

Submitted to:

State of New Jersey
Department of the Treasury
Division of Property Management and Construction

Project #J0334 - 00

Indefinite Delivery Indefinite Quantity (IDIQ)

MULTIPLE AWARD TERM CONTRACT (CMF 003) FOR CONSTRUCTION MANAGEMENT SERVICES (CMF 003) ON REBUILD BY DESIGN PROJECTS AND OTHER NJ DEP FLOOD MITIGATION AND ENVIRONMENTAL INFRASTRUCTURE PROJECTS

Submitted by:

HAKS

ORIGINAL
December 3, 2015

HAKS

Construction Management Engineering Architecture
Land Surveying Material Testing

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December 3, 2015

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State of New Jersey
Department of the Treasury; Division of Property Management & Construction
33 West State Street, 9th Floor, Plan Room
Trenton, New Jersey 08625

Attention: Catherine Douglas, Contract Procurement Unit

Re: DPMC PROJECT # J0334-00
Indefinite Delivery Indefinite Quantity (IDIQ) Multiple Award Term Contract (CMF 003) for Construction Management Services on Rebuild by Design Projects and other NJ DEP Flood Mitigation and Environmental Infrastructure Projects

Enclosed please find our response to the DPMC's solicitation for performance of the referenced contract. The services required for this Contract are ones that HAKS and our subconsultants, T&M Associates, The RBA Group, Envision Consultants (SBE), AmerCom Corporation (SBE) and M&E Engineering (SBE) provide daily. This proposal highlights our proven ability to successfully carry out similar work for the DPMC, NJ DEP and numerous other clients.

WHY CHOOSE THE HAKS TEAM?

- A Team of full service firms, NJ based, that specialize in the type of work that may be required under this Contract with offices in northern, central and southern New Jersey.
- Experienced Management and Key Staff with directly relevant experience in Sandy related resiliency projects, flood mitigation projects, and who have worked for many of the municipalities that may be involved with the majority of the work under this contract.
- The resources of the **HAKS** Team, over 1000 strong, comprised of highly qualified, experienced, dedicated individuals
- Unyielding commitment to safety and quality management

Should you have any questions, I can be reached at (732) 540-4087 or lmiquel@haks.net. We look forward to continuing and expanding our successful working relationship with the DPMC and NJ DEP on this Contract. Thank you for your consideration.

Respectfully submitted,
HAKS

Lissette Miquel, P.E.
Senior Vice President

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1. Firm / Team Organization

HAKS has assembled a strong, versatile Team that will provide the NJ DPMC with the full range of services required for the IDIQ Term Contract for Construction Management Services on Rebuild by Design Projects and other NJ DEP Flood Mitigation and Environmental Infrastructure Projects. HAKS, as the prime consultant will serve as the CMF and be the responsible firm on this Contract with all Management, Administrative and Contractual responsibility. HAKS will also lead the Construction Management and Construction Support services including QA/QC and Health and Safety tasks associated with this Contract.

Additional Team members were selected for their specific experience with similar work and their ability to support the HAKS Team providing certain specialized services. As noted below, the Team includes well known firms that have worked directly for the NJ DPMC, the NJ DEP and various towns and municipalities that were seriously affected by Hurricane Sandy. The Team also includes key SBE firms that add value to our Team, and with whom we have an ongoing successful relationship.

- T & M Associates – will provide support for the Construction Management and Construction Support services; and be available as a specialty firm for any Design or Environmental services that may be required.
- The RBA Group – will provide support in any Design, and lead any Environmental services that may be required.
- Envision Consultants, Ltd. (SBE) - will provide support for the Construction Management and Construction Support services.
- AmerCom Corp. (SBE) - will provide support for the Construction Management services; and be available as a specialty firm for any Geotechnical services that may be required.
- M&E Engineers, Inc. (SBE) – will provide any Commissioning services required.

The Organization Chart on the following page clearly illustrates our depth of resources in all areas that may be involved on this Contract. Most important is the staff that has been identified in the Construction Management and Construction Support services. This staff has the required experience; has served on similar projects in the Metropolitan area, particularly on projects related to flood mitigation, resiliency and specifically Hurricane Sandy; and is available on short notice for assignments under this Contract. The SBE firms identified above are a key part of the Team, and their staff will fulfill major roles in the organization.

Prominent Key Staff includes experienced senior level individuals that have worked on significant Construction Management programs in New Jersey and New York, and on Sandy recovery projects in the region. This experience will be of great value to the NJDPMC, particularly as it relates to Scheduling, Estimating, Constructability reviews, Value Engineering, and field inspections.

Organizational Chart

DPMC Project # J0334-00
Identinite Delivery Indefinite Quantity (IDIQ)
Multiple Award Term Contract (CMF 003) for
Construction Management Services (CMF 003)
On Rebuilding By Design Projects and Other NJ DEP Flood Mitigation and
Environmental Infrastructure Projects
State Of New Jersey, Department of the Treasury
Division of Property Management & Construction

State of New Jersey
Department of the Treasury

PRINCIPAL-IN-CHARGE
Lissette Miquel, PE (H)

QUALITY ASSURANCE / QUALITY CONTROL
Junaid Syed, PE (H) *
Lance Payne,MSI, LHI, CLA (H)

CONTRACT EXECUTIVE
Alfonso Lopez, PE (H) *

SENIOR PROJECT MANAGER
John Schweppenheiser III, PE (H) *

PROJECT MANAGER
Todd Yanoff, PE (H) *

HEALTH AND SAFETY
Jan Brown, RPIH, CESCO (H) *
Amy Kohn, CSP (H)

DESIGN SERVICES
Jaclyn Flor, PE (T&M)

CIVIL / SITE
Richard Moralle (T&M) *
Joseph Michiels, PE (H)

HYDROLOGY & HYDRAULICS
Bryan VanderGheynst, PE (RBA) *
Timothy Morris (T&M)

LANDSCAPE ARCHITECT
Brian Leff, LLA (T&M) *
Charlie Cunion, LLA (RBA)

UTILITIES
Michael Shine, PE (RBA) *
Ralph Squillante, PE (T&M)

GEOTECHNICAL
Ralph Rios, PE (AC) *

SURVEYING
Steve Mervin, PLS (H) *

GIS
Abdesselam Guettatfi (T&M) *

ARCHITECTURAL
Jose Paz, LEED AP (H) *

CADD
Aarti Gandhi, PMP, LEED GA (H) *

ENVIRONEMENTAL SERVICES
James Brazel (RBA)

EA / EIS
James Brazel (RBA) *
Kristopher Krzyston, CEI, CEM (T&M) *

PERMITTING
Eric Nathanson (T&M) *
Patrick McHugh (RBA)

SITE INVESTIGATION
Glen Calabrese, CHMM, LSRP (RBA) *
Timothy Kinsella (T&M) *

REMEDITATION
Glen Calabrese, CHMM, LSRP (RBA)

ARCHAELOGY
Jean Howson, PhD (RBA) *

HISTORIC ARCHITECTURE
Richard Porter (RBA) *

HAKS

Key
H - HAKS
RBA - The RBA Group
T&M - T&M Associates
E - Envision Consultants, LTD
M&E - M&E Engineers
A - AmerCom (SBE)
* Resumes Enclosed

CONSTRUCTION MANAGEMENT
John Gerlach, PE (H) *

PROJECT CONTROLS

SCHEDULING
Mor Daio (H) *
Srinivas Gidugu, PE (H)
Luke Van Wagenen (E)

ESTIMATING / COST ANALYSIS
Oswaldo Manangon (H) *
Nicole Johnson (E)
Glenn Dehaven (T&M)

DOCUMENT CONTROLS
Nancy Cunningham (E) *
Tonia Karoo (H)
Louis Tedesco (T&M) *

FIELD INSPECTIONS

SUPERINTENDENTS
Jimmy Andrade, PE (H) *
Alan Larson (H) *
Christopher Moser (H) *
Donald Benanti (H) *
Steve Amos (T&M) *
Matthew Szkoony(T&M) *

OFFICE ENGINEERS
Jenny Ortiz (H) *
Reema Albhari (H)
Charlie Christoforatos (H)
Rana Derbaly (H)

INSPECTORS
Jasan Lasasso, PE (H) *
Bernard Atkins (H) *
Jose Pinto (H)
Lucas Olden (H)
Joseph Orlovsky (H)
Jeff Burgos (H)
Matt Szkodny (T&M) *
Keith Mueller (T&M)
Alfred Lombardo (T&M)
Jose M. Taveras (AC)

SUPPORT SERVICES

CONSTRUCTABILITY
Alberto Villaman, PE (H) *
Alfonso Lopez, PE (H)

VALUE ENGINEERING
Thomas Raihl (H)*
John Schweppenheiser, Jr. PE (H) *
Jacklyn Flor, PE (T&M) *
Michael Regan (T&M) *

COMMISSIONING
Gerry Hazel (M&E) *

TESTING
Richard Hallahan, PE (H) *

CLAIMS ANALYSIS
Bruce Betz (E)
Stephen Shallcross (T&M) *

Admin / Celircal
Maria Tavares (H)

CODE COMPLIANCE / DCA COORDINATION
Vincent Plagiaro (H) *
Franck Buczak (T&M)

INSTRUMENTATION
Antonio Dias (H) *
Justin Lasasso (H)

HAKS

Alfonso Lopez, PE

Contract Executive

Mr. Lopez oversees HAKS water infrastructure projects, including tunnels, dams, aqueducts, CSO and water / wastewater facilities. With over 40 years of diverse experience, more than 24 have been at Senior and Principal Management levels in consultant sectors working with public entities as well as in municipal public works. His specialties include organization and operations assessments, optimization restructuring, facilities operations/management & strategic planning for effective delivery of services, projects and public/municipal programs.

EDUCATION

Bachelor of Engineering, Civil Engineering, New York University, NY, NY 1973

PROFESSIONAL REGISTRATION

Professional Engineer – New York 1978, #055618

LICENSES AND CERTIFICATIONS

Top 40 Management- NYC Department of Personnel, Harvard Kennedy School, 1985

Grade 4A Sewage Treatment Operator Certification, New York State, 1980-2007

RELEVANT EXPERIENCE

PRINCIPAL-IN-CHARGE – NYCDEP CAT-DEL Aqueduct Interconnection Construction Management- HAKS is managing a $22 million project to interconnect flow from the open channel Catskill Aqueduct with the pressurized Delaware Aqueduct. Major project elements include installation of reinforced concrete flow/pressure control structure; distribution header; chambers for transferring flow between Delaware and Catskill Aqueducts; and buried 72 and 48 inch diameter piping. The installations require controls and instrumentation for mechanical process, electrical and HVAC work. (5/14 – Present)

PRINCIPAL - IN –CHARGE – NYCDEP Reconstruction of Gilboa Dam located on the North End of the Schoharie Reservoir. This dam and reservoir are critical elements in providing reliable water supply to New York City. The cyclopean concrete and earth dam is being reconstructed with a movable gate system and refaced and strengthened with roller compacted concrete steps and post tensioned multi-longstran anchors. Construction Cost $600 million. (5/14 – Present)

INDEPENDENT CONSULTANT - Veolia Water North America – NYCDEP Operational Excellence (OpX) initiative to identify and implement performance enhancements. (September 2011 – 5/14)

- Provided high level support to Veolia team to enable development of focused and optimized approach in operational efficiency evaluations.
- Providing direction, screening and review in development of potential operational improvement scenarios for all operating water and wastewater bureaus
- Providing support in outreach & communications with various levels in DEP staff and management on findings and recommendations.

NEW YORK BUILDING CONGRESS - Post-Sandy Investigation and Assessment

- Investigated through interviews and site visits the resulting damage of Sandy Hurricane on local wastewater facilities,
- Documented conditions which contributed to failures and damage
- Developed recommendations on 'hardening' of facilities in order to be better prepared in the future.

REGIONAL WATER OPERATIONS MANAGER: September 2007 – August 2011

- Successfully managed offices in Carolina's, New Jersey and New York States through a fast changing downturn economy.
- Maintained market position in New Jersey and Upstate NY while expanding position in New York City
- NR growth for NYC Office from < $5 million in 2007 to $10 million (projected for 2012).
- Provided technical / management support on major water and wastewater Projects in NY for New York City DEP & City of Syracuse; in North Carolina for cities of Raleigh, Cary, Greensboro and Charlotte; in New Jersey for various municipalities
- Active role in day–to-day NYCDEP projects activities including: Tallman Island WPCP Upgrade Design & DSDC (Construction Cost $300M), and NYC DEP Citywide SCADA Projects CM ($50M) as well as NYC DEP Pelham Bay Landfill Monitoring project.

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION: 1973 - 2007

DEPUTY COMMISSIONER BEDC: 2005 – 2007

- As Chief Bureau Administrator, was responsible for a major portion of the Agency's Capital Program including facilities planning, design and construction to upgrade and enhance large complex highly sensitive networks of infrastructure to supply and distribute potable water citywide as well as collect and treat all wastewater citywide.
- Was responsible for development and implementation of department-wide Capital Program Management Strategy including asset evaluations / risk assessments to determine full value of Capital Program needs and priorities.
- Initiated preparation of Bureau wide comprehensive EHS guidelines and SOP's for all construction / construction monitoring activities
- Managed bureau personnel representing various layers of professional staff engaged in project planning, design and construction management through consultant services as well as use of 'in-house' engineering staff.
- Initiated program to expand in-house design activities and capabilities (in-sourcing).
- Significantly restructured the bureau and project management, implementing such practices as independent constructability assessments and cost, scope and schedule control mechanisms as well as change order tracking and control measures.

DEPUTY COMMISSIONER BWT: 2001 – 2005

- Directed the planning and city-wide resource management activities for a network of facilities in the 24/7 operations and maintenance of fourteen water pollution control plants, eight sludge dewatering facilities, ninety-four wastewater pumping stations, five wastewater laboratories, three microbiology labs and auxiliary facilities.
- Responsible for formulating and directing the Bureau's Environmental Compliance, Health and Safety Programs.

John Schweppenheiser, III, PE CME

Senior Project Manager

Mr. Schweppenheiser, III has over 25 years of diversified construction management, engineering design and surveying experience. He has been responsible for complete design and construction management of public and private projects, including shopping centers, utility/roadway improvement projects, residential subdivisions, state/county/local roadways, toll supported authorities, bridge rehabilitation projects, land mining operations, dams, and various environmental projects submitted and approved by the New Jersey Department of Environmental Protection. A majority of the projects include permitting, scoping through final design services, periodic field monitoring, and complete fulltime construction management services including budget and cost controls. In the area of hydrology and hydraulics, he has performed numerous detention basin designs, channel/stream analysis and design, dam failure analysis, flood plain analysis, dam placement/feasibility studies, dam removal feasibility studies and design, pipe and culvert design, emergency action and maintenance plans for large and small dams, and hydrology and hydraulics studies for numerous infrastructure projects. Numerous projects have been submitted and approved by various agencies such as Soil Erosion, NJDEP Bureau of Floodplain Management, NJDEP Dam Safety, NJDEP Land Use and FEMA/USACE.

EDUCATION

B.S., Civil Engineering Technology, Old Dominion University, 1990

HEC-2 - Flood Plain Hydraulics

HEC-RAS Floodway Routing

HEC-HMS Surface Water Hydrology

Pennsylvania Soil Erosion Design

Association of Dam Safety Officials – current

Builders League of South Jersey

ASCE Bridge Rehabilitation

PennDOT Culvert Design

Procedures

NYCDEP – Security Clearancee

ASHE

PROFFESIONAL REGISTRATION

Professional Engineer - New Jersey, #GE40821; Pennsylvania, #051657E

Certified Municipal Engineer - New Jersey

PE Ethics - Current

RELEVANT EXPERIENCE

PROJECT MANAGER/TRANSITION MANAGER - NJTA Supervision of Construction Contract No. A3559, Construction Management and Inspection Services Facilities Improvement Program Maintenance Districts. This project involves the overall construction management of complete reconstruction and rehabilitation for 22 maintenance and salt shed sites on both the Garden State Parkway and New Jersey Turnpike totaling over $300 million dollars in construction. As a major sub consultant to Hill International specific duties include project management services of a staff of 10 – 15 resident engineers, inspectors and office personnel assigned to the program. In addition to the HAKS management duties, overall program Transition Manager tasks are being performed for all facilities located in the southern half of the state on both the GSP and the Turnpike. This task involves assisting the resident engineer and staff with meeting with contractors, attending pre construction meetings, performing QA services, coordination with NJTA departments and other management duties all in an effort to expedite the start of construction and ensure all tasks are completed on schedule. Construction Cost: $300 million, HAKS fee $5.5 Million (1/15 – Present) Reference: [redacted] Asst. Chief Engineer Design, NJTA [redacted] Hill International [redacted]

PROJECT EXECUTIVE/HYDROLOGY/HYDRAULICS QA MANAGER NYCDEP Water for the Future Project, Rondout-West Branch Bypass Tunnel: Bell Property, Town of Newburgh, New York. Responsible to perform PM services on the stormwater management design and analysis on the "Shaft 5B" site in conjunction with the NYCDEP Water for the Future Project. Design tasks included a pre-construction stormwater analysis, as well as providing stormwater best management practices for the phased construction of the tunnel and shaft, as well as the final condition in various multiyear stages of the post construction property, which included a 105 acre drainage shed in accordance with the previously approved SWPPP for the adjacent property, to meet the requirements

of the NYSDEC and NYCDEP. The proposed design incorporated a series of detention basins to be constructed during the separate phases of construction throughout the tunnel and shaft construction duration. HAKS fee: $250,000, (1/12 to present), Reference: [redacted], [redacted] Senior Program Manager NYC Dept. Env. Protection Bureau of Engineering Design & Construction [redacted]

PROJECT MANAGER - Construction Management Services for the Demolition and Site Restoration of Former Marlboro Psychiatric Hospital, Marlboro, Monmouth County New Jersey. HAKS, as a sub consultant to HMM provided Project Management and construction oversight services for a $22 Million - 407 acre demolition project for the NJDPMC. The project included the demolition of over 107 buildings, roads and 1 mile of underground tunnels within a 14 month duration. PM duties included cost and schedule control and oversight for the HAKS field staff, project reporting to the client, review of environmental permits and coordination efforts with multiple stakeholders. Construction Management responsibilities included review/negotiation of change orders, contractor payment approvals, project progress and budget reporting all of which were per NJDPMC procedures. HAKS ensured continuous work efforts were maintained by logically managing the staging and multiple NJDCA demolition/environmental remediation permits. NJDCA inspection coordination was critical and also remained constant. Construction Cost: $22 million. Reference: [redacted] NJDPMC [redacted] (4/2014 – 7/2015)

PROJECT MANAGER Medford Leas Health Care Facility Building Expansion, Medford New Jersey. Mr. Schweppenheiser was responsible for the complete site planning, environmental permitting, scheduling, stormwater design, utility design, demolition coordination, geotechnical studies and construction administration services for the construction of two multi-story building expansions to the Medford Leas Continuing Care Facility. The project involved zoning and planning approvals, state county and local approvals, stormwater management design, NJDEP flood hazard and Wetlands permitting, soil erosion permitting and advance utility relocation coordination. The project also involves design services during construction with coordination between the site design team, architectural team, mechanical/electrical and plumbing team. Construction Cost $16 Million (10/12-8/15) Reference: [redacted]

Project Manager – NJTA OPS P3471, Supervision of Construction Services (CM services) for Contract No. P500.273, Construction of Troop "D" Bloomfield Station, Parkway MP 153NB. The project consists of the construction of a new single story Police building with a full basement. The building has been designed to meet all current NJ code and sub-codes and will include various operational and administrative rooms. Site work involves earthwork, grading, new concrete curb, a stormwater management system, environmental hazardous remediation and site utility relocations/connections. The site work also involves reconstruction of Ramp "C' entering the service area. Full closure and shoulder closures for drainage and electrical construction are proposed. The project involves a single point of contact to the Authority for all project issues, overall financial administration of the construction contracts and the supervision contracts, continuous conformance inspections against all contract documents, assignment of all inspection personnel including material testing labs, coordination with NJDCA and coordination with all utility companies. Construction Cost: $13.5 Million. (2012-2015) Reference: [redacted]

HYDROLOGY AND HYDRAULICS/CIVIL TASK LEADER – Swatara Creek Bridge Replacement Project, Pennsylvania Turnpike Commission – Dauphin County, PA. Responsible for the complete oversight for the Floodplain approvals and HEC-RAS step backwater analysis of the 600' wide Swatara Creek including confluence studies with the Susquehanna River for the design of a six span Pa. Turnpike bridge replacement, as well as roadway drainage analyses for 3 miles in length. The project also involved the acquisition of USACE wetlands, NEPA, PaDEP, floodplain permitting, new access ramp design and turnpike mainline widening design including maintenance and protection of traffic and soil conversation measures. Value Engineering and Cost

Controls were performed and the team supported the Turnpike through the bidding process and is providing design support during construction. Construction Cost $60 million (07/10 – Current) – Reference: [redacted]

PROJECT MANAGER – Hydraulic and Hydraulics Study/Hazard Classification Analysis, Preliminary and Final Design, Permitting and Construction Management/Inspection Services for Stockwell Dam and Andy Daley Dam, Medford Township, NJ, for YMCA Camp Ockanickon. These dams are Class II dams that failed during floods of July 2004. Conducted pre- and post-visual dam inspections as well as reconstruction designs PondPack, HEC-RAS, HMR-52, StormCAD, AutoCAD, TR-55, TR-20 and rational methods were used with the hydraulic analysis and design. Stream encroachment lines, wetlands lines and soil studies were evaluated and permitted. NEPA and NJ Floodplain approvals were acquired. The replacement dams consisted of reinforced concrete wall design, reinforced concrete culvert design, overtopping flood protection using articulated concrete block system, geotechnical analysis and foundation design. Preliminary and final design plans were reviewed and approved by NJDEP Dam Safety. Project permitting consisted of NJDEP wetlands general permit, New Jersey Pinelands Commission approval, Medford Township site plan approval and soil conservation approval. Construction Management services (including inspections) for the owner were performed and final construction approval was given by NJDEP. Construction cost $2.8 million. Construction completed 2006(SD) 2008(AD). Reference [redacted] NJDEP Bureau of Dam Safety and Flood Control

PROJECT MANAGER – Design, Environmental Permitting and Construction Management Services for Stormwater Basin retrofits for Hoyt Street Basin (construction) and Sunset Avenue Basin (Design) Best Management Practice Project in Ocean County, NJ. The project used a relatively new approach of constructing subsurface gravel wetlands to improve water quality for runoff that discharges into the Barnegat Bay. The work was done under a contract with the Ocean County Engineering Department using NJDEP EIT funding. Seven stormwater management facilities were designed to be retrofitted with underground wetlands in the overall program, the purpose of which is to reduce nitrogen loading to Barnegat Bay. HAKS was assigned one of the facilities, which involves analyzing and redesigning an existing stormwater management facility to function as a subsurface gravel wetland. The construction of a second facility was managed and inspected by HAKS. The modified facilities will store rainfall and route it through flow control components to clean and remove nitrogen before discharging it. The end result will be a substantial water quality improvement to each facility while maintaining the flood control capabilities of the basins. NJEIT funded Program Construction cost $6 million. (6/11 – 5/12) Reference: [redacted] Ocean County Engineer, [redacted]

Other NJDEP/NYCDEP Floodplain/Dam Safety Projects: Ballanger Lake Dam (Class I), Kincaid Lake Dam (Class II), Lost Lake Dams (class II, III), NYCDEP Croton Falls Dam (high hazard), NYCDEP Gilboa Dam (high hazard), Cumberland County 8 visual dam inspections, Essex County Dams (regular and forma inspections and rehabilitation of Diamond Mill Dam), City of Vineland Giampietro Dam and Burnt Mill Dam.

Todd J. Yanoff, PE

Project Manager

Mr. Yanoff has over 16 years of experience in construction services engineering, design and surveying.

EDUCATION

Bachelor of Science, Surveying Engineering Technology, New Jersey Institute of Technology, 2006

Bachelor of Science, Civil Engineering, New Jersey Institute of Technology, 2000

PROFESIONAL REGISTRATION

Professional Engineer –New York 2005, #082562-1

LICENSES AND CERTIFICATIONS

OSHA 10-Hour Construction Safety and Health Training Course, 2002

Spill Prevention Control & Countermeasure Training, 2011

RCRA & Hazardous Waste Training, 2011

Aerial Lifts: Fall Protection from Mobil Equipment, 2011

Labeling & Other Forms of Warning Training, 2011

Lockout Tagout (LOTO): Control of Hazardous Energy, 2011

Exit Routes, Emergency Planning, Fire Protection Training, 2011

Member of the Board of Commissioners for the Pollution Control Financing authority of Warren County, New Jersey

RELEVANT EXPERIENCE

PROJECT MANAGER AND RESIDENT ENGINEER (initially) – NYCDEP - Construction Management Services for Gilboa Dam Reconstruction, Schoharie County. Work includes site preparation, general reconstruction, intake improvements to be done simultaneously with general reconstruction. Perform administrative services that include cost, progress and quality control. Supervise inspection staff, subconsultant personnel and testing laboratories. Negotiate item overruns and contract plan deficiencies/changes with the contractor prior to forwarding the Change Order. Coordinate work with the General Contractors and maintain daily contact with the client and other agencies to keep them informed and to maintain open, effective lines of communication. In charge of permit tracking database which consists of permits with NYSDOT, NYSDEC, Army Corp of Engineers, Historical Society, and the Town of Gilboa. Ensured that Contractor met NEPA/EIS environmental commitments. Supervised the preparation of project records and accounting of contract monies. Review and approve documents including SWPPP reports, inspection reports, change of plans and as-builts. Rectify quantity discrepancies and oversee the preparation of contractor payment estimates. Aided in future Gilboa Dam Project plan review and overall constructability review for these projects. Construction Cost $400 million. (9/09 – present)

RESIDENT ENGINEER – Construction Management Services, Miscellaneous Downstate Area Projects for NYCDEP. Work included providing CM services for construction contracts in the New York Downstate area, which involve contracts for installing and operating chlorination/dechlorination facilities, all mechanical, electrical, instrumentation and civil work; fire alarm system upgrades; and sludge dewatering facilities improvements. (5/09 – 9/09)

RESIDENT ENGINEER – New York State Thruway Authority TANY 08-40, Westchester County, NY. Resident Engineer for the $16.8 million Roadway Resurfacing with safety improvements and miscellaneous work from MP 0.0 to MP 11.3 and various locations in Westchester County. Performed administrative services that included cost, progress and quality control. Supervised inspection staff, subconsultant personnel and testing laboratory; coordinated work with the General Contractor; and maintained daily contact with New York State Thruway Authority (NYSTA) and other agencies to keep the NYSTA informed and to maintain open, effective lines of communication. Supervised the preparation of project records and accounting of contract monies. Reviewed and approved documents including shop drawings, inspection reports, change of plans and as-builts. Rectify quantity discrepancies and oversee the preparation of contractor payment estimates through the use of the NYSTA Computerized Engineer's Estimate System (CEES). (09/08 – 04/09)

RESIDENT ENGINEER – Trump/New World, New York City, NY. Resident Engineer for the $20+ million construction of three new bridges, and the Miller Highway Tunnel North Bound and NYCDEP Sewer Main installation. Scope of work included construction of several hundred piles both battered and vertical, static load testing, rock anchors (including pull tests), significant excavation for footings / relieving platforms and cofferdams. Aided the contractors in their procurement of all necessary NYCDEP permits for the storm sewer pipe installation. Supervised inspection staff, subconsultant personnel, survey crew and testing laboratories; coordinated work with all General Contractors; and maintained daily contact with NYCDOT and other agencies to keep the NYCDOT informed and to maintain open and effective lines of communication. (05/05 – 09/06)

RESIDENT ENGINEER – New York State Thruway Authority– TANY 00-28B, Westchester County, NY. Resident Engineer for the $18.0 million Reconstruction of Six Bridges in the City of Yonkers including Reconstruction of the Lincoln Park Pedestrian Bridge and abutment reconstruction of the Hillview Reservoir Earth Dam. It required bracing the existing side slope in order to complete the excavation for the abutment footing. This was followed by placing concrete for the footing, abutment, retaining wall and staircase. Upon completion of the concrete pours, select structural fill was placed in layers and compacted according to specifications and bracing was removed. Duties as a Resident Engineer included handling and resolving complaints from patrons, government entities and neighboring property owners, aiding NYSTA in the take-over agreement process after the original contractor declared bankruptcy, providing both the NYSTA and Surety Lawyers with documentation and cost analysis of the project's completion, preparing a detailed report for the NYSTA concerning the take-over contractor's lack of performance, aiding the contractor with the procurement of all documentation and permits needed for the removal of hazardous waste, ensuring that all work was performed in accordance with NEPA/EIS environmental permits and commitments, performing administrative services which included cost, progress and quality control, reviewing documents including shop drawings, inspection reports, change of plans and as-builts, rectifying quantity discrepancies and overseeing the preparation of contractor payment estimates through the use of the NYSTA Computerized Engineer's Estimate System (CEES). (05/01 – 09/05)

RESIDENT ENGINEER – Milltown Road Bridge Over the Raritan River, Union County, NJ. $1.75 million Reconstruction of the Milltown Road Bridge over the Raritan River. Duties included are as follows: Performed administrative services which included cost, progress and quality control. Supervised the preparation of project records and accounting of contract monies. Ensured that all work was performed in accordance with local and state permit requirements. Reviewed documents including shop drawings, inspection reports, change of plans and as-builts. Rectified quantity discrepancies and oversee the preparation of contractor payment estimates. (03/05 – 06/05)

DESIGN ENGINEER – Completed site plans, conceptual plans, grading analysis, water resource engineering and drainage calculations including drainage and retention basin design, stream encroachment applications, soil erosion and sediment control facilities for environmental permitting. Performed geotechnical analysis in various soil strata in order to determine drainage coefficients. (04/98 – 04/99)

EDUCATION
B.S. Civil Engineering, 1979

PROFESSIONAL REGISTRATION
Registered Professional Engineer, NY #071937

CERTIFICATIONS
OSHA Authorized Construction Trainer – OSHA 500

OSHA 30 Hour, Construction Safety and Health

OSHA 10 Hour, Construction Safety and Health

Junaid Y. Syed, PE

Quality Assurance / Quality Control

Mr. Syed has 35 years of versatile experience in bridge and roadway engineering construction inspection, construction management, bridge inspection, contract procurement and administration with special emphasis on integration of quality and safety in all job activities.

