



Scott McConnell, P.E.

## SUMMARY OF EXPERIENCE

Mr. McConnell has over 19 years of experience with structural design encompassing the full spectrum of building types. His extensive experience in developing and refining structural designs has provided his Clients with cost effective, practical and innovative solutions.

Mr. McConnell's blend of engineering and management skills has resulted in the successful completion of several award winning facilities throughout the region. He is committed to providing structural engineering services with a sensitivity to architectural design objectives and the project owner's needs. Mr. McConnell has extensive experience in the evaluation, analysis and design of structural steel, reinforced concrete, masonry, light gage and wood structures utilizing both shallow and deep foundation systems. His project experience includes significant new construction, historic restoration, renovations, condition assessments, peer reviews and adaptive reuse of commercial, institutional, educational, cultural, civic, healthcare and telecommunication facilities.

### Education

M.S. - Civil Engineering, Clarkson University, 1994  
B.S. - Civil & Environmental Engineering, Clarkson University, 1991

### Professional Registrations

P.E. – NJ (#24GE04028100),  
NY (# 081887),  
PA (#PE071049),  
DE (#14015)

### Professional Affiliations

American Society of Civil Engineers,  
Member  
American Concrete Institute, Member

### Publications

" Cyclic Behavior of RC Knee-Joints",  
Proceedings of the Fifth U.S.  
National Conference of Earthquake  
Engineering, Chicago, Illinois  
"Use of Headed Reinforcement in  
Beam Column Joints Subjected to  
Earthquake Loads", ACI Structural  
Journal, Vol. 95, No. 5,  
September/October 1998.

## PROJECT EXPERIENCE

### K-12 EDUCATIONAL FACILITY PROJECTS

**Avon by the Sea Elementary School, Avon by the Sea, Monmouth County, NJ** - Project Manager for the structural engineering design and construction administration services for a three story, 9,000 SF Elementary School Addition. The school has composite concrete floor slabs on metal deck with gabled pre-manufactured light gage trusses for the roof framing. The new addition provides a new elevator that is immediately adjacent to the existing building and required underpinning of the existing 100 year old construction. The project adds critical classroom space to the school in addition to a new cafeteria and multi-media spaces.

**Clinton Elementary School Additions, Plainfield, Union County, NJ** - Principal-in-Charge who oversaw the structural design of a new two-story, 31,400 SF addition to the Clinton Elementary School. The project also involved renovations to existing building including the installation of a new elevator and new ramps.

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**Dewitt D. Barlow Elementary School, Plainfield, Union County, NJ** - Project Manager who provided structural design services for a new, two-story addition with composite steel construction.

**East Dover Elementary/Middle School Addition, Dover, Morris County, NJ** - Project Manager for a project that involved structural engineering and construction administration services for a 2-story, 46,000 SF addition to the East Dover Middle School. The project provided a new classroom, gymnasium and music spaces. The structural design consisted of a steel frame with composite concrete slabs and utilized masonry shear walls to resist the wind and seismic forces.

**East Dover High School Additions, Dover, Morris County, NJ** – Project Manager for a project that involved structural engineering design and construction administration services for a new 3,500 SF library addition and a 3,000 SF weight training addition to the physical education section of the school.

**Elizabeth BOE Field House and Batting Cages, Elizabeth, Union County, NJ** - Project Manager for the structural design of a 12,000 SF Field House consisting of load bearing concrete masonry walls supporting a steel framed flat roof. The project also included the design of a 4,700 SF interior batting cage building for use by the high school baseball team.

**Elizabeth School #19 Additions, Elizabeth, Union County, NJ** - Project Manager responsible for the structural design of a 17,000 SF, three-story addition to the Elizabeth School #19. The addition provided additional classroom space, as well as a media center and a cafeteria.

**Dorchester Elementary School, Woodcliff, Bergen County, NJ** – Project Manager for a project that involved full engineering services for the design and construction administration of a new 9,900 SF addition to the Dorchester Elementary School.

**George Washington Middle School Stair Investigation, Wayne Township, Passaic County, NJ** - Project Manager who performed a structural evaluation of existing stairs due to concerns regarding deflection and settlement.

**Hasbrouck Heights Euclid and Lincoln School Additions, Hasbrouck Heights, Bergen County, NJ** - Project Manager who provided structural engineering services for a three-story classroom addition that was added at each school. We also included a new masonry firewall structure at each school.

**Hasbrouck Heights Jr./Sr. High School, Hasbrouck Heights, Bergen County, NJ** - Project Manager who provided structural design services for renovations and additions to the existing school including a new gymnasium, three-story science wing and one story media center addition.

**Hilltop Elementary School Additions, Mendham, Morris County, NJ** - Project Manager who provided structural services for a 42,000 SF, three-story addition to the existing school and constructed with a composite steel frame.

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**Immaculate Conception K-8 School, Clinton Township, Hunterdon County, NJ** - Project Manager who provided structural services for a 40,000 SF, two-story composite steel frame elementary school utilizing autoclaved aerated concrete wall panels, masonry shear walls and moment frames.

**Lacey Township New 7-8 Middle School, Lanoka Harbor, Ocean County, NJ** - Project Manager who provided structural design for the construction of a 96,000 SF, two-story steel frame middle school, with a gymnasium and an auditorium. The building featured a unique, curved clerestory as well as a new curved entrance canopy with exposed steel trusses. This school also featured classrooms, science rooms, gymnasiums, cafeterias, music rooms, and media centers.

**Linden High School Roof Evaluation, Linden, Union County, NJ** - Principal-in-Charge responsible for the structural condition survey, document review and analysis of the roof framing at the Linden High School to evaluate the potential to support new cellular communication equipment.

**Markham Place Elementary School Additions & Renovations, Little Silver, Monmouth County, NJ** - Structural Project Manager who managed the design and construction administration of an addition totaling over 18,000 SF. The addition included academic classrooms, science laboratory, music room, gymnasium, and auxiliary support spaces. The renovations included upgrades throughout the existing school, including steam boiler replacement, upgraded electrical service, HVAC, lighting, plumbing, and ATC controls.

**MRESC Sayreville School, Sayreville, Middlesex County, NJ** - Project 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 will include classrooms, a pool, multi-purpose rooms, a media center, speech, and language rooms, along with the normal ancillary spaces that typically accompany school construction

**Peddie School Student Center and Dining Hall, Hightstown, Mercer County, NJ** - Staff Engineer who provided structural design services for a 34,000 SF, three-story composite steel frame with conical roof framing, limestone panels and masonry shear walls for this co-educational boarding and day school.

**Point Road Elementary School Additions & Renovations, Little Silver, Monmouth County, NJ** - Structural Manager who provided design and construction administration services for multiple additions totaling over 16,000 SF. The additions included academic classrooms, a library expansion, gymnasium with bearing masonry shear wall design, and auxiliary support spaces. The renovations included upgrades throughout the existing school, including new fire service, new boiler plant, upgraded HVAC, lighting, plumbing, and ATC controls.

**Randolph Board of Education Center Grove School Administrative Addition, Randolph, Morris County, NJ** - Project Manager for the structural design of a 8,500 SF office and administrative addition. The new addition has a structural steel frame and was designed for a future second floor by including the construction of a composite concrete roof slab.

**Sage School Renovations, Paterson, Passaic County, NJ** - Project Manager for the complete renovation of an existing three-story school building to serve as new office space. The scope of work included the addition of a new mechanical mezzanine and substantial strengthening of the existing floor framing and foundations.

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**Switlick School Gym Addition, Jackson Township, Ocean County, NJ** - Project Manager for the structural design of a new addition to the existing school including a new gymnasium, locker facilities and storage rooms.

