Ashutosh Patel, P.E.

SUMMARY OF EXPERIENCE

Mr. Patel has over 13 years of structural engineering experience in the design and construction of high rise commercial buildings, sports arenas, residential, pharmaceutical, educational and healthcare facilities as well as mixed-use projects. Throughout his career, he has gained valuable experience in the design of steel, concrete, masonry, and timber structures. Mr. Patel also has extensive knowledge of all current design codes including the IBC 2006, ASCE 7-05 and the current steel and concrete codes.

Education

M.S. - Civil Engineering, Columbia University, 2001

B.S. - Civil Engineering, City College of New York, 1997

Professional Registrations

AL, CT, DE, FL, GA, IN, KY, MA, MD, MI, MN, NC, NH, NJ, NY, OH, PA, RI, SC, VA, VT, WVA

Teaching

- Adjunct Instructor in algebra at Technical Career Institutes-www.tciedu.com, *1998 to 2003*
- Rutgers University – Taught Pre-calculus - Summer 2006, SAT Math Prep course – Fall 2005 – Spring 2006.

PROJECT EXPERIENCE

K-12 AND HIGHER EDUCATION

Campus Center at Richard Stockton College, Tuckerton, Ocean County, NJ – Project Manager for the 153,000 SF Campus center with meeting spaces, dining facilities, a bookstore, wifi, and retail spaces. Sited at the head of a future campus green, the campus center will become a destination that greets visitors, fulfills the everyday services students require, and nestles into the campus landscape. The design carefully translates the existing forested transition between the college and outside community by using organic, nature-inspired architectural details, such as soaring columns topped by outstretched trusses reminiscent of tree limbs, and a drop ceiling canopy created from wood panels. Uses many sustainable design elements such as Aquifer Thermal Energy Storage, an energy-efficient geothermal heating and cooling system, the campus center will seek Gold certification through the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system.

Kean University Center for Science, Technology, & Mathematics Education, Union City, Hudson County, NJ - Project Manager who provided the structural services for the 100,000 SF Center for Science, Technology and Mathematics Education. The structure is 6-stories in height and includes an executive conference room on the 6th level with a view of the Manhattan skyline. The building also includes an atrium, restaurant, kitchen, large auditorium, lounges, study halls, supercomputer facilities, classrooms, lecture halls, offices, library, and a roof top garden.

MRESC Sayreville School, Sayreville, Middlesex County, NJ – Technical Manager for the structural engineering design and

construction administration services for a primarily 1 story, 88,000 SF Special Education School and Pool Facility. The project includes classrooms, a pool, multi-purpose rooms, a media center, speech, and language rooms, along with the normal ancillary spaces that typically accompany school construction

Elizabeth High School Parking Garage, Elizabeth, Union County, NJ - Technical Manager for the structural design of a new 280 space, multi-story, non-combustible parking structure

Montclair Kimberly Academy, Montclair, Essex County, NJ - Project Engineer responsible for the structural design and construction administration services for a project that consists of a new one- story curved building adjoining the existing school building.

NJSDA Joseph C. Caruso School, Keansburg, Monmouth County, NJ - Technical Manager who provided engineering services for the design and construction of the new three-story structure. The building is supported on conventional, shallow spread reinforced concrete footings. The school has a gross area of approximately 123,000 SF and houses 815 students.

NJSDA St. Catherine School Swing Space Site Feasibility, Elizabeth, Union County, NJ - Technical Manager for site feasibility services, including concept plan development, survey, and environmental assessments for the St. Catherine School Swing Space.

Tenafly School Additions, Tenafly, Bergen County, NJ - Senior Technical Manager for the design of two-story, 39,000 SF additions to the existing facility. The new building provides new classrooms, a small cafeteria, and an auxiliary gym.

The Frisch School, Paramus, Bergen County, NJ - Technical Manager for the reuse of an existing two story, 114,000 SF office building as a new high school. The project includes a new 14,000 SF gymnasium and locker room addition as well as several modifications to the structure within the existing building. The gymnasium has a suspended running track around the perimeter of the gym, a new stair tower, and an outdoor roof terrace that exits from the cafeteria.

Plainfield High School Temporary Classroom Units, Plainfield, Union County, NJ - Technical Manager who worked on the preparation of construction plans for installation of temporary classroom units. Work included utility relocation, driveway construction, and coordination with architectural and structural work.

South River Public Library, South River, NJ – Project Manager of a new 26, 000 square foot library addition to an existing library building. The structure for the new library consists of a steel frame with open web bar joists supporting a metal roof deck. The roof framing is supported on a system of wide flange steel girders and tube columns. The roof elevation varies across the building. One of the interesting features of the building consists of a stepped roof profile in a fan-like shape over the main reading areas. The addition also consists of a partial mezzanine framing. Based on existing grading, the rear of the new addition is approximately 15 to 20 feet below grade requiring heavily reinforced retaining walls. The lateral load

resisting consisted of steel braced frames in order to resist wind and seismic loads. The foundations consist of a shallow spread footings.