RELEVANT EXPERIENCE

HEAD OF QUALITY ASSURANCE, ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT – HAKS, New York, NY. Under his direction, HAKS utilizes a Quality Management System that conforms to ISO 9001:2008 and an Environmental, Health and Safety Management System that is ISO 14000 and 1800 compliant to meet all client requirements. These systems are currently employed on such projects as the award-winning reconstruction of the Gilboa Dam, Shaft 4 and By-Pass Tunnel for the New York City Department of Environmental Protection; the Hugh L. Carey Tunnel electric switchgear and power distribution project for MTA Bridges Tunnels; and the I-95 and Route 1 Reconstruction for the Connecticut DOT, which is improving traffic flow and access to the interstate. Oversee development, implementation and maintenance of EH&S policies and procedures. Monitor and oversee contractor's activities to ensure that safety requirements are implemented in all aspects of the contract in accordance with applicable OSHA requirements and contract documents. Provide executive direction in the coordination of and performance of regular site safety and quality audits/inspections as stipulated in the contract; review audit findings and any recommended actions. Chair Corporate Safety Committee meetings. Review and approve site-specific EH&S plans, contractor's safety personnel. Ensure auditing and continual improvement takes place in accordance with HAKs ISO 18000 and 14000 pending certifications. (2015 – Present)

EXECUTIVE DEPUTY AGENCY CHIEF CONTRACTING OFFICER (ACCO) - New York City Department of Transportation. (1997 – 2015) Mr. Syed directed, managed and oversaw all capital contract procurement and administration activities for NYCDOT, from inception to registration. He ensured the work that was performed was suitable for the intended purpose and it was without errors and defects first time. Provided executive direction for the ongoing projects contract administration activities; supervised managerial, engineering and procurement employees; Conducted comprehensive training sessions and seminars for the agency staff on related topics such as Automated Procurement Tracking (APT), LL63 plan, change orders, time extensions. Developed agency procurement and contract policy procedures and guidelines; Served as a liaison between DOT's operating Divisions and Mayor's Office of Construction Services (MOCS), Office of the Comptroller, other agencies, to resolve emerging issues related to procurement and administration of contracts. Served as ACCO's designee in his/her absence. (1997 – 2015)

ENGINEER-IN-CHARGE - Bureau of Quality Assurance (QA), NYCDOT. Administered, managed and provided technical guidance in the implementation of QA program on all NYCDOT Capital Bridge Construction Projects. Coordinated extensively with other city agencies to resolve Q/A issues related to the bridge construction projects. Conducted pre-construction meetings and provided professional & technical advice to contractors and divisions. Assisted supervisor on an as needed basis.

ENGINEER-IN-CHARGE - Responsible for the Construction Management and Supervision of Bridge Reconstruction/Rehabilitation Contracts for the NYCDOT Capital Construction Program. Supervised the activities of Resident Engineering (REI) staff managing the construction contracts. Directed the activities of the Consultant for Support Services (CSS) and closely monitored Contractor's construction activities.

RESIDENT CONSTRUCTION ENGINEER - Responsible in charge for the management of the demolition, removal and complete reconstruction of a multi-span Grand Concourse over East Tremont Avenue steel bridge for the New York City Department of Transportation.

RESIDENT CONSTRUCTION ENGINEER - Responsible in charge for the overnight deck patching and joint repair work of several bridges over heavily travelled highways in Essex County, NJ for the New Jersey Department of Transportation.

PROJECT ENGINEER/ASSISTANT BRIDGE INSPECTION TEAM LEADER – Various Projects, NJ. Project Engineer/Assistant Bridge Inspection Team Leader responsible for the regular and interim bridge inspection of several NJDOT and NJ Transit multi-span bridges at various locations in New Jersey. Performed comprehensive field inspection, SI&A Coding, repair recommendations and preparation of preliminary and final bridge reports in conformance with NJDOT specifications. Performed structural analysis and load ratings calculations for multi-span steel girders conforming to NJDOT requirements. Also performed design calculations for flexible and rigid pavements, ultimate bearing capacity and settlement calculations for spread footings and pile foundations, conforming to AASHTO, USDOT FHWA, and NAVFAC design manuals.

As **EXECUTIVE DEPUTY ACCO**, directed, managed and oversaw capital contract procurement and administration activities for NYCDOT for the following but not limited to projects:

Reconstruction of Willis Avenue Bridge, Macombs Dam Bridge, Madison Avenue and 3RD Avenue Bridges; Historic East River Bridges; Five major bridges over Belt Shore Parkway; City Island Bridge; and Marine Borers repairs over FDR; Design Build of St. George Ferry Terminal Ramps; Total Design & CSS for the new and modified Ferries; Bike Share Program; Design, Fabrication and Installation of Standardized Pedestrian Wayfinding elements, Citywide; Red Light and Bus Lane Camera Program; Installation of ASTC Controllers, Citywide; PM Services for Hunts Point Clean Air Program; Sign Information Management (SIMS)

EDUCATION

B.S. - Occupational Safety & Health Engineering, Columbia Southern University

M.S. – Environmental Management, Ashford University

REGISTRATIONS / CERTIFICATIONS

Association of Professional Industrial Hygienists (APIH) / Registered Professional Industrial Hygienist (RPIH)

National Registry of Environmental Professionals (NREP) / Certified Environmental Safety Compliance Officer (CESCO)

American Safety & Health Institute (ASHI) / Master Instructor Trainer (MIT)

Emergency Care & Safety Institute (ECSI) / Instructor Trainer (IT)

First Safety Institute (FSI) / Instructor I

Institute forSaftey and Health Management(ISHM)\/Associate Safety and Health Manager

SPECIALIZED TRAINING

HazCat Training Course for Hazardous Materials Identification, 2005.

HAPSITE Portable GC/MS Operation (INFICON), 2005.

HAZWOPER Refresher Training, 2013.

Environmental Workshop Refresher Course (ANG), 2005.

Environmental Management System (USAF), 2004.

OSHA advanced PPE & Respiratory Protection Training), 2010

Hazardous Waste Management (40 CFR 264.16c), 2002.
Registered Environmental Manager Training (REM), 14-15, 2001.

Industrial Hygiene Measurements Course (USAFSAM), 1992.

Bioenvironmental Engineering Specialist Course (USAFSAM), 1988.

Air Force Hearing Conservationist (USAFSAM), cert# 84-65, 1984.

Jan M. Brown, RPIH, CESCO

Health and Safety

Mr. Brown is a Senior Industrial Hygienist with over 30 years of experience in management and performance of hazardous materials/industrial hygiene surveys, remediation projects and health and safety programs. He has served as Senior Environmental Health and Safety Specialist on several NYC Department of Environmental Protection (NYCDEP) construction projects, including the Rondout West Branch Tunnel Rehabilitation project. Additionally, Mr. Brown has served as Program Manager for all environmental, safety, and public health activities at Stewart Air Force Base in Newburgh, New York, and as Senior Industrial Hygienist responsible for USAF and USMC occupational safety and health programs.

RELEVANT EXPERIENCE

HEALTH & SAFETY OFFICER - St. George Terminal Interlocking Sandy Repairs, NYCT, Staten Island, NY. The St. George Terminal in Staten Island is a park-and-ride and sea, railway and bus transit center located on the northernmost end of the Staten Island Railway. The Staten Island Ferry operates between the St. George Terminal and Whitehall Terminal in Lower Manhattan. Flooding from Hurricane Sandy caused irreparable damage to switches, cables and wiring of the existing interlocking area, which consists of 17 switches and 12 operating tracks. HAKS will be specifically responsible for conformance to Sandy audit requirements; utilization of Constructware software as a project management tool; overseeing monitoring of noise, vibration and air and water quality; and coordination of material testing, including off-site testing by an independent entity. Upon construction completion, HAKS will acquire as-built drawings and documentation for review and approval.

ENVIRONMENTAL CONSULTANT SERVICES DURING UNDERWATER CONSTRUCTION. Mr. Brown has served as Project Manager for construction environmental health and safety oversight throughout the Rondout West Branch Tunnel Rehabilitation project. Dive-specific services have included review and approval of dive plans, review of dive team credentials, equipment calibration and maintenance logs, setup of initial training program with outside dive consultant and implementation of training program for duration of dive events and inspection and monitoring of underwater activities utilizing video surveillance systems. Scheduled and coordinated EHS staffing for ongoing 24-hour/day, 7-day/week dive operations. Also responsible for development, review and approval of task specific JHAs, review and comment on contractor HASPs, enforcement of contractor HASP requirements and implementation of CM HASP.

ENVIRONMENTAL CONSULTANT SERVICES DURING CONSTRUCTION. Mr. Brown served as Project Manager for construction health and safety oversight and hazardous materials management for various NYCDEP construction projects, including the Croton Water Treatment Plant and Ultraviolet Light Disinfection Facility, Hillview Reservoir Chamber Reconstruction Contract, and

Rondout West Branch Tunnel Rehabilitation. Health and safety services included the preparation and implementation of site-specific health and safety plans (HASP), review of contractor HASPs and various submittals associated with solid and hazardous materials management, monitoring contractor compliance with approved project plans, monitoring noise and air quality during construction, determining if work can continue based on the established OSHA and NIOSH exposure guidelines, and recommendation of mitigative actions to allow work to proceed in the presence of hazardous materials. Assigned, trained, and supervised field staff.

INDUSTRIAL HYGIENE SERVICES. Mr. Brown has extensive experience in providing industrial hygiene services as briefly summarized below.

- Program Manager for all Environmental, Safety, and Public Health activities at Stewart Air Base with 23 years' experience.
- Sr. Industrial Hygienist responsible for USAF and USMC occupational safety and health programs. Including all aspects found in industrial and administrative work centers.
- Provide IH support and consultation for United States Military Academy, West Point, New York.
- Manage Respiratory Protection Program (RPP) for 42 industrial shops including 420 personnel.
- Manager of Occupational Safety & Health (OS&HD) database, allowing Industrial Hygiene (IH) technicians to efficiently accomplish surveys.
- Created and managed the Hazardous Communications Pro-gram (HAZCOM). Recognized as benchmark Air Force program, successful in preparing over 3000 employees for working in a safe and healthy environment.
- Authored technical IH and occupational safety & health survey reports detailing findings based on scientific fact.
- Investigated accidents and developed policy to correct problems through risk assessment, risk management, and effective risk communication.
- Served as a voting member on the Environmental Protection Committee, Occupational Safety and Health Committee, Aero-space Medicine Council and Medical Group Executive Management Committee.
- Supervised selection and use of all Personal Protective Equipment & Clothing (PPE & PPC) for industrial and administrative work centers.
- Managed the Radiation Safety Program, inspected and sampled all radiation sources as required by permit. USAF certified Radiation Safety Officer (RSO)
- Managed all aspects of the Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) program for Stewart Air Base. Participant in all facets of exercise drills including training of team members. Conducted exercise evaluations as part of the Exercise Evaluation Team (EET)

COORDINATOR for Environmental Management Programs to include: Drinking Water, Waste Water, Chemical Procurement, Storage & Handling, and Radiation Safety. In addition functioned as the point of contact (POC) for all animal control and depredation programs at Stewart International Airport with USDA, NYS-DEC, NYS-DOH, NYC-DEP and OCHD.

EDUCATION

M.S., Geotechnical Engineering, State University of New York, Buffalo

B.S., Civil Engineering, State University of New York, Buffalo

PROFESSIONAL REGISTRATION

Professional Engineer –New York 1979, #056591

LICENSES AND CERTIFICATIONS

Top Secret Clearance issued 19 May 2014

ACI Grade 1 Certified

OSHA 10 Certified

John Gerlach, PE

GeoTechnical / Construction Management

Mr. Gerlach has over 35 years of experience in design and construction projects for the Federal Government on civil works and military facilities.

RELEVANT EXPERIENCE

PROJECT ENGINEER - Gilboa Dam Reconstruction, Schoharie County, NY. Phase 3 of this massive undertaking, the Reconstruction of the Gilboa Dam, has been completed two years ahead of schedule in spite of $18 million in damage and an eight- month delay caused by Hurricane Irene. The $140 million dam reconstruction phase, which began in 2011, adds up to 12 feet of mass concrete to the face of the dam and required approximately 120,000 cubic yards of concrete. The project team completed reconstruction of the spillway control section, removed and reconstructed the spillway channel and plunge pool, installed a new under-drain system, modified and repaired the existing spillway training walls, modified the existing upstream embankment slope to meet current stability requirements, placed earthfill on the crest of the embankment section to create a level and uniform surface, refurbished the upper gate chamber and made further improvements to the instrumentation and surveillance system. Two 6-foot-diameter temporary siphons were installed to enable NYCDEP to draw down water levels in the reservoir for snowpack mitigation and support project construction.

PROJECT ENGINEER/Rehired Annuitant U.S. Army Corps of Engineers Herbert Hoover Dike Rehabilitation Project Wellington, Florida Resident Office. Duties include Project Engineering, Quality Assurance testing and Contract Administration for the $46million construction contract for culverts C11 and C16, Herbert Hoover Dike Restoration. The Herbert Hoover Dike is considered a DSAC 1, (Dam Safety Action Classification System) dam, meaning it has the highest priority for remediation to ensure public safety.

- Involved in analyzing and negotiating contractor claims for changes in testing requirements for the filter layer within the soil cofferdam, adding of water proof seals, adding additional armor stone and signage and delay of work construction claims due to weather for the C16 culvert and cut-off dike.
- Reviewed and processed submittals, schedules and RFI's for the C11/C16 culvert contracts.
- Monitored both the quality assurance inspections of concrete, steel and earthwork construction operations and contractor quality control activities to assure compliance with all construction requirements for the C11/C16 culverts and associated earthwork cut-off dikes.

PROJECT ENGINEER - Advance Testing Company, Campbell Hall, NY. Included the oversight of materials testing, data management and foundation engineering and construction on a variety of asphalt paving, highway bridges

and building projects within the northeast. Projects include;

- Dynamic pile testing and the monitoring of the installation of steel H-piles for the I-84 Bridge at Exit 1.
- Monitoring the installation of micro piles and underpinning for the new addition to the building on E85th St, Manhattan
- Review and evaluate; concrete test results, asphalt test results, the placement of concrete on numerous bridge decks, and the placement of asphalt on numerous highway projects for all for NJDOT and NYSDOT, using the MURK format.

RESIDENT ENGINEER FOR CONSTRUCTION - U.S. Army Corps of Engineers. Responsibilities as a Resident Engineer for construction of Humanitarian Aid projects within Georgia, Armenia and Azerbaijan totaling $9.5 million dollars annually included;

- Successfully managed an office staff of 5 local nationals and 1 Dept of the Army civilian responsible for conducting periodic site inspections to ensure the timely and economical execution, proper quality and quantity of materials used, equipment and workmanship, adequacy of contractor's methods and operations, interpreting the contractual documents to ensure that all work is carried out in accordance with the plans and specifications.
- Safety is the Number 1 objective on all Corps of Engineers projects. All contractors were briefed, using the Corps of Engineers Safety Manual, EM385-1-1. The result was No lost time accidents during my tenure.
- Supervised quality assurance inspections of construction operations and monitored the contractor quality control activities to assure compliance with all contract requirements for the construction of CoE projects in Georgia, Armenia and Azerbaijan. Reviewed, accepted or rejected finished work and evaluated contractor performance on all projects.
- Recommended and involved in the termination for default of 3 task orders awarded to the same contractor. These task orders were USAID funded and were for the partial renovation of 3 hospitals within the Republic of Georgia.
- Negotiated with contractors concerning modifications to the contract for the construction of the 2 story, $1.3 million boat maintenance facility for the Georgian Coast Guard and for construction of the 4 floors, $1.8 million Pathology lab and morgue for the Georgian Ministry of Internal Affairs.
- Participated in weekly coordination meetings with representatives from the U.S. Embassy, the customer and the end user and the Project Delivery Team to ensure proper contract administration and construction management.

Steven F. Mervine, PLS

Surveying

Mr. Mervine has over 37 years of diversified Land Surveying, Engineering & Construction experience. He has been responsible for all phases of land surveying including state highway surveys, railroad surveys, residential developments, large tract outbound surveys, aerial photo control, topographic surveys, and route surveys. He has performed and managed construction layout for highways, utilities, infrastructure, dams, railroads, residential subdivisions and commercial sites. In addition, he has extensive experience with GPS Surveys, Geodetic Surveys, Aerial Photo Control, Utility Designating/Locating, and 3D High Definition Surveying (HDS) Laser Scanning. Mr. Mervine's extensive experience of construction layout has advanced to providing quality control of engineering projects for his clients. He has performed numerous as-builts of new utility installations, earthwork volume calculations, right of way surveys for streets, railroads and utility companies.

EDUCATION

NJ Society of Professional Land Surveyors

13 PDH Hours – February 2013

Laser Scanning Applications – 2012

NA2011 Better Positions – NSRS – 2012

Railroad Surveying – 2012

GPS Data Processing w/ LGO – 2010

Coordinate Systems & Transformations In GPS Surveying – 2010

Surveying Standards in Practice – 2008

Local Perspectives on Using National Datum & Models – 2008

Riparian Boundaries – 2008

New Evidence & Procedures for Boundary Location – 2006

Pennsylvania Society of Land Surveyors

Detention Pond Design 1 & 2 – 2009

Storm Sewer Design 1 & 2 – 2009

Stormwater BMP – 2009

Pennsylvania Unique Legal – 2008

Pennsylvania Minor Engineering – 2008

Rutgers University, Camden, NJ
Certificate Course – Land Surveying – 1980

PROFESSIONAL REGISTRATION

New Jersey – 1985 Lic. No. 30743

Delaware – 2006 Lic. No. S6-0000722

Pennsylvania – 2008 Lic. No. SU075205

Maryland – 2011 Lic. No. 0021584

LICENSES AND CERTIFICATIONS

New Jersey Society of Professional Land Surveyors- West Jersey Chapter Past President

RELEVANT EXPERIENCE

PROJECT MANAGER – Borough of Bay Head, Ocean County, NJ – Performed Green Acre Surveys for 25 parcels in the Borough of Bay Head, Ocean County for the New Jersey Department of Environmental Protection (NJDEP) Bureau of Coastal Engineering. The NJDEP Bureau of Coastal Engineering is acquiring perpetual easements over these properties for the United States Army Corps of Engineers ("USACE") proposed beach replenishment and dune construction project. Surveys were completed in accordance with NJDEP's Green Acres Program "Scope of Survey and Standard Detail Requirements". Client Contact: [redacted] Assistant County Engineer, [redacted] 11-2014 to 1-2015.

PROJECT MANAGER – Delaware River Port Authority (DRPA), Port Authority Transit Corporation (PATCO) – Utility As-builts involving horizontally & vertically locating the surface features of existing utilities that are present on the PATCO properties and ROW and that abut or cross the ROW. This includes researching municipal utilities such as water, sanitary and storm sewer utilities; and privately controlled gas, electric, telephone, cable and water utilities. The research involves contacting and working with eight (8) municipalities in Camden County, NJ and the City of Philadelphia, PA. Collected data is being processed and plotted in separate drawing files using AutoCad Civil 3d 2013. Client Contact: [redacted] 0-2013 to present.

PROJECT MANAGER – The Port Authority of New York and New Jersey – New Jersey Marine Terminal – City of Newark, Essex County, New Jersey – Supervised the Survey and Topography Survey for base mapping for the re-design of eight (8) intersections. Horizontal and vertical control locations were referenced to NAVD88 and NAD83. Survey field work was performed in accordance with the PANYNJ Standards. Base mapping was prepared with AutoCAD Civil 3D 2013, using the PANYNJ Central Survey Group CAD Standards manual. The HAKS safety procedures and protocols were followed. Client Contact: [redacted] Survey Project Manager [redacted] 10-2013 to 12-2014.

PROJECT MANAGER – Port Authority of NY & NJ 2013-2015 - Performance of Expert Professional Utility Designating/ Locating Services on and On-Call Basis. Assignments have been completed including the retracement of waterlines at the Lincoln Tunnel Toll Plaza building, New Jersey plaza, and the location of underground utilities at the Newark Marine Terminal, Newark, NJ. Client Contact: [redacted] PANYNJ, [redacted] 0-2013 to 1-2014.

PROJECT MANAGER – Ocean County, Hooper Avenue, Brick Township, NJ – Topography Survey for the design of roadway improvements for a one mile section of Hooper Avenue. Managed HAKS' survey department with the schedule, QA/QC procedures and budgets. Oversaw the research and compilation of County maps. Supervise survey with the establishment of baselines and topographic data acquisition. Supervised the field survey of the topography & utility data acquisition using GPS equipment and conventional & robotic total stations. Performed quality control management & implemented QA/QC measures. Manage the creations of DTM's and the preparation of MicroStation produced Topography Survey Plan. Client Contact: [redacted] Assistant County Engineer [redacted] 11-2013 to 12-2014.

PROJECT MANAGER – New York City Department of Environmental Protection – Gilboa Dam, New York – Supervised and assisted with land surveying tasks to assist the Construction Management team for the duration of the project including crest gate bolt locations and verifications, horizontal traverses, large scale vertical control bench loops for construction tracking, 3D HD laser scanning of the dam and as-builts. Client Contact: [redacted], NYCDEP [redacted] 12-2011 to present

PROJECT MANAGER – Town of Guilford, Long Hill Road, Town of Guilford, Connecticut – Topography Survey and Right of Way determination for the design of roadway and stormwater management improvements for 3800 lf section of Long Hill Road. Managed HAKS' survey department with the schedule, QA/QC procedures and budgets. Oversaw the research and compilation of town maps, survey plans & deeds. Established horizontal & vertical control for photogrammetric compilation and aerial photography utilizing Global Positioning Systems (GPS), conventional traversing and level runs. Supervised the field survey of the topography & utility data acquisition using GPS and conventional & robotic total stations. Manage the creations of DTM's and the preparation of MicroStation produced Topography Survey Plan. Client Contact: [redacted] Town of Guilford, Connecticut; 8-2013 to 10-2013.

PROJECT MANAGER –PANYNJ, Lemoine Street & Center Street Bridges at George Washington Bridge, Fort Lee, New Jersey – Topography Survey for the design of improvements to two (2) bridges. Supervise survey department with the establishment of baselines and topographic data acquisition. Manage crews using GPS to establish horizontal control. Overseeing field crews using HDS laser scanning with a Leica ScanStation 2 and Cyclone 7.1 scanning software to safely collect data to avoid occupying the travel lanes and collect measurements beneath the structures. Conventional total stations were used to quality control the 3D HDS laser scanning. Manage the creations of DTM's and the preparation of AutoCad produced Topography Survey Plan. Survey field work, calculations and AutoCad plans were performed in accordance with the PANYNJ. Client Contact: [redacted] P.L.S., PANYNJ [redacted] 12-2012 to 9-2013.

EDUCATION

3D Drawing & Model Auto CAD, Pratt School of Professional Studies, 1999
Bachelor of Architecture, New Jersey Institute of Technology, 1994

PROFESIONAL REGISTRATION

LEED AP, 2003

Jose Paz, LEED AP

Architectural

Mr. Paz has over 21 years of experience in architectural design, construction administration, and project management for education, transportation, and corporate projects.

RELEVANT EXPERIENCE

PROJECT MANAGER – Middlesex County Fire Academy, New Garage and Administration Building Complex, NJ. Responsible for the design of a ten-bay pre-engineered garage and a two-story administration building. The garage building is approximately 11,900 square feet, and the administration building is approximately 7,000 square feet (combined the first and second floor levels). Construction Cost: $3.5 Million (10/12 – Present)

PROJECT MANAGER – Architectural and Engineering Services for the NJDPMC, for the Basement Remediation at NJ State House Annex Building, Trenton, NJ. Scope of work includes remedial work for mold at the existing horizontal mechanical chase for ten rooms, replacement of the fan coil units at affected rooms and interior renovations of the ten offices in the basement. Fee: $89,000 (5/15 – Present)

PROJECT MANAGER – Architectural and Engineering Services for the NJDPMC, at the NJ State Training School for Boys Community House – Secondary Means of Egress. Scope of work included the installation of a new handicap access ramp at main entry and a new exit stair with canopy at rear of the building for a second means of egress from the Place of Assembly. Fee: $96,030 (7/15 – Present)

PROJECT MANAGER – Middlesex County, Vehicle Storage Garage, Sayreville, NJ. Responsible for the design of a new vehicle storage garage building. The new structure is approximately 11,650 sf. The structure is a pre-engineered garage building to be used for the Middlesex County Emergency Service Center. The garage building is rectangular and divided into five bays expanding from wall to wall without intermediate columns to allow for an open plan design. Construction Cost: $1.2 Million (2006 – 2007)

PROJECT MANAGER – NJSCC, Jersey City Program Management Firm Contract. Responsible for pre-construction management services as a major subconsultant on the URS-led team. Providing day-to-day expertise for design and construction phases of this capital improvement plan under the New Jersey State school financing program. Construction Cost: $150 Million

PROJECT ARCHITECT – Essex County Rehabilitation of Netherwood Building at Watsessing Park, East Orange, NJ. Architectural and engineering services to renovate the existing 1,250-sf Netherwood Building. The client requested a complete set of construction documents in a two-week period in order to meet Essex County's aggressive schedule. The entire facility was surveyed and all

deficiencies were documented, including life safety and ADA. The design, which included new insulated windows, doors, ADA-compliant toilet areas, new furred walls, new ceilings, new floors, insulation, new energy-efficient HVAC system, and landscaping, is modern but retains the historic attributes of the building. Construction Cost: $500,000

PROJECT MANAGER – PANYNJ, Holland Tunnel Control Center, NJ/NY. Responsible for architectural design and construction administration for a design/build 1,500-SF facility located on the second floor of an existing building adjacent to the Holland Tunnel and includes a control room, video wall, offices, and new communications room. Construction Cost: $2 Million (2003 – 2005)

PROJECT MANAGER – Newark Public Schools, Network Disaster Recovery Room, NJ. This 2,000-sf facility was designed to serve as a back-up center to the entire district network system. The scope of work included the complete demolition of the existing interior space and the design of a new space that accommodated all the IT equipment necessary to provide a secure system that could be engaged during a main network failure. The facility includes access floors, two private offices, emergency generator, UPS ancillary equipment, redundancy on heating and air conditioning, FM200 fire suppression system, CCTV and security system. Construction Cost: $800,000

PROJECT ARCHITECT – NJ TRANSIT, Hudson-Bergen Light Rail Transit System Subsequent Operating Segment, NJ. Final architectural design of six new stations for the Subsequent Operating Segment (SOS) of HBLRTS into Hoboken, Weehawken, and North Bergen, NJ. Construction Cost: $550 Million

PROJECT MANAGER – NJ State Police, North Regional Laboratory Roof Replacement, Little Falls, NJ. Responsible for 6,000-sf roof replacement with a new four-ply built-up roofing system. Asbestos testing and abatement were also incorporated into the package. The work was staged to minimize the overall impact to the operations of the 24-hour security-sensitive facility. Construction Cost: $135,000. (3/01)

PROJECT MANAGER – NJDPMC, Medical Examiner Laboratory Roof Replacement, Newark, NJ. Responsible for design and construction administration services to completely remove the existing 15,000-sf coal-tar roofing system on the Regional Medical Examiner Laboratory Building. The roof was replaced with a new four-ply built-up roofing system. Construction Cost: $290,000. (12/01)

PROJECT ARCHITECT – NJ Transit/PANYNJ, Newark Liberty International Airport Rail Station, NJ. Final architectural design of the new 60,000-sf NJ TRANSIT passenger transfer station to serve the Northeast Corridor and the Newark Liberty International Airport AirTrain extension. Construction Cost: $45 Million

PROJECT ARCHITECT – US Air Force, McGuire Air Force Base Buildings 2250/2251 Roof Replacement, NJ. Architectural design and preparation of contract documents for this 20,000-sf roof replacement on two aircraft hangars. Construction Cost: $300,000 (1996)

PROJECT MANAGER – Hoboken Housing Authority, On-Call A/E Services, NJ. Assignments included: compactor room renovations; kitchen upgrades; new community center; security fence; boiler room drainage; and Fox Hills Gardens roof replacement for the Hoboken Housing Authority as part of its accelerated modernization program. Construction Cost: $13.2 Million. (12/00)

EDUCATION

Bachelors in Architecture, Academy of Architecture, Mumbai, India, 2003

PROFESIONAL REGISTRATION

Project Management Professional
Autodesk Certified Revit Architecture 2014 Professional
Autodesk Certified Revit MEP 2015 Certified Professional
LEED Green Associate

Aarti Gandhi, PMP, LEED GA

CADD

Ms. Gandhi has over 11 years of experience working on architectural projects. She is a BIM expert with solid knowledge of leading 3D modeling software, implementation of best practices and their interoperability. Ms. Gandhi has demonstrated proven leadership skills in the management of consultants for project specific documentation support and implementation of firmwide BIM environment to deliver projects to the highest quality, and within budget. Her experience also includes comprehensive space management and architectural, structural, MEP experience in all phases of design from schematic design to construction documents phase.