**The Frisch School, Paramus, Bergen County, NJ** - Project Manager for the reuse of an existing two story, 114,000 SF office building as a new high school. The project included 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.

**Washington Elementary School, Plainfield, Union County, NJ** - Project Manager responsible for the structural design of a new 90,000 SF, 2-story composite steel frame structure with a gymnasium. This school featured classrooms, science rooms, gymnasiums, cafeterias, music rooms, and media centers.

**Woodcliff Lakes Middle School, Woodcliff Lakes, Bergen County, NJ** - Project Manager who provided full engineering services for the design and construction administration of a one-story, 25,300 SF classroom and gymnasium addition.

**NJSDA Plainfield Middle School, Plainfield, Union County, NJ** - Structural Task Manager for a new two-story, 82,000 SF school with auditorium and gymnasium, cafeteria and media center. The structure is steel framed with masonry shear walls, design includes custom steel trussed curved roof for gymnasium and auditorium.

**Randolph High School, Randolph, Morris County, NJ** - Principal-in-Charge for the design of several new additions to the existing Randolph High School totaling approximately 55,900 SF. The additions consist of a two-story classroom addition, an auxiliary gym, a cafeteria expansion and a new Performing Arts Center.

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

### COLLEGE & UNIVERSITY PROJECTS

**Hobart and William Smith College Scandling Center, Geneva, Ontario County, NY** - Project Manager for the 21,000 SF of additions to the existing campus center. The project included a new multi-purpose room, administrative spaces, mechanical room, cold storage facilities for the dining center, entrance lobby, and elevator additions.

**Bryn Mawr College, Bettws-y-Coed Renovations and Additions, Bryn Mawr, Delaware County, PA** - Project Manager responsible for the structural design and modification to accommodate interior renovations to the existing 3-story, 8,800 SF timber framed building. In addition, we provided structural design services for the new 3-story, 19,000 SF addition, which utilized masonry bearing walls with a combination of precast concrete plank and composite concrete floor slabs. The building featured the design of curved roof framing at the mechanical penthouse.

**Campus Center at Richard Stockton College, Tuckerton, Ocean County, NJ** - Principal-in-Charge for the

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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.

**Ocean County College Fine Arts Center, South Toms River, Ocean County, NJ** - Project Manager for the design of a new 11,000 SF addition to provide much needed space for groups that were previously off-campus. The project included significant modifications to bring the building up to ADA compliance, including new ramps, elevators and chair lifts. Modifications were made to the existing theater framing to support new theater lighting, new mechanical equipment, new photo-voltaic cells, and new plumbing/ductwork/sprinkler lines.

**Princeton University, Bloomberg Hall Institute for Advanced Study, Princeton, Mercer County, NJ** – Project Manager who provided structural engineering design and CAD documentation of the proposed 30,000 SF three-story building expansion to the east. The new portion has a flat roof constructed with precast concrete plank. The new expansion required re-evaluation of the lateral load resisting system for the entire addition. The shearwall designs and locations were revised accordingly. We provided design and documentation of a depressed slab to accommodate a computer cable access floor at rooms 022, 024, 026 and 028. We also provided redesign of the foundation wall and CAD documentation as required to delete the areaway along the west wall of the new computer room.

**Princeton University Press, Princeton, Mercer County, NJ** - Project Manager who provided full structural engineering services for a new 12,000 SF addition and complete renovations to the existing 28,000 SF facility. The design of the new addition and renovation balances the two "front doors" of the Press: Its charming courtyard entrance, which acknowledges its history as an independent entity, and its new modern addition, which comprises simple, traditional materials--brick and vertically-hung slate--that are sensitive to the architecture of the existing structure and the image the Press projects on McCosh Walk, a popular campus thoroughway.

The design team faced one additional hurdle in the project: The Press wanted to occupy the building during project construction. The project team worked closely to develop a plan to phase the addition, renovation, and associated office relocations that allowed press operations to continue throughout construction with minimal disruption. The project has successfully and efficiently relocated the formerly cramped staff into functional and engaging workspaces.

**Brookdale Community College Center for Visual Arts, Lincroft, Monmouth County, NJ** - Project Manager who provided structural engineering services for a three-story art building, complete with a composite steel frame with sloped and vaulted steel roofs and moment resisting frames.

**Cornell University Lecture Hall Renovations, Ithaca, Tompkins County, NY** - Project Manager who provided structural services for renovations to the Kimball and Upson Lecture Halls. The renovations included the addition of new-sloped floor seating; the creation of new mechanical shaft and louver openings and the design of new structural steel frames to support hung mechanical units in Kimball Hall. The engineering services included structural design, documentation and shop drawing review.

**Stern Hall at Hobart & William Smith College, Geneva, Ontario County, NY** - Project Manager for the structural design of a new 3-1/2-story, 27,500 SF academic building that utilized a composite structural steel frame with concentrically braced steel frames and light gage metal framing to support gable slate roofs.

**Kean University New Academic Building II, Union, Union County, NJ** - Project Manager who provided structural design services for a 116,000 SF, 4-story steel frame academic building with a mechanical penthouse. The building features a large atrium space with exposed structural steel trusses supporting a continuous sloped skylight. This building will be one of the first buildings on the Kean University to be LEED certified.

**Kean University Center for Science, Technology, & Mathematics Education, Union City, Hudson County, NJ** - Principal-in-Charge who is overseeing the structural services for the 100,000 SF Center for Science, Technology and Mathematics Education. The structure will be 6-stories in height and will include an executive conference room on the 6<sup>th</sup> level with a view of the Manhattan skyline. The building will include an atrium, restaurant, kitchen, large auditorium, lounges, study halls, supercomputer facilities, classrooms, lecture halls, offices, library, and a roof top garden.

**Kean University Nancy Thompson Library Human Rights Institution and Reading Room Addition, Union City, Hudson County, NJ** - Project Manager who provided structural services for the three-story, 11,500 SF addition to the Nancy Thompson Library. The addition faces the Center for Academic Success Building and involved significant modifications to the existing entrance lobby. The addition will include a new elevator from the ground floor to the second floor.

**Mercer County Community College, Kelsey Theater/Communications Building Addition, Trenton, Mercer County, NJ** – Project Manager who provided structural engineering services for a one-story, 17,600 SF steel framed classroom and communications annex.

**Mercer County Community College Corporate Continuing Education Center, West Windsor Township, Mercer County, NJ** – Project Manager for the complete structural design of a two story, 38,000 SF state-of-the-art conference center with a free-form auditorium having sloped walls.

**Montclair University Morehead Hall, Montclair, Essex County, NJ** - Project Manager for the complete interior renovation of an existing 40,000 SF, 4-story masonry and steel frame building, including the addition of 5,000 SF supported mezzanine space and the restructuring of an auditorium and stage area.

**New Jersey City University Academy Charter School, Jersey City, Hudson County, NJ** - Project Manager for the adaptive reuse involving structural modifications to an existing 62,000 SF, two-story industrial building to be used as a new University Academy Charter School. The project included the addition of a mechanical

penthouse, several new floor and roof openings, new floor framing, and the design of infill framing to enclose several existing openings.

**New Jersey City University Black Box Theater, Jersey City, Hudson County, NJ** - Project Manager for the adaptive reuse of an existing building for the construction of a new black box theater for New Jersey City University.

**NJIT Laurel Hall, Newark, Essex County, NJ** - Structural Task Manager who provided site, landscape architecture, and structural engineering for this 186,000 SF, state-of-the-art residence facility. The project was built in two phases with a five-story, 98,000 SF wing and a subsequent eight-story wing. The building was constructed using precast concrete plank with masonry bearing walls, and features unique entrance canopies, cast stone windowsills, surrounds, and copings. Laurel Hall provides living space for 598 upper class and graduate students.