Rutherford Public Library, Rutherford, Bergen County, NJ - Technical Manager for the design of reinforcement of the existing floor and roof to support new mechanical equipment.

HIGH RISE BUILDINGS

243 Lexington Avenue, New York, New York County, NY - Engineer for the design and construction administration of a 17-story, multi-use building for the National Center Foundation. The building contains offices, religious spaces, living spaces, bedrooms, kitchens and laundry facilities. This 225 foot tall structure has an entirely cast-in-place concrete frame. One of the multi-use building's most significant challenge was due from a change in orientation and the location of columns at each floor level to meet Architectural requirements. This was done using a series of sloping columns and transfer girders throughout the building.

K-Project, Seoul, Korea - Project Engineer for four (4) new residential towers with a total square footage of 2.37 million SF on the lower Han River in Seoul. The project consisted of designing four residential towers: 60, 55, 50 & 40 stories above grade with three basement levels. The basement levels are all connected and serve as parking lots. The structural system is reinforced concrete consisting of flat plate floor slabs, concrete columns, and concrete core walls. The lateral load resisting system is primarily concrete core walls. In an effort to maximize the residential space, in lieu of adding thickness to the core wall, flat plate contribution to lateral load resistance as an intermediate moment frame is considered in addition to the core shear wall.

Liberty Property Trust Tower 1, Philadelphia, Philadelphia County, PA - Project Engineer for a new 52-story mixed-use building which includes 1,200,000 SF of office space above a three-story, 200,000-300,000 ft. 2 parking, retail and food court base and a nine-story winter garden atrium. The building comprises a mixed steel framing and concrete shear core design. The downtown project spans the suburban commuter railroad tracks. It is 740 feet tall above grade with 3 basement levels and is supported on deep foundations consisting of caissons.

Liberty Property Trust Tower 2, Philadelphia, Philadelphia County, PA - Project Engineer for a new 18 story office building. The new tower is to be constructed on an existing grid of columns. An elaborate system of transfer girders on various levels is required since the new column layout is substantially different from the existing column grid. The office building consists of a basement level that is connected to the new Tower I. The structural system consists primarily of steel construction with a moment resisting frame for lateral stability.

Morgan Stanley Dean Witters 745 Seventh Avenue, New York, New York County, NY - Senior Engineer with extended responsibilities in the design of a new 1.1 million SF office building for Morgan Stanley Dean Witter, including 200,000 SF trading floors. The 34-story building contains six trading levels in the podium. The building is 585 feet above grade with a one-story basement and is laterally supported by a braced core. The

concourse of the building connects into an adjacent building on one side and has an entrance into an existing subway line.

COMMERCIAL

Metrotop II, Iselin, Middlesex County, NJ - Project Manager for the design of a new 10-story, 320,000 SF office building. The framing consists of a composite slab on steel framing. The foundations consist of isolated spread footings with rock anchors. The lateral load resisting system consists of steel braced frames. The building also has a 4 story connecting link to an adjacent office building. The building is clad in precast, granite, and a glass wall system.

Middlesex II Warehouse, South Brunswick, Middlesex County, NJ - Project Engineer for a 600,000 SF (1,200-ft. x 500-ft) & 750,000 SF distribution warehouses. A minimum vertical clear height of 36-feet is provided at both the 50-ft. x 50-ft. interior bays and 50-ft. x 60-ft. dock side bays. The building has unreinforced 7" thick concrete slabs and will be designed to support a minimum live load of 500 PSF. The exterior walls consist of 8 ½" thick tilt-up cast in place concrete walls.

Montville Office Plaza, Montville, Morris County, NJ - Project Engineer for a one-story, wood framed office building of approximately 12,000 SF. The building includes an additional 12,000 square feet, full basement area. The wood roof framing and the overall lateral stability of the building is provided by structural steel moment resisting frames.

Fort Washington Building #2, Fort Washington, Bucks County, PA - Project Engineer for the design and construction administration of a new 4-story office building consisting of 400,000 SF of office type lease space. Additional design modifications were made to the project as part of client fit out.

IDI Middlesex II - Building III, South Brunswick, Middlesex County, NJ - Senior Technical Manager who provided structural engineering services for a 750,000 SF, 36-feet clear height distribution warehouse. Conventional framed steel roof, site-cast tilt-up panel clad building on conventional shallow foundations.

55 Corporate Drive - Building IV, Bridgewater, Somerset County, NJ – Project Manager for the structural design of a 4 story 200 000 SF office Building utilizing composite lightweight concrete floors supported by a steel frame with braced bays.