RELEVANT EXPERIENCE

CADD/BIM MANAGER – HAKS Companywide. Main point of contact for the Project Design Team on all software, licensing and Standards on CAD and Revit building design software related issues (architectural design, MEP and structural engineering, and construction); Support and facilitating coordination across all disciplines on Best Practices while moving through the lifecycle of a project; Responsible for the configuration of all software used in the systems and workflows; Manage Autodesk and Bentley Design Software Licenses; Support project teams as needed in the development of 3D models through design and construction document production; Coordinating with project team members to assist in the management of 3D model or 2D drawings; Maintain a high level of competency of software Companywide; Assisting in development and maintenance of technologies and processes relative to CAD and BIM; Developing, implementing, and enforcing CAD standards; Attending project meetings to foster coordination between users; Oversight of printing and publishing drawings sets at various milestones; Proactive approach and self-learning; Develop best practice documents on workflows, support and training. With consideration to multi-discipline projects and external office collaborations, contracts and industry standards; Assist in setting up new projects and project teams and help in planning the time with consideration to BIM related tasks; Develop the standard BIM/CAD libraries and content management protocols; Keep up to date with the market and suggested best practice methods; Work with the IT team to provide comprehensive support and business development. Including improvements on the BIM technology and workflow with the objective to increase ROI; Liaise with clients, consultants and contractors on their IT and CAD requirements for information exchange and inter-operability. (4/2015 – Present)

CADD/BIM MANAGER – Gravesend Houses, located at 2793 West 33rd Street, Brooklyn, NY for NYCHA. Constructed in 1954, the 12.41 acre campus is home to approximately 1,680 residents in 634 apartments. At its waterfront location in Coney Island, the campus, bordered by West 33rd Street, Neptune and Bayview Avenues, suffered considerable damage during Hurricane Sandy. HAKS is developing design plans for New Roof, Building Envelope, a new centralized boiler plant as well as new electrical distribution system and replacement of all mechanical equipment in each of the 15 buildings. Construction Cost: $132 Million (4/2015 – Present)

BIM/CAD MANAGER – New York, NY. Developed an executed technology strategy for the firm, including but not limited to aspects such as Quality Assurance/Quality Checks of BIM models, BIM standards and related software solutions. Enhanced firm-wide quality models through clash tests amongst the structural and MEP models. Delivered project specific goals and objectives for BIM Execution Plan. Conducted in-house software training sessions using self-produced training manuals and for design teams. Tracked and performed periodic software upgrades and updates. (2013 – 2015)

BIM MANAGER – Princeton University, Princeton, NJ. Prepared 3D model in Revit for the renovation and expansion for Princeton University. Coordinated modeling efforts amongst an India-based team, conducted quality control checks, resolved errors and utilized BIM 360 Glue to ensure consistency in drawings amongst structural, architectural and MEP models. (2010 – 2012)

BIM MANAGER – 626 Flatbush Avenue, Brooklyn, NY. Leveraged Revit skills to prepare construction documents for 23-story residential building. Prepared 3D renderings of kitchen and bathroom, and 3D massing model for submission to NYC Zoning Authority. (2010 – 2012)

BIM MANAGER – HAVAS, New York, NY. Collaborated with Senior Project Architect to develop space designs of a 120,000-SF corporate interiors project in New York City. (2010 – 2012)

PROJECT ARCHITECT – Trans Hudson Express Project, North Bergen, NJ for NJ Transit. Responsible for preparing drawings and documents for demolition and relocation of an existing warehouse. (2008 – 2009)

INTERMEDIATE ARCHITECT – Ponemah Mills, Taftville, CT. Key member of 5-person team responsible for conversion of a historic (registered with National Park Services) 13.5-acre textile mill factory into a 400-unit mixed use residential development. (2004 – 2007)

Mor Diao

Scheduling

Mr. Diao has over 7 years of experience in scheduling and controlling projects using Primavera Project Management (P6). He has a strong understanding of Project Management Principles and CPM scheduling techniques and is expert in Primavera Project Management P6 and P3. Mr. Diao has a total of 12 years of professional experience.

EDUCATION

M.S., Construction Management Student: NYU-Poly Brooklyn, NY, Expected 2015

B.A., Information Systems, Minor in Information Assurance in the Criminal Justice System, Pace University, New York. NY, 2010

Associates in Applied Science, Computer Network Systems Administration, LaGuardia Community College, 2007

LICENSE AND CERTIFICATIONS

Primavera Project Management P6 and P3 Training from Oracle

Project+

PMI Membership

MTA NYC Transit Track Safety Certification

DEP 4 hours EHS Standards training

OSHA Globally Harmonized System

RELEVANT EXPERIENCE

BB-28S, Sandy Restoration & Mitigation; BB-28, Phase II/BB-54 Brooklyn Plaza Rehabilitation, Brooklyn, NY – MTA Bridges and Tunnels. Serving as the Client Scheduler for this Contract No: BB-28S, BB-28/BB-54 ($290M). The Work is to be performed on the Triborough Bridge and Tunnel Authority Facility: Hugh L. Carey Tunnel (Formerly Brooklyn Battery Tunnel) and the Brooklyn Plaza at the Hugh L. Carey Tunnel, which is located in the Borough of Brooklyn and the Borough of Manhattan. Duties includes reviewing and recommending approval/revision/rejection of the contractor's baseline schedule and monthly schedule updates for compliance with the construction contract in accordance with the Critical Path Method schedule to assure on-time project completion and present schedule analysis report to the MTA - NYCT. Responsible for running monthly CPM meeting to discuss Critical Path, potential delay, any variances and the one (1) Month Lookahead. (12/14 – Present)

PROJECT SCHEDULER – Flood Repairs at St. George Interlocking, Staten Island, NY – MTA – NYCT, Contract T-80276. Serving as the Client Scheduler for this project ($79M). The scope of work consists of complete modernization and replacement of the St. George Interlocking. This includes replacement of all ballast, track, ties, contact rail, bumper blocks, lubricators and switches within the limits of the project; replacement of the slip switches layout with a diamond crossover. Duties includes reviewing and recommending approval/revision/rejection of the contractor's baseline schedule and monthly schedule updates for compliance with the construction contract in accordance with the Critical Path Method schedule to assure on-time project completion and present schedule analysis report to the MTA - NYCT. Responsible for running monthly CPM meeting to discuss Critical Path, potential delay, any variances and the one (1) Month Lookahead. (09/17 – Present)

PROJECT SCHEDULER – Catskill and Delaware Interconnection at Shaft 4, Town of Gardiner, NY – NYCDEP. Serving as the Client Scheduler for this project ($22M). The project involves the construction of a water supply connection from the Delaware Aqueduct to the Catskill Aqueduct at the existing Delaware Aqueduct Shaft 4 facility. The construction includes an underground structural addition to the existing Shaft 4 chamber, new pipes, valves and flow meters, new water quality monitoring equipment, and a creation of a new site access driveway and associated parking area. Duties includes reviewing and recommending approval/revision/rejection of the contractor's baseline schedule and monthly schedule updates for compliance with the construction contract in

accordance with the Critical Path Method schedule to assure on-time project completion and present schedule analysis report to the NYCDEP. Responsible for running monthly CPM meeting to discuss Critical Path, potential delay, any variances and the one (1) Month Lookahead. (08/14 – Present)

PROJECT SCHEDULER – Repainting Structural Steel and Miscellaneous Bridge Improvement, Union, Essex, Hudson and Bergen Counties, New Jersey – NJTA. Serving as the Client Scheduler for this project ($9M). The scope of work entails the repainting of previously pointed steel and weathering steel as well as miscellaneous bridge improvements along fifteen (15) Structures along the NJ Turnpike in Union, Essex, Hudson and Bergen Counties, NJ. The major work items includes, containment, priming, sealing, sealing, steel repairs, substructure membrane waterproofing and finish coat painting. (09/13- Present)

PROJECT SCHEDULER – Route 35 Greenwood Drive to Prospect Avenue, Middlesex, Aberdeen and Monmouth counties, New Jersey – NJDOT. Serving as the Scheduler for this project ($16M). The scope of work entails roadway reconstruction and culvert construction along Route 35. Duties include reviewing the contractor's schedule in accordance with NJ Department of Transportation Standard Specifications, project Special Provisions, contract plans and the NJDOT's Capital Program Management Construction Scheduling Standard Coding and Procedures for Designers and Contractor Manual. (08/13-Present)

PROJECT SCHEDULER - Bowery Bay and Tallman Island WPCP - NYCDEP. The scope of work included construction management services for upgrade of the Tallman Island/Powell's Cove Pump Station in College Point, Queens, under on-call contract. Worked closely with the designer, contractor and NYDEP to resolve constructability issues and field problems as they arose. Services encompassed construction inspection and project administration. Interpreting, clarifying and refining contract document details as they arose, preparing changes due to field conditions, identifying constructability issues, and detecting potential construction delays. Reviewing all schedules and reports prepared by contractors to assure conformance with project completion dates. Construction Cost $8.7 Million. (01/13-present)

PRIMAVERA PROJECT MANAGEMENT ADMINISTRATOR – NYSCA. Responsible for adding users, modifying user's access, deleting users from the PPM environment, adding security profiles and modifying existing security profiles. Also responsible for adding, renaming and deleting project codes and activity codes; adding, renaming and deleting baseline type. Responsible for adding, modifying and deleting user defined fields, calendars, and report groups. Responsible for running weekly and quarterly reconciliation reports to ensure that the data in the Primavera Project Management global environment matches the data in the global data spreadsheets. (2008-2011)

EDUCATION

Civil Engineer, Polytechnic School Army Corps (ESPE), December 1979 - Quito – Ecuador

CERTIFICAION

Home Maintenance Training, June 2000

30 – HR OSHA (29 CFR 1926) Oct. 2001

Confined Space Entry, Dec 2001

Fall Protection and New Steel Erection, Jan 2002

Joint Labor and Management Safety and Health Committees, Jan 2002

Cranes/Hoist/Material Handling, Feb 2002

Drafting with AutoCad 2002

Moving Micro-Station V8, Aug 2002

Introduction to Construction Cost Estimating, NYU, Fall 2004

Certificate of Training HCSS, Dec. 2006

Primavera Project Manager P6 – Basic Course-Catalystusa Sept. 2009

Actualization of 10-HR OSHA Course, Oct. 2009

Primavera Project Manager P6 – Advance Course-DRMcNatty & Ass-April 2011

COMPUTER SKILLS

Microsoft Word, Excel, Power Point, Microsoft Access, Graphic Software, and other applications from Microsoft, Lotus and Corel.

CONTROL AND COST:

Control and Costs:

Primavera Contract Manager, P3, P6 and Suretrack, AutoCAD & Micro Station, National Estimator, HCSS, T.Off

Vertigraph

Oswaldo Manango

Estimating / Cost Analysis

Mr. Manangon has over 33 years of experience in bid preparation, field supervision, and construction contract administration. As a Senior Project Engineer, he has been responsible for project-wide cost control, involved in estimation, requisition control, revenue, risk analysis, and projections of cost for completion. In addition, he has coordinated and controlled all work activities, performed material quantity takeoffs, and prepared construction schedules.

RELEVANT EXPERIENCE

SENIOR PROJECT ENGINEER – NYSDOT, Rehabilitation of 62 Bridges in Bronx 7 NY Counties, D262631, New York, New York. Responsible for the project wide cost control, and involved in estimation, requisition control, revenue, risk analysis and projection cost to completion. Responsible and coordination of submittals, shop drawings, field survey, review process, and quality assurance/material testing. Construction Cost: $63 Million. (08/2014 – 04/2015)

ESTIMATOR – NYCEDC, High Line S1, Phase II - Landscaping, #16230006, Long Island City, New York. Responsible for quantity take-off, updating company's vendor database using the Blue Book's website, preparation of bid packages for vendors, setting the vendors quick entry system and performing activities entry in the HCSS estimating software. Construction Cost: $27 Million. (04/2007 – 09/2007)

ESTIMATOR – Responsible for quantity take-off, updating company's vendor database using the Blue Book's website, preparation of bid packages for vendors, setting the vendors quick entry system and performing activities entry in the HCSS estimating software on the following projects: (02/2006 – 08/2006)

- AMTRAK, Hell Gate Catenaries Modifications, #S/N, Long Island City, New York. Construction Cost: $3 Million.
- LGA, Rehabilitation of Bridge Structures L1 & L2, #124.138, Long Island City, New York. Construction Cost: $30 Million.
- Cleaning & Recoating 13 Bridges in Richmond County, #D-260079, Long Island City, New York. Construction Cost: $3 Million.
- Widening & Rehabilitation of Wellwood Ave. Bridge, #CR-3, Long Island City, New York. Construction Cost: $11 Million.
- Bridge Painting (17 Bridges) - Nassau & Suffolk Counties, #D260166, Long Island City, New York. Construction Cost: $3 Million.

ESTIMATOR / FIELD RESIDENT – Responsible for quantity take-off, cost estimating, preparation of bid packages for vendors, prepare scopes of work. Maintained project files, set-up spreadsheets for buyouts, reviewed specifications to compile items to be submitted for approval. Coordinated labor crews and sub-contractors forces, and prepared work schedules on the following projects: (02/2004 – 02/2006)

- Transcorp Construction Corp., Development 7 & 6 Story Building, Flushing & Lee Ave., Elmhurst, New York. Construction Cost: $15 Million.

- Transcorp Construction Corp., Development 41 Houses, Ocean Hill East, Phase II, Elmhurst, New York. Construction Cost: $10 Million.
- Transcorp Construction Corp., Development 42 Houses, Ocean Hill South, Phases I & II, Elmhurst, New York. Construction Cost: $15 Million.

ESTIMATOR – Responsible for quantity take-off, updating company's vendor database using the Blue Book's website, preparation of bid packages for vendors, setting the vendors quick entry system and performing activities entry in the HCSS estimating software on the following projects: (01/2003 – 02/2004)

- Port Authority of NY & NJ, Rehabilitation of Deck, Structural Steel and Replacement of Sidewalks at Goethals Bridge, Whitestone & Long Island City, New York. Construction Cost: $63 Million.
- Replacement of Hillside & Jamaica Avenue Bridges, #D259284, Whitestone & Long Island City, New York. Construction Cost: $30 Million.
- Reconstruction of Queensboro Bridge, Rehabilitation of Miscellaneous Components, #BRC231C, Whitestone & Long Island City, New York. Construction Cost: $30 Million.

PROJECT ENGINEER – NYCTA, Structural Rehabilitation of Culver Line Viaduct, #C-33219, Brooklyn, New York. Responsible for field survey of steel work, checking of shop drawings for accuracy, coordination of labor crews and sub-contractors forces, and preparation of quantities for monthly requisition and change orders. Construction Cost: $14 Million. (01/2001 – 12/2002)

FIELD SUPERINTENDENT – NYCTA, Rehabilitation of Grand St. Station, Flushing, New York. Responsibilities included direct supervision of labor trades job, coordination and scheduling, safety plan preparation and conducted safety meetings for the safety performance of the work. (01/1999 – 12/2000)

HIGHWAY PROJECTS COORDINATOR – Army Corps of Engineers, Planning Department, Ecuador. Responsibilities included cost estimating, bid documents, procurement of materials and equipment, subcontractor scheduling and coordination, job schedules, shop drawings and approvals, projects meetings. Technical Representative with State and Private Entities. (01/1985 – 12/1994)

PROJECT SUPERINTENDENT – Responsibilities included directing and supervising labor trades: progress reports and requisitions, cost engineering and estimating, update projects CPM schedules, coordination of subcontractors, and procurement of materials and equipment. Structural design and analysis. All phases of project management on the following projects: (01/1982 – 12/1984)

- Construction and Rehabilitation of the Highway Guaranda, Bilován, Balzapamba, Ecuador
- Redesign and Construction of Road, included asphalted and works complementary in the Terminal of Clean Products, CEPE (PetroEcuador), Guayaquil, Ecuador
- Construction and Maintenance of roads and platforms for oil wells in the Ecuadorian Amazons
- Construction of the storage tanks for the Refinery of CEPE (PetroEcuador), Balao, Esmeraldas, Ecuador

FIELD ENGINEER – Army Corps of Engineers, Highways "Otavalo-Selva Alegre", "Pasaje-San Francisco", and "Ambato-Guaranda," Ecuador. Responsibilities included directing and supervising labor trades: progress reports and requisitions, cost engineering, update projects CPM schedules, coordination of subcontractors, and procurement of materials and equipment. (01/1980 – 12/1981)

EDUCATION

BS,1992 - Civil Engineering, City College of NY

AAS/1985/, NYC Technical College

PROFESIONAL REGISTRATION

PE/2001/New York, Registration No. 78593

LICENSES AND CERTIFICATIONS

Rutgers TCC Certification

NJSAT Certification

ACI Concrete Construction Special Inspector

Jimmy Andrade, PE

Superintendent

Mr. Andrade has over 27 years of extensive construction inspection experience, working on a variety of roadway and bridge rehabilitation and reconstruction projects involving milling, asphalt paving, concrete spall repairs, bearing installation, joint repair and replacement, structure demolition, steel erection, and maintenance and protection of traffic.

RELEVANT EXPERIENCE

PROJECT MANAGER – NJTA Contract No. T100.299 Bridge Repairs and Resurfacing, MP 0-122. This contract involves the replacing of deteriorated concrete bridge deck slabs, repairing deck and substructure concrete spalls, reconstructing deck joints, asphalt removal and resurfacing, miscellaneous structural steel repairs, reconstruction of bearing areas, bridge bearing repairs and replacement, emergency repairs,, and extensive MPT at 60+ locations. Construction cost $8.5 Million (3/15 to present). Reference: [redacted]

PROJECT MANAGER –NJDOT Route 35 Greenwood Drive to Prospect Avenue. The project consists of roadway rehabilitation, widening, drainage, safety improvements, four intersections improvement, and two culvert replacementsbetween MP 44.48 and 45.7 along Route 35. Construction cost $16 Million (10/14 to present). Reference: [redacted]

ASSISTANT RESIDENT ENGINEER - NJTP Interchange 6 to 9 Widening Program, NJ. Assistant Resident Engineer for 64 Million Contract 701 to construct the new NSO and SNO roadways from Brickyard Road to north of Station Road in the township of Cranbury.\, Middlesex County. Reconstruction of the inner roadways, reconstruction of the existing mainline skew bridge structure over Hightstown Cranbury Station Road, drainage, new drilled shaft sign structures, revised highway lighting and ITS, and signing and striping. Reconstruction of local Station Road overpass, extension of Indian Run Brook culvert, MSE and soldier piles retaining walls, HP steel piles for the various overpass structures and ConRail line reconstruction. Constructability review of various 6 to 9 widening contract documents. The NJ Turnpike Interchange 6 to 9 Widening Program (Widening Program) consists of approximately 35 miles of road widening and associated interchange improvements from the vicinity of Interchange 6, in Mansfield Township, Burlington County (Milepost 48) to just south of Interchange 9 in East Brunswick Township, Middlesex County (Milepost 83).

RESIDENT ENGINEER - Randall's Island Sports Field Development Project, New York City Economic Development Corporation (NYCEDC), New York: Resident Engineer for the $130 million sports field development at Randall's Island. Construction scope of work included new electric substation and more than 60 new state-of-the-art sports fields accommodating a wide range of sports, including soccer, softball, baseball, as well as lacrosse, rugby, and cricket. The project was administrated by NYCEDC for NYCDPR and the

Randall's Island Sports Foundation (RISF). Coordination with NYCDPR, RISF, Con Edison, TBTA, NYCDEP, NYCDOT, Verizon, NYSDMH and third party contractors was required for the island-wide reconstruction activities taking place under various ongoing contracts. Services included resident engineering and inspection services; project administration; Primavera scheduling, recommendations for testing; and verification of compliance to plans and specifications. Responsible for managing large-scale construction inspection in such diverse areas as roadway construction and realignment, sanitary and storm sewers and outfalls, landscaping and plantings, lighting and electrical supply.

ASSISTANT RESIDENT ENGINEER - Gowanus Expressway Emergency Repair, NYSDOT, New York: Assistant Resident Engineer for a $151 million project in Brooklyn which reconstructed the BQE/Gowanus Expressway Interchange. The work includes demolition of an existing bridge and replacement with a three-lane multi-span composite girder viaduct one-half mile in length, as well as a 450 foot long three span bridge. Local utility relocations, ongoing work by the TBTA at the Brooklyn Battery Tunnel Toll Plaza and construction of a new water tunnel by NYCDE also had to be coordinated.

RESIDENT ENGINEER - Route 9A Reconstruction, NYSDOT, New York: Resident Engineer for the reconstruction of $175 million Route 9A, Clarkson Street to 44th Street, Segments 4, 5, and 6. These projects involved the widening of the Westside Highway in Manhattan from four lanes to seven lanes consisting of concrete euro-pavement, milling, asphalt paving, new pavement markings, waterproofing sidewalk vaults, extensive utility work(gas, electric, communications, sewers, outfalls, water, drainage) the installation of conduits for fiber-optic cable and computerized signal systems for connection to the joint traffic operations center, maintenance and protection of traffic, bikeway/walkways, planted median, and planned buffer zone and the construction of the 3.5-acre Thomas Smith Park. Demolition of several buildings for the construction of open spaces and realignment of roadway.

ASSISTANT RESIDENT ENGINEER - Route 9A Reconstruction, New York State Department of Transportation (NYSDOT, New York City, New York: Assistant Resident Engineer for the construction of a promenade from Battery Place to West Thames Street, and the reconstruction of Battery Place to Washington Street. In addition, the project also includes the rehabilitation of the West Street underpass and the Battery Park underpass. It will involve extensive maintenance and protection of traffic and ITS installation, and significant landscaping.

ASSISTANT RESIDENT ENGINEER - Triborough Bridge Randall's Island Junction Structure Deck Replacement, MTA Bridges and Tunnels, New York: Assistant Resident Engineer for the $140 million phase I deck replacement of the Triborough Bridge Randall's Island Junction Structure, Bronx approach, and Bronx Kills truss spans.

EDUCATION

Bachelor of Science, Civil Engineering, Case Western Reserve University, 1981

PROFESIONAL REGISTRATION

Professional Engineer – New York 1994,#071824-1

LICENSES AND CERTIFICATIONS

OSHA 10-Hour

Construction Safety and Health Training Course, 2011

MTA NYC Transit

8-hour Track Safety Training, 2015

Alan Larson, PE

Superintendent

Mr. Larson has 34 years of diverse experience in project engineering, construction management, and design of a variety of building rehabilitation and waterfront related engineering projects. Projects include planning and new construction of marine terminals, rehabilitation and repairs to existing buildings, piers, bulkheads, relieving platforms, and building inspections. Specific experience includes preparation of design and contract documents; contract tenders, bids, and awards; design and construction management for capital projects. He has a total of over 11 years of experience as construction Resident Engineer, including field inspection of pile-supported concrete structures, selective repairs to reinforced concrete and brick masonry buildings, and construction of various waterfront structures and foundations.

RELEVANT EXPERIENCE

RESIDENT ENGINEER – New Sludge Force Mains and Loading Dock at Newtown Creek WWTP, NYCDEP, Brooklyn, NY. Lead Owners Representative, responsible for direction of inspection staff and reviewing their daily inspection reports; providing engineering decisions based on the plans, specifications, and special provisions; observing the work to verify that the procedures, materials, and construction conform to the plans and specifications and examined the workmanship for conformity and approved installation. The project also included maintenance dredging of Newtown Creek/ Whale Creek to accommodate new sludge transfer vessels. The dredge site is a federal Superfund area, and the dredging work was carried out with strict environmental oversight by both State and Federal authorities. Construction Cost: $45 Million (12/10 – Present)

LOCAL DIRECTOR – New Container Terminal Expansion, Haifa, Israel for Israel Ports Company. Management and client liaison for complete preliminary design of proposed marine container port expansion. The program provides berthing facilities and channel improvements for Post-Panamax container vessels. Major activities include navigation studies, tender and administration of marine geotechnical and geophysical investigations, physical modeling studies, seismic risk assessment, material acquisition studies, navigation simulation studies, environmental impact assessment. The preliminary design, following rigorous analysis and comparison of alternatives, comprises rubble mound breakwaters, Caisson breakwaters, anchored steel king-pile quay walls, and 650,000m2 land reclamation. Estimated Construction Cost: $1.0 Billion (2009 – 2010)

RESIDENT ENGINEER – Berth Upgrade, Paulsboro, NJ, for Valero Refining Company. Phased, fast track reconstruction of two berths for ocean-going tankers in sequence, at Valero Refining Company. Responsible for contract document, code compliance review, quality assurance, and construction oversight. Also received training in Health, Safety, and Environmental procedures. Construction Value: $30 Million (2007 – 2008)

PROJECT MANAGER – Pier Reconstruction, Manhattan, NY, for Intrepid Museum Foundation. The Project involved demolition and reconstruction of

Pier 86, foot of W 46 Street in Manhattan. Responsible for direct supervision of contract documents and specifications, code compliance review, coordination with design subcontractors, and liaison with the construction contractor and Construction Management team. The new pier is the permanent berth for USS Intrepid Sea/ Air/ Space Museum. The pier provides safe mooring for the retired aircraft carrier, as well as utilities, landscaping, and amenities for the general public, and facilities for special events. The new pier structure includes architecturally significant elevator towers for handicapped accessibility all the way up to Intrepid's flight deck. Construction Value: $30.5 Million (2006 – 2007)

CHIEF OF CONSTRUCTION SURVEY DIVISION – New York City Housing Authority (NYCHA). Responsibilities included supervision and direction of up to twenty full-time NYCHA staff, plus supervision of consultants, to satisfy the structural needs of NYCHA's public housing stock (over 3,000 buildings). The workload of the Unit comprised: inspections by NYCHA engineers and filing for NYC Local Law 11/98, including contract tender and administration for hanging scaffolds; sealing and signing all 1,702 Local Law 11 inspection reports for February 2002 submittal to NYC Department of Buildings; performing condition surveys, repair recommendations, cost estimates, and reports for capital improvement contracts – this material was furnished to NYCHA Design Department for contract documents produced in-house, or by design consultants; performing emergency structural inspections and repair work recommendations, when requested by Development or Boro Management; interacting with DOB, Construction Department requirement contractors, NYCHA managers and superintendents, tenant associations, and residents as required. (5/99 – 1/05)

RESIDENT ENGINEER – Liberty State Park Ferry Terminal, Jersey City, NJ. The Project involved Historic Preservation repairs. It included replication of historic timber pier and fender racks, upon a new pier structure of concrete piles, pile caps, and deck. Also included new ferry berth, fendering, mooring appurtenances, refurbished timber transfer bridges, and encapsulation of low water platform with lightweight concrete. Contract Value: $1.6 Million (1993)

PROJECT ENGINEER – U.S. Coast Guard, Multiple Locations. The Project included inspection and evaluation on an "on-call" basis to the U.S. Coast Guard. Prepared designs and contract documents for bulkhead, piers, and small craft berthing facilities at Coast Guard Stations in Sandy Hook, NJ, East Moriches, NY, Governors Island, NY and Saugerties, NY. (1991)

PROJECT MANAGER – Patuxent River Naval Air Station, Solomons, MD. Work involved waterfront inspection and design services for bulkhead rehabilitation. The contract included 900 l.f. of steel sheet pile bulkhead, with new small craft berthing facilities and utilities. (1986)

RESIDENT ENGINEER – Aqueduct Preservation, Hunterdon County, NJ. Work involved repairs and historic preservation of three aqueducts on the Delaware and Raritan Canal. New Jersey Water Supply Authority maintained the historic structures for flood control, and all work must meet historic preservation/ landmarks criteria. (1986)

RESIDENT ENGINEER – Raven Rock Head Gates, Delaware & Raritan Canal, NJ. Responsible for repairs and historic preservation of Raven Rock Head Gates. (1986)

EDUCATION

Bachelor of Science, Construction Engineering Technology, NJIT ABET Accredited

Associates Degree, Architecture and Building Construction Technology, Mercer County Technical School Carpentry and Masonry Trade School, Bucks County Technical School

LICENSES AND CERTIFICATIONS

CPR/AED

OSHA 30

Primavera

Expedition/Scheduling

RS Means Estimating

MS Office

NJTP-ProjectMates/CAPEX

Christopher Moser

Superintendent

Mr. Moser has over 20 years of extensive management experience in the public and private sectors including schools, utilities, pharmaceutical, retail, transportation, historical, USPS, federal, state and county projects. He has over 33 years of construction knowledge and experience. He maintains a proven track record of successful multi-million dollar projects created from broad experience and expertise in the developing and start-up of project systems, managing teams and coordination of sub-consultants, multi-primes, vendors and code officials. Mr. Moser has extensive experience and knowledge with the interpretation of design documents, contracts, codes and general construction techniques. He is well versed in the use of computer software programs such as Microsoft office, Primavera Contract Management and scheduling software and has excellent knowledge and direction of preconstruction, construction and close out activities. He also has 12 years of hands-on field experience in performing commercial and residential construction and has accumulated an excellent knowledge of field operations and various building trades.

RELEVANT EXPERIENCE

RESIDENT ENGINEER - Engineering Services for the NJTA Pre-Engineered Metal Building (PEMB) Exit 116 Holmdel, New Jersey. HAKS is providing engineering services as the CM on the $881,000 project. As a part of our services we managed the construction from the ground through closeout obtaining a CO from the NJDCA. Our duties included inspection of the work to meet the design and approved submittal shop drawings. We managed the budget providing change order oversight, estimating and recommendations. We fully adhered to the NJTP requirements for entering and reporting daily work information and invoicing within the CapEx and ProjectMates programs. We conducted bi-weekly meetings and reported to the NJTP weekly and monthly on the progress and issues that arose.