**Ocean County Community College New Science Building, Toms River, Ocean County, NJ** - Project Manager who provided structural engineering for a new facility on the Toms River campus of Ocean County Community College. The new science building is a 30,000 SF, two-story composite steel frame science center with adjacent auditorium/lecture hall and partial basement.

**Princeton University, Bobst Hall, Princeton, Mercer County, NJ** - Project Manager for the renovation of an existing wood framed house on the Princeton University Campus and the design of a new three-story elevator and stair addition. Changes to the existing building included conversion of the attic space and floors into offices. Modification of the existing gable roof adjacent to the new addition was required to connect the new addition with the existing building.

**Rutgers Biomedical Research Facility, Piscataway, Middlesex County, NJ** - Principal-in-Charge who oversaw site, structural, and geotechnical engineering services for a new four-story Biomedical Research Facility located on the Busch Campus of Rutgers University. The 53,000 net SF structure included classrooms, conference rooms, faculty offices, teaching and research laboratories, laboratory support facilities, and computer labs. Unique features include a 200-seat auditorium with art audio-visual conferencing and distance learning capabilities, an advanced visualization facility with an ImmersaDesk, state-of-the-art MRI equipment, and a vivarium.

The new building, which serves as the primary entrance to Rutgers' Busch Campus, has a distinct presence amongst the other engineering complex buildings with an open glass façade and a three-story atrium lobby. The components and materials were selected sensitively to the environment in accordance with the Study of Living Systems in hopes of minimizing the building's overall energy consumption.

**Rutgers University Science and Engineering Resource Center II, New Brunswick, Middlesex County, NJ** - Structural Task Manager who provided structural engineering services for a new 53,000 SF, three-story building containing 14 classrooms, a library/study area, a 500-seat auditorium space with a 90-foot clear span roof, and offices for graduate and postdoctoral students in physics. The structure has a composite steel frame with concrete slabs and masonry walls. The site's landscape design reflects the campus character and overall theme.

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**Richard Stockton College New Housing IV, Pomona, Atlantic County, NJ** - Project Manager who provided structural design services for several two-story dormitory buildings to reduce housing shortage at the College. The design utilized block exterior bearing walls and prefabricated wood floor and roof members.

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

**Rider University Memorial Hall Renovations, Lawrenceville, Mercer County, NJ** - Project Manager who provided structural engineering for renovations to a 3-story entrance and lobby addition, utilizing cast in place concrete, structural steel and masonry.

### LIBRARY PROJECTS

**Irwin Library, Jersey City State College, Jersey City, Hudson County, NJ** - Project Manager responsible for seismic code evaluation and upgrade feasibility study for an existing 4-story, 50,000 SF cast in place concrete structure.

**Van Buren Branch Library, Newark, Essex County, NJ** - Project Manager for a 5,000 SF, 2-story steel framed addition with structural modifications and upgrades to the existing facility.

**Montclair Public Library Expansion, Montclair, Essex County, NJ** - Project Manager for the 11,600 SF floor addition and seismic upgrade of existing 80,000 SF 3-story facility with 9,000 SF new addition.

**Thomas Jefferson Library Monument Sheeting, West Point, Orange County, NY** - Project Manager who provided structural design for temporary steel sheet piling to protect and prevent movement of an adjacent monument during excavation of the basement for the proposed new library building.

### RELIGIOUS FACILITIES

**Saint Joseph's Roman Catholic Church, Aston, Delaware County, PA** - Project Manager for a 32,000 SF, multi-level church that has a complex architectural configuration that required extensive coordination during the design. The floors of the church are concrete and composite steel construction. The roof structure has a steel frame with laminated timbers and wood decking.

**St. Charles Borromeo Church, Montgomery Township, Somerset County, NJ** - Project Manager for the structural design of a new 19,800 SF, single story addition to the church and office facility. The new addition includes a large vaulted social alter with vaulted gable dormers.

**St. Elizabeth Ann Seton, Three Bridges, Hunterdon County, NJ** - Project Manager for the structural design and construction administration services for a new 19,300 SF, single story parish hall and classroom addition to St. Elizabeth Ann Seton Church. The classroom addition constructed using pre-engineered wood trusses



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supported by load bearing stud walls. The parish hall has a flat roof and is constructed using steel joists and a structural steel frame.

**St. Francis of Assisi Church, Belchertown, Hampshire County, MA** - Project Manager who provided full service structural engineering services for a 1-½ story, 13,000 SF church with a glu-laminated wood framed gable roof featuring large valued spaces and intersecting gable roofs.

**St. Thomas More Church, New York, New York County, NY** - Project Manager for the structural design of a new 17,000 SF, single story church with an elliptical narthex, conical shaped worship space, and unique chapel space. The church was a pile supported steel frame structure.

**Christ Church, Middletown, Monmouth County, NJ** - Principal-in-Charge of a project which involved a structural condition survey and assessment of the Christ Church built circa 1836. The structural condition survey revealed deterioration of the rubble stone foundations, damage and improper support of the first floor framing, failure of the bell tower support members and outward spreading of the north and the south walls. Repairs involved the installation of bracing at the walls, reinforcement of the floor and the bell tower and underpinning and consolidation of the existing foundations.

**Our Lady of the Snows Church, Queens, Queens County, NY** – Principal-in-Charge who is overseeing full structural engineering services for the design of a single story 13,200 SF church addition consisting of a new worship space, choir room, sacristy, offices and small gathering space. The building features a complex worship space with a multi-faceted geometry. A steel framed roof system was provided to accommodate the unique configuration of the space and the large column free layout.

### OFFICE COMPLEX/LABORATORY PROJECTS

**55 Corporate Drive - Building IV, Bridgewater, Somerset County, NJ** - Principal-in-Charge 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.

**1330 Broadcasting Road, Reading, Berks County, PA** - Project Manager for the structural design and construction administration for a two-story, 33,000 SF speculative office building.

**500 Connell Drive Office Building, Berkeley Heights, Union County, NJ** - Project Manager for the structural engineering design and construction administration services for a 7-story, 257,700 SF office building.

**610 Luzerne Street Building, Philadelphia, Philadelphia County, PA** - Project Manager for the structural design and construction administration for a new single story, 18,000 SF masonry bearing wall structure.

**American Cyanamid New Office Building, Princeton, Mercer County, NJ** - Project Manager for a 30,000 SF, two story steel frame office building with connecting link to an adjacent building.

**Bristol-Myers Squibb Lawrenceville & Plainfield Childcare Facilities, Lawrenceville & Plainsboro, Middlesex & Mercer Counties, NJ** - Project Manager who provided structural engineering services for two 17,000 SF, single-story childcare facilities.

**Janssen Pharmaceutica Headquarter's Addition, Titusville, Mercer County, NJ** - Project Manager for a new 90,000 SF, three-story, composite steel frame office building founded on spread footings. Includes two pedestrian bridge links to existing administration building.

**Lifecell Facility Expansion, Branchburg, Somerset County, NJ** - Project Manager for the analysis of the existing roof framing at the Lifecell Facility to determine if the roof is adequate to support approximately 5 new mechanical RTU's and 4 new chiller RTU's. In addition, we evaluated the existing slabs on grade to confirm if they are adequate to support the post loads from a prefabricated storage mezzanine and proposed high-density file storage. We also evaluated the proposed wall between the loading dock and the shipping area relative to wind loading.

**Merck Building 42 BOD, West Point, Montgomery County, PA** - Project Manager responsible for the preparation of preliminary structural drawings and a basis of design for a new 5-story steel frame addition that wrapped around three sides of an existing 3-story building.

