations and temporary bracing of streets and portions of the subway station during the construction of new elevators, escalators and ramps.

Brighton Beach Line, New York, New York. Structural inspection and rehabilitation of 6 stations along the Brighton Beach Line for the New York City Transit Authority. The $28-million project includes two elevated rail viaducts and four road bridges.

METRA, Chicago, Illinois. Project included replacement of the existing train shed structure of approximately 239,000 SF. The new structure was designed to accommodate the elimination of every

other existing column, providing twice the lateral clearance of the existing bay. Also included interface with operating terminal and elevated train tracks.

Cortlandt Station, Cortlandt, New York. Planning and design for new train station parking and site access, including a 750-car parking lot, road access system, accessible parking, and intermodal transfer for buses and taxis at new station for Metro-North Railroad. Planning included environmental impact statements, landscaping, traffic and road design, as well as complete design of parking lot.

Executive Terminal for Butler Aviation, Baltimore, Maryland. Baltimore Washington International Airport, 2,500-SF building incorporating passenger and pilot lounge areas as well as administrative offices ($300,000).

Design of the FIS Terminal at O'Hare International Airport, Chicago, Illinois; included a 15' x 900' cable-supported overhanging canopy and alterations to an existing parking garage.

Redevelopment of Hangar 14 at John F. Kennedy International Airport, Queens, New York for Japan Air Lines. The project includes rehabilitation of 573,000 SF of office and cargo space, and 360,000 SF of new construction including a cargo addition, general aviation terminal, and new airport general maintenance facility.

Summary of Professional Experience
and
Qualifications for

Simon Shim, P.E.
Principal

Mr. Shim is highly motivated, seasoned, structural engineer / designer who is also an industry-recognized high-rise expert and has 20 year experience on a wide range of building types throughout the US and the Far East, ranging from high-rise mixed-use, residential and commercial projects including supertall to small interior fit-outs. As endeavoring to create innovative solutions based on technical excellence and interdisciplinary coordination, He has contributed to numerous technical engineering guides and Articles, including the "Outrigger Design for High-Rise Buildings" guide published by the Council on Tall Buildings and Urban Habitat (CTBUH), as a peer reviewer. Prior to ADG, Mr. Shim has led a structural group in HOK, Thornton Tomasetti, DeSimone Consulting Engineer in New York and Skidmore, Owings & Merrill (SOM) Chicago.

Education

University of Illinois at Urbana-Champaign, IL, MSCE, 1999
SungKyunKwan University, Seoul, Korea, BS of Architectural engineering, 1997

Registrations

Registered Professional Engineer, New York, New Jersey, and Michigan

Professional Activities

American Society of Civil Engineers (ASCE), member
Structural Engineers Association of New York (SEoNY), member
CTBUH, member

Representative Project Experience

Commercial Facilities

SOCAR Tower, Baku, Azerbaijan, the project consists of a 38-story office tower and midrise podium building connected by connector bridge. Site area is approximately 12,000 square meters and total gross floor area of the project is 98,000 m2. Max height at 190 meters, the tower is equipped with dual system consisting of special reinforced concrete shear wall and special steel moment frame to resist wind speed of 53 m/sec 3 second gust and high seismic load.

NSC A1 Spec Tower, a 34-story office tower and six-story above ground podium for the Block A1 Spec Tower in the master-planned Songdo International Business District, in Incheon, South Korea. In addition, we completed design development for the basement and the tower foundation. Since the structure sits on reclaimed soil, the two-meter-thick mat foundation sits on two-meter diameter piles.

Colgate W-Wing and Childcare Center, Piscataway, NJ, a 4 story 150,000 square feet office building and a single-story net zero childcare center. The office buildings are founded on shallow footing, constructed with composite floor frame and concentric steel braced frame. The child care center is a L-shaped single story building formed with two gable roof structure, constructed with steel joist and braced frame founded on the shallow foundation.

Residential Buildings

Zenith Tower, Busan, Korea, Tallest residential tower in Asia, at 80 stories (984 feet/300 meters), the tallest of three towers in We' ve the Zenith forms the centerpiece of a 4.1 million square foot mixed-use development, which includes a retail podium and six basement levels that used to house retail, parking and mechanical space. Typical floor construction system is concrete flat-plate, with shear walls at the core providing a lateral resisting system. The structure sits on 2.5meter diameter RCD foundations.

Tower Palace III, Seoul, Korea, a 71 Story tall residential Tower that constructed of core wall, composite floor framing with perimeter belt wall.

METAPOLIS, Hwasung, Korea This mixed-use development is about 280,000 square meters (3 million SF) consists of one commercial and four residential highrises, a hotel, and a plaza with retail and community facilities. The tallest of the four residential towers, at 66 stories, is the country' s fourth tallest structure.

Seoul International Financial Center, Seoul, Korea, located in the Yeouido district of Seoul, Korea. The program includes 7 levels below grade of area 193,625 square meters. Above grade will have 330,120 square meters(3.5 million SF) divided between three class A office building and a five-star 800 room hotel.

XI Harborview, Songdo, Korea, located in New Songdo City, Korea. The project is two residential block development containing four(4) 40 story residential towers, eight(8) 15 tory slab building, four(4) townhouses, and numerous amenity facilities in an area of approximately 67,368 square meters. Lotte Center Hanoi, Hanoi, Vietnam, a 65 story mixed-use tower and five basement levels. The tower accommodates offices, residential, and hotel spaces above grade and parking/mechanical space below grade. The gross area is 253,395 square foot.

Baku Residential Tower, Baku, Azerbaijan, the tower geometry was created by four design process, Spheroid, Crescent, Landmark and form. The project consists of two 46 story and 37 story residential towers and 5 story podium above ground and 3 story basements. Structural floor system consists of 200mm flat slab and perimeter and interior moment frame to resist the severe wind load of 53 m/s 3 second gust and high seimisic load of Sds = 1.0g with centralized shear wall (dual system).

Crescent Place, Baku, Azerbaijan, the project consists of a 40 story office tower in City block and three residential towers (40,36,32 story) and one 20 story office in Place block. The site is located near to Caspian Sea. The basic wind speed in Baku is 53 m/s (50 year 3 second gust). Thornton Tomasettis provided the Value Engineering Service to Heerim Architects, Korea.

Incheon Int' l Airport Terminal 2, the terminal has a gross floor area of 350,000 square meters providing a ticketing hall, concession/retail, and concourse with 72 gates. The footprint of the terminal is grounded as 800meters x 1200meters in East-West and North-South.

Millennium Park, Chicago, IL, Primary engineer to analyze and design 300 feet x600 feet steel pipe trellis and Frank Gehry stainless-steel bandshells on 100 feet long cantilever music pavilion roof.

High-rise Peer Review

1000 Museum, Miami, FL
Architect: Zaha Hadid

41 East 22nd Street, NY
Architect: KPF

125 Greenwich Street, NY
Architect: Rafael Vinoly

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