CONSTRUCTION MANAGER - Construction Management Services for the Demolition and Site Restoration of Former Marlboro Psychiatric Hospital, Marlboro, Monmouth County New Jersey. HAKS is providing Project Management and oversight services for a $22 Million 407 acre demolition project for the NJDPMC. The project consisted of over 107 buildings, roads and 1 mile of underground tunnels all of which were scheduled for demolition and restoration within a 14 month duration. The project is nearly complete, ahead of schedule by approximately 1 month all as a result of a concerted team effort with HAKS, Hatch, Mott, MacDonald, Meco Demolition and the NJDPMC. HAKS' Construction Management responsibilities included review of change orders preparing, negotiating and making recommendations for approvals. Many of the potential changes with strong cooperation were negotiated to a zero dollar increase to the contract. Mr. Moser the Project Manager inspected the property a minimum of several times a day recording every aspect of the work in writing and with photos and videos. All inspections were performed utilizing the contract documents and submittals to ensure the materials and work were performed as required by the documents and the manufactures recommendations. During construction, Mr. Moser coordinated

with the contractor's staff to prevent interference with other portions of the work not authorized to begin. Mr. Moser managed with the cooperation of the contractors to ensure on-time completion, inspecting the construction for quality assurance and control, reporting regularly to the NJDPMC and HMM. HAKS oversaw and approved the GC payment applications every month negotiating and protecting the interests of the DPMC with fair and reasonable values agreed on by the GC. Bi-monthly meetings were chaired and recorded by Mr. Moser providing minutes within 3 days. Additionally, all field issues were tracked, monitored and resolved by HAKS through the RFI system. Detailed RFI, and change order logs were created to monitor the progress of those systems. HAKS as the PM oversaw, monitored and approved the NJDCA permitted zones and logistics plans. Mr, Moser monitored those zones and prevented unauthorized areas to be started before permitting was received by the NJDCA. Chris Moser met with the NJDCA inspector on regular intervals keeping him apprised of the current and future activities therefore maintaining an excellent standing with the inspector. As a part of the invoice review and at every meeting, Mr. Moser and meeting attendees reviewed and approved the updated schedule and construction work look-ahead monitoring the progress on bi monthly reviews. Construction Cost: $22 million. Reference: [redacted] NJDPMC [redacted] (4/2014 – 7/2015)

EXTENSION OF STAFF TEMP PROJECT OFFICER – Overseeing/managing, multiple design build projects over 6 month period, NJSDA - ($2.6M). Mr. Moser made recommendations to the general contractor to enable them to make adjustments before issues on QA/QC, code and safety arose. This many times resulted in cost savings for the contractor and developed more of a team atmosphere. Mr. Moser performed inspection services and entered all recordable data onto the NJSDA's expedition program. Additionally he monitored the erection of masonry scaffolding and safety thereafter as well as project meetings to help facilitate design and construction. Mr. Moser provided consultation advice to the NJSDA project officer whom he reported to which helped facilitate the progress and oversight of the project. The NJDCA was the inspecting authority on these projects. Mr. Moser was in charge of reviewing the work prior to inspection, scheduling the inspections and meeting the inspectors and reporting approval status to the NJSDA.

Trenton School District, Multi-Projects - ($27M) Renovations, MEP/IT upgrades, abatement to 26 schools and buildings some of which were registered with the Historical Society. Coordination to ensure historical integrity was monitored concurrent with all other construction management requirements. Coordinated and managed design, construction and facility operations. Collaborated closely with designers, contractors and city inspectors to ensure projects were completed on time and within budget. Additional work included new playground systems, boiler replacements, roof repair/replacement, fire alarm systems, classroom renovations, fire pump, fire alarm and restroom renovations all across the entire district.

PROJECT MANAGER National Park Service Deschler Morris Bringhurst Houses ($4.5M) – Managed and oversaw this complex historical project. Mr. Moser conducted all QA/QC, RFI's, submittals, schedule review, contractor payment reviews, change orders, estimating as well as other activities. Mr. Moser was able to close the project out in just short of 30 days. In performing change order reviews, estimating, and negotiating, saved the client $410K. Work included upgrades to the entire electrical, mechanical and plumbing systems and architectural systems. Architecturally all work had to be 100% matched to meet historical requirements. Additional work included fire and security upgrades, geo-thermal heating, brick restoration and new bathroom upgrades. .

EDUCATION

Bachelor of Science Degree, Civil Engineering, 2006

Masters of Science Degree, Civil Engineering (Structural), 2007

LICENSES AND CERTIFICATIONS

New Jersey State Engineer-In-Training Certificate No. 14302, 2009

OSHA 30-Hour Training

ACI Concrete Field Testing Technician

Donald J. Benanti, Jr.

Superintendent

Mr. Benanti has over 10 years of engineering experience. He is a highly professional, focused, individual with a high work ethic and capable of producing outstanding results.

RELEVANT EXPERIENCE

ASSISTANT RESIDENT ENGINEER – NYCDEP, Water for the Future Program, Contract WFF-DEL-359, Catskill and Delaware Interconnection at Shaft 4, Gardiner, NY. Assistant Resident Engineer for $22 million Catskill and Delaware Aqueduct Interconnection project located in Gardiner, NY. Responsibilities include: Reviewing documents including shop drawings, change of plans, and as-builts. Implementing and sustaining policies and procedures specified by the NYC DEP. Ensuring all construction is in compliance with design specifications, executed timely and efficient, adheres to budget, meets accounting requirements, and is built to quality standards. Inspecting day-to-day field activities and job site activities. Performing structural analysis of load bearing structures. Completing engineering calculations to resolve and verify loading or structural issues. Analyzing and investigating technical data observed and quantified in the field. Performing engineering calculations to design modified construction configurations and installations. Preparing construction Contract documents which reflect any and all changes made. Completing all ancillary duties required to improve project performance, quality, cost, and client satisfaction. Working with the contractor to resolve quantity and cost discrepancies. (1/14 – present)

CHIEF INSPECTOR – NYCDEP, Contract CAT-212B, Gilboa Dam Reconstruction Projects, GIlboa, NY. Chief Inspector for $400 million Dam Reconstruction located in Gilboa, NY. Responsibilities included: Reviewing documents including shop drawings, inspection reports, change of plans, and as-builts. Implementing and sustaining policies and procedures specified by the NYC DEP. Ensuring all construction is in compliance with design specifications, executed timely and efficient, adheres to budget, meets accounting requirements, and is built to quality standards. Inspecting day-to-day field activities and job site activities. Oversight of fresh mix concrete strength and performance tests by third party agency. Completing as-builts. Producing daily time and material documents of construction related activities completed. Analyzing and investigating technical data observed and quantified in the field. Performing engineering calculations to design modified construction configurations and installations. Completing all ancillary duties required to improve project performance, quality, cost, and client satisfaction. Working with the contractor to resolve quantity and cost discrepancies. (2/13 – present)

CHANGE ORDER ENGINEER – NYCDEP Contract CAT-359, CAT-212A and CAT-212B, Gilboa Dam Reconstruction Projects, Gilboa, NY. Change Order Engineer for multiple Dam Reconstruction contracts totaling $175 million

located in Gilboa, NY. Responsibilities included: Reviewing documents including shop drawings, inspection reports, change of plans, and as-builts. Additional responsibilities include identifying the need for contract change where the project's work was incorrectly estimated or if deviations from the original contract have developed. Also responsible for developing a scope of work, with associated justification and cost of change. Working with the Contractor to resolve any quantity and cost discrepancies.

OFFICE ENGINEER – NJDOT, Contract No. 032093770, FS-080-5(090), I-80 Westbound and Eastbound over Berkshire Valley Road. Office Engineer for $8.8 million Bridge Rehabilitation between Milepost 31.75 and 32.24 on I-80 over Berkshire Valley Road. Responsibilities included: Performing administrative services involving, but not limited to; cost, progress, and quality control. Preparing and processing contractor payment estimates and change orders through use of NJDOT ACES. Reviewing documents including shop drawings, inspection reports, change of plans, and as-builts. Implementing and sustaining policies and procedures specified by the NJDOT. Ensuring all construction is in compliance with design specifications, executed timely and efficient, adheres to budget, meets accounting requirements, and is built to quality standards. Working with the contractor to resolve quantity discrepancies. (6/10 – 5/11)

OFFICE ENGINEER/LEVEL III INSPECTOR – NYSTA, NY Division, TANY 08-40, D213797, I-87 Northbound and Southbound, Westchester County. Office Engineer/Level III Inspector for $16.8 million Roadway Resurfacing with Safety Improvements and miscellaneous work between Milepost NY 0.0 and 11.3 and various locations in Westchester County. Responsibilities included: Performing administrative services involving, but not limited to; cost, progress, and quality control. Preparing and processing contractor payment estimates and change orders through use of NYSTA CEES. Reviewing documents including shop drawings, inspection reports, change of plans, and as-builts. Implementing and sustaining policies and procedures specified by the NYSTA. Ensuring all construction is in compliance with design specifications, executed timely and efficient, adheres to budget, meets accounting requirements, and is built to quality standards. Inspecting day-to-day field activities and job site activities. Completing as-builts. Producing daily MURK documents of construction related activities completed. Working with the contractor to resolve quantity discrepancies. Working with the NYSTA to resolve contractor Force Account Items. Conducting and documenting effective and efficient cross-functional project meetings. Collaborating with internal and external agents to manage project elements. (12/08 – 06/10)

EDUCATION

BS, Architecture, City College of New York, New York, 1997

Jenny Ortiz

Office Engineer

Ms. Ortiz has 20 years of professional experience in the construction industry working on public and private sector projects. Ms. Ortiz is a highly organized, detail-oriented professional with excellent interpersonal and team-building skills and is knowledgeable in proper construction practices, including safety practices and QA/QC procedures.

RELEVANT EXPERIENCE

OFFICE ENGINEER - Total Residual Chlorine (TRC) Management Program CM Services, Port Richmond, New York. Ms. Ortiz is providing CM services for the $47 CH2MHill led project team evaluating chlorine residuals and developing treatment strategies for the NYCDEP's TRC program. The objective of the program is to comply with the New York State Department of Environmental Conservation's more stringent TRC State Pollutant Discharge Elimination System (SPDES) standards. The stricter limits attempt to reduce the whole effluent toxicity to be protective of the aquatic life receiving discharges of the treated wastewater. The current permitted effluent TRC limit for each WWTP is 2 mg/L; the new limit for the plants will be .53 mg/L.

This program involves upgrade of disinfection and/or installation of dechlorination facilities at the Port Richmond, Newtown Creek, North River and Coney Island WWTPs. Project elements includes Installation of a temporary disinfection system, Demolition of the existing chlorination storage, feed and distribution system, Installation of a new chlorination storage, feed and distribution system, Optimization of existing disinfection systems, including installation of new metering pumps, storage tanks, induction mixers, piping, instrumentation, controls, and ancillary equipment, Installation of electrical equipment to support optimization of disinfection systems, Installation of new dechlorination facilities, including new metering pumps, storage tanks, induction; mixers, piping, instrumentation, controls, and ancillary equipment

Responsibilities include monitoring contractor's compliance with approved plans and specifications, preparing and processing of change orders, processing contractor's requisitions, monitor all submittals and resolve RFIs, and monitoring all critical reports. Ms. Ortiz is actively involved with NYCDEP's E-Buider document management system.

ASSISTANT RESIDENT ENGINEER - Bronx River Floatables, Bronx, NY. Provided CM services for the $26 million floatables control facilities project on the Bronx River for the New York City Department of Environmental Protection. The Bronx River floatables project covers four different sites: Bronx Park Avenue, Bronx Zoo, Soundview Park and West Farms Road. Construction included installing netting facilities which will capture floatables debris carried by storm overflows from regulators. Weir lengths of regulators have been expanded to allow installation of underflow mechanical screens. Work completed includes, at Soundview Park, relocation of a telemetry box, headwall repairs, regulator expansion excavations and dewatering system

installation; at West Farms Road, test pit and dewatering system installations, excavations, installation of precast culvert pipes; at Bronx Zoo, regulator expansion excavations, dewatering system installation and cutting and removal of the existing sewer roof. Contract work began in June 2009 and has since been completed. Responsibilities include monitoring contractor's compliance with approved plans and specifications, preparing and processing of change orders, processing contractor's requisitions, monitor all submittals and resolve RFIs, and monitoring all critical reports.

ASSISTANT RESIDENT ENGINEER - Williamsburg In-Line Storage Facilities Upgrade, Brooklyn, NY. Ms. Ortiz served as Assistant Resident Engineer for the $35 million upgrade of in-line storage facilities for sewers in Red Hook and Williamsburg for the NYCDEP. The project included the installation of inflatable rubber dams, an underground control vault with electrical sensing equipment. Responsibilities included monitoring contractor's compliance with approved plans and specifications, preparing and processing of change orders, processing contractor's requisitions, monitor all submittals and resolve RFIs, and monitoring all critical reports.

Miscellaneous Downstate Area Projects, Various Locations, NY

ASSISTANT RESIDENT ENGINEER - NYC Department of Environmental Protection Construction Management contracts in the New York Downstate area. Project assignments consist of providing CM services at Red Hook Water Pollution Control Plant for the installation of a new fire alarm system, Barretto Point Soil Remediation, Ward's Island, Chemical and Petroleum bulk storage facilities upgrade, North River Centrifuge upgrade, Powell's Cove pumping station Upgrade, and Station 24 Ground Water remediation at Jamaica, Queens.

ARCHITECTURE CONSULTANT - New York City School Construction Authority, New York, NY. Ms. Ortiz conducted a detailed visual condition survey to assess the current Architectural/Engineering conditions of all Department of Education owned and leased facilities in New York City. Performed architectural visual evaluation of building exterior and interior finishes to assess infrastructure issues related to each facility to determine cost estimate.

ASSISTANT PROJECT MANAGER - Managed day-to-day coordination and supervision of construction site handled planning and scheduling of detailed reports and payment requisitions. Monitored change orders and chaired weekly progress meetings as well as preparing and providing weekly cost reports.

PROJECT MANAGER - Managed site selection and viability of construction of tropical architecture projects consisting of rural clinics, communal centers and schools in rural communities in the Dominican Republic.

EDUCATION

Bachelor of Science, Civil Engineering, Rensselaer Polytechnic Institute, Troy, NY 2009

A.S., Engineering Science, Ulster County Community College, Stone Ridge, NY, 2007

A.A.S., Construction Technology, SUNY Delhi, NY, 2005

PROFESSIONAL REGISTRATION

Professional Engineer – New York 5/2017, #093894

LICENSES AND CERTIFICATIONS

OSHA 10-Hour Construction Safety and Training Course, 2011

Spill Prevention Control & Countermeasure Training, 2011

RCRA & Hazardous Waste Training, 2011

Aerial Lifts: Fall Protection from Mobil Equipment, 2011

Labeling & Other Forms of Warning Training, 2011

Lockout Tagout (LOTO): Control of Hazardous Energy, 2011

Exit Routes, Emergency Planning, Fire Protection Training, 2011

ACI Concrete Construction Special Inspector (expires 04/18/18)

Jasan Lasasso, PE

Inspector

Ms. Derbaly has over 14 years of experience as an office engineer.

RELEVANT EXPERIENCE

ASSISTANT OFFICE ENGINEER - Catskill Delaware Interconnection at Shaft 4 Contract DEL-359, NYCDEP, Gardiner, NY. Responsible for reviewing partial payment calculations, performing quantity take-off estimates, updating monthly permit tracking databases, developing regulatory compliance plans for construction, preparing contract summary reports, updating SOPs, ensuring that the inspection staff has the most up-to-date documents, maintaining submittal/RFI/RFC logs and assisting the office engineer with various tasks. Construction cost: $22 million. (06/11 – 06/15)

ASSISTANT OFFICE ENGINEER – Gilboa Dam Reconstruction for NYCDEP. Responsible for reviewing partial payment calculations, performing quantity take-off estimates, updating monthly permit tracking databases, developing regulatory compliance plans for construction, preparing contract summary reports, updating SOPs, ensuring that the inspection staff has the most up-to-date documents, maintaining submittal/RFI/RFC logs, developing emergency action plans, providing computer/server maintenance and assisting the CM Staff and Office Engineer with various tasks. CM Fee: $48,000,000 Construction cost $600,000,000 (9/09 – present)

INSPECTOR – Gilboa Dam Reconstruction for NYCDEP. Responsible for site inspections, documenting contract progress, implementing erosion and sediment control plans, submitting semi-weekly SWPPP reports to the NYSDEC, NYCDEP and ETASC, drafting field conditions and as-builts in AutoCAD and preparing daily inspection reports. (6/09 – 9/09)

Bernard Atkins

Inspector

Mr. Atkins has over 8 years of construction inspection experience and is a NICET certified Construction Inspector.

EDUCATION

Joint Urban Manpower Prgrm 2yr Apprenticeship / National Institute of Certification in Engineering Technologies Certificate, Construction Inspector, 2005

Borough of Manhattan Community College (BMCC), New York, NY, 1996

PROFESSIONAL REGISTRATION

NICET Level III Certified #116036,

LICENSES AND CERTIFICATIONS

ACI Field Technician Grade I #01061825

Rutgers Traffic Control Coordinator, #1066 Refresher course, expires 7/31/16

OSHA 29 CFR 1926.62

Lead Awareness Training

11/4/08

OSHA Globally Harmonized System Training 12/2/13

NJSAT Asphalt Field Technologist

RELEVANT EXPERIENCE

CONSTRUCTION INSPECTOR – NYC Green Infrastructure Bioswale inspection Program No. 2011-10-0603A01. (5/13 to Present day) – The project consists of siting locations within the five boroughs for permeable pavement, storm water bioswale and storm water green street drainage structures. Including evaluation of siting criteria as per DOT guidelines and zoning codes. Documentation on I-pad tablet and DOT database of locations, dimensions, and landscape features with photos, mark out of locations, and DOT community liaison rep. Evaluation of Green Infrastructure drawings and submittals for proposed installation. Research of existing Green Infrastructures in DEP contract areas for possible conflicts with proposed DOT roadway resurfacing, sidewalk, and pedestrian ramp repair locations. Inspection and documentation of existing Green Infrastructures within the five boroughs.

CONSTRUCTION INSPECTOR – Essex County DPW - Parsonage Hill Rd Bridges Rehabilitation. (5/12 – present) The rehabilitation of both JFK parkway and Canoe Brook Bridges with and detour route implementation and detour signs, barricades, temp. concrete barriers, VMS boards, and MPT device installation, asphalt milling and removal of existing pavement, earth excavations and grading, demolition and removal of existing JFK and Canoe bridge decks, sidewalks, curb, parapet railings, parapets, support beams and abutment back walls, removal and replacement of existing drainage inlets and guard railing, concrete substructure and superstructure repair, installation of precast concrete support beams, construction of new abutment back walls, bridge decking, wing walls, sidewalks, curb, parapets, utility poles and lines relocation, electrical conduit installation, epoxy water proofing, traffic removal and installation, reconstruction of JFK and Canoe bridge approaches, HMA and non - vegetative surface placement, topsoil and seeding placement.

CONSTRUCTION INSPECTOR – New Jersey Turnpike Authority Contract No. P300.165 Operational and Access Improvements at Interchanges 141 and 145 on the Garden State Parkway. (10/11 – 4/12) The project consisted of work at Interchange 141 at Vauxhall Road in Union Township and at Interchange 145 in East Orange. The improvements at Interchange 141included widening and realigning the southbound GSP Exit Ramp, highway lighting and constructing a traffic signalization of the modified intersections at Vauxhall Road, and removal of the existing median along Vauxhall Road. Work at Interchange 145 included widening Ramp G, striping improvements on GSP northbound in the vicinity of the Central Avenue and the Erie Lackawanna Overpasses, removal of existing sign structures and construction of a new

overhead sign structure between the Toll Plaza from north bound GSP and the I-280 Ramps along with reconstruction of shoulders and curbs allowing for operational improvements. Construction cost $3 million.

CONSTRUCTION INSPECTOR – NYSDOT Project # D261131, Eltingville Park and Ride Extension. (8/09 – 8/10) Assisted with general office functions. Responsibilities include inspecting various construction operations through interpretation of contract plans and standard specifications, maintaining proper WZTC procedures, inspecting installation of underground storm water detention system, drainage structures, cast in place concrete curb, saw cutting concrete pavement and roadways, connection to existing drainage facilities; inspecting clearing and grubbing operations, tree removal, removal of concrete roadways, cleaning of existing drainage structure, and removal of existing drainage structures, trench excavation and backfill, installation and removal of temporary timber sheeting, removal of concrete curb, soil erosion and sediment control operations; testing and inspecting asphalt and concrete placement for roadways with steel reinforcement.

CONSTRUCTION INSPECTOR – NYSDOT Project # D259766, Construction Inspection Services, Rehabilitation of BQE-Park Avenue and Nassau-Concord Viaducts, Brooklyn. (5/07 – 12/08) Scope of work included maintaining and demonstrating safety standards and procedures to construction laborers and technicians during work site operations; inspecting installation of scupper units and downspout drainage systems, cleaning closed drainage systems, trench and culvert excavation, conduit excavation and backfill, test pit excavation, construction of roadway armor less joint systems with elastomeric concrete, quad guard barrier, viaduct pier column base plate retrofit, inspecting installation of stud shear connectors, fixed and expansion bearings, structural steel replacement, lampposts with luminaries, diaphragm and stringer tie plate removal and installation with torque wrench testing, paint removal and disposal with containment, installation and relocation of temporary concrete barriers; testing and inspecting concrete placement for roadways and median barriers with steel reinforcement, saw cutting of concrete and asphalt, inspecting construction of wood forms in preparation for concrete placement; rehabilitating brick facing, demolition of asphalt and concrete roadway, demolition of concrete pier columns. Construction Cost $146 million

CONSTRUCTION INSPECTOR – NYSDOT Project # D259675, Battery Park Underpass-West Promenade Reconstruction, New York, NY. (2/05 – 5/07) Duties include inspecting slump pump removal and installation of drainage systems, M-liner drainage treatments, remote camera closed drainage inspection, HVAC duct work, luminaries installation, electrical control cabinets, pull box and junction box installation, photo cell sensor, closed circuit camera installation, electrical conductor and conduit installation, VMS sign installation; installing granite pavers, chain link fencing, temporary concrete barrier, landscaping barrier, construction of bike path, reset manholes and catch basin frames, unclassified excavation and backfill; inspecting removal and installation of wall and ceiling tile, graffiti removal, tile power washing, steel faced curb installation, safety walkway with guardrail construction, traffic marking removal and placement; testing and inspecting concrete placement for roadways and median barriers with steel reinforcement, testing and inspecting HMA placement for roadways, saw cutting of concrete and asphalt, inspecting installation of sign structure, lampposts with single and twin arms, traffic signals with luminaries, demolition of concrete structures and roadways.

EDUCATION

Bachelor of Science, Civil Engineering, Columbia University, NY, 1989

PROFESSIONAL REGISTRATION

Professional Engineer – New York 1995, #072715-1; Connecticut 2010, #PEN.0027897; New Jersey 2011, #24GE04898100; Maryland 2011, #40305; Washington, D.C. 2011, #PE906281; Pennsylvania 2011, #PE079214; Massachusetts 2012, #49689
Florida, 2015, #78680

LICENSES AND CERTIFICATIONS

OSHA 30-Hour Occupational Safety and Health Standards, 2002

OSHA Confined Space Awareness, 2008

Concrete Strengthening Techniques & Design Considerations Seminar – 4 of Credits AIA/CES Learning Units, 2008

Training in Contract Control using Primavera Expedition 7.5, 2002

Training in Contract Management using Primavera Expedition 7.5, 2002

FHWA/NHI Course- Design and Operation of Work Zone Traffic Control; Hot Mix Asphalt Construction; Bridge Painting Inspection; Superpave for the Generalist Engineer and Project Staff; Stream Stability and Scour at Highway Bridges; Engineering Concepts for Bridge Inspection

Alberto Villaman, PE

Constructability

Mr. Villaman oversees HAKS's infrastructure projects, including streets, highways, bridges, tunnels, dams, water and sewer lines, and utility infrastructure. With more than 25 years of experience, Mr. Villaman has served in the positions of principal-in-charge, project executive, project manager, construction manager, and resident engineer since joining the firm in 2000. His award-winning projects include the $122 million rehabilitation of the New Croton Aqueduct for NYCDEP, which received the 2012 ACEC New York Diamond Award, and the $175 million design-build rehabilitation of the St. George Ferry Terminal in Staten Island for NYCDOT, recipient of the 2013 ASCE-Met Design-Build Project of the Year Award and the 2012 Municipal Engineers of New York Project of the Year Award.

RELEVANT EXPERIENCE

PROJECT EXECUTIVE - BB-28S, Sandy Restoration & Mitigation; BB-28, Phase II/BB-54 Brooklyn Plaza Rehabilitation, Brooklyn, NY – MTA Bridges and Tunnels. Serving as the Project Executive for this Contract No: BB-28S, BB-28/BB-54 ($290M). The Work is to be performed on the Triborough Bridge and Tunnel Authority Facility: Hugh L. Carey Tunnel (Formerly Brooklyn Battery Tunnel) and the Brooklyn Plaza at the Hugh L. Carey Tunnel, which is located in the Borough of Brooklyn and the Borough of Manhattan.

PRINCIPAL-IN-CHARGE – NYCDEP CAT-DEL Aqueduct Interconnection Construction Management, New Paltz, NY. HAKS is managing a $22 million project to interconnect flow from the open channel Catskill Aqueduct with the pressurized Delaware Aqueduct. Major project elements will include installation of a reinforced concrete flow/pressure control structure; distribution header; chambers for transferring flow between the Delaware and Catskill Aqueducts; and buried 72- and 48-inch-diameter piping. The installations will require controls and instrumentation for mechanical process, electrical and HVAC work. Construction Cost $22 million. (06/11 – present)

PRINCIPAL-IN-CHARGE – NYCDEP TCM-52, Third City Water Tunnel. Principal-in-Charge for HAKS's joint venture construction management services for the final construction phase of the 8.5-mile Manhattan leg of the $5 billion new tunnel, which will provide critical redundancy for the city's water supply. Once operational, the 600-foot-deep, 60-mile tunnel will deliver 1.3 billion gallons of water daily, allowing Tunnels No. 1 and 2 to be inspected and repaired for the first time since they were put into service in 1917 and 1936, respectively. Construction Cost $176 million. (2009 – 2013)

PRINCIPAL-IN-CHARGE – NYCDEP Reconstruction of Gilboa Dam located at the North End of the Schoharie Reservoir in the Northern Catskill Mountains. This dam and reservoir are important elements in providing reliable water supply to New York City. The cyclopean concrete and earth dam is being reconstructed with a movable gate system and refaced and strengthened with roller compacted concrete steps and post tensioned multi-longstran anchors. Construction Cost $600 million. (2009 – present)

PRINCIPAL-IN-CHARGE – NYCDDC Reconstruction of Broadway Phase I, Lower Manhattan. Principal-in-Charge for the replacement of aged water mains, sewers, street lights, traffic signals and utilities on Broadway from Ann to Rector Streets, and to construct a new roadway with sidewalks, curbs and more. Key issues addressed include: Improved Project Management Systems; Technical/Construction Factors; Safety and Maintenance and Protection of Traffic; and Community Concerns. Construction Cost $41.7 million. (08/13 – present)

PROJECT MANAGER – NYSDOT Gowanus Expressway Deck Replacement, 4th Ave. to 52nd Street, Brooklyn. Major components of the reconstruction effort include emergency replacement or repair of the viaduct deck and superstructure, construction of a new slip ramp in the median, replacement of an existing ramp and widening of another ramp, and widening of the at-grade portion of the Gowanus. A relief viaduct ramp, to be built within a 2-year stage, will carry HOV lane traffic over the southbound Shore Parkway entrance ramp to eliminate the traffic weaving that now takes place. Ramp construction requires reinforced concrete foundations and 24 steel columns. Other work involves blast cleaning and painting of the steel superstructure, drainage system improvements and the installation of six overhead sign structures. Construction Cost $244 million. (12/10 – present)

PROJECT EXECUTIVE – NYCDDC Reconstruction of Eastern Parkway, Brooklyn. Replacement of 12" and 20" distribution water mains and 36" and 48" trunk water mains, complete with apparatus and valve chambers. Installation of 15" ESVP and 16" DIP combined sewers, complete with catch basins and chute connections. Installation of new granite curb, concrete sidewalk, 7' early concrete roadway base, and 3' asphalt concrete wearing course. Installation of new street lighting, traffic signal, and street name signs. Upgrading/widening the median to include new green area, walkway and bike lane. (9/10 – 3/13)

PROJECT EXECUTIVE – NYCDDC Fulton Street Reconstruction Phase II. The project includes the installation of water mains, sewers, catch basins. Installation of underground utilities (Con Ed, ECS, cable and communications) through a joint bid contract to eliminate delays due to conflicts between reconstruction work and utility interferences. Construction Cost $28 million. (1/09 – 12/13)

PROJECT MANAGER – NYCT No. 7 Subway Line Extension Project (from 41st & 8th Avenue West under 41st Street to 11th Avenue, and South under 11th Avenue to West 25th Street). Work site consisted of five staging areas, construction of three shafts to provide access for tunnel mining operations, construction of an adit, two tail tunnels, and two TBM assembly chamber/starter tunnels. Construction of five cross passages that connect the two running tunnels, underpinning, and structural modification of the existing 8th Avenue subway structure. Retrofit of the existing 7 subway line tunnel structure. Construction of two bored tunnels, 22 feet in diameter each, about 120 feet below ground level; construction of a permanent roadway decking system within the lower level of the existing Port Authority Bus Terminal; and construction of electrical substation. Duties include providing construction management services and QA/QC program to assure the project work is carried out in a planned, controlled manner and in compliance with MTACC guidelines. The quality program includes forms and procedures for planning, scheduling, assigning work, recording, retention and retrieval of records for construction activities. It also includes provision for identifying and resolving deficiencies and verifying compliance with the QA program and contract documents. Construction Cost $2 billion. (1/10 – present)

EDUCATION

Bachelor of Science in Mechanical Engineering, US Merchant Marine Academy, NY, 1982

PROFESSIONAL REGISTRATION

Professional Engineer –New York 1992, #068940

Certified Construction Manager 2013, #A2458

Thomas E. Raihl, PE, CME

Value Engineer

Mr. Raihl offers more than 25 years of experience in construction management and inspection of New York City Department of Environmental Protection (NYCDEP) projects. Since joining HAKS in 2012, he has been serving as Construction Manager on the $176 million final construction phase of the Manhattan leg of the Third City Water Tunnel for the NYCDEP. His project work before joining the firm has included Construction Manager for the NYCDEP's $315 million Jamaica upgrade project, encompassing a biological nutrient reduction addition. He also served as Design Manager and Resident Engineer for several contracts for the Manhattan Pump Station for NYCDEP, most recently as close-out specialist. Mr. Raihl also served as Design Liaison Engineer for the NYCDEP for the Newtown Creek Interim Upgrade contract, for which he performed field investigations, troubleshooting, and start-up.