**Mount Bethel Corporate Center Building No. 4, Warren Township, Somerset County, NJ** - Project Manager responsible for the structural design of a 3 story, 93,000 SF facility with parking under the office levels. The building has a composite steel frame with concentric steel braces and bar joist roof framing. The exterior of the building is clad with architectural precast concrete panels and brick veneer.

**New Jersey Economic Development Headquarters, Trenton, Mercer County, NJ** - Project Manager who provided Seismic Upgrade, renovations and new fourth story addition to an existing steel frame building in downtown Trenton. The project included a new stair and elevator tower and renovations to upgrade the building for ADA compliance.

**Ortho-McNeil Cafeteria Expansion, Raritan, Somerset County, NJ** - Project Manager for a new 13,000 SF, two story cafeteria and office addition with new high-density storage.

**Ortho-McNeil HTS Laboratory Building, Raritan, Somerset County, NJ** - Principal-in-Charge for a 17,000 SF single story lab building with slabs to support high-precision equipment.

**Ortho-McNeil PRI Building Addition, Raritan, Somerset County, NJ** - Principal-in-Charge for a 40,000 SF, two-story steel frame office addition.

**Pfizer Building 185, Morris Plains, Morris County, NJ** - Principal-in-Charge who oversaw 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.

**Pfizer Bldg. 158 Loading Dock Modifications, Morris Plains, Morris County, NJ** - Project Manager who was involved in the preparation of demolition plans and construction documents to enable an existing loading dock to be abandoned, filled in, and re-graded to create a truck turn-around area.

**Purepac Pharmaceutical Company, Elizabeth, Union County, NJ** - Project Manager for the design of a steel roof frame to support two glycol-cooling units.

**Schering Plough K-2 Mezzanine Evaluations, Kenilworth, Union County, NJ** - Project Manager who oversaw the structural evaluation of three mezzanines to determine the safe live load capacity of the mezzanine floors and framing. One of the mezzanines is located in a process room and will require an extensive field survey due to significant piping and irregular framing. The second mezzanine is located above the trash compactor and consists of steel framing supporting open bar grating. The third mezzanine is located in the shop area and above the restroom and locker room facilities. This mezzanine has a concrete floor deck supported by a steel frame.

**Schering-Plough Mezzanine & Floor Load Rating, Kenilworth, Union County, NJ** - Project Manager for the structural load rating of existing floors and mezzanines within several buildings located on Schering Plough's Kenilworth, NJ campus.

**Somerset Technology Center, Warren Township, Somerset County, NJ** - Principal-in-Charge for the design of a two-story, 66,000 SF office building. The building is a steel framed structure with composite slabs, moment resisting frames and complex roof and pediment structures.

**Stratix Systems, Wyomissing, Berks County, PA** - Project Manager for the miscellaneous alterations and renovations to an existing single story building. The alterations and renovations involved partial demolition of portions of existing interior and exterior load bearing masonry walls, the addition of a new curvilinear façade feature at the roof line, modifications to the existing roof structure to accommodate a new skylight system, the addition of new interior floor ramps, and the addition of a small vestibule and office space at the front of the building.

**Synaptic Pharmaceutical Corporation, Paramus, Bergen County, NJ** - Project 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, a new rooftop mechanical penthouse and roof mounted cooling towers were added above portions of the existing building. The new mechanical penthouse was approximately 120 ft x 21 ft and was constructed above the roof of a single story portion of the building. The penthouse has a new structural steel frame that likely extends up from the existing building columns with a concrete floor system on metal deck above the existing roof system.

## **ASSISTED LIVING/RESIDENTIAL PROJECTS**

**Geiger Estate Structural Condition Survey, Atlantic Highlands, Monmouth County, NJ** - Project Manager who oversaw the structural evaluation of settlement cracks and a slope stability analysis of the adjacent site.

**Jersey City Adaptive Reuse Residential Complex, Jersey City, Hudson County, NJ** - Principal-in-Charge who is providing structural and civil engineering services on the Lender's behalf for a three hundred thirty (330) unit residential complex with one, two and three bedroom market and affordable rate units. The site is an adaptive reuse of a former industrial site comprised of seven existing structures which have been renovated for residential occupancy, an existing structure that has been renovated into a multi-story parking garage and twenty-nine new modular buildings also constructed for residential occupancy. The project also includes new roads and related infrastructure including storm and sanitary sewers, domestic and fire water service,

electrical service and gas service.

**Lindenwold Lakes Senior Housing, Lindenwold, Camden County, NJ** - Project Manager for the structural design of a 3 story 80 unit senior apartment building consisting of wood frame construction with prefabricated wood floor and roof trusses.

**Marina Bay Towers, Wildwood, Cape May County, NJ** - Project Manager for the structural design of cast-in-place concrete frame to support a 6-story apartment building with 142 units totaling approximately 168,000 SF. The building was supported on a pile foundation and the first level was used for at grade parking.

**Mill Gardens, Maywood, Bergen County, NJ** - Project Manager for a two story, 64,000 SF assisted living facility that was constructed using cold formed metal bearing walls and floor joists and a prefabricated wood truss roof system.

**Presbyterian Homes at East Windsor, East Windsor Township, Mercer County, NJ** - Project Manager for the structural design of a three story, 65,000 SF residential housing structure using precast plank with load bearing masonry.

**Senior Housing at Highland Park, Highland Park, Middlesex County, NJ** - Project Manager for the structural design of a five story, 55,000 SF senior care facility. The structural design of the building utilized a light gage metal, cold formed framing with cast-in-place concrete floors on metal form deck, and a roof system that consisted of a prefabricated wood truss system with a gable or hip configuration. The building included a partial basement, the walls of which were constructed using concrete masonry. The firm also provided CADD documentation of the project's Construction Documents for the structural design, technical specifications and shop drawings, and inspection of the structural framing during construction.

**Summit Place Residential Redevelopment, Summit, Morris County, NJ** - Principal-in-Charge who is providing full structural engineering services for 4 new residential buildings in Summit, NJ. The overall project is a mixed use redevelopment referred to as Summit Place. The project includes a 45,267 SF, 3 story residential building over one level of parking and a 25,682 SF, 3 story building over one level of parking to be used for commercial use. Both buildings are being structured using a hambro structural system. The project also includes two, 3 story twin townhome buildings with slabs on grade. Each of the townhomes have a total area of approximately 7,000 SF.

**Linden Lakes Senior Housing, Lindenwold, Camden, NJ** - Structural Task Manager who is providing structural design for a 3-story, wood frame, slab on grade, 82-unit age restricted apartment building. The building consists of seventy 1-bedroom and twelve 2-bedroom apartments. The project is financed through the NJHMFA and will be built to comply with the NJ Green Homes standards and Energy Star.

## **WATER/WASTEWATER PROJECTS**

**East Windsor Municipal Utilities Authority Modification and Improvements to Pump Station No. 8 Probasco Road, East Windsor Township, Mercer County, NJ** - Structural Task Manager for the design of a new deep well subsurface cast in place concrete 1.5 MGD pumping station with control and personnel facility above.

**Elizabethtown Water Western Operations Center, Hillsborough Township, Somerset County, NJ** - Project Manager for a new 34,000 SF, single story steel frame office building with warehouse and truckport facilities. The project featured a curved barrel-vault entrance.

**Joint Meeting of Essex & Union Counties, Digesters Rehabilitation, Elizabeth, Union County, NJ** – Project Manager for inspection of the conditions of concrete sludge storage tanks. In addition, we prepared contract documents for structural rehabilitation of the tanks and performed construction observation.