100 Randolph, Franklin, Hunterdon County, NJ - Project Manager for the structural design of a new curved stair connecting into an existing mezzanine framing. The new stair stringers consisted of curved & plighted double channels with a top and bottom plate to create a boxed section. The new stringers were intermittently supported on new beam & column framing and new foundations. The existing framing at the mezzanine consisted of bar joists and required additional bracing. The project also involved supporting new rooftop units. The units were supported on a new steel platform posted from the main steel girder frames of the existing butler building.

Audi Showroom, Secaucus, Hudson County, NJ - Technical Manager who was involved with the design of a new 2 story Audi automobile showroom.

Days Inn Structural Renovations, Parsippany, Morris County, NJ - Project Manager for the evaluation, design, and CADD documentation associated with the renovations and additions to the existing Days Inn hotel. The structural work included the addition of new parapets around the building, the construction of a new Porte Cochere, an extension of the Lobby and the removal of the balconies at the second floor.

Lincoln Park, Weehawken, Hudson County, NJ - Senior Technical Manager for the structural design post-tensioned structural framed beam and slabs and drilled pier foundations over the existing AMTRAK tunnel.

Sika Powders, Lyndhurst, Bergen County, NJ - Project Manager for the numerous renovations, structural modifications and new framing required to support and service equipment as part of the proposed Powders Drying Process Modifications to the Sika Corporation. The structural engineering services consisted of evaluating the existing framing, including columns & foundations, to support approximately 10 new powder machines that weighed as much as 30,000 lbs each. The project also consisted of framing for new catwalks around each of the equipments for access.

Sovereign Bank Exton Branch, Exton, Chester County, PA - Technical Manager for the structural design of a single story, 3,000 SF branch bank. The building has a gable roof system constructed with pre-manufactured wood trusses supported by a structural steel frame.

Sovereign Bank Elkins Park Adaptive Reuse, Philadelphia, Philadelphia County, PA - Project Manager for the modifications to an existing two-story facility that is part of a strip mall. The modifications required analyzing the existing structure to facilitate the installation of new vaults, an ATM and an after hours depository box. Based on the magnitude of the loads for the new vaults, the existing slab on grade was thickened and reinforced.

RESIDENTIAL

Richard Stockton College Student Housing V, Pomona, Atlantic County, NJ - Senior Technical Manager for the structural engineering services associated with the design and construction of the Stockton Housing V project. The project includes the construction of four, 3-story, wood framed structures, each having an area of approximately 25,000 SF. The buildings have flat roofs that support photovoltaic panels and a solar heated water system.

SPORTS ARENAS

Phillips Arena, Atlanta, Fulton County, GA - Engineer responsible for the design of the new $120-million Philips Arena at the site of the old Omni in downtown Atlanta, GA. This sports and entertainment arena includes approximately 20,000 seats for basketball and hockey within a gross square footage of approximately 650,000 SF.

Nationwide Arena, Columbus, Franklin County, OH - Engineer responsible for the design of a $126-million Nationwide Arena which contains approximately 18,500 seats for NHL Hockey with 80 to 90 luxury suites and 500 parking spaces on the arena site.

PHARMACEUTICAL / HEALTHCARE

Novartis East Hanover Campus, East Hanover Township, Morris County, NJ - Project Engineer who provided major renovations to several existing buildings on campus. Designed new structural framing for a new atrium within the existing building. The project involved the removal of exterior walls on a warehouse building and converting it into an office building. The existing exterior walls provided lateral stability to the structure. The design required substituting the masonry block walls with steel trusses around the skin of the building.

Lifecell Facility Expansion, Branchburg, Somerset County, NJ - Technical Manager for the analysis of the existing roof framing at the Lifecell Facility to determine if the roof is adequate to support several new mechanical RTU's and 4 new chiller RTU's. In addition, a new interstitial mezzanine level was added for a large portion of the existing footprint. The new mezzanine was supported on several new columns and existing columns. Several existing foundations were enlarged and/or underpinned.

Raritan Bay Medical Center, Old Bridge Township, Middlesex County, NJ - Project Engineer for the design of a new four-story hospital building with a link interconnecting the two existing hospital facilities. The structural design of the building included an allowance for a potential expansion of the structure into a six-story building.

Pfizer Building 185, Morris Plains, Morris County, NJ - Technical Manager who provided the design for a 275,000 SF multi-story office and lab. The structure consisted of composite steel framing with steel bracing serving as the lateral system.

Lundbeck Pharmaceutical Corporation , Paramus, Bergen County, NJ - Technical Manager for the expansion of the research laboratory and animal housing facility. The program included renovations to existing spaces within an existing one to two story facility. As part of the expansion, several new rooftop mechanical penthouse and roof mounted cooling towers were added above portions of the existing building.