RELEVANT EXPERIENCE

CONSTRUCTION MANAGER – NYCDEP Third City Water Tunnel. Construction Manager for HAKS' joint venture construction management services for the final construction phase of the 8.5-mile Manhattan leg of the $5 billion new tunnel, which will provide critical redundancy for the city's water supply. Once operational, the 600-foot-deep, 60-mile tunnel will deliver 1.3 billion gallons of water daily, allowing Tunnels No. 1 and 2 to be inspected and repaired for the first time since they were put into service in 1917 and 1936, respectively. Construction Cost $176 million. (11/12 – Present)

CONSTRUCTION MANAGER – NYCDEP Jamaica JA-2CM Construction Project. Responsibilities include overseeing the completion of the Phase 2 upgrade with a staff of 20 personnel and subconsultants. The project is a complex upgrade in six different areas and encompasses a Biological Nutrient Reduction addition which was added by Change Order. Construction Cost $315 million. (8/12 – 10/12)

DESIGN MANAGER – NYCDEP 26th Ward Contracts Manhattan Pump Station. Close out specialist for the Manhattan Pump Station responsible for overseeing the design review of Contract 26W-18, the close out of 26W-20, and the DSDC efforts in process for 4 other 26th Ward Contracts as well as assisting the new Resident Engineer at the Manhattan Pump Station with close out of the Contract. (12/11 – 8/12)

RESIDENT ENGINEER – NYCDEP Manhattan Pump Station Upgrade Contract NC-40. Responsible for constructing waste water pumping station in Manhattan. The pump station is located in a densely populated area amongst a day care center, a Catholic Church, PS-34, and high rise apartment building as close as 35' away. The project was very complicated requiring many "Maintenance of Facility Operation" events and careful coordination not only among the contractors, but with City Agencies. Not only was it a complicated construction sequence, the station is situated on a small piece of property adding to the layers of complexity. Construction Cost $225 million. (9/04 – 12/11)

DESIGN MANAGER – NYCDEP Manhattan Pump Station. Responsible for the detail study and design of the Manhattan Pump Station Upgrade. Was responsible for interfacing with all disciplines, producing all of the design reports, producing the Contract Documents. The station was a complex design that required totally new building and equipment configuration designs three times due to changes in requirements from outside agencies and utilities. The project was MOFO intensive and required interfacing with over 10 different agencies and bureaus. (6/00 – 9/04)

DESIGN LIAISON ENGINEER – NYCDEP Newtown Creek WTIP Interim Upgrade. Responsible for coordinating and tracking DSDC efforts for five different Construction Contracts at the Newtown Creek WTIP. The position required coordinating Greeley and Hansen's design efforts with the NYC DEP and performing all field investigations, trouble shooting, and start-up as required to support the Interim Upgrade Contracts. (6/96 – 6/00)

OPERATIONS COORDINATOR AND DEPUTY RESIDENT ENGINEER – NYCDEP City Wide Sludge Dewatering Contracts 57 and 60. Was responsible for the inspection, start up, training, and initial operation of the Oakwood Beach WTIP Sludge Dewatering and Cake Storage Facilities. We developed and implemented all of the testing, check out and start-up procedures; trained DEP Operations Personnel on the equipment operation in the facilities; and provided operations assistance to DEP Personnel for the facilities. (1992 – 1996)

LEAD MECHANICAL ENGINEER – NCDPW Bay Park WPCP in Nassau County. Responsible includes trouble shooting, testing and start-up of the Phase IIIC 10 MW Diesel Power Plant and the Southwest Sludge Dewatering Facility. (1989 – 1992)

MECHANICAL ENGINEERING INSPECTOR – NCDPW Red Hook WPCP. Responsible includes Construction Inspection, start-up and troubleshooting for the Main Building process equipment under Contract 6B-1. (1985 – 1989)

TEAM LEADER – Naval Ship Systems Engineering Command Philadelphia (NAVSSES). Responsible includes supervising the writing, implementation, and review of the NAVY's Engineering Operational Sequencing Systems which constitute engineering operation and casualty controls for ships using 1,200 psi steam power systems (principally CVs) and diesel main propulsion systems (principally LSTs and Minesweepers). (1982 – 1985)

EDUCATION

Bachelor of Science, Civil Engineering, Drexel University, 1975

Graduate Work in Soils Engineering, Drexel University

Cook College Continuing

PROFESIONAL REGISTRATION

Professional Engineer –New York, 2009, #087531-1; Pennsylvania, 1995, #PE049580E; New Jersey, 1986, #24GB02419000; Delaware, 1993, #15336

Professional Land Surveyor – New Jersey,#24GB02419000; Delaware, #S6-0000576

LICENSES AND CERTIFICATIONS

OSHA 30-Hour Construction Safety and Health Training Course, 2013

Spill Prevention Control & Countermeasure Training, 2011

RCRA & Hazardous Waste Training, 2011

Aerial Lifts: Fall Protection from Mobil Equipment, 2011

Labeling & Other Forms of Warning Training, 2011

Lockout Tagout (LOTO): Control of Hazardous Energy, 2011

Exit Routes, Emergency Planning, Fire Protection Training, 2011

Wetland Delineation

Wetland Soils Identification

Wetland Plant Identification

New Jersey Municipal Engineers Certification

Hazard Communication Training, 2012

John Schweppenheiser, Jr. , PE, PLS

Value Engineering

Mr. Schweppenheiser has over 39 years of diversified engineering and surveying experience. He has been responsible for all phases of design and surveying including outbound, aerial photo control and topographic surveys; conceptual layouts; drainage and retention basin design; sanitary sewers; potable water systems; pumping stations; stream encroachment applications; wetland permits; soil erosion and sediment control facilities; traffic impact; dam design and inspections and land mining designs.

RELEVANT EXPERIENCE

RESIDENT ENGINEER – Provide Resident Engineering services to the NJTA to support the construction of a motor vehicle repair facility for the New Jersey State Police vehicles. The mansonry building with a standing seam roof components are lifts, hvac, lighting and cameras / security. Associated site work is oil / water separators, parking / paving and natural gas water and sanitary sewer connections. The contract is $ 8,000,000

CONSTRUCTION MANAGER – New York City DEP, Reconstruction of Gilboa Dam located at the North end of the Schoharie Reservoir in the Northern Catskill Mountains. This dam and reservoir are important elements in providing reliable water supply to New York City. The cyclopean concrete and earth dam is being reconstructed with a movable gate system and refaced and strengthened with roller compacted concrete steps and post tensioned multi-longstran anchors. CM Fee: $48 million; Construction cost $600 million (9/09 – present)

TECHNICAL ADVISOR – Croton Falls Dam - Construction Inspection Services for New York City DEP included review of Temporary Emergency Action Plan, cofferdam construction, bridge construction, concrete stepped weir reconstruction and the drilling, logging and location of the rock/concrete interface for placement of long stran post-tensioned anchors. Testing was also monitored for water leakage and alignment of the drilled holes. This project cost, including design, upstream improvements and inspection fees was $100 million. (2/08-4/09)

PROJECT MANAGER – Medford Leas-120 unit single-family age-restricted home subdivision on the retirement community campus. Prior to design, an extensive environmental study and planning process involving all stakeholders were performed. The design included drainage, culvert crossing, sanitary, soils and environmental studies and other designs. Supervised Hydraulic and Hydrologic calculations to determine the limits of the floodplain and stream encroachment lines. Used HEC-RAS, HEC-1 and Pondpack software to determine flood limits as outlined by the Army Corps of Engineers and NJDEP. Detention basins were designed using Pondpack software following the latest N.J.A.C. 7:8 storm water regulations; the NJDEP Best Management Practices manual was used to design the environmental parameters within each basin. Fee: $300,000 (2005 – 2008)

PROJECT MANAGER – Saint George's Road Stormwater Management Tributary Restoration Project. Performed topography survey on park property cross-section along existing stream tributary storm sewer modification/improvements. Fee: $10,000. (2008)

PROJECT MANAGER – Hydraulics & Hydrology Studies and concept design phase services for Andy Daley Dam, Medford Township, NJ for YMCA Camp Ockinickon. This dam provides recreation facilities for the Matollionequay girls' camp. This dam was also breached during the 2004 storm. The dam was reconstructed and placed back in service in July 2008. Construction Cost: $1 million. (2006 – 2008)

PROJECT MANAGER – Creekside affordable housing project-32 low-mod income townhouse units. Oversaw the development of all hydraulic and hydrologic studies to determine limits of floodplain and stream encroachment lines. HEC-RAS, HEC-1 and Haestad's Pondpack software package were used to determine flood limits. Four detention basins were designed using Pondpack software using the latest N.J.A.C. 7:8 storm water regulations. Construction Cost: $7.0 million. Site design and all local county and state approvals were included. (2005 – 2008)

PROJECT MANAGER – Study, Design and Construction Inspection Services for Stockwell Dam, Medford Township, NJ for YMCA Camp Ockinickon. This is a Class II Dam that failed during floods in July 2004. Conducted pre- and post-visual dam inspections as well as reconstruction plans. Pond Pack, HEC-RAS, HMR-52, Storm CAD, AutoCAD, TR-55, TR-20 and rational methods were used. Stream Encroachment lines, Wetlands lines and soil studies were performed. The replacement dam was designed and approved. Construction inspection was performed. Construction Cost: $1.4 million. (2004-2005)

PROJECT MANAGER/PROJECT ENGINEER – Study, Design and Construction Inspection Services for Giampietro and Burnt Mill Dam, Vineland, NJ for Vineland City, NJ. Both are Class II Dams and required visual inspection. Additionally, Hydraulic and Hydrology Studies, Structural Analysis and downstream inundation studies were performed, as well as topographic and as-built surveys. Pond Pack, TR-55 and Auto CAD were used to compute the downstream conditions on a sunny day dam break as well as the design storm; water surface profiles were also measured. Structural improvement elements on the Giampietro Dam requiring rehabilitation include improvements to the sluice sidewalls, the downstream foundation and the emergency drain. Construction Cost: $1.9 million. (2004)

EDUCATION

Bachelor of Science, Civil Engineering, Union College, Schenectady, NY, 1974

PROFESSIONAL REGISTRATION

Professional Engineer –New York 1981, #058487; New Jersey1980, # 24GE02678400

Richard Hallahan, PE

Testing

Mr. Hallahan, SVP, is responsible for a full range of professional engineering services in the areas of Material Testing, Special Inspection services, transportation, structures and railroads. In regards to concrete performance, and testing, he has extensive experience in design, and construction inspection of a variety of public works and infrastructure projects including bridges, buildings, water supply/water treatment facilities, stadiums, pipelines, retaining walls, pile and spread foundations, and renovations; in addition, extensive knowledge of soil/rock/geotechnical conditions and stabilization, structural integrity inspection, construction methods and materials. He serves as Principal-In-Charge for major metropolitan clients, including the New York City Department of Environmental Protection, New York State Department of Transportation, the New York State Thruway Authority, the Connecticut Department of Transportation, the Port Authority of New York and New Jersey, the New York City Department of Transportation, as well as other public and private sector clients. Mr. Hallahan is responsible for the endorsement of Special Inspection initial and final NYC DOB Technical Reports (TR1, TR2, & TR3) for Special and Progress Inspections. The Material Testing, Special Inspections Agency report directly to Mr. Hallahan.

RELEVANT EXPERIENCE

PRINCIPAL-IN-CHARGE - Concrete Quality Assurance Services. New York City Department of Environmental Protection Division of Construction Services for a regional concrete quality assurance project involving all structural concrete poured on any DEP construction project in the City of New York and upstate watersheds. The DEP construction project exceeded $1 billion annually. Daily operations included close supervision over 50 construction inspectors from numerous subconsultants as well as subcontracted material testing lab field and lab personnel. Supervision of scheduling and supervising of stuff assignments covering all daily scheduled concrete pours at construction projects. This included batch plant inspection prior to mix shipping to each site, on-plant ticket documentation, on-site fresh concrete standard testing, concrete cylinder molding, curing and transportation to the Client Laboratory, observation test breaks and statistical analysis using proprietary computer software. Participated in mix design development and testing, reviewed and revised DEP standard concrete specifications. Team in-depth structural integrity inspections of various DEP structures, settling tanks, digesters, underground storm water storage tanks and other DEP facilities. (99 -05).

PRINCIPAL-IN-CHARGE – Special Inspection, Testing, Structural Analysis and Design, Gold Star Bridges for ConnDOT. Work included gusset plate analysis, design of restraining details for the pin and hanger systems and rocker bearing pins, and monitoring and evaluating the effects of frozen bearings. Fee: $1 million (11/08 – 2/09)

PRINCIPAL-IN-CHARGE – CRO-329: Reconstruction of Six Upper Croton Watershed Bridges, Putnam County, NY for New York Department of Environmental Protection. Work for Contract CRO-329 involves the

reconstruction of six NYCDEP bridges (Croton Falls Road Bridge, West Shore Drive Bridge, Drewville Road Bridge, Reservoir Road Bridge, Dixon Road Bridge, and Park Street Culvert) in Putnam County, N.Y. The reconstruction work consists of the installation of environmental protection measures; bridge roadway color matched concrete parapet walls and wing-walls, various types of concrete repairs, installation of temporary traffic signals, maintenance and protection of traffic. (2004 - 2007)

PROJECT DIRECTOR – Concrete Quality Assurance Services, Five-Year Contract, New York City, NY, for New York City Department of Environmental Protection. Responsible for concrete testing and quality control of concrete supplied to all 114 facilities of the NYCDEP such as, water and wastewater treatment facilities, reservoirs, dams, water tunnels, bridges, and roadways. Approximately 350,000 cubic yards of concrete of various strengths is placed during any given year. (11/11 – present)

PROJECT MANAGER – Manhattan Bridge over East River, New York, NY for New York City Department of Transportation. Responsibilities included control and review of shop drawings, specialized engineering, and Interim Inspections. Work included rehabilitation of Cable B anchorage, suspension system, Brooklyn Plaza Park, West Upper Roadway pavement, West Subway Tunnels, Manhattan and Brooklyn approaches and replacement of deteriorated suspenders, lower roadway double floor beams at the Manhattan and Brooklyn approach spans, roller nest bearings and grillages, cast-in-place and pre-cast concrete, West Side Subway floor beams and stringers. Installed dehumidifiers in anchorages. Re-wrapped all suspension cables, paint removal and painting of suspenders, connectors and trusses. (1997-2006)

PROJECT MANAGER – Coney Island Avenue Bridge over The Belt Parkway for New York City Department of Transportation. Provided Resident Engineering Inspection for the complete replacement of the Coney Island Avenue Bridge over the Belt Parkway. This project replaces the existing three-span bridge with a two-span, continuous structure. Key project elements are Maintenance and Protection of Traffic and Community Relations. (1999 - 2001)

EDUCATION

Coursework in Sciences and Liberal Arts, Rutgers University, Camden, NJ and Camden County College, Blackwood, NJ

PROFESSIONAL REGISTRATION

Certified Construction Project Manager

Certified Construction Inspector

OSHA Occupational Safety and Health Construction Standards

URS/OKA – Value Engineering Techniques

URS/OKA – Critical Path Method (CPM)

URS/OKA – Network Scheduling Techniques

Vincent R. Plagiaro, Jr.

Code Compliance / DCA Coordination

Mr. Pagliaro has over 38 years of experience that includes many facets of the construction industry. His experience includes program and construction management specializing in contractor contracts negotiations and building the project on time and within budget. Among his major specialties is analyzing and rescuing troubled construction projects, together with concurrently managing a multitude of projects. His administration responsibilities include cost evaluation, code compliance, agency coordination, labor relations, contractor contract reconciliations and negotiations; establish standard codes of accounts and procedures, financial/cost control, budget forecasts, bid analysis, estimating, planning and scheduling; and implementing management information systems for various construction projects and programs. Additional experience includes value-engineering studies, constructability reviews, claims analysis and assistance with the development of Project Labor Agreements (PLA). His experience includes a wide range of commercial and industrial projects such as: educational facilities, postal facilities, water and wastewater treatment plants, prisons and correctional facilities, nuclear power plants, hospitals, housing, health care facilities, airports, rail works, environmental remediation and specialized construction, as well as demolition.

RELEVANT EXPERIENCE

The School District of Philadelphia Capital Improvement Program, Philadelphia, PA ($3.2 Billion). Mr. Pagliaro was the **Program Director** on the $3.2 billion Philadelphia School Improvement Team (PSIT) Project for the School District of Philadelphia office of Capital Programs. He started working with the School District in April 2003 and continued to lead the Team to the contract completion date of March 31, 2013. He was responsible for the day-to-day operations and department interactions for the Philadelphia School Improvement Team staff, which totaled over 50 onsite professionals during the program duration. Under his direction as Program Director, the team accomplishments included 15 new schools ($500M), 17 major renovations projects ($469M), 10 new additions ($190M), 10 middle school conversions ($89M), 91 classroom modernization projects ($46M), 3 Primary Education Centers ($29M), 35 site improvement projects ($42M), 152 life cycle replacement projects ($266M) and has completed over 330 projects totaling over $1.6 billion dollars. He was instrumental in achieving LEED Platinum certification for the New Kensington CAPA School, Gold certification for High School of the Future, Commodore John Barry Elementary School and West Philadelphia High School as well as Silver certification for the Willard Elementary School through the United States Green Building Council.

Stockton College, Stockton, NJ: Performed Pre-Construction services for the construction of a new addition and renovation work to the existing facility including data communication upgrade and site work.

Naval Air Propulsion Center, Trenton, NJ/Naval Air Station, Willow Grove, PA ($25 m). As the on-site **Construction Manager**, he concurrently supervised a multitude of construction projects and coordinated work with the various regulatory agencies involved with the projects ensuring that all applicable codes were adhered to.

Cooper River Interceptor Program, Camden County, NJ ($72 million). As part of the engineering team, his duties included value engineering studies, identification of applicable codes and coordinating with regulatory agencies, preparation of the maintenance and operation manuals, and community liaison coordinator on this wastewater interceptor and pumping station system.

Maple Shade School District, Maple Shade, NJ: ($5.3 million). As the on-site **Construction Manager**, Mr. Pagliaro was responsible for overseeing all construction activities and reporting directly to the Districts personnel. His duties included supervising and coordinating the sixteen separate prime contractors at the Maude Wilkins, Howard Yokum and Maple Shade Township Schools, and specifically coordinating with the NJ DCA for inspection of the work and obtaining the required approvals. The project was within budget and met the critical completion date to permit the school opening.

Springfield Township Schools, Springfield, NJ: ($1.4 million). In the role as **Project Manager**, he provided construction management services to the existing elementary school expansion and renovation project. His responsibilitied included coordination with local agencies and the NJ DCA to obtain all required approvals prior to completion of the work. Multiple prime contractors performed the construction work.

General Construction Projects include:

- CCMUA Sewage Treatment Plant
- Newark Airport Monorail
- Naval Air Propulsion Center, Trenton, NJ
- Morgan Station USPS Facility
- Naval Air Station Willow Grove (Airport)

Claims Projects

- Dobco vs. Williams Development
- Northfield Schools, NJ
- Conrail Unloading Depot, NY (retained as expert witness)
- New Jersey Transit Rail Equipment Maintenance Facility, Newark, NJ
- Atlantic City Convention Center, NJ
- Lipari Landfill, Mantua Township, NJ
- Electrical Distribution analysis for Philadelphia Navy Shipyard, PA

Value Engineering Projects

- Southwark Plaza, Philadelphia Housing Authority, ($49.5 million)
- Trenton Courthouse and Federal Building Annex, NJ ($25 million)
- Camden County Municipal Utilities Authority, NJ ($350 million)
- Niagara Water Treatment Plant, NY ($75 million)
- Duffy & Roebling Elementary Schools, Florence Township, NJ ($4 million)
- Camden Federal Courthouse Annex, NJ ($26 million)
- Camden Prison, NJ ($30 million)
- Middlesex County Utilities Authority Sludge Handling, NJ ($25 million)
- East Windsor Sewage Treatment Plant Upgrade, NJ ($16 million)
- Fort Dix Firing Range Upgrade, NJ ($6.3 million)

EDUCATION

Bachelor of Science, New Jersey Institute of Technology, Newark, NJ, 1998

CERTIFICATIONS

OSHA 10 hour Construction Safety and Health Training

OSHA Respirator Clearance

Antonio Dias

Instrumentation

Mr. Dias has over ten years of experience in all aspects of design, construction, and electrical equipment and associated systems in an engineering environment. He has extensive background in the field of inspection, fire alarm, lighting layouts/calculations, security, power distribution, and power generation systems. He possesses strong technical and methodical aptitude with an innate ability to analyze, coordinates, and synthesizes data, and is a strong team member, who is able to motivate team to reach goals and deadlines.

RELEVANT EXPERIENCE

ELECTRICAL ENGINEER – BB-28S, Sandy Restoration & Mitigation; BB-28, Phase II/BB-54 Brooklyn Plaza Rehabilitation, Brooklyn, NY – MTA Bridges and Tunnels. Serving as the Chief Inspector for this Contract No: BB-28S, BB-28/BB-54 ($290M). The Work is to be performed on the Triborough Bridge and Tunnel Authority Facility: Hugh L. Carey Tunnel (Formerly Brooklyn Battery Tunnel) and the Brooklyn Plaza at the Hugh L. Carey Tunnel, which is located in the Borough of Brooklyn and the Borough of Manhattan. (1/2015 – present)

ELECTRICAL ENGINEER – Cat-Del Aqueduct Interconnection Construction Management Shaft 4 for NYCDEP. Project elements included installation of a reinforced concrete flow/pressure control structure; distribution header; chambers for transferring flow between the Delaware and Catskill Aqueducts; and buried 72- and 48-inch diameter piping. The installations required controls and instrumentation for mechanical process, electrical and HVAC work. Construction cost: $22 million. (5/2014 – 6/2015)

INSPECTOR – Third City Water Tunnel Construction Management for NYCDEP. Inspector for HAKS' joint venture construction management services for the final construction phase of the 8.5-mile Manhattan leg of the $5 billion new tunnel, which will provide critical redundancy for the city's water supply. Once operational, the 600-foot-deep, 60-mile tunnel will deliver 1.3 billion gallons of water daily, allowing Tunnels No. 1 and 2 to be inspected and repaired for the first time since they were put into service in 1917 and 1936, respectively. Construction cost: $176 million. (6/2013 - Present)

INSPECTOR – Construction Management Services, Miscellaneous Downstate Area Projects, CTYWDCM-3A for NYCDEP. Providing on-call CM services which covers constructability reviews, installation and operation of chlorination facilities, sludge facilities, mechanical, electrical, instrumentation, civil work and more. Work was performed at water pollution control plants in both the North area (Hunts Point, Redhook, Newtown Creek, Bowery Bay, Tallman Island, Wards Island and North River Plant and pumping stations), and the South area (Owls Head, Oakwood Beach, Coney Island, 26th Ward, Rockaway and Port Richmond Plants and pumping stations). Assignments carried out includes rebuilding the Plant Heating Facility Boilers at the Rockaway WPCP; SOP QA review and auditing, construction of Interim Sludge Transshipment Facilities at the Tallman Island WPCP, upgrading the Chemical

Bulk Storage and metering system for Ferric Chloride and Sodium Hypochlorite Facilities at the Bowery Bay WPCP, Shaft 21 Special Inspection services, asbestos monitoring services, CERCLA testing, and the Bioswale Inspection Program. Construction cost: $100 million. (4/2013 – present)

ELECTRICAL ENGINEER – Served as the lead Electrical Engineer in providing design and AutoCAD of LV and MV single lines, power distributor, generator systems, UPS systems with power distribution, cable/conduit schedules, site and building layouts, lighting layouts/calculations, and installation details. He interacted with vendors, performed witness and factory acceptance testing. Responsible for coordination effort with other disciplines during the design stage and maintained the project manager updated. Provided support for Design Services During Construction (DSDC) on any field issues and provided resolutions. He has been involved with the various major projects which are: Newtown Creek Waste Water Treatment, Rye Lake Pumping Station, Combined sewer Overflow Planning, In- Line Storage Inflatable Dams, New Castle Water System Interconnection Village of Mt. Kisco, and Paedegat Basin Combined Sewer Overflow Facility. (2005-2012)

ELECTRICAL DESIGNER–Responsible for electrical design, completion, and administration of contract drawings for all type of facilities. Job description includes preparing contract drawings, construction documents, and code analysis, providing technical review of construction documents and on site inspection. Projects that Mr. Dias was involved in included: NYS Thruway Authority I-84/I-87 Interchange, the Headquarters for the Facilities Maintenance and Division Bridge Units which was LEED certified. East Orange Police Headquarters converted a bank building into the Headquarters for the City of East Orange. Health and Safety Projects provided life safety improvements, and MEP upgrades of Newark Public School, Orange School district, Passaic Public Schools and the Paterson Public School systems. Rehabilitation of the Jay Lawrence Stations and the construction of the Jay/Lawrence transfer connection, designed communication and the fire alarm systems. (2002-2005)

QUALITY ENGINEER- Responsibilities included evaluations of RMA's and disposition of said products, documenting the process as per ISO 9001 requirements. Developed, revised, and implemented the RMA system. Prepared data and documentation of source inspections. Trained and certified as a J-STD-001 inspector. Participated in design review meeting as well as Material Review Board. (2000-2000)

PRODUCTION SUPPORT SPECIALIST- Responsibilities included order processing, scheduling of said orders, interaction as well as managing the manufacturing floor. Responsible for making new drawings as per customer specifications of CAD, also updating and interacting with sales on work orders to be processed. Hold daily meetings with the manufacturing floor to update on work progress with assemblers. Coordinate with Quality Control and shipping to maintain on-time deliveries as well as receiving of key material that is essential to the completion of work order. (1997-2000)

The RBA Group

BRYAN VANDERGHEYNST, P.E.

Supervising Environmental Engineer

Education B.S., Civil/Environmental Engineering, Rutgers University, 1995
Registration Professional Engineer, 2000 (NJ), 2010 (CT), 2010 (NY)

Mr. VanderGheynst has more than 20 years of experience in civil and environmental engineering and permitting, specializing in water resources engineering. He has designed a wide range of projects including commercial, industrial, residential, government, roadway, airport, and golf course projects in New York, New Jersey, Pennsylvania, and the District of Columbia. He is experienced in designing state of the art stormwater management systems and BMPs, including bioengineering and green infrastructure, to meet local, State, and federal requirements. Engineering designs include: site plans, subdivisions, roadways, water quality facilities, stormwater management, dams, flood control, sanitary sewer and septic systems, utilities, water treatment plants, soil erosion control, and retaining walls. Hydrologic and hydraulic designs include: piped systems, stormwater facilities, wetland mitigation hydrology, interconnected pond systems, dam breach analyses, culverts and bridges, and floodplain studies. He is experienced in the latest hydrologic and hydraulic computer software and the use of digital civil engineering design tools. Highlights of his relevant experience include:

NJDOT Hydrologic and Hydraulic Term Agreements - 4 Contracts (2011-2014), (2005-2008), (2002-2005) and (2001-2002). Project Manager and H&H Team Leader for four task order contracts spanning a period over 12 years. Tasks involved statewide H/H services including water course modeling, floodplain evaluations, design of stormwater facilities, green infrastructure design, bridge sizing and scour analysis, culvert design, stream bank stabilization utilizing bio-engineering technologies, and preparation of permit documents. Permits prepared and obtained include: NJDEP Flood Hazard Area, Freshwater Wetlands, Coastal Wetlands, CAFRA, and Waterfront Development; Tidelands Conveyances; US Coast Guard; US ACOE; NJ Pinelands; D&R Canal Commission; and NJPDES.

Route 35 Hurricane Sandy Damage Emergency Reconstruction, Mile Post 4 – 9, Ocean County - As Project Engineer, responsible for the design and coastal permitting for utility, drainage, and water quality facility upgrades for over ten miles of roadway and 30 drainage outfalls for this section of road damaged by Hurricane Sandy. Work involved the evaluation of the damaged and existing stormwater collection systems; hydraulic modeling accounting for tidal backwater controls; design of new collection facilities as well as water quality controls; and the evaluation of backflow prevention devices. The project included over 1,500 new drainage structures and approximately 100,000 feet of new drainage piping. Due to the emergency nature of the project, the 12-18 month design process was compressed, with required work efforts successfully completed within 4 months.