**Joint Meeting of Essex and Union Counties, Structural Condition Survey, Elizabeth, Union County, NJ** - Project Manager for a structural condition survey of an existing wastewater treatment facility including sludge tanks, the primary services building, the screen house and the below grade pipe gallery structure. Recommendations for structural repairs and a preliminary cost estimate were provided.

**North Bergen Central Wastewater Treatment Plant Upgrade, North Bergen, Hudson County, NJ** - Structural Principal-in-Charge for the design with converting the existing 25 MGD Rotating Biological Contractor Treatment process into an activated sludge treatment process while maintaining the existing plant in operation. Structural design included a new influent pump station, primary and final clarifiers, aeration tanks, chlorine contact tanks, and sludge thickening facilities utilizing gravity belt thickening equipment, process building, electrical switchgear and operations building.

**Ocean Acres Water Treatment Plant, Stafford Township, Ocean County, NJ** – Project Manager for the design and construction of a new 4.35 MGD water treatment plant, three (3) new wells and well buildings, a water main extension of approximately 1,600 LF of 16" ductile iron pipe. The water treatment plant consists of a biological iron removal treatment system, chemical feed systems for disinfection and pH adjustment and high service pumps. The wells draw on the Atlantic City 800' Sands Aquifer and have the capacity to produce 760 gpm of water each.

**Ocean County Utilities Authority Ortley Beach Wastewater Treatment Plant Demolition & Site Improvement, Dover Township, Ocean County, NJ** - Structural Principal-in-Charge for the demolition of the existing electrical service to the plant and pump station, demolition of existing primary and final settling tanks, outfall pump station, chlorine contact tank, aeration tanks, return sludge pump building, sludge control buildings, digesters, sludge thickeners, various building structures throughout the plant, and existing mechanical installations. New construction included the furnishing and installation of a 16-inch magmeter flow chamber, new electrical service for the existing pump station, site restoration including drainage, landscaping, and lighting. Removal of hazardous materials was also performed for this project. All demolition and construction activities were required to be phased in order to keep the existing pump station and sodium hypochlorite chemical feed system in operation during construction.

**Pondview Estates Water Treatment Plant, Rockaway Township, Morris County, NJ** – Project Manager for the structural design of a new single story building to support a 1.5 MGD water treatment plant.

**Tennent Road Water Treatment Plant, Marlboro, Monmouth County, NJ** - Project Manager who provided design and construction services for a 1.72 mgd manganese green sand filtration plant with various chemical feeds and backwash recycling.

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**Township of Montgomery Stage II Wastewater Treatment Plant Expansion, Montgomery Township, Somerset County, NJ** – Project Manager for the structural design of new cast in place concrete grit chambers, wet wells and valve pits, modifications to exist blower building and final clarifier tanks. The design included new buildings for filters, generator and control building with lab space.

**Township of Ocean Sewerage Authority Wastewater Treatment Plant Improvements, Ocean Township, Monmouth County, NJ** - Structural Principal-in-Charge for the structural design of cast in place concrete primary setting tanks and grit removal tanks, modifications and concrete repairs and restoration to the chlorine contact tank for the sludge thickening facility. Additions and modifications to the main pump building for installation of new bar screen and screening removal conveyor. The complete design of new building housing the grit removal conveyors and control panels.

### RENOVATION PROJECTS

**Merchants and Drovers Tavern, Rahway, Union County, NJ** - Program Manager who provided site, survey and structural engineering for the restoration and structural strengthening of a historic tavern to accommodate public loading as a museum. The restoration involved foundation walls, exterior walls, and exterior upgrades.

**Navesink House Addition, Red Bank, Monmouth County, NJ** - Project Manager for a five-story addition to the existing facility to provide new ADA elevator access to housing tower and act as connecting link for major new addition presently under design. Complex foundations and congested site required extensive design and concrete work.

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

**Rockingham, George Washington, Rocky Hill, Somerset County, NJ** - Project Manager responsible for the Development of Historic Structures Report for assessment of existing conditions at George Washington's last military headquarters. Responsible for planning relocation of entire structure to a location closer to the historic D&R Canal, as well as restoration of exterior siding.

**Pocono Manor Resort Due Diligence Report, Pocono Township, Monroe County, PA** - Project Manager for the structural engineering investigation and study of the facilities on the historically significant site to aid in planning and evaluating potential adaptive reuse opportunities at the site. The assessment survey and report involved approximately 40 buildings of various use types on a 3,000-acre resort site in the Pocono Mountains.

### COMMUNICATION PROJECTS

**Bell Atlantic Mobile Cell Site, Atlantic City, Atlantic County, NJ** - Project Manager for the structural design of a new steel support frame for a roof mounted pre-engineered equipment building including the design of antenna support brackets.

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**Bell Atlantic Mobile Cell Site, Woodlyn, Camden County, NJ** - Project Manager who provided the structural design of new concrete piers and a structural steel support frame to support a pre-engineered equipment building on the roof of an existing 6 story, precast plank and masonry bearing wall structure.

**Bell Atlantic Mobile Cell Site, Plymouth Meeting, Montgomery County, PA** - Project Manager for the structural design of a new structural steel support frame to support a pre-engineered equipment building and cellular antennas on the roof of an existing 4 story steel frame building.

**Bell Atlantic Mobile Cell Site, Essington, Delaware County, PA** - Project Manager who provided the structural evaluation of an existing building and design of a new structural steel damaged frame to support a prefabricated roof top cellular equipment building.

**Bell Atlantic Mobile Cell Site, 1845 Walnut Street, Philadelphia, Philadelphia County, PA** - Project Manager who provided the structural evaluation to determine if the existing floor framing in a reinforced concrete building could support proposed cellular communication equipment.

**Comcast Metrophone Switching Station (MTSO), Lower Providence Township, Montgomery County, PA** - Project Manager who provided the structural engineering design and documentation for a 5,000 SF, one-story masonry and steel frame transmitting station.

**Loral Skynet, Bedminster Township, Somerset County, NJ** - Project Manager for the structural analysis and engineering for a new roof mounted steel frame to support a satellite dish.

**Nextel Cell Site, Garden City, Delaware County, PA** - Project Manager responsible for the structural design of framing to strengthen an existing roof to support new equipment and cable loading for cellular communication equipment.

**NNT Floor Evaluation, 2300 Chestnut Street, Philadelphia, Philadelphia County, PA** - Project Manager who provided the structural evaluation to determine if the existing floor framing in a reinforced concrete building could support the proposed cellular communication equipment.

**Nextel Cell Site, McClean, Fairfax County, VA** - Project Manager responsible for the structural design of framing to strengthen an existing roof to support new equipment and cable loading for cellular communication equipment.

**Nextel Cell Site 401 N. Broad Street, Philadelphia, Philadelphia County, PA** - Project Manager who provided the structural evaluation and design of a new load frame to support significant loads from new cellular equipment and batteries on the tenth floor of an existing reinforced concrete structure.

**Verizon Branchburg MTSO, Branchburg Township, Somerset County, NJ** - Project Manager for the structural design of a single story, 20,000 SF switch building with a mechanical penthouse and loading dock.

**Verizon Branchburg Switch Expansion, Somerville, Somerset County, NJ** - Project Manager for the structural design associated with new expansion & switch modifications. The design included strengthening of the existing framing to support new cable tray loading, the addition of two large mechanical platforms on the roof,

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the design of a new two-level mechanical support frame between existing sections of the building, and the design of a new receiving addition and generator enclosure.

**Verizon Cell Site, King of Prussia, Montgomery County, PA** - Project Manager for the structural design of a new structural steel support frame to support a pre-engineered equipment building and cellular antennas on the roof of an existing McIntosh Inn Hotel.

**Verizon Wireless Maple Shade, Mount Laurel, Burlington County, NJ** - Project Manager for the design of cable rack support at switch and battery room.