US Routes 1 & 9T Extension/New Road Project, Essex and Hudson Counties, NJ – As Water Resource Engineering Task Leader, responsible for evaluating tidal floodplain issues/constraints, stormwater management design, and related permitting. Also supported the preparation of Technical Environmental Studies (TES) including air, noise, hazardous waste, ecology, wetland delineation, socioeconomic/ land use, environmental justice, cultural resources (SHPO coordination and experience with Secretary of Interior Standards for Rehabilitation), and 4(f) in support of a NEPA Environmental Impact Statement (EIS)/Environmental Assessment (EA) Document and Categorical Exclusion Documents/ CED, which is also part of RBA's scope of work.

Linden Place Extension/Flushing Airport Wetland Mitigation Queens, NY –To address wetland impacts associated with roadway construction and other EDC projects, prepared wetland mitigation design and plans for the conversion of the Former Flushing Airport into a large wetland mitigation bank. As Water

Resource Engineering Task Leader also prepared detailed water budget, channel restoration design, and stormwater treatment facilities.

Rock Creek/Meridian Hill Park Improvements, Washington DC – This multi-year restoration project by the N.P.S. involves significant landscape improvements, and park-wide renovations and restorations of historical elements. The RBA Group is responsible for site engineering, including erosion control and stormwater management design and permitting. Incorporated landscaped bioretention areas to address stormwater runoff control and treatment. Currently working on Phase V of the design, which involves rehabilitation of the Lower Terrace and extensive drainage improvements.

Willever Lake Dam Breach and Stream Restoration, Mansfield Township, Warren County, NJ - Performed an inspection of this Dam (NJDEP Class II) to identify dam deficiencies and concerns in order to estimate the required dam improvements and associated costs to bring the structure into compliance with current NJDEP dam safety standards. Prepared hydrologic and hydraulic modeling and Dambreak analysis utilizing HEC-HMS, HMR-52, HydroCad, and HEC-RAS (backwater analysis) to determine the classification of this dam. Prepared inundation mapping and water surface profiles and evaluated impacts to downstream structures. Evaluated improvement measures and potential for permanent breach. Submitted formal permit applications to NJDEP LURP, NJDEP Dam Safety, and NRCS for dam removal and channel re-establishment. Provided construction oversight for dam breaching and channel reestablishment.

Route 29 Assunpink Creek and Pond Run Flooding Study, City of Trenton, NJ (NJDOT) – Project Manager for this project involving the analyses of the lower 2.5 miles of the Assunpink Creek and the lower 0.6 miles of Pond Run to investigate and study the flooding of NJDOT owned Route 29 due to diverted floodwaters from the Assunpink Creek. Responsible for the evaluation of conceptual mitigation alternatives and impact assessments, as well as the development of conceptual design plans, flood mapping and Concept Development Report.

Statue of Liberty Life Safety Improvements, Liberty Island NY – As part of this large scale renovation and upgrade project by the N.P.S., The RBA Group was responsible for designing and preparing construction documents for upgrades to the onsite water supply facilities. The project included a new domestic and fire service to the statue and other on-site facilities. Our efforts also included evaluation and design of a 130,000 gallon storage tank and fire pump upgrades, which were ultimately deferred.

Picatinny Arsenal Flood Hazard Area Screening and Constraints Map, Dover, NJ - Over the past several years, RBA has provided support to the Arsenal by addressing environmental permitting queries as well as presenting seminars on environmental permitting issues. As a result of these ongoing interactions, RBA and the Arsenal identified a need for a Flood Hazard Area constraints screening for the entire Arsenal. As part of the evaluations, RBA will identify watercourses (natural and manmade) with drainage areas greater than 50 acres and prepare hydrologic and hydraulic models of theses regulated watercourses. Preliminary Flood Hazard Areas, Floodways, Riparian Buffers, and Special Resource Protection Areas will be delineated on CAD and GIS formats, and this information will serve as a planning tool for future development/redevelopment projects on the base.

Route 130 Over Raccoon Creek, Logan Township, NJ - Project involved the replacement of an existing draw bridge with a new raised structure, as well as associated roadway approach improvements over this tidal watercourse. Since the project increased impervious coverage by more than ¼ acre, responsible for the design of two stormwater management facilities, including an infiltration basin and extended detention basin. Also prepared detailed hydraulic analyses for proposed bridge to evaluate potential scour and prepared NJDEP Waterfront Development Permit application.

MICHAEL SHINE, PE
Principal Engineer

Education	B.S. Civil Engineering, New Jersey Institute of Technology, 1994
Registrations	Professional Engineer, (2011) NJ OSHA 40-Hour Health and Safety for Hazardous Waste Operations OSHA 8-Hour Management and Supervisor Training OSHA Permit Required Confined Spaces Hazard Communication Training

Mr. Shine has more than 20 years of civil engineering/site design experience, 16 of which have been with The RBA Group. He has extensive experience in the relocation design of various utilities. Mr. Shine's project experience includes:

Barnegat Bridge – East Bay Avenue over Double Creek, Barnegat Township, Ocean County, NJ - Project included demolition and replacement of a timber bridge carrying two alternating lanes of East Bay Avenue and an adjacent pedestrian bridge structure over Double Creek. As utility engineer, prepared utility construction plans associated with the relocation of an existing aerial pole line carrying electric and communications facilities which were impacted by the proposed bridge improvements. Work included coordination of relocation schemes, division of work responsibilities, construction staging and development of project specific specifications. Additional coordination was required with the United States coast Guard in order to supply power to proposed navigation lights on the new bridge. A sanitary force main was required to be relocated in stages in order to accommodate the new bridge construction. Careful coordination and development of utility staging plans were required for the final design of the proposed force main. As part of the project, an existing bridge mounted gas main was relocated beneath the creek bed through a horizontal directional drill operation. Coordination with the gas company was an important part of the design as the new gas main would have to be installed in conjunction with the staging of the new bridge pile system.

Garden State Parkway Interchange 105 Improvements, Monmouth County, NJ - Utility design engineer responsible for the preparation of utility relocation schemes and design construction plans as well as preparation of utility agreement plans related to the relocation of all utility facilities impacted by the construction of a new bridge structure. Major work included the temporary relocation of 34.5kv sub-transmission aerial electric lines spanning a NJ Transit/Conrail rail line corridor. Work also included coordination with JCP&L for proper overhead clearance restrictions, seasonal time-frame outages, and protection requirements associated with 230kv high-voltage lines and adjacent steel H-Frame towers; also included coordination with NJ Transit and Conrail for specific utility related requirements within rail ROW in accordance with the state utility and Railroad Accommodation Policy.

Route 29 Bank Stabilization: Ewing Township, Mercer County and Delaware Township, Hunterdon County - A utility design engineer for the relocation of aerial utilities associated with the installation of stabilization sheeting along the bank of the Delaware and Raritan Canal. The project included relocating an aerial pole line to facilitate crane maneuverability in order to drive sheeting beneath active electric and communication lines; field investigations and coordination with utility companies regarding proposed improvements and associated impacts to existing utility facilities. Work included preparation of utility relocation schemes and design construction plans in accordance with NJDOT Capital Project Delivery Process, utility agreement plans, and specifications (special provisions).

Widening of the Garden State Parkway, Section 3, MP 75.0 to 80.8, Ocean County, NJ - As Utility Engineer, prepared plans for the relocation of utilities impacted by 5+ mile widening of the Garden State Parkway and installation of new structures. Work included field verification of all existing utility facilities (including fiber optic lines), design and preparation of utility agreement plans, coordination with utility

companies and final relocation construction plans. Coordinated with NJ Turnpike design consultant. Performed part-time construction oversight during trenching and utility operations.

Design and Environmental Permitting for New Toll Plaza Ramps at Interchange 18W, Borough of Carlstadt, NJ Turnpike Authority, Bergen County, NJ - As Utility Engineer, prepared plans for the relocation of a fiber optic line impacted by the new roadway alignment. Design included directional drilling the new main under both the NJ Turnpike and an existing drainage culvert. Work included verification of existing utilities, coordination with the fiber optic company and NJ Turnpike, design and preparation of utility agreement plans and final construction plans.

Route 206, Section 20 and 21 Widening, Byram Township, Sussex County, NJ - Utility Design Engineer for the preparation of final design documents. Project involved reconstruction and widening of Route 206 and construction of turning lanes at the CR 513 intersection. Responsibilities included the preparation of the following utility design tasks in accordance with the NJDOT Procedures Manual: utility conflict analysis and resolution, preparation of utility design authorization checklists, utility relocation schemes in accordance with the State Utility Accommodation policy, design construction plans, utility agreement plans, and utility special provisions. Performed part-time construction oversight of utility installation.

PSE&G Gas and Electric Divisions Term Agreement - New County Road Grade Separation Project, Secaucus, NJ - As Utility Design Engineer, prepared gas utility relocation schemes to accommodate the construction of two (2) bridge structures along New County Road as part of the NJ Turnpike Authority's Grade Separation Project. Design included the replacement of approximately 3,000 feet of existing 12" steel gas main located within three (3) roadways, and was performed in accordance with "specifications for pipeline occupancy of Norfolk Southern Corporation property." Work included evaluation of existing gas facilities, preparing gas utility agreement plans, design plans and specifications, and staging plans. Coordinated with NJ Turnpike design consultant for utility conflict resolution. Also performed part-time construction observation of utility installation operations.

PSE&G Gas and Electric Divisions Term Agreement – Route 1&9, Honeywell, Hudson County, NJ - As utility design engineer, performed gas facility design services in conjunction with the relocation of approximately 1,200 LF of roadway improvements. The project required the relocation of the existing main in order for the property owner to perform a soil remediation project at the site. Work included numerous coordination meetings with the property owner's engineer consultant to address health and safety requirements and to coordinate traffic control and construction staging operations. Design included verification of existing facilities, and preparation of final design construction plans and specifications in accordance with NJDOT Procedures Manual Chapter 10. Performed part-time construction observation of trenching and gas main installation operations.

Route 9 and Route 79/Schanck Road, Freehold Township, NJ - As Utility Design Engineer, performed relocation of overhead electrical facilities due to the widening of Route 9 and the realignment of Route 79 and Schanck Road to form a new intersection with Route 9. Work included coordination meeting with utility company, incorporating all utility company's details and specifications into final design and preparation of design plans and specifications in accordance with NJDOT Procedures Manual Chapter 10.

Seaview Drive Extension and Jersey City 72" Aqueduct Relocation, Hudson County, NJ - As Utility Design Engineer, provided utility coordination for the extension of Seaview Drive. The Seaview Drive extension links the terminus of proposed Ramp TW-WT (Secaucus Interchange Section 3) with NJ Transit's Transfer Station, New County Road, Seaview Drive and ultimately Meadowlands Parkway to the west. Project involved coordination and design of water, sanitary, gas, electric and communication facilities impacted by the proposed roadway improvements. Preparation of utility relocation schemes, utility agreements, utility design plans and DEP permit for sewer extension. Work included the investigation and test pitting and protection of Jersey City's 100-year-old twin 72-inch water mains and reconstruction of the Norfolk Southern railroad grade crossing of New County Road. Performed part-time construction oversight of watermain trenching and installation operations.

JAMES J. BRAZEL

Director, Environmental Services/Senior Associate

Education B.S., Biology, 1980, Rutgers University

Mr. Brazel has over 35 years of experience in environmental document preparation and permitting. He is responsible for the coordination and management of all environmental projects for RBA. His areas of expertise include: Project Management; NEPA environmental documentation; environmental assessment studies; environmental impact studies; permitting for local, state, and federal agencies; and expert testimony. He has prepared freshwater wetland delineations and permits; wetland mitigation design and monitoring; flood hazard area and riparian corridor analysis(submittals include all technical and environmental planning associated with permitting process); sewer extension and NJPDES applications; stormwater management studies; endangered species studies; soil erosion and sediment control planning;; hazardous materials screenings; environmental constraints planning; Mr. Brazel's project experience includes:

NJDOT Multidiscipline On-Call Environmental Term Agreement, Statewide (1995-present) - As Project Manager responsible for the preparation of various environmental studies for road and bridge improvements throughout the state, involving NEPA compliance(CE, EA, EIS, Section 4(f)), Section 106, EO-215 EA/EIS preparation, federal/state permit applications. Tasks involve preparation of technical environmental studies and environmental screenings, including air quality, ecology, hazardous waste, noise, socioeconomics and land use, environmental justice analysis, cultural resources (SHPO coordination/Section 106 and the standards for rehabilitation), as well as preparation of Categorical Exclusion Documents, Environmental Assessments, Environmental Impact Studies, Section 4(f) Documents, Green Acres coordination, and EO 215 (EA/EIS) Documents, federal/state permit applications. Utilized NJDEP Environmental Databases as part of constraints analysis and prepared numerous permits for NJDEP including wetlands (GP/IP), Stream Encroachment, CAFRA, Waterfront Development, Endangered/ Threatened Species, Highlands Approvals and SHPO Approvals.

NJ Turnpike Multidiscipline On-Call Environmental Term Agreement (2008–Present) - As Project Manager, responsible for the preparation of environmental studies to support Turnpike infrastructure projects as well as environmental process improvements including NEPA compliance documents, Section 106 cultural resource evaluations, EO-215 (EA/EIS) preparation, federal/ state permit applications, hazardous materials screenings and impact analysis.

NJTA Facilities Improvement Program, GSP South Maintenance Districts – The NJ Turnpike Authority is undertaking a Facilities Improvement Program to bring twenty of its maintenance facilities, into a state of good repair and to support safe and efficient future roadway operations. As Environmental Project Manager for five of these facilities and Environmental Program Manager for all 20 sites in the program, responsible for managing development of environmental studies, documentation and permits including USACOE 404 Permits, CAFRA Permits, D&R Canal Approval, Pinelands Permits, Hazardous Materials Studies, SHPO Coordination and EO-215 Documents.

Garden State Parkway, Interchange 105 Improvements, Monmouth County, NJ – Environmental Task Leader for preliminary and final design including preparation of environmental reports, alternative analysis, NJDEP EO 215 and NJDEP permits for construction of a new SB exit ramp to Wayside Rd/Route 18, new NB auxiliary lane to Exit 105, and reconfiguration/ widening/ signalization improvement to Hope Rd and Route 36. Permits included NJDEP FHA Permit, Freshwater Wetland Individual Permit, and Hazardous Waste Investigation, NJ Reforestation Approval, SHPO approval and SCD certification.

Garden State Parkway, Interchange 41 and 44 Improvements, Atlantic County, NJ – Environmental Task Leader for preparation of environmental documents and permits for the roadway improvements and the NJ State Police Barracks. Responsible for environmental studies and permitting, including preparation of a CAFRA EIS including FHA and an Individual Freshwater Wetland Permit, and an application for Pinelands Commission Approval. All critical issues were identified and addressed including H&H studies, wetlands and buffers, stormwater management, cultural resource evaluations, endangered/ threatened species habitat evaluations, water quality and air/noise evaluations.

Correctional Corporation of America, On-Call Environmental Task Order Agreement - Managed all aspects of in-house and field related environmental activities in the performance of aiding CCA in its site selection and design for correctional facilities throughout the United States. Performed environmental studies, prepared environmental documents and permits including ecological issues, hazardous waste reports, environmental assessments and permits.

Picatinny Arsenal, NJ- Department of Defense - Project Manager for a variety of environmental services on an on-call basis to Picatinny Arsenal over the past 10 years. RBA provided wetland delineation and environmental permitting services for the Precision Munitions Facility Project. This project included permitting for the installation of water and cable utility lines to service the new test facility. RBA completed a NEPA Environmental Assessment (EA), including wetland and floodplain delineation, and prepared draft construction plans and permit application packages for improvements at the Arsenal's "Gorge" ordinance test area RBA completed the NEPA documentation in order to obtain federal funds and permits for this project.

NJDOT Portway Project/ New Road Essex and Hudson Counties, NJ (2008-Present) - In accordance with NJDOT Procedure Manual and NJDOT Capital Project Delivery Process and pertinent state and federal regulations, responsible for preparing the Technical Environmental Studies (TES) including air, noise, hazardous waste, ecology, wetland delineation, socioeconomic/land use, environmental justice, cultural resources- historic architecture and archeology (SHPO coordination and experience with Secretary of Interior Standards for Rehabilitation), and Section 4(f) in support of a NEPA Environmental Assessment (EA) Document and a NJDEP EO-215 Environmental Impact Statement(EIS). Responsible for preparation of environmental permit applications for NJDEP Flood Hazard Area, USACOE Section 404, wetland and riparian corridor mitigation and other State and Federal environmental regulations and agencies

NJDOT Route 280/Route 21 Interchange Improvements - In accordance with NJDOT Procedure Manual and NJDOT Capital Project Delivery Process and pertinent state and federal regulations, provided technical support and oversight for development of technical environmental studies to support the NEPA CED document for the project. This included cultural resources, air/noise and vibration studies, ecology, wetlands, identification of permitting required, land use, and socioeconomics. Coordinated inclusion of technical information in NEPA document provided by NJDOT for community impact assessment, environmental justice, hazmat screening, and community involvement. Provided support oversight for development of Section 4(f), NJ Historic Sites Council Application and Section 106 documentation. (SHPO coordination and experience with Secretary of Interior Standards for Rehabilitation)

Green Park, Liberty State Park, Jersey City, NJ - Environmental project manager responsible for environmental documentation and permitting, including waterfront development USACOE Section 404 SHPO coordination and wetland permits, for the development of 106 waterfront acres of former rail yards into a green park.

Route 1 and 9T, Jersey City, NJ – Environmental Project Manager responsible for the preparation of socioeconomic, 4(f), environmental justice and cultural resources (SHPO coordination) technical studies for the preparation of an NEPA Environmental Assessment submitted and approved by FHWA.

GLENN CALABRESE

Supervising Environmental Specialist

Education	M.B.A., 2007, William Paterson University (AACSB) M.S., Geology, 1998, Montclair State University B.S., Earth Science/Minors in Biology, Anthropology, Religion, 1986, Upsala College
Certifications/ Licenses	Licensed Site Remediation Professional (LSRP) Certified Hazardous Materials Manager (CHMM) Certified NJDEP UST Subsurface Evaluator Certified NJDEP UST Closure Certified AHERA Asbestos Inspector NJ/NY Certified Lead Inspector & Risk Assessor NJ/NY
Training	OSHA 40-Hour Hazardous Waste Operations & Emergency Resp. (HAZWOPER) DOT HAZMAT Transportation (49 CFR- 172.704) DOT Security Awareness (49 CFR-172.704) Site Supervisor Training (28 CFR-1910.120 (p)(3)), NUS Corporation Applications in Advanced Hydrogeology (4-day), Rutgers University (2009) Groundwater Pollution & Hydrology Course (40-Hour), Princeton GW (2006) The Rutgers University Wetland Delineator Program, Rutgers University (2009) Occupational Safety & Health Compliance Mgnt. Certification Series, EOHSI • Fundamentals of Occupational Safety Compliance • Fundamentals of Industrial Hygiene • Air Sampling for Toxic Substances • Practical Occupational Health and Safety Management
Memberships	Licensed Site Remediation Professionals Association

Mr. Calabrese has 24 years of experience in the coordination and oversight of environmental projects. His areas of expertise include: Phase-I, Preliminary Assessments (PA), feasibility studies, Environmental Assessments (ES), Site Investigations (SI), Remedial Investigations (RI) and Remedial Actions (RA) for private, government and chemical manufacturer clients.

Mr. Calabrese has extensive experience in health & safety/industrial hygiene management and field activity applications. He has created in-house health & safety polices and oversaw all office-wide field safety plans. He has developed environmental supplemental specifications/ procedures and imported fill specifications for the New Jersey Turnpike Authority (NJTA).

His environmental proficiency include: preparation of cost estimates; project management; forecasting schedules; interfacing with clients, contractors, consultants and regulatory agencies; and providing extensive technical assistance. Mr. Calabrese's many years of experience dealing with the NJDEP/NYSDEC have provided insightful knowledge of environmental procedures for a more streamlined approach in solving environmental issues.

He has a strong understanding of New Jersey Turnpike Authority (NJTA) and New Jersey Department of Transportation (NJDOT) environmental procedures/protocols and engineering/construction related activities. He is currently managing a 3 year Hazardous Materials Task Order Agreement for NJDOT.

Mr. Calabrese has extensive experience with Superfund sites and associated agencies. Having worked on a diverse range of contaminated sites, he has developed the ability to solve difficult environmental issues with original solutions. He has also applied innovative technology for remedial cost reductions and negotiated with the NJDEP to obtain variances from the Technical Requirements for Site Remediation (N.J.A.C. 7:26E). Mr. Calabrese has managed many underground storage tank (UST) closures and evaluated remedial treatment options for impacted soil/groundwater media.

Project Types Include:

Preliminary Assessments/Phase I (Environmental Site Assessments) & Asbestos Inspections
Performed over 75 inspections of residential, commercial, industrial, public and private properties. Assessments were performed in NJ, NY, PA, CT, DE, NC and Puerto Rico.

UST Investigations - Performed over 60 UST investigations. Investigations were conducted for residential, commercial, industrial and governmental clients. Tank sizes ranged between 275 and 10,000 gallons.

Soil/Groundwater Site and Remedial Investigations - Performed over 75 soil/groundwater/sediment investigations for different contaminants.

Superfund Sites/EPA Contract for Region II - Project Manager for over 10 Superfund sites in Region II. Performed environmental scoring for National Properties List for sites in NJ, NY, Puerto Rico, and Virgin Islands. Investigations were conducted within soil, sediment, surface water and groundwater medias.

Health & Safety/Industrial Hygiene Management
Created office and field safety polices for different contaminant point sources. Supervised all aspects of personnel in Levels D, C, and B with respect to hazardous waste. Ensured compliance with all USEPA, State, and local requirements. Conducted in-house and field occupational safety compliance inspections.

The following are some of Mr. Calabrese's project experiences:
NJDOT Hazardous Waste Environmental Term Agreement (2014-present) - coordination and oversight of environmental projects including: Phase-I, Preliminary Assessments (PA), feasibility studies, Environmental Assessments (ES), Site Investigations (SI), Remedial Investigations (RI) and Remedial Actions (RA) for private, government and chemical manufacturer clients.

DPMC Environmental Consulting/LSRP Services- Agency Consulting Program (2014-present)– responsible for the preparation of Phase-I, Preliminary Assessments (PA), feasibility studies, Environmental Assessments (ES), Site Investigations (SI), Remedial Investigations (RI) and Remedial Actions (RA) for DPMC.

Garden State Parkway, Interchange 41 and 44 Improvements, Atlantic County, NJ – Environmental Hazardous Task Leader for preparation of hazardous waste screening for the roadway improvements and the NJ State Police Barracks.

Garden State Parkway, Interchange 105 Improvements, Monmouth County, NJ – Environmental Hazardous Task Leader for preliminary and final design including preparation of environmental reports for construction of a new SB exit ramp to Wayside Rd/Route 18, new NB auxiliary lane to Exit 105, and reconfiguration/ widening/ signalization improvement to Hope Rd and Route 36.

DPMC Greystone Psychiatric Hospital Complex, Morris Plains, NJ - Project Manager for the remedial investigation of over 100 AOCs. Soil, sediment, surface water, and groundwater were investigated at the project site. This included the collection of 1,300 soil samples and 100 concrete samples. Fourteen (14) monitoring wells were installed and sampled to assess groundwater conditions. AOCs included the following: a tank farm; two (2) landfills; a waste water treatment plant; creeks; railroad tracks; and sludge drying pads. Alternative Soil Remediation Standards were developed for the entire project site for a passive recreational park. This significantly reduced overall project costs. Prepared Contractor Specifications & Drawings for remediation of site-wide contamination.

NJTA Facilities Improvement Program, Parkway South (NJTA) –LSRP for assessment of five NJTA Garden State Parkway South maintenance facilities: Herbertsville, Whitehorse, Swainton, Bass River, and Ocean. Conducted environmental assessments and site investigations on multiple AOCs.

NJDOT Route 35 Drainage Project, Ocean County, NJ - Performed a Hazardous Waste Screening along select sites on Route 35. Conducted a site investigation for two (2) properties to assess subsurface conditions.

NJ Turnpike Authority, NJ - Managed geoprobing investigations for site/remedial investigation along the Turnpike Interchanges (Interchange 14C and 11) for chromium-contaminated and historic cinder ash fill soils. Provided oversight for chromium effects on concrete supporting piers.

JEAN HOWSON, Ph.D.
Supervising Principal Archaeologist

Education Ph.D., Anthropology, 1995, New York University
M.A., Anthropology, 1987, New York University
B.A., Anthropology, 1977, Vassar College

Memberships Society for Historical Archaeology
Council for Northeast Historical Archaeology

Dr. Howson has 25 years of professional experience as an archaeologist including both consulting and academic teaching positions. Her areas of expertise include cultural resource surveys, archaeological survey and data recovery, historical studies, and National Register of Historic Places nominations. Relevant project experience includes:

NJ Turnpike Authority Facilities Improvement Program, Parkway South Maintenance District - Principal Archaeologist responsible for coordination of field and lab staff, research, and report preparation for project with site locations in Monmouth, Ocean, Burlington, Atlantic, and Cape May Counties.

NJ Route 173/Pohatcong River Bridge Replacement, Greenwich Township, Warren County, NJ - Principal Archaeologist responsible for coordination of field and lab staff, research, and report preparation for this NJDOT bridge project. Responsible for Phase II investigation of project area, including National Register listed and eligible properties.

NJ Route 34 over Edgar Felix Memorial Bikeway Bridge Replacement Project, Wall Township, Monmouth County, NJ - Principal Archaeologist responsible for coordination of field and lab staff, research, and report preparation for NJDOT bridge project.

US 1&9T Extension Project (NJDOT) - Principal Archaeologist responsible for Phase I/II investigation of complex urban project area, including numerous transportation-related resources.

Picatinny Arsenal Historic Districts Web Site (Picatinny Arsenal, NJ) - Cultural Resources specialist responsible for research, oral history, design, and content for client-hosted interactive, multimedia web site on 5 National Register eligible historic districts on military installation. Responsible for coordinating SHPO review as part of facilities reduction program of U.S. Army Garrison Picatinny. Recipient of Distinguished Award from the American Council of Engineering Companies, NJ.

Garden State Parkway Interchanges 41 and 44 Improvements Project (NJ Turnpike Authority) - Principal Archaeologist responsible for overall project management, archaeological research, and report preparation for Phase I archaeological and intensive-level architectural survey for this interchange project in Atlantic County.

Garden State Parkway Interchange 105 Improvements Project (NJTA) - Principal Archaeologist responsible for overall project management, archaeological research, and report preparation for Phase I archaeological and intensive-level architectural survey for this interchange project in Monmouth County.

NJ Route 36 Highlands Bridge Replacement, Boroughs of Highlands and Sea Bright, NJ (NJDOT) - Principal Archaeologist and Project Manager for multi-faceted cultural resources mitigation including archaeological data recovery, public exhibits development, and HABS/HAER recordation.

NJ Route 21 Viaduct Rehabilitation Project, Newark, NJ (NJDOT) - Responsible for sensitivity survey of adjacent portion of Mount Pleasant Cemetery.

Route I-280/NJ Route 21 Interchange Improvements Project, Newark, NJ (NJDOT) - Responsible for Phase I archaeological survey of urban project area.

Neshanic Valley Golf Course, Somerset County, NJ (Somerset County Parks Commission) - Project management for archaeological survey for golf course development, including investigation of early farmstead sites; responsible for development and implementation of mitigation measures including exhibits and preservation easement.

Seaview Drive Extension, Jersey City Aqueduct Relocation, and New County Road Grade Separation Project, Secaucus, NJ (NJTA) - Project management for archaeological survey of project area and data recovery of two historic sites, design of mitigation measures related to the Jersey City Water Works Historic District, including documents inventory and research and writing for narrative report.

Routes 1 and 9T Improvements Project, Jersey City, NJ (NJDOT) - Principal Archaeologist and Project Manager for all phases of evaluative survey and multi-faceted cultural resources mitigation including archaeological data recovery of a 19th-century working-class neighborhood; HABS/HAER recordations; and preparation of a resource package for a documentary on the Pulaski Skyway.

Route I-280/First Street Improvements Project, Newark, NJ (NJDOT) - Principal Archaeologist and Project Manager for cultural resources survey and data recovery for 8 19th-century urban residential sites.

African Burial Ground Project, New York
Archaeological Analysis and Report (Howard University, under contract to General Services Administration, New York District) - Served as Associate Director for Archaeology and co-wrote and edited final report. **Interpretive Media (Amaze Design, under contract to National Park Service)** Subject Matter Expert for design team creating interpretive media for the Visitor's Center at the African Burial Ground National Monument.

NJ Route 22/Park Avenue, Scotch Plains, Watchung, NJ (NJDOT) - Supervised archeological survey, including early farmstead sites, for highway project in Union and Somerset Counties.

Delaware River Heritage Trail, Burlington and Mercer Counties, NJ - Supervised archeological survey for project in over 11 municipalities in Burlington and Mercer Counties for 42-mile Delaware River Heritage Trail for DVRPC.

Houses Corner Road Intersection Reconstruction, Sussex County, NJ (NJDOT) - Responsible for management of archaeological survey and data recovery of two early farmstead sites.

Doremus Avenue Reconstruction Project, Newark, NJ (NJDOT) - Responsible for archaeological survey component for project in industrial section of Newark.

NJ Turnpike Pennsylvania Extension/Route 130 Interchange, Florence, NJ (NJ Turnpike Authority) - Responsible for all archaeological work conducted for large highway interchange project, including survey and data recovery of early farmsteads.

U.S. Route 9 and Breakwater Road Intersection Project, Lower Township, Cape May County, NJ (NJDOT) - Supervised archeological survey for highway project.

Route 46/Main Street, Netcong, NJ (NJDOT) - Supervised archeological survey for highway project in Morris County.

Phase 1/2 Archaeological Survey for NJ Route 15/US Route 206 Intersection Improvements, Sussex County, NJ (NJDOT) - Responsible for management of archaeological work completed for this project at Ross Corner.

RICHARD L. PORTER

Supervisor, Cultural Resource Unit/Historian/ Associate

Education M.A., American History, 1981, Rutgers University
B.A., History, 1975, Muhlenberg College

Memberships American Historical Association
National Trust for Historic Preservation
Society for Industrial Archaeology
Society for Historical Archaeology
Council for Northeast Historical Archaeology
New Jersey Historical Society
Preservation New Jersey

Mr. Porter has more than 30 years of experience in the fields of cultural resource management and historic preservation. He is responsible for the coordination and management of all RBA projects in these fields. His areas of technical expertise include:

- All areas associated with project compliance involving Section 106 of the National Historic Preservation Act and the New Jersey State Register of Historic Places Act
- All areas of historical research, including the use of primary documentary sources, cartographic sources, and secondary sources, with special emphasis on applications for historical and industrial archaeology and architectural history
- Cultural Resource Surveys
- Historic Sites Surveys
- Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) Documentation
- National Register of Historic Places Nominations
- Historical Studies
- Historic Structures Reports
- Preservation Plans

Mr. Porter's project experience includes:

NJ Turnpike Interchange 13 Improvements, Union County, NJ - Responsible for overall project management, historical research, and report preparation for Phase I archaeological and intensive-level architectural survey for this interchange project.

NJDOT Portway Project, Essex and Hudson Counties, NJ - Responsible for overall management of and documentary research and writing for large project that included extensive research dealing with the numerous railroads, both historic and active, in Jersey City.

NJ Turnpike Authority Facilities Improvement Program, Parkway South Maintenance District - Responsible for overall project management, historical research, and report preparation for Phase I archaeological and intensive-level architectural survey for project with site locations in Monmouth, Ocean, Burlington, Atlantic, and Cape May Counties.

Garden State Parkway Interchanges 41 and 44 Improvements, Atlantic County, NJ - Responsible for overall project management, historical research, and report preparation for Phase I archaeological and intensive-level architectural survey for this interchange project.

Garden State Parkway Interchange 105 Improvements, Monmouth County, NJ - Responsible for overall project management, historical research, and report preparation for Phase I archaeological and intensive-level architectural survey for this interchange project.

NJ Route 173/Pohatcong River Bridge Replacement, Greenwich Township, Warren County - Responsible for overall project management, historical research, and report preparation for Phase I archaeological and intensive-level architectural survey for NJDOT bridge project.

NJ Route 34 over Edgar Felix Memorial Bikeway Bridge Replacement Project, Wall Township, Monmouth County - Responsible for overall project management, historical research, and report preparation for Phase I archaeological and intensive-level architectural survey for NJDOT bridge project.

NJ Route 36 Highlands Bridge Replacement, Boroughs of Highlands and Sea Bright, NJ (NJDOT) - Responsible for general oversight of Phase I/II archaeological survey and historic architectural survey, supervised preparation of application for Project Authorization, attended Sites Council meetings, and conducted historical research and writing.

Hunt House Restoration Project, Hopewell Township, Mercer County, NJ - Responsible for overall management of archaeological investigations associated with historic structure restoration project within Rosedale Park for Mercer County as a subconsultant to Farewell Mills Gatsch Architects.

NJ Turnpike Authority Seaview Drive Extension, Jersey City Aqueduct Relocation, and New County Road Grade Separation Project, Secaucus, NJ - Responsible for general oversight of Phase I/II archaeological survey and historic architectural survey, historical research and writing, and development of mitigation measures including contextual studies and surveys of railroad historic districts.

Trenton Early Childhood Center Feasibility Study, Trenton, NJ (NJSDA) - Cultural resource evaluation of a proposed school site in Trenton. Scope of work includes screening and recommendations for further investigations. Responsible for overall management of project and historical work.

Union City Schools, HABS Recordation, Union City, NJ (NJSDA) - Cultural resource mitigation work for two schools in Union City. Scope includes HABS recordation, development of historic context for Union City's school system, and a lesson plan based on the historic context. Responsible for overall management and historical work.

New Brunswick High School Demonstration Project, DEVCO (NJSDA) - Cultural resource work for proposed school site in New Brunswick. Scope includes screening and survey work. Responsible for the overall management and historical work.

NJDOT NJ Route 35 MP 4.0 to 9.0 Pavement Restoration and Drainage Improvements Project, Brick and Dover Townships, and Lavallette Borough, Ocean County, NJ - Responsible for oversight of archaeological and historic architectural surveys and conducted historic research.

Cultural Resource Screening Route 72 Evacuation Route Environmental Assessment, Ocean County, NJ - Identified cultural resources and assessed archaeological potential for Section 4(f) and NHPA Section 106 requirements for this NJDOT project.

NJDOT Route I-280 Newark Highway Access Feasibility Study - Responsible for overall management and historical work for Phase 1A archaeological and reconnaissance-/intensive-level historic architectural surveys and historic documentation mitigation completed.

NJDOT NJ Route 15/Houses Corner Road Intersection Improvements, Sussex County - Responsible for overall management and historical work for Phase 1/2 archaeological and reconnaissance-/intensive-level historic architectural surveys and data recovery project.

NJDOT U.S. Route 1 & 9 Truck Improvements, Jersey City - Responsible for overall management and historical work for Phase 1/2 archaeological and reconnaissance-/intensive-level historic architectural surveys completed for large urban project.

T & M Associates

Richard**MORALLE**, PE, PLS, PP, CME, LEED-GA

Division Manager – Site Development

Education

New Jersey Institute of Technology, MS Civil Engineering, 1984

Stevens Institute of Technology, BE Civil Engineering, 1974

Professional Registrations/ Affiliations

Licensed Professional Engineer in New Jersey, New York, Pennsylvania, Alabama and Delaware

Licensed Professional Land Surveyor in New Jersey and Delaware

Licensed Professional Planner in New Jersey

Certified Municipal Engineer

International Council of Shopping Centers

New Jersey Society of Municipal Engineers

American Society of Civil Engineers

New Jersey Society of Professional Land Surveyors

LEED Green Associate (LEED-GA)

Years in the Industry

40

Areas of Expertise

Site & Subdivision Design, Land Surveying, Municipal Surveying, Municipal Engineering, Energy and Utilities

Summary of Qualifications

Mr. Moralle, who heads T&M's New Jersey Site Development/Land Surveying Services Division and Hydrology and Hydraulics Group, offers a broad background in civil and site engineering, land surveying, environmental studies and planning projects throughout New Jersey. His experience includes managing the full spectrum of site development services for projects covering mixed-use development, office/industrial parks, shopping centers, residential communities, educational facilities, energy centers, and sports and recreation venues. He also has an extensive background in stormwater management and storm resiliency and recovery.

Key Projects

Major New York Utility, Storm Hardening Concept Studies. Project Engineer for the Storm Hardening Concept Studies for 9 substations. Multiple options for protecting the equipment at these facilities were investigated, and summary reports were presented to the Utility project team members for review and selection of preferred options to implement. The reports included detailed descriptions of methods of protection, including confirmation that the proposed methods conform to regulatory requirements. Concept maps and cost estimates were also prepared for client's reference.

Ocean County College Infrastructure Improvements, Ocean County, Toms River, NJ. As Principal-in-Charge, supervised civil engineering design for the conceptual and final phases for parking, roadway and related infrastructure improvements in support of the Ocean County College (OCC) campus expansion based upon the results of the Master Plan prepared by T&M. Improvements included the upgrade of approximately 5,000 feet of offsite roadways, nearly 14,000 feet of additional onsite roadways, and an increase in parking capacity of approximately 1,000 spaces. Drainage improvements were designed to account for future college expansion over a 20 year period. Provided environmental permitting support for the Flood Hazard Area permits.

Carnegie Center West – Building 804, Boston Properties/NRG Energy, Princeton, NJ. Principal-in-Charge for site plan design of a state-of-the-art office building site using a multitude of sustainable elements including 800kW solar arrays consisting of 13 solar ground-mounted parking canopies, 2 solar roof-mounted canopies, and 2 solar ground-mounted pergolas; 400kW natural-gas-fired CHP unit; Two 30,000 gallon underground rainwater storage system; 2 windmills; pedestrian sidewalks and bicycle paths; 4 bio-swales and a 0.70-acre wet pond; green roof; and electric vehicle charging stations. Scope includes surveying, General Development Plan (GPD) design, wetland delineations, Phase 1 investigations, environmental permitting, landscape architecture design, traffic engineering, site lighting design, LEED® consulting services, and construction management.

Carnegie Center – Building 701, Boston Properties/Princeton University, West Windsor, NJ. Principal-in-Charge for construction of a 100,000 SF LEED® Certified office building for at Carnegie Center West. T&M's role in this project included surveying, civil engineering, wetlands delineation, preliminary/final site plans, utility coordination, drainage, stormwater management, traffic impact studies, environmental impact analysis, West Windsor Planning Board application and testimony as well as other county and NJDEP Permits.

Merrill Lynch Corporate Headquarters, Hopewell Township, NJ. As Principal-in-Charge, supervised all site engineering to support development of major new 3.5 million SF corporate campus in Mercer County.

Phase III Master Plan and Infrastructure for Savannah District of the Corps, Fort Benning, GA. Principal Engineer for a $500,000 study that included analysis of existing and proposed stormwater, sanitary, and water distribution systems as well as electrical distribution and gas distribution systems on installation.

16 Dams Located Throughout Camden County, NJ. Principal-in-Charge for engineering services to perform hydrologic/ hydraulic analyses and visual inspections of that included regular inspections of 10 Class III dams, formal inspections of four Class II dams, development of operations and maintenance (O&M) manuals for four Class II and 10 Class III dams, and development of an emergency action plan (EAP) for the four Class II dams. Prepared hydrology and hydraulic analyses for the four Class II dams, including dam breach analyses and flood inundation mapping. Also prepared detailed cost estimates arrived at by multiplying construction quantities by general unit prices for necessary repairs and maintenance which required preparing estimated construction quantity computations with cost estimates.

Pleasant Mills Dam, Mullica Township, Atlantic County, NJ. Principal-in-Charge for biennial visual inspection of a Class II significant hazard dam consisting of concrete Ogee type spillway with two center bays, with wooden boards forming sluice gates to control outflow. Dam is cast into existing bridge for County Route 623, forming abutments and wingwalls. Recommended immediate and long-term repairs of dam and appurtenant structures with inspection report, O&M, EAP and flood inundation mapping based on a dam breach analysis.

New Gymnasium for Hudson County Schools of Technology, RSC Architects, Jersey City, NJ. Providing professional engineering services for the construction of a new 35,000 SF gymnasium building. The building will be a two-story, slab on grade design. The scope consists of land survey and base mapping, phase I environmental site assessment, civil schematic design, civil design development, civil construction documents services, preparation of soils and foundation report, bidding and construction services and permit applications.

Meadow Road Extension and Duck Pond Run Sewer, Phase I Improvements, West Windsor Township, NJ. Supervised GPS control, wetlands location survey and ROW plan preparation for construction of a one-mile long roadway extension and widening project that included three culverts, two traffic signals, and a sanitary sewer trunk line.

US Route 1/Meadow Road Interchange, West Windsor, NJ. Supervised GPS control, wetlands location survey and ROW plan preparation as part of a complete grade separation of an existing at-grade signal controlled intersection, full interchange and a 225' long by 82' wide two-span bridge project.

NJ School Construction Corp., Early Childhood Site Feasibility Studies, City of Harrison High School and Neptune City, NJ. Set selections/feasibility services, supervised preparations of site feasibility, survey conceptual design and environmental characterizations and permitting.

NJ School Construction Corp., Southern Region Site Selection and Feasibility Contract. Managed $8 million, 3-year contract that covered all new and existing school project sites in southern NJ.

Middletown Township Schools Renovation/Expansion, Middletown, NJ. Improvement plans to upgrade and expand three existing elementary schools and Middletown North High School. Projects involved $5 million in construction costs.

Barnegat Elementary School, Barnegat, NJ. Managed design, permitting and approval process for a new 79,000 SF elementary school. Tasks included roadway vocation negotiations and complex utility agreements to allow school to be constructed.

NJ School Construction Corp., Bolger School, Keansburg, NJ. Supervised various site improvement projects for this Abbott district school including building additions, site reflection and environmental permitting.

Brian**LEFF**, LLA, PP

Supervising Landscape Architect

Education

Rutgers University, Cook College, BS Environmental Planning and Design, 1992

Professional Registrations/ Affiliations

Licensed Professional Landscape Architect in New Jersey, Pennsylvania, New York, and Delaware

Professional Planner in New Jersey

CLARB Certified

Years in the Industry

22

Areas of Expertise

Landscape Architecture, Planning, Civil Engineering

Summary of Qualifications

Mr. Leff is a Supervising Landscape Architect with 22 years of experience in landscape design and planning and has been responsible for management of multi-discipline design projects from conception through construction. He has provided grading and landscape planting plans for public and private clients, performed feasibility studies, and prepared conceptual and final site plan designs. Mr. Leff is familiar with ADA compliance and stormwater management designs and calculations, and has assisted in developing site plan and landscape design standards.

Mr. Leff's municipal experience includes providing expert testimony as a Professional Planner and Landscape Architect for Planning and Zoning Boards. He has performed zoning compliance reviews and has acted as an alternate Zoning Board Planner. Mr. Leff also has assisted municipal engineers and planners in the preparation of Municipal Land Use ordinances.

Key Projects

Ocean Avenue Streetscape, Sea Bright, NJ. Landscape Architect and Lead Designer responsible for the coordination of County and State agencies, preparing and presenting conceptual and construction plans, reviews of ADA compliance. The streetscape revitalization includes the replacement of worn and damaged sidewalks, landscaping, lighting and site furnishings; increasing pedestrian safety; adding bicycle lanes for a 0.5 mile stretch of Ocean Avenue. Designed in accordance with the Complete Streets initiative, the design provides safe circulation for motor vehicles, pedestrians, and cyclists. As this project is located on a NJ State Highway, and includes intersections with County roadways, careful coordination between State, County and Local intersections is necessary. Responsible for coordinating with County and State agencies, preparing and presenting conceptual and construction plans, reviews of ADA compliance.

1st Street Streetscape, Hoboken, NJ. Project Manager/Landscape Architect for preparation of a multi-phase plan to revitalize a tired street in the heart of Hoboken. Given the area's history of flood problems, stormwater management and green infrastructure are key components to the design. Responsible for reviewing site conditions, assisted in determining appropriate areas for green stormwater infrastructure, prepared planting designs for rain gardens and bioswales, suggested methods of tree protection, reviewed plans for ADA compliance, prepared preliminary cost estimates, conducted public outreach sessions, and presented plans to residents and City Council.

Marsh Restoration & Replenishment Project, Little Egg Harbor & Tuckerton, NJ. Provided landscape design services to restore and replenish local marsh, wetlands, and beaches by dredging of lagoon communities to remove silt build up that blocked stormwater outfalls and impeded passage of wildlife and boats. The dredging and marsh restoration directly benefited the local community by strengthening natural buffers against storm surges and sea level rise. These activities will help protect critical infrastructure in the areas of Osborn Island, Mystic Island, Tuckerton Beach, Paradise Cove/ Thompson Creek, and Parker's Run. The planned resiliency measures included Living Shoreline treatments, thin-layer deposition, tidal marsh replacement and restoration, and beach replenishment and nourishment.

804 Carnegie Center, Boston Properties & NRG Energy, West Windsor, NJ. Landscape Architect responsible for preparation of a landscape plan to compliment the solar panel installation and Professional Planning testimony to support requests for relief from several West Windsor land development requirements of this unique modern building within the Carnegie Center office complex. The building and site improvements were designed in compliance with current LEED standards and all environmental regulations.

Artis Assisted Living, West Windsor, NJ. Landscape Architect responsible for preparation of the Landscape Plan and provision of professional testimony during the public Zoning Board hearing. Artis Assisted Living is a state-of-the-art care facility specializing in the treatment of Alzheimer's patients. To assist in attaining the necessary land use approvals, the firm provided landscape architectural services to compliment the building, enhance site aesthetics, and provide a safe and pleasant atmosphere for residents. Design included a specialized Alzheimer's garden and activity center that incorporated various colors, textures and scents to stimulate the senses of the patients and utilized nontoxic plants in case of ingestion.

Bay Avenue Streetscape Revitalization, Highlands, NJ. Landscape Architect for the design and construction services for new sidewalks, ADA compliant curb ramps and crosswalks, pedestrian street lights, trees, furniture including bike racks, benches and trash and recycling receptacles, as well as the use of bicycle safe grates. CDBG-DR funding from the NJEDA will help offset some of the costs of this project.

Garden State Parkway Interchange 0 Improvements, Lower Township, NJ. Landscape Architect responsible for the landscape design of stormwater management components to comply with current NJDEP regulations. The project included revising roadways and interchanges to eliminate existing traffic signals. To comply with current environmental regulations, the stormwater management mitigation system was designed to include several bioswales and detention basins.

Ocean County College Master Plan, Toms River, NJ. Project Manager/Landscape Architect for the landscape portion for preparation of a Campus Master Plan. The purpose of this Master Plan was to evaluate existing amenities and growth patterns of the Campus and make recommendations for bringing the existing infrastructure together to provide the framework to guide future development. Particular areas of importance included pedestrian and vehicular circulation, stormwater management, open space programming and site aesthetics. Responsible for coordinating team activities, performing site observations and analysis, identifying inappropriate plant material throughout the campus, reviewing the existing stormwater management basins, and recommending future development practices.

Waretown Town Center, Ocean Township (Waretown), Ocean County, NJ. Project Manager and Team Leader for a mixed use redevelopment project. This project consisted of approximately 100,000 SF of mixed retail development and plans for a 100 unit, multi-family, affordable and active adult facility. This project included design and implementation of several open spaces, including a segment of the Barnegat Branch Multi-Use Recreation Path. This project was the first in the town's Downtown Redevelopment district and required close coordination with local, county, and state representatives.

Teaneck Road Streetscape Project, Teaneck, NJ. Provided concept design plans, construction plans, and specifications for a streetscape improvement project, approximately 4,500 LF in the main business corridor. The goal was to create a vibrant and pedestrian friendly streetscape that enhanced commercial viability, beautified the pedestrian realm, and provided a cohesive design theme throughout the commercial corridor. Design included ADA compliant ramps, site furnishings and appurtenances, tree grates, decorative paving patterns, landscaping and other amenities. The corridor was evaluated for potential green infrastructure implementation.

Howell Liberty Greens, Howell Township, NJ. Project Manager and Lead Designer for a mixed use development. This project gained a Use Variance and Preliminary Site Plan approval for a 60,000 SF commercial facility, 9-hole executive golf course, 10,000 SF daycare use, 100-unit affordable apartment complex, 90 single family active adult units, and 30 single family units to be dedicated to Habitat for Humanity. This project represented the largest Habitat for Humanity community in New Jersey.

Abdesselam**GUETTATFI**

GIS Specialist

Education

Manchester Metropolitan University, UK, MS of GIS Management, 2004

University of San Francisco, Master of Economics, 1983

University of San Francisco, BS of Business Administration

Certification / Training

MCSE, Microsoft Certified Systems Engineer, NT, 1998

ARCGIS Desktop II & III, Ver. 9.3 Training

ARCGIS Advance Analysis with ArcGIS 9.3 Training

Years in the Industry

25

Areas of Expertise

GIS Project Management, GIS Application Development, GIS System Training, Contract Management, Requirements Analysis, Client Management Asset Management

Summary of Qualifications

Mr. Guettatfi has more than 25 years of experience as a GIS Specialist visualizing and implementing GIS, asset management and utility applications for a variety of clients. Utilizing his knowledge and technical skills over the past several years, he has developed sophisticated GIS applications for utilities, flood management, public works, landscape and environmental projects. His expertise includes project design and coordination, contract management, requirements analysis, and client management. Additionally he is experienced with digital mapping, data conversion, field survey and utility detection, document and content management, asset management systems, GIS project management, business analysis, user needs analysis, and training and workshops.

Mr. Guettatfi is skilled at utilizing ArcGIS, Intergraph Geomedia Professional, Autodesk AutoCAD Map 3D 2007, MicroStation95, J & V8, AutoCAD Ver. 14, 2000 & 2007/2007, Oracle 10 & 11G, Primavera Project Management software and provides project management of T&M's GIS projects.

Key Project Design Experience

- Conceptual design
- Requirements Analysis & User Needs Assessments
- Functional Requirements
- Prototyping
- RFP, technical specifications and tender preparation
- Contractors pre-qualification and tender award
- Proposals and tender replies preparation

Project / Contract Management Experience

- Project assessment and evaluation
- Project execution, supervision and handover
- Time and financial planning
- Staff management
- Progress reporting
- Policy formulation and development

Key Projects

GIS Asset Management Project for O&M, Sewer, Stormwater, Irrigation & Landscape. Designed and implemented an Asset & Data Management Center (ADMC) for the Abu Dhabi municipality. The project comprised a suite of technologies, GIS, Asset management System, Document Management System and Oracle. The applications were all web enabled to allow users and managers to manage, edit and view assets online and perform required reporting and analysis.

Asset Management System (AMS) and CMMS. In charge of the design and development of GIS/DMS/CMMS applications. Supervised and approved the project's handover of records data (as-built and other data) at the end of the project. Prepared reports to the client and users with project data. Maintained a database of all drawings pertinent to all projects and designed and implemented the required IT applications (GIS, DMS, CMMS etc). Supervised and monitored the asset survey and the O&M CMMS.

Data Conversion Project. Supervised the conversion of all Abu Dhabi sewer, irrigation and stormwater as-built drawings, a total number of 35,000, into GIS and DMS. The GIS system implemented was Intergraph FRAMME and Intergraph AIM document management system. The drawings were converted from hard copy to GIS using the approved methods. The work required the design of data model, logical design and physical design schema.

Data Center. Project Manager / Resident Engineer provided design and implementation of a data center to house the IT infrastructure of the Abu Dhabi Municipality. The center consisted of a raised flooring, false ceiling, servers, network system, and printing and plotting equipment.

Presentations & Articles

Presented "Using GIS as a Tool to Assist in the Operations & Management of the Sewerage Directorates Assets," GIS'99 Conference, Institute for International Research (IIR), Dubai 22-24 February 1999.

Presented "Designing a Successful GIS implementation and Application Strategy," GIS User Forum, Institute for International Research (IIR), Dubai 28-30 April 2002.

Interviewed contributor for a featured article, "Water Utility 21: Asset management in the UAE," Water 21, International Water Association Magazine, February 2004, p 51.

Kristopher**KRZYSTON**, CEI, CEM

Group Manager – Environmental Science

Education

Rutgers University Cook College, BS Environmental Planning & Science/Global Monitoring, 1994

Rutgers Wetland Delineation Series – North/South

Rutgers Permitting/Flood Hazard Continuing Education Series

PSMJ Project Management Training

Professional Registrations/ Affiliations

Certified Environmental Inspector, Environmental Assessment Association

Certified Environmental Manager, Environmental Assessment Association

Society of Wetland Scientists

American Water Resources Association

Years in the Industry

21

Areas of Expertise

Environmental Science, Planning

Knowledge of the policies and procedures of NJDEP, NJPC, PADEP, NYSCEC, Army Corps of Engineers (ACOE), United States Coast Guard (USCG) and New Jersey Pinelands Commission (NJPC)

Summary of Qualifications

Mr. Krzyston has over 21 years of experience in the field of environmental consulting. He has been involved in the preparation of numerous environmental impact statements and land use development applications. Mr. Krzyston has prepared EO 215s, Environmental Impact Statements, Environmental Assessments and Permit Applications for industrial and commercial warehousing, restaurants, residential subdivisions, medical facilities, and major roadway improvements.

He has directed and performed more than 1,200 wetlands delineations and prepared wetlands delineation reports for submission to the New Jersey Department of Environmental Protection (NJDEP), Pennsylvania Department of Environmental Protection (PADEP), and the New York State Department of Environmental Conservation (NYSDEC). He is experienced with NJDEP, PADEP, NYSCEC, Army Corps of Engineers (ACOE), United States Coast Guard (USCG) and New Jersey Pinelands Commission (NJPC) regulations and methodologies pertaining to:

- Freshwater & Coastal Wetlands
- Stream Encroachment
- NJPC Approvals
- Coastal Area Facility Review Act (CAFRA)
- Tidelands/Riparian
- Sewer Extensions
- Treatment Works Approval (TWA)
- National Pollution Discharge Elimination System Processes (NPDES – illicit connections)
- Soil Erosion Permits
- Solid Waste Regulations
- Tree Removal Permits
- Dredging Permits
- Park Design – Ecological Assessments
- Phase I/Phase II Environmental Site Assessments (ESAs)
- Stormwater Management Design/ Calculations
- Best Management Practices Design & Selection

Mr. Krzyston is experienced in wildlife assessment, habitat and impact assessment, and lake management assessment. He has experience in vegetation analyses and forestry planning and has performed numerous forestry preservation and mitigation plans to aid in the increasing amount of development throughout the tri-state area. He has performed numerous natural resource inventories, watershed evaluations as well as mitigation design, field construction and inspection. Mr. Krzyston has coordinated numerous threatened and endangered species investigations and has worked with federal and state agencies to coordinate relocation of avian nesting structures on large roadway improvement projects.

He has provided public hearing testimony for environmental impact statements and freshwater wetlands issues throughout several state municipalities and municipal courts. Mr. Krzyston has attended and coordinated several CAFRA Public Comment Hearings and has organized and coordinated public information sessions for several large projects including NJTA's GSP widening from MP 30 to 80.

Mr. Krzyston coordinates all cultural resource investigations for various clients in accordance with the requirements established by NJDEP's State Historic Preservation Office.

Key Projects

NJTA Parkway Widening Program, Permit Manager, Somers Point to South Toms River, GSP MP 30 -80 (2004-Present). Environmental Task Leader for preliminary design and preparation of permit application documents for construction of an additional lane in each direction for a 50 mile stretch of the GSP. This NJTA project is the largest undertaking of its kind, to date, in the State of New Jersey since initial Parkway construction 50 years ago. Responsible for overall oversight of the inventory and environmental assessment of impacts on key environmental resources including air, noise, threatened and endangered plant and animal species, cultural resources and hazardous waste screenings. Performed storm water management design in accordance with current NJDEP regulations. Project involved preparation of State and Federal permit applications: NJDEP – CAFRA, LURP, Stream Encroachment, Tidelands Conveyance, Waterfront Development and Freshwater Wetlands; Pinelands Commission – Public Development Approval and USACE permits.

NJDOT Scoping and Preliminary Design for the Replacement of Flat Creek Bridge, Union Beach/Hazlet, NJ (2002-2010). Environmental Task Leader for the preliminary and final highway design for this NJDOT bridge replacement and drainage improvement project. Responsible for the overall oversight of environmental aspects including required environmental studies, and the preparation of the Categorical Exclusion Document, NJDEP and USACE Permit Applications, and the Wetlands Mitigation design and dredging. Work was performed in adherence with NJDOT Procedures & Roadway Design Manual, and NJDOT Access Code, as well as all appropriate state and federal regulations, including NJDEP.

GSP Interchange 69 Improvements, Waretown, NJ. Environmental Task Leader for developing environmental assessment and permit applications for design of interchange improvements including two overpass structures, two toll plazas, sign structures, an administration building and two pedestrian tunnels. Responsible for development of the environmental inventory and assessment of impacts on key resources including wetlands, air, noise, threatened and endangered plant and animal species, critical wildlife habitat, cultural resources and hazardous waste screenings. Permits acquired included NJDEP (CAFRA) and Pinelands Public Development Applications. Assisted in establishing NJDEP reforestation requirements.

Carteret Ferry Terminal, Carteret Borough, NJ (2009-Present). Environmental Task Leader for scoping and preliminary design and preparation of an Environmental Assessment required for NJDOT Funding. The project includes the design of a new ferry terminal, NJDEP and USACOE approval for the dredging of the Arthur Kill. Responsible for the EA preparation and approval including oversight of the Technical Reports (cultural resources and air and noise), as well as agency coordination.

Monmouth County/NJTA Improvements to Elton-Adelphia Road (CR 524) and Halls Mills Road, Freehold Township, NJ (2002-2004). Environmental Task Leader for scoping and preliminary engineering of major roadway widening and realignment, along with two new traffic signal installations for County of Monmouth. This NJTPA administered project provided road realignment to correct substandard horizontal features, a new traffic signal and bridge replacement. Responsible for overall oversight of alternatives analyses, environmental studies and Phase I assessments, environmental issues and NJDEP permits (LURP, FWW, GP), LOI Interpretation and USACE permitting, cultural resource studies, preparation of Section 4(f) documents, hazardous waste screenings, air and noise studies and preparation of a Categorical Exclusion Document (CED) for entire length of the roadway.

Intersection Improvements at Bordentown Road, Mansfield, Burlington County, NJ. Environmental Task Leader for final design of roadway improvements to Bordentown Road at intersections with Georgetown Road, Chesterfield Road and Schoolhouse Road. Conducted land surveys and environmental assessments related to roadway improvements that included modification of the stop sign controlled intersection of Bordentown Road with Georgetown Road to a roundabout configuration; striping modifications on Chesterfield Road to permit one-way traffic flow in the northbound direction between Bordentown Road and Georgetown Road, and realignment of Schoolhouse Road to create a right angle T-intersection with Bordentown Road.