**Verizon New Mobile Switch Building, Pittston, Luzerne County, PA** - Project Manager for the structural design of a new single story, 20,000 SF mobile switch center.

**Verizon Wireless Mobile Switch Center, New Castle, New Castle County, DE** - Project Manager for the structural design of a single story, 15,400 SF addition. The building has extensive communication equipment requiring special structure and seismic considerations.

**Verizon New Mobile Switch Building, Plymouth Meeting, Montgomery County, PA** - Project Manager for the structural engineering design and documentation for a 26,000 SF, two-story, addition, which was constructed to blend in with the existing structure. To accommodate the heavy loading from communication equipment, a composite steel frame system was used with a secondary light-gage pitched roof to replicate the existing construction. The roof and second floor were designed to support cable trays and heavy switchgear equipment. The building featured a unique entrance with an eyebrow window and a sloping glass canopy.

**Verizon Maple Shade Battery Room Expansion, Maple Shade, Burlington County, NJ** - Project Manager who is providing full structural engineering services for the design of a new single story addition to an existing mobile switch center for Verizon Wireless. The new addition required renovations and partial demolition of the existing roof structure, the relocation of an existing 100 foot tall communication tower, and the design of a new framing system to support heavy cable tray loading consistent with Verizon's standards. Strengthening was also performed within the existing building to facilitate an expansion of the existing switch rooms.

### HEALTHCARE

**St. Peter's Hospital MRI Suite Addition, New Brunswick, Middlesex County, NJ** - Principal-in-Charge who oversaw the structural design of a two story, stand alone, stainless steel reinforced two-way flat plate concrete structure to support and isolate MRI equipment. The structure was designed to satisfy both sound and vibration isolation from the adjacent building.

**CentraState Assisted Living Facility, Freehold, Monmouth County, NJ** - Project Manager for the structural design of a new 59,000 SF, three story assisted living facility with precast plank and concrete masonry bearing walls. The structure features complicated intersecting hip and gable roofs.

**Jersey City Medical Center Due Diligence, Jersey City, Hudson County, NJ** - Project Manager for the structural due diligence survey of several buildings considered for purchase and use as office/clinical space by the Jersey City Medical Center.



**Muscular Tissue Foundation Clean Room Mezzanines, Scranton, Lackawanna County, PA** - Project Manager for the structural design of a new sealed mezzanine to support extensive mechanical equipment for several new clean rooms for the Muscular Tissue Foundation.

**UMDNJ Martland Building Renovations, Newark, Essex County, NJ** - Project Manager for the renovation of the 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> floors of an existing mid-rise tower involving structural modification of the existing floors.

**UMDNJ University Hospital Emergency Room Suite Renovation, Newark, Essex County, NJ** - Project Manager who provided structural engineering services for new office mezzanines installed within an existing lobby space in the Northwest Wing of University Hospital. A new intermediate floor level was added between existing floor levels "C" and "D" and the existing Level D was also expanded in the existing lobby space. The project was extremely challenging given the need to keep the existing spaces operational, including the level below the new space where new columns were required. The project also involved the addition of a new stair and elevator.

### **PARKING FACILITIES**

**Carnegie Center Garages 504 & 506, Princeton, Mercer County, NJ** - Project Engineer who provided a durability condition appraisal and restoration design for two 350 car, 1-story precast parking garages.

**New Jersey State House Capital Complex Parking Garage, Trenton, Mercer County, NJ** - Design Engineer for the design, documentation and construction administration of a 425,000 SF, 1100 vehicle cast-in-place, post-tensioned concrete parking facility.

### **INDUSTRIAL/RETAIL PROJECTS**

**Davlyn Industries Leading Pad, Cranbury Township, Middlesex County, NJ** - Project Manager responsible for the design of miscellaneous mezzanine structures including a 2300 SF stainless steel plated mechanical mezzanine.

**Cranbury Business Park Buildings No. 1 through 6, Cranbury Township, Middlesex County, NJ** - Project Manager for the structural design of six warehouse buildings ranging from 100,000 SF to over 400,000 SF. The buildings were steel framed with large clear spans and a minimum clear height of 32 feet. The exterior of all of the buildings are clad with architectural precast concrete wall panels.

**Home Depot Retaining Wall, Paterson, Passaic County, NJ** - Project Manager for the structural design of a permanent soldier pile retaining wall system adjacent to both a County and City streets. The retaining wall system consists of steel soldier piles with temporary timber lagging and a permanent shotcrete facing. The walls are anchored with double corrosion protected rock anchors and approach 30 feet in height.

**Market Source Addition, Cranbury Township, Middlesex County, NJ** - Project Manager for a 96,000 SF addition to an existing assembly/distribution center. The building had a cross-braced structural steel frame with steel joists and a metal roof deck. The building was clad with non-bearing masonry walls.

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**Price Chopper Grocery Store, 1999, Utica, Oneida County, NY** - Project Manager for the structural design of a new 64,000 SF steel frame building for use as a grocery store. The building featured steel bar joists with metal roof decking, light gage canopy framing and a composite concrete mezzanine.

**Price Chopper Grocery Store, 2001, Plattsburgh, Clinton County, NY** - Project Manager for the structural design of a new 64,000 SF steel frame building for use as a grocery store. The building featured steel bar joists with metal roof decking, light gage canopy framing and a composite concrete mezzanine.

**Green Meadow Retail, Raritan Township, Hunterdon County, NJ** - Project Manager who provided full service structural engineering for a one-story, 10,000 SF masonry block with steel frame retail building.

**Wagner Warehouse Addition, Concord Township, Franklin County, PA** - Project Manager for the structural design of a 20,000 SF addition to a single story warehouse. The addition was framed with structural steel and open web bar joists supported by interior steel columns and exterior load bearing masonry walls.

**The Research Collections and Preservation Consortium Module 4, Plainsboro, Middlesex County, NJ** - Project Manager for the structural design of 15,900 SF storage warehouse for rare and valuable books. The project features a superflat floor slab to enable the proper operation of a sensitive book retrieval system, an office mezzanine, and Factory Mutual Maximum Foreseeable Loss (MFL) firewalls.

**Citizens Bank- Elmwood Branch, Evesham, Burlington County, NJ** - Project Manager who provided structural design and construction administration services for a new single-story, 3,600 SF branch bank.

**Citizens Bank, Seaford, Sussex County, DE** - Project Manager for the structural design for a new 3,800 +/- SF single story branch bank. The bank has a steel roof structure with a barrel vault roof clerestory, cantilevered canopy structures and load bearing masonry walls.

**Citizens Bank, Limerick, Montgomery County, PA** - Project Manager for the structural design for a new 3,800 +/- SF single story branch bank. The bank has a steel roof structure with a barrel vault roof clerestory, cantilevered canopy structures and load bearing masonry walls.

**Citizens Bank Garden State Branch, Cherry Hill, Camden County, NJ** - Project Manager who oversaw the adaptation of structural drawings previously completed for another Citizens Bank project in Limerick, PA. Our effort was limited to review and redesign of the bank to account for the revised wind, seismic, and snow loads. Other revisions included the expansion of the drive-thru lane to accommodate 3 cars and the use of metal roof trusses at the barrel vault roof.

**Citizens Bank Lewes Branch, Lewes, Sussex County, DE** - Project Manager who oversaw the structural design of a two story, 7,500 SF branch bank.

**Sovereign Bank, Bensalem, Bucks County, PA** - Project Manager for the structural design for a new 4,000 +/- SF single-story prototype branch bank. The bank is a steel frame structure featuring a V-shaped roof with a clerestory and unique sun screens that cantilever from the exterior framing.

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**Sovereign Bank Exton Branch, Exton, Chester County, PA** - Project Manager who oversaw 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 London Grove Branch, London Grove, Chester County, PA** - Project Manager for the structural design of a new, 3,200 SF steel framed retail branch for Sovereign Bank.

**Sovereign Bank Concordville Branch, Concordville, Delaware County, PA** - Project Manager for the structural design of a new, 3,200 SF steel framed retail branch for Sovereign Bank.

**Sovereign Bank Lakewood Branch, Lakewood, Ocean County, NJ** - Project Manager for the structural design of a new, 3,200 SF steel framed retail branch for Sovereign Bank.

**Sovereign Bank Quail Creek Branch, Holmdel, Monmouth County, NJ** - Project Manager for the structural design associated with modification of a building under construction to accommodate a proposed bank vault, ATM's and a night Depository Box.

**Sound Federal Savings, Rye, Westchester County, NY** - Structural Principal-in-Charge for the structural inspection and assessment of deterioration to an existing steel framed elevated drive through lane over parking.

**United Savings Bank, Media, Delaware County, PA** - Project Manager who is providing full structural engineering services for the design of a 2 story branch office for United Savings Bank. The building has an area of approximately 8,300 SF with a full basement, unique gothic style arches at the ends of the gable roof system, a two bay drive thru canopy, brick veneer with a stone base and supported vault.

**Wachovia Bank - Woodhaven Branch, Bensalem, Bucks County, PA** - Project Manager who provided the structural design for a new 3,800 SF branch bank utilizing the Agri-Panel roof and load bearing wall panel system. The bank includes a drive-thru canopy.

### MUNICIPAL/PUBLIC PROJECTS

**Atlantic City, City Hall Roof Replacement, Atlantic City, Atlantic County, NJ** - QA/QC Reviewer who provided design and construction administration for the roof replacement of the upper roof at City Hall. The upper roof is approximately 11,280 SF, the existing roof system was removed in its entirety, and a new modified bituminous roofing system was installed. The original design also included the replacement of the three lower roofs.

**Bayside State Prison, Steam Condensate Piping Replacement, Leesburg, Cumberland County, NJ** - Structural Principal-in-Charge for the structural design of pipe support system including elevated bridge structures to support steam lines crossing over existing roadway.

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**Borough of Edgewater Firehouse Wall Renovation, Edgewater, Bergen County, NJ** - Principal-in-Charge who oversaw the repair of deficient masonry wall. Due to site constraints, a new cast-in-place concrete wall was constructed within the confines of the building envelope.

**Borough of Little Ferry Municipal Building, Little Ferry, Bergen County, NJ** – Project Manager who provided structural engineering services for the renovation and additions to an existing 15,000 SF, 2-story warehouse structure to convert it into a new municipal center. A new elevator, sally port and entrance structure were added to the building. The entire structure was upgraded and strengthened to comply with current building code requirements.

**Brookhaven Firehouse, Brookhaven, Delaware County, PA** - Project Manager who oversaw the structural design of foundations for a 10,000 SF pre-engineered metal building. The building will serve as the new firehouse for the Borough of Brookhaven, PA. The project also involved the design of a steel communication tower.

**Central Park Amphitheater, Bensalem Township, Bucks County, PA** - Structural Task Manager responsible for the preparation of preliminary structural drawings for a new amphitheater structure to accommodate 4,500 spectators.

**Edna Mahan Correctional Facility, Clinton Township, Hunterdon County, NJ** - Project Manager for a one-story addition for use as a sewing shop at the maximum-security women's prison. The new addition was constructed using reinforced masonry bearing walls and precast concrete roof plank.

**Elizabeth Fire and Rescue Facility, Elizabeth, Union County, NJ** - Project Manager who oversaw the design and construction administration services for a new 21,000 SF, two-story fire/rescue building for the Elizabeth Fire Department. The building provides space for Haz-Mat, Maintenance Services and a Ladder Company. The building consists of at least 2 emergency truck bays, 3 all-purpose truck bays and 2 fire truck bays. The facility wall also houses a kitchen, fitness room, dormitory space, and locker rooms.

**City of Plainfield Bilingual Day Care Center Roof Replacement, Plainfield, Union County, NJ** - Project Manager who prepared construction documents, provided bidding assistance and provided construction administration services for the replacement of an existing roof and the removal of a second false structure installed years prior to obtain positive drainage on a 2-story child care facility. Additional work at the day care involved an evaluation of the mechanical systems, masonry restoration and window replacement.

**Flemington DOT Road Maintenance Crew Facility and Salt Dome Building, Flemington, Hunterdon County, NJ** - Project Manager for the structural design of a new 6,500 SF two crew maintenance facility with administrative offices and a garage bay area, an 82 foot diameter, 3,800 +/- ton salt storage building and a detached vehicle storage facility.

**Montville Police & Public Safety Building, Montville, Morris County, NJ** – Project Manager for the design of a new, two story, 18,000 SF public safety building/police station involving the use of precast concrete plank floors, a steel frame roof with architecturally exposed steel framing and unique canopies.

**Roseland Municipal Building and Roof Renovations, Roseland Borough, Essex County, NJ** - Principal-in-

Charge who provided design engineering and construction administration services related to the complete renovation of the Borough's 33,000 SF Municipal Building. The work, which included significant structural work centered on the addition of a new gabled structure over the existing roof, and strengthening to accommodate complete HVAC systems upgrade & replacement, complete fire sprinkler system, fire alarm system modifications, and the addition of a stand-by emergency generator and associated power distribution system.

**Park Ridge Police Facility, Park Ridge, Bergen County, NJ** - Principal-in-Charge of a one-story, 8,000 SF steel framed police facility with moment resisting frames.

**Township of Forks Municipal Complex, Forks Township, Northampton County, PA** - Project Manager who provided structural services for a new 12,790 SF municipal building, a new 14,440 SF fire house, and 4,060 SF police station addition.

**Township of Princeton Municipal Complex, Princeton, Mercer County, NJ** - Project Manager for the design of a multi-story, 54,000 SF municipal facility featuring curved roofs and architecturally exposed steel. It houses administrative offices, community development services, a courtroom, and police facilities. The building has a structural steel frame with concrete slabs and masonry walls.

**Wall Township Police Headquarters, Wall Township, Monmouth County, NJ** - Principal-in-Charge of both a new 35,000 SF two-story with basement addition and the renovation of the existing police facility. The design includes gage metal truss analysis, steel frame with composite deck, and one-way concrete slab and foundation analysis. The lateral system of the new addition is special masonry shear walls conforming to New Jersey Uniform Construction Code in conjunction with IBC 2000. The lateral design considers the movement of both the new and existing buildings at the junction of the structures.

**Union County Juvenile Detention Center, Elizabeth, Union County, NJ** – Principal-in-Charge of providing full structural engineering services for the design of a multi-level, 72,000 SF, 80 bed Juvenile Detention Center. The project features a central secure courtyard, five residential housing units, outdoor recreation yards adjacent to each housing unit, several day rooms, a large gymnasium, classroom, administrative, and cafeteria spaces.

## **CONDITION REPORTS/ASSESSMENTS**

**Due Diligence Existing Condition Study, Creative Realities Office and Warehouse, Fairfield Township, Essex County, NJ** - Project Manager who provided an assessment of the existing mechanical, electrical, and structural infrastructure, including repair/upgrade recommendations and cost estimates for a 16,000 SF office and warehouse facility.

**Due Diligence Existing Conditions Study, Care One Assisted Living Facility, Morris Township, Morris County, NJ** - Project Manager who conducted an assessment of the existing structural infrastructure, including repair/upgrade recommendations and cost estimates, for a 79,000 SF, three-story assisted living facility.

**Plainfield Board of Education Building Assessment, Plainfield, Union County, NJ** - Project Manager for a structural due diligence investigation, document review and condition survey of an existing four-story office

building considered for adaptive reuse as a school facility by the Plainfield Board of Education. The scope of work included an analysis and review of the rehabilitation sub-code of the New Jersey Uniform Construction Code.

**Onyx Equities Phase I Environmental Site Assessment and Property Condition Assessment Due Diligence, White Plains, Westchester County, NY** - Structural Principal-in-Charge who oversaw a structural condition survey and pre-purchase inspection of two, 3 story office buildings totaling 371,000 SF.

### **PARKS & LANDSCAPE PROJECTS**

**Central Park Expansion, Bensalem Township, Bucks County, PA** - Project Manager who prepared structural drawings and specifications for a new wood framed walkway, nature trail and footbridge at a large municipal park facility.

**Donaldson Park, Highland Park, Middlesex County, NJ** – Project Manager for the structural design of a new boat ramp, boardwalk, & foundation design for a restroom facility.

**Windsor Park Sand Filters, Englewood, Bergen County, NJ** - Project Manager who was involved in the structural design of 16 sand filter tank structures.

**Grover Cleveland Park Rehabilitation of Various Facilities, Caldwell Borough, Essex County, NJ** - Project Manager who provided structural engineering services for this 41-acre recreation facility. This park rehabilitation project consisted of upgrading, renovation, replacement and/or repair of the various park amenities and buildings. The improvements included: renovation of tennis courts; new sports lighting; fencing; resurfacing; color coating and striping; tennis building renovations; children’s building renovations with new restrooms; indoor meeting space; outdoor patio area and renovation to meet accessibility requirements; turf reconstruction; park entrance enhancements; signage and pathway improvements; site lighting and landscape upgrading; amenities such as water fountains; fencing; park benches; trash receptacles; and storm water management and erosion control.

**Lincoln Park West Lake Rehabilitation Project, Jersey City, Hudson County, NJ** - Project Manager who provided structural engineering services for this Lake Restoration & Wetland Habitat Design project. The park facilities consist of a lake restoration and shore line stabilization; wetland habitat areas designed and constructed with native plant materials; pedestrian walkways and footbridge over narrow portion of lake; and areas for passive recreation such as sitting areas, bird watching, and fishing.

**Passive Waterfront Park & Environmental Education Walkway, Bayonne, Hudson County, NJ** - Structural Task Manager who provided structural engineering services for the development of a passive waterfront park with enhanced wildlife & wetland habitats, a wetland nature trail with bird watching & photography “blinds”, interpretative signage for environmental education, outdoor amphitheater space, nature trails, and various park improvements for passive recreation.

**Phil Rizzuto Park, Union & Elizabeth, Union County, NJ** - Structural Task Manager who provided structural engineering services for the development of an 11-acre site. The park includes a soccer field, playgrounds, a water spray play area, restroom/shelter building, picnic pavilion, accessible paths with exercise stations,

seating plaza with gazebos, picnic area, ornamental fencing, and monument area praising NY Yankee Hall of Fame Baseball Player Phil Rizzuto, a local resident.

**Charleston Springs Golf Course Clubhouse, Perrineville, Monmouth County, NJ** - Project Manager who provided complete structural engineering services for this 10,000 SF golf clubhouse featuring an outdoor patio built over a 7,000 SF golf storage garage with a two-way flat slab for the roof. The building features two wings with attractive standing seam roofs and cupolas connected by an outdoor breezeway.

**Grover Cleveland Park Phase II, Caldwell, Essex County, NJ** - Structural Task Manager for the structural design associated with a new entrance portico for the existing pond house along with the foundation design for site light poles.

## **ROOF PROJECTS**

**2 Cranberry Road, Parsippany-Troy Hills, Morris County, NJ** – Project Manager who prepared a complete building feasibility study for the 200,000 SF building, prior to our client purchasing the building. During the roofing portion of the feasibility study, we took roof sample cores, which indicated that the roof had one roofing system, asbestos in the flashings around the units and the perimeter, the perimeter copings were rusted, falling off and in some areas already missing. The building had some leaks identified around abandoned equipment, the perimeter and a large leak concentrated in one location. Given the amount of leaks our first recommendation to the client was to have an infrared scan performed. The infrared scan indicated that on the 100,000 SF roof only 17 SF of wet insulation would be found. The roof became a perfect candidate for a rehabilitation project.

Once purchased, we prepared documentation to remove all abandoned equipment, infilling the penetrations, removing the area of wet insulation, inspecting the metal deck where install crickets to redirect water to the internal roof drains, replacing the strainers of the drains, installing a second modified roofing system with flood coat and gravel over the existing roof. Once constructed, it would give the client a new roof with a 15-year warranty. We worked with their facility manager, to contact qualified contractors to get the best price from the best contractor. We also provided part-time construction administration services, which included weekly site visits to observe the construction, and answer any technical questions the client or the contractor had through-out construction. The project was completed on time without any change orders.

**Bloomfield Municipal Building Roof Replacement, Bloomfield, Essex County, NJ** – Principal-in-Charge who was hired by the Township of Bloomfield to do a three phase project. The first phase involved a feasibility study of their flat roof, slate sloped roof and cupola. We provided the Township with several options for repair. After reviewing all options, the Township of Bloomfield decided upon a complete removal of the flat roof and installing a new modified bituminous roofing system, replacing the slate tile with new slate tile with an alternate for composite slate and to repair the cupola with missing ballustrade, and repairing the open joints. The design phase (2<sup>nd</sup> phase) will incorporate all of those items into a biddable set of documents that the Township will be able to put on the street for competitive bidding. The third phase will involve the Construction Administration and Inspection of the work being performed.

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**Malaspina Solar Panel Roof Evaluation, Hammonton, Atlantic County, NJ** - Project Manager for the provided the structural analysis and strengthening design for an existing barn structure to enable it to support the weight of new photo-voltaic panels.

**Mannington Mills Solar Panel Roof Evaluation, Mannington, Salem County, NJ** - Principal-in-Charge who provided the structural analysis of an existing steel frame industrial complex to establish the live load capacity of the existing framing and verify that the framing could support the loads imposed by new solar panels.

**McGuire Air Force Base Roof Survey, Burlington, Burlington County, NJ** - Principal-in-Charge who oversaw a structural walk about survey of an existing truss roof.

**New Bolton Center Solar Panel Structural Evaluation, East Marlborough, Chester County, PA** - Project Manager who provided the structural analysis of the existing roof framing to verify that it was structurally adequate to support a new array of photo-voltaic panels. The existing building was approximately 140 feet in length by 80 feet in width with roof framing consisting of premanufactured wood trusses.

### MISCELLANEOUS

**Cannizzaro Residence Pool, Rumson, Monmouth County, NJ** - Project Manager for a 13,500 SF residence with an 18,000-gallon aquarium tank and aquatic support. The residence included a detached garage with a building link attached to the main house, and a large, open elevated steel framed with composite deck balconies and granite balustrades. The design work initially started as peer review, required complete redesign in design/build construction, including design of deep foundation system pile supported grade beams and slab system. The superstructure design consisted of intricate design of steel, wood truss, and wood frame systems. Construction administration included construction work scheduling, sequencing, grade beam inspection, and extensive field inspection reports.

**Phillipsburg Boat Ramp, Phillipsburg, Warren County, NJ** - Structural Task Manager for the replacement of an existing boat launch that was damaged with a new concrete boat launch. Given the steep terrain adjacent to the launch site, we designed several concrete retaining walls and reconfigured the access road to provide a more functional and safer approach.