Eric**NATHANSON**

Supervising Environmental Scientist / Permitting

Education

Richard Stockton College, BS Marine Biology, 1996

Professional Registrations/ Affiliations

American Littoral Society

American Fisheries Society

Manomet Center for Conservation Science

New Jersey Marine Science Consortium

Society of Wetland Scientists

Years in the Industry

19

Areas of Expertise

Environmental Engineering, Land Use Planning

Summary of Qualifications

Mr. Nathanson brings over 19 years of land use planning and environmental engineering experience to clients in both the public and private sectors. His well-rounded experience includes expertise in coastal and freshwater wetlands impact assessment and permitting, large and small-scale dredging projects, and wildlife surveys. Mr. Nathanson's skills have recently been used in projects involving stream bank restoration, shoreline stabilization, and wetlands mitigation. His relevant experience includes extensive knowledge of NJDEP, PADEP, NYSDEC, and USACE regulations and field methodologies pertaining to projects affecting freshwater wetlands, coastal wetlands, and State open waters.

Additional areas of expertise include:

- Pond and lake restoration
- Essential Fish Habitat Analysis
- Preparation of environmental impact statements and similar documents
- Fisheries management
- Shellfish monitoring
- Forestry studies
- Park design

Key Projects

Atlantic Highlands Municipal Harbor Reconstruction, NJ. Project Manager for the $17.5M restoration of the Harbor after the devastation of Superstorm Sandy. This project was on an accelerated schedule and required close daily coordination between T&M, the Borough and Harbor Commission, numerous state and federal regulatory agencies and contractors. Restoration services included initial damage assessment, structural and utility inspection, site demolition coordination, preparation of plans and specifications, dredging, testimony at public meetings, and construction administration and observation.

Major New York Utility, Storm Hardening Concept Studies. Provided environmental assistance for the Storm Hardening Concept Studies for 9 substations. Multiple options for protecting the equipment at these facilities were investigated, and summary reports were presented to the Utility project team members for review and selection of preferred options to implement. The reports included detailed descriptions of methods of protection, including confirmation that the proposed methods conform with regulatory requirements. Concept maps and cost estimates were also prepared for client's reference.

GSP Widening Permit Program Manager, Mileposts 30 – 80, Somers Point and South Toms River, NJ. Prepared an essential fish habitat (EFH) assessment for NJTA. The document contained characterization of impacts resulting from the project and mitigation techniques required to minimize loss of EFH. The final document was deemed exemplary by National Marine Fisheries Service and is currently in use as a model for others preparing EFH assessments.

County Route 516 over Deep Run, Old Bridge, NJ. Supervised land use planning and NJDEP permitting elements pertaining to the replacement of the Route 516 Bridge.

Route 36 and Flat Creek Bridge Drainage Improvements, Hazlet/Union Beach, NJ. Obtained all state and federal permits including NJDEP general permits, wetlands delineation, waterfront development, and stream encroachment as part of scoping services through final design of Flat Creek Bridge for NJDOT.

GSP Interchange 69, Waretown, NJ. Performed Wetlands delineation, Coastal Area Facility Review Act) (CAFRA) permit and NJPC Public Development Approval as part of the design of interchange improvements including two overpass structures, two toll plazas, sign structures, administration building and two pedestrian tunnels.

Reconstruction of Bridge No. R-13, Township of Hazlet/ Borough of Keansburg, NJ. Environmental Task Leader for a project that involved reconstruction of a new bridge over Waackaack Creek, situated at the municipal boundary between the Township of Hazlet and Borough of Keansburg. The project required coordination and consultation with the US Army Corps of Engineers, NJDEP Division of Land Use Regulation, and NJDEP Bureau of Tidelands Management necessary to secure State and federal construction permits. Additional architectural and archaeological surveys were required due to the age of the structure to be replaced.

Meadow Road Extension Project, Township of West Windsor, NJ. Obtained all state permits necessary for a 6,050 LF roadway widening and realignment project that required extensive coordination with NJDEP's Historic Preservation Office and Wetlands Mitigation Council.

River Road Reconstruction, Piscataway, Middlesex County, NJ. Environmental Task Manager for engineering design services for a County project that involved preliminary and final engineering for improvements to River Road (CR 622) from Route 287 to just past the intersection of Netherwood Avenue. Roadway improvements included additional lanes, modifications to traffic signals, full depth pavement reconstruction, curbing, sidewalk, striping and signing, and drainage improvements. Responsible for environmental documentation and permits that included wetlands, NJPDES – Freehold Soil Conservation District Soil Erosion Permit, RFA and NJDOT Highway Occupancy Permit.

Reconstruction of County Route 518, Township of Franklin, NJ. Obtained all state permits necessary to authorize realignment, widening, and drainage improvements along CR 518. The overall project length was 13,700 LF and also included coordination with NJDEP's Historic Preservation Office.

Bird Construction - Marine Construction Yard Project, City of Linden, NJ. Environmental Task Leader for a project that involves redevelopment of a previously disturbed site into a new marine construction yard situated along the Rahway River. A new facility with waterfront access for a local Sea Scouting program is also included in the project. The project involves extensive coordination with the NJDEP's Division of Land Use Regulation, Endangered and Threatened (E&T) Species Program, and Mitigation Unit. Approximately 1.3 acres of degraded wetland transition area will be restored during final construction of the site to improve E&T habitat and overall functional wetland value.

Peter J. Esposito Park, Township of Clark, Union County, NJ. Task Manager responsible for preparing applications and obtaining all required permits. The project included design of a regulation size soccer field with sod and irrigation, softball field, two color-coated tennis courts with sports lighting, skateboard area, boundless playground, walkway/jogging trail with two pedestrian bridges, park building, detention basins, water quality sand filter and recharge basins. Responsible for supervision and completion of all field work and specialized studies. Also responsible for maintaining correspondence with agencies throughout permit application review period to secure permits.

Waterfront Park, Carteret, NJ. Environmental Task Leader for site development, final design, and construction administration and inspection services for construction of a new waterfront park. The Borough secured a 17.9 acre tract along the Arthur Kill to be used for recreational services. The project involved dredging, permitting, and wetlands delineation for development of a municipal marina within an existing cove. Additional project elements included installation of a fishing pier, boat ramp, floating dock and gangway; lighted pedestrian walkways and amenities such as benches, trash receptacles and exercise/fitness stations. Concept plans included construction of a breakwater along the pier headline, and 250 transient slips and a stone revetment along the shoreline. Dockside facilities included parking, restrooms, pump out station, electrical service/water supply, and a marine fueling station.

Timothy**KINSELLA**, CPG

Group Manager / Remediation

Education

Rutgers University, Post-Graduate Studies, Geology

Susquehanna University, BS Geology, 1986

Professional Registrations/ Affiliations

Certified Professional Geologist

40-hour OSHA Hazardous Waste Operations Training

8-hour OSHA Hazardous Waste Operations Annual Refresher Training

8-hour OSHA Site Supervisor Training

NJDEP Certified: Subsurface Evaluator and UST Closure

National Water Well Association

Association of Engineering Geologists

New Jersey Business and Industry Association

American Industrial Hygiene Association

New Jersey State Chamber of Commerce

New Jersey Water Environment Association

Years in the Industry

29

Areas of Expertise

Environmental Assessment, Remediation, Brownfield Redevelopment, Real Estate

Summary of Qualifications

Mr. Kinsella has over 29 years of experience in various phases of environmental assessment, remediation, property transactions and associated due diligence, brownfields redevelopment and general environmental consulting. He has served as Project Manager for numerous site assessments, permit and regulatory reviews, remedial designs, and management of multi-phased, multi-million dollar projects.

Key Projects

Great Falls Historic District Brownfield Development Area, City of Paterson, NJ. Principal-in-Charge to manage and execute the City of Paterson's NJDEP-designated Great Falls Historic District Brownfield Development Area (Great Falls BDA) which was designated in 2005. The Great Falls BDA consists of over 25 Brownfield properties within a 10-acre designated BDA. Projects within the Great Falls BDA are funded by the New Jersey Hazardous Discharge Site Remediation Fund.

Brownfields Demonstration Project, NJDEP, Lakewood, NJ. Project Manager for implementation of a USEPA Brownfields Demonstration Pilot Grant received by the Township through the Lakewood Development Corporation. The scope of work includes technical oversight of property identification, completion of preliminary assessment (PA) and site investigations (SI), community involvement, and grant and budget management.

Brownfields Pilot Assessment Project, City of Orange, NJ. Project Manager for implementation of a USEPA Brownfield Pilot Grant Award. Activities included grant management, inventorying City's brownfield sites, managing steering committee, providing quarterly updates to USEPA, performing Phase I/Preliminary Assessments and Phase II/Site Investigations. Worked with City officials and developers to assess and package selected sites for resale.

Abandoned Struthers-Dunn Electronics Plant, USEPA Brownfields Assessment Program, Township of Mantua, NJ. Project Manager for the Preliminary Assessments (PA), site investigation and remedial investigation of the abandoned, uncontrolled former electronics manufacturing plant as part of the USEPA Brownfields Assessment Program. Based on the findings of the PAs, various areas of concern (AOCs) were identified requiring further investigation including underground storage tanks (USTs), aboveground storage tanks (ASTs), industrial on-site wastewater treatment systems, industrial incinerators, hazardous waste storage and disposal areas, etc.

USEPA Brownfields Assessment Program, Multiple Properties, Township of Mantua, NJ. Project Manager for the Preliminary Assessments (PA) on 10 (ten) privately-owned parcels as part of the USEPA Brownfields Assessment Program. The site uses included former gasoline filling stations and automobile recycling/scrap yards. Based on the findings of the PAs, various areas of concern (AOCs) were identified at sites that required further investigation including underground storage tanks (USTs), aboveground storage tanks (ASTs), industrial on-site wastewater treatment systems, historic fill, soil and solid waste disposal areas, waste material processing areas, etc. Site remedial activities included geophysical surveys, UST removal, soil and ground water delineation, test pits, soil borings, and historic fill delineation and characterization.

Veterans' Memorial Park, Neptune, NJ. Provided environmental services to convert an abandoned tract of land, part of the former Welsh Farms property, to the Veterans' Memorial Park. Performed remedial investigation activities required to further investigate soil and groundwater contamination identified during the removal of several USTs in 1990 and to further investigate soil contamination associated with a 550-gallon orphan tank and Drum and Debris Area. There is still approximately 4 acres of the Site that could potentially be redeveloped into additional type of park in the future.

Township of Woodbridge, NJ. Program Manager and primary contact for environmental contamination projects at various Township locations. Responsibilities included all QA/QC reviews, technical and regulatory support, and oversight of all project activities. Projects included assessment and remediation of the 5th District Park, general consulting services at the General Dynamics project, oversight of imported fill in Pocheck field, and initiation of soil and groundwater assessment and remediation at Highland Grove YMCA.

City of Elizabeth, NJ. Contract Manager, QA/QC Manager and main client contact for a $3 million on-call environmental services contract. Responsibilities included performing assessments and remediation as needed for various City owned parcels, health and safety oversight, contractor management, and advancement of environmentally impaired projects toward closure.

City of Newark, NJ. Contract Manager for provision of PA and SI activities for the acquisition of eight project sites from Essex County. Responsible for performance of due diligence for property acquisitions, escrow discussions, and LSRP team management.

Manufactured Pre-Cast Concrete Company, Wall, NJ. Program Manager for the implementation of ISRA provisions from the PA phases through remediation of a 25-acre site.

Eagle Ridge Golf Course, Lakewood, NJ. Client Manager for developing a groundwater quality-monitoring program (GQMP) next to the former Township landfill. Management responsibilities included supervision and installation of seven monitoring well clusters and associated sampling and reporting, and project closeout to the satisfaction of NJDEP.

Manufactured Gas Plant, Greystone Hospital, Morristown, NJ. Project Manager for the RI, remedial design measures, and soil and groundwater impact investigation for a 20-acre manufactured gas plant site.

Marlboro Psychiatric Hospital, Marlboro, NJ. Project Manager for the Township for real estate support aid for environmental due diligence associated with the Township's acquisition of the facility. Developed assessment and remediation costs for assistance with contract negotiations.

Picatinny Arsenal, Rockaway, NJ. Contract Manager for environmental permitting and soil management services for the installation of a gas distribution system. The scope of work required the acquisition of applicable land use permits for the installation of approximately 96,000 feet of gas pipeline, and soil management oversight throughout the project duration.

Property Redevelopment Elizabeth-Newark International Airport Hotel & Office Complex, Elizabeth, NJ. Contract Manager for the survey, planning, environmental engineering, traffic, and engineering of a proposed project to develop two large hotels, parking garage, and ROW for future light rail. Provided the city with preliminary site plan approval along with Phase I and Phase II environmental engineering studies.

NJSCC Early Childhood Center #5, Jersey City, NJ. Project Manager for environmental work required for the program sub-phase that included Preliminary and Phase II site investigations, environmental screening, asbestos and lead-based paint inspections and assessment, lead in drinking water, PCB and hazardous waste investigations, wetlands investigation and Executive Order 215.

NJSCC PS #1, Jersey City, NJ. Project Manager for the building site evaluation of PS #1 for asbestos, lead, microbial growth, lead in drinking water, PCB, and hazardous waste investigations.

NJSCC Early Childhood Center #2, Jersey City, NJ. Project Manager for the lead environmental screening, preliminary site investigation, and Executive Order 215.

Louis**TEDESCO**, PE, CME, CPWM

Principal Engineer / Document Control

Education

New Jersey Institute of Technology, B.S. Civil Engineering, 1998

Professional Registrations/ Affiliations

Licensed Professional Engineer in New Jersey 2007

NJ Certified Municipal Engineer

NJ Certified Public Works Manager

American Society of Civil Engineers

Highway Inspection Procedures for Federal Aid Projects Certification, Rutgers University, 2014

Years in the Industry

16

Areas of Expertise

Municipal Engineering, Capital Improvement Projects, Construction Services

Summary of Qualifications

Mr. Tedesco has more than 16 years of experience in a wide variety of municipal engineering and capital improvement projects. He has supervised the planning, design and preparation of construction plans and documents for arterial roadway networks, storm sewers and sanitary sewers in conformance with local and state regulations and agencies including NJDEP and NJDOT. He specializes in civil engineering design and project management; transportation infrastructure design and assessment; and land development design, planning, consulting and feasibility.

For several years, Mr. Tedesco worked on the contractor side of the industry with significant engineering responsibilities included the preparation and the development of cost estimates, client/field correspondence, construction oversight and management, cost containment and estimating related to labor and material, and the tracking of labor and material.

Key Projects

Observer Highway and Newark Street Improvements, Hoboken, NJ. Resident Engineer for this $2.7 million roadway reconstruction and traffic signal improvement project. Observer Highway is a main arterial roadway into and out of Hoboken. The project followed many of the NJDOT Complete Streets principles which integrate numerous modes of transportation into a single project including non-automotive. The project included the addition of a 12-foot wide painted median which will be used exclusively for pedestrian and bicycle traffic. Three new traffic signals were added to two existing signals along Observer Highway. The signals were retimed and synchronized to increase traffic flow through the area. In addition, Newark Street was reconfigured to provide better pedestrian access to the Hoboken Ferry Terminal. The timing of the signals along Newark Street were reworked during peak rush hours to eliminate excessive queuing for both vehicles and pedestrians alike. The project was federally funded and required constant oversight of all required FHWA documents. Mr. Tedesco's efforts included daily oversight of all field reports and contractor installed quantities.

2014 Municipal Roadway Resurfacing & Intersection Safety Improvement Program, Contract B, City of Hoboken, NJ. Project Manager/Resident Engineer for construction administration and inspection for roadway improvements on Jackson Street, Monroe Street, and Fourth, Fifth and Sixth Streets. The scope of work entailed roadway milling and paving, curb and sidewalk replacement, new ADA compliant curb ramps, traffic calming measures and drainage improvements.

Veterans Park, North Brunswick, NJ. Project Manager for construction administration and inspection services for a $9 million dollar park improvement project including site remediation of contaminated soil, new softball and baseball fields, handball and tennis courts, pedestrian walkways, parking lots and internal roadways, concession and restroom building and a tot lot playground.

Improvements at Rabkin Park, Township of Union, NJ. Project Manager for construction administration and inspection for construction of a covered pavilion and other improvements.

Traffic Signal Improvements to Two Intersections on Elizabeth Avenue, City of Elizabeth, NJ. Project Manager/Resident Engineer for construction administration and inspection for upgrades to traffic signals at two intersections. The full upgrades entailed removal of the entire signal system and installation of new equipment. A significant project objective was to ensure compliance with current MUTCD and ADA requirements for traffic signal replacements within project limits.

Hudson County Traffic Signal improvements to 13 Intersections (Package T) in the City of Hoboken, City of Jersey City, Town of Kearny, Township of North Bergen & City of Union City. Project Manager for the construction administration and inspection phase of the project, which included partial and full upgrading of traffic signals at various intersections within Hudson County, New Jersey. The fully upgraded intersections had the entire signal system removed and a new system installed. The partially upgraded traffic signals had new vehicular and pedestrian signal indications, pushbuttons, wiring, and a new controller assembly, while leaving the existing foundations, poles/mast arms, junction boxes, and conduits in place. If required to meet MUTCD and ADA guidelines, the partially upgraded intersections had additional foundations, poles, conduit, wire, and signal indications constructed. A significant objective for this project was to assure compliance with the current MUTCD and ADA requirements for all traffic signal installations within the project limits.

Hudson County Traffic Signal Improvements to 8 Intersections (Package U) in the Town of Harrison, City of Jersey City, Township of North Bergen & City of Union City. Project Manager for the construction administration and inspection phase of the project, which included partial and full upgrading of traffic signals at various intersections within Hudson County, New Jersey. The fully upgraded intersections had the entire signal system removed and a new system installed. The partially upgraded traffic signals had new vehicular and pedestrian signal indications, pushbuttons, wiring, and a new controller assembly, while leaving the existing foundations, poles/mast arms, junction boxes, and conduits in place. If required to meet MUTCD and ADA guidelines, the partially upgraded intersections had additional foundations, poles, conduit, wire, and signal indications constructed. A significant objective for this project was to assure compliance with the current MUTCD and ADA requirements for all traffic signal installations within the project limits.

2014 Road Resurfacing Program, City of Elizabeth, NJ. Project Manager/Resident Engineer for construction administration and inspection of improvements to 11 roadways. The scope of work included roadway milling and paving, curb and sidewalk replacement, new ADA compliant curb ramps, traffic calming measures, and drainage improvements.

Bayside Park Reconstruction, Jersey City, NJ. Developed plans that included improvements for utilities, lighting, and stormwater management; new roadway; multiple new athletic courts; walking paths, water park and landscaping.

Hudler Property Recreational Development, Upper Freehold, NJ. Developed the conceptual layout for a 30-acre tract that included general site grading and lighting plans, locations for various athletic courts/fields, a storage structure, storm basin, and irrigation layout.

Coopers Ferry Development Authority (CFDA), Wiggins Park Improvements, Camden, NJ. Developed plans to repair the walkway and bulkhead from the Ben Franklin Bridge to the Battleship New Jersey. The scope of work at the Marina included repairs and electrical upgrades, and installation of a filtration device for stormwater discharge. Other project elements included repairs to the walkway/promenade and improvements to the structural bulkhead and existing recreational pier.

Improvements to Community Center Parking Lot and Bike Path Improvements, Borough of Ridgefield, NJ. Prepared construction drawings and specification for reconstruction of the parking lot including drainage improvements and installation of 1,000 LF of bike paths through Borough's park.

Improvements to Lincoln Municipal Park, Borough of Rutherford, NJ. Prepared construction drawings and specification for the complete renovation of the municipal park.

Mark Harbourt Soccer Complex Recreation Building, Upper Freehold Township, NJ. Assisted the Township in obtaining grant monies for construction of a restroom/storage building. Work included a general site plan, grading plan and septic system design.

Steven**AMOS**, PE

Group Manager/Superintendent

Education

Pennsylvania State University, BS Civil Engineering, 1989

Professional Registrations/ Affiliations

Licensed Professional Engineer in New Jersey

Years in the Industry

26

Areas of Expertise

Roadway Design, Drainage Design, Utility Relocation Design, Access, Construction Management

Summary of Qualifications

Mr. Amos has more than 26 years of experience in the design and construction of infrastructure improvement projects, including preparation of studies, plans, specifications and estimates; utility relocation design; construction management; contract administration; traffic signal design; and access issues on various NJDOT, NJTA, county and local projects.

Key Projects

Observer Highway and Newark Street Improvements, Hoboken, NJ. Project Manager for this $2.7 million roadway reconstruction and traffic signal improvement project. Observer Highway is a main arterial roadway into and out of Hoboken. The project followed many of the NJDOT Complete Streets principles which integrate numerous modes of transportation into a single project including non-automotive. The project included the addition of a 12-foot wide painted median which will be used exclusively for pedestrian and bicycle traffic. Three new traffic signals were added to two existing signals along Observer Highway. The signals were re-timed and synchronized to increase traffic flow through the area. In addition Newark Street was reconfigured to provide better pedestrian access to the Hoboken Ferry Terminal. The timing of the signals along Newark Street were reworked during peak rush hours to eliminate excessive queuing for both vehicles and pedestrians alike. The project was federally funded and required constant oversight of all required FHWA documents.

Laurel Hill Park, Hudson County, NJ. Provided construction management for $4.6 million project for installation of new synthetic turf baseball/soccer field. Work also included construction of a new grass cricket field and adjacent prefabricated restroom building. Project included lighting for both fields and irrigation for the cricket field. Constructed new parking area for both fields and the entire access drive to the park was overlaid. Extensive grading and rock excavation was required throughout the site to install the fields at the proposed elevations.

Marina Reconstruction, Atlantic Highlands Harbor Commission, NJ. Project Manager for construction administration and inspection of the $15 million demolition, debris removal and dredging project to repair damage from Superstorm Sandy. The scope of work included reconstruction of Frank's Pier, which serves the Sea Streak Ferry that provides daily year-round commuter service to New York City; fuel dock/pier, including relocation of auxiliary fuel tanks; and the fishing pier. This project also included installation of seven floating docks; installation of replacement of electric, water and sanitary utilities; and reconstruction of damaged sections of the promenade, railing and Memorial Garden.

Waterfront, Park Permanent Beach Protection, Middlesex County, NJ. Project Manager for this $1.8 million beach erosion project to repair a significant erosion condition that threatened park buildings and boardwalk. The project consisted of a cut-off wall constructed of 1,000 linear feet of 32-foot long sheeting and 50,000 linear feet of two layers of 2 to 4 ton stone cap revetment. Responsibilities also included management of the installation of 6,000 CY of beach sand replenishment, permanent snow fencing and 10,000 plugs of beach grass.

Bay Avenue Streetscape Revitalization, Highlands, NJ. Providing Construction Management services for a $1.2 million revitalization project including new sidewalks, ADA compliant curb ramps and crosswalks, the installation of pedestrian street lights, trees, furniture including bike racks, benches and trash and recycling receptacles, as well as the use of bicycle safe grates.

Atlantic City Expressway 3rd Lane Widening, South Jersey Transportation Authority. Project Manager for the $15 million roadway widening and reconstruction project for the westbound ACE from MP 28.0 to MP 31.5. Project included roadway excavation, grading, drainage modifications, compliance with Pinelands Commission permits, bridge rehabilitation and widening, pavement construction including shoulders striping and maintenance and protection of traffic along a high volume roadway. Served as T&M's direct representative to the owner and supervised the Resident Inspector. Provided oversight of onsite construction inspection personnel and the work quality of onsite construction personnel.

Veterans Memorial School Sports Complex Improvements, Brick, NJ. Provided construction management for a synthetic turf multi-purpose field at the Veterans Memorial Sports Complex. Proposed improvements included construction of a new synthetic turf field with tufted lines for use by football, soccer and women's lacrosse.

2015 Road Improvement Program, Borough of Rumson, NJ. Project Manager for the $1.5 million roadway reconstruction and drainage improvement project. The project involved drainage improvements to several streets in the Borough and the reconstruction of an additional 3 roadways throughout town. New concrete curb and sidewalk was installed to replace old concrete on each of the roadways. Extensive traffic control was required as a portion of the work was on heavily traveled County and Borough intersections. Support from the local police was integral to the completion of the project.

Reconstruction of the 8 Bay Street Retaining Wall, Borough of Highlands, NJ. Project Manager for the reconstruction of an old wooden retaining wall at 8 Bay Street. The existing retaining wall was on Borough Right of Way and was in disrepair. The new concrete post and panel wall was constructed in the same location and included the use of precast concrete panels. The post and panel construction minimized the disturbance in the roadway and allowed a quick installation to protect the homeowner's house which sits approximately 10 feet below the elevation of the roadway. Close coordination with the contractor and homeowner was required to make the project run seamlessly. Final staining of the wall completed the project and gave the concrete wall a peanut stone look.

Old Bridge Waterfront, Park Permanent Beach Protection, Middlesex County, NJ. Project Manager for this $1.8 million beach erosion project to repair a significant erosion condition that threatened park buildings and boardwalk. The project consisted of a cut-off wall constructed of 1,000 linear feet of 32-foot long sheeting and 50,000 linear feet of two layers of 2 to 4 ton stone cap revetment. Responsibilities also included management of the installation of 6,000 CY of beach sand replenishment, permanent snow fencing and 10,000 plugs of beach grass.

2014 Road Improvement Program, Red Bank, NJ. Project Manager for this $1.9 million road program that consisted of the reconstruction of three local roadways and resurfacing of two additional roads. More than 5,000 tons of asphalt pavement and 5,500 LF of concrete curb were installed; a new 8-inch ductile iron pipe water main was also installed on one of the roadways. Traffic control and staging were ongoing issues that required daily supervision. In addition to dealing with concerned residents, there was also permitting interaction with Conrail and NJ Transit because several of the roadways intersected both rail facilities.

2014 Road Program, Tinton Falls, NJ. Project Manager for a $2.5 million road project that consisted of the reconstruction of two roadways within the former Fort Monmouth and the milling and resurfacing of another nine roadways throughout the Borough. Extensive drainage underdrain work was required along three of the resurfaced roadways to eliminate groundwater collecting under the asphalt riding surface. Coordination between underground utilities was required for the drainage installation.

Matthew**SZKODNY**, NICET IV, SAT, ACI, TCC

Senior Staff Designer / Superintendent / Inspector

Education

New Jersey Institute of Technology (Newark College of Engineering), BS Contracting and Construction Engineering Technology, 1998

Middlesex County College, Associates in Applied Science (Civil/Construction Engineering Technology), 1996

Work Zone Area Safety Awareness, Rutgers University, 2010

Municipal Engineering Construction Inspection, II, Rutgers University, 2005

Professional Registrations/ Affiliations

NICET Certification Level IV

OSHA 10 Hour Card Holder

Confined Space Training Certification

Municipal Planning and Zoning Certificate

American Concrete Institute Technician I Certified, 2010

NJSAT Asphalt Technology Certified, 2010

TCP-Rutgers University Traffic Control Coordinator Certification, 2014

Highway Inspection Procedures for Federal Aid Projects Certification, Rutgers University, 2014

Years in the Industry

16

Areas of Expertise

Municipal & Environmental Engineering Inspection; Road, Pipe, Bridge & Culvert Inspection

Summary of Qualifications

Mr. Szkodny has 16 years of experience in construction management and inspection serving as resident engineer on various infrastructure improvement projects for both the public and private sectors. His experience also includes sanitary sewer, water main and drainage projects as well as building work. He is also knowledgeable in testing and analysis, specification and plan preparation, utility and roadway design and project estimating. Additionally, he is experienced with AutoCAD, concrete testing equipment and surveying.

Key Projects

Observer Highway and Newark Street Improvements, Hoboken, NJ. Inspector for this $2.7 million roadway reconstruction and traffic signal improvement project. Observer Highway is a main arterial roadway into and out of Hoboken. The project followed many of the NJDOT Complete Streets principles which integrate numerous modes of transportation into a single project including non-automotive. The project included the addition of a 12-foot wide painted median which will be used exclusively for pedestrian and bicycle traffic. Three new traffic signals were added to two existing signals along Observer Highway. The signals were retimed and synchronized to increase traffic flow through the area. In addition Newark Street was reconfigured to provide better pedestrian access to the Hoboken Ferry Terminal. The timing of the signals along Newark Street were reworked during peak rush hours to eliminate excessive queuing for both vehicles and pedestrians alike. Mr. Szkodny delivered daily inspection reports, tracked daily quantities, provided sketches for all daily work areas and photo-documented all work daily for this federally-funded project.

Radford Ferry Road Construction, South Amboy, NJ. Resident Inspector for $3.2M state and federal aid project for construction administration and inspection for 1,800 LF of major widening and re-alignment work for roadway approaches for a new bridge. Construction effort included a tie-in to a switching station with 1,900 LF of new heavy freight track for Conrail and relocation of NJ Transit catenary towers for a nearby substation was constructed. Utility work involved 1,050 LF of new drainage improvements and installation of casing pipes under the new bridge to accommodate all future utility hook-ups. Roadway excavation required removal of 10,000 CY following a health and safety plan. Roadway reconstruction involved full-depth subgrade and aggregate base course with Superpave base and surface courses and 12,000 LF of LLPM and RPMs. Inspection included concrete testing and rail inspection. Construction included new signalization for a major intersection. Project required a diary, daily inspection report, item summary, material receipt acceptance, shop drawing review, change order processing, bi-weekly meetings and federal paperwork for reimbursement to the City.

2014 Municipal Roadway Resurfacing & Intersection Safety Improvement Program, Contract B, City of Hoboken, NJ. Resident Inspector for construction administration and inspection for roadway improvements on Jackson Street, Monroe Street, and Fourth, Fifth and Sixth Streets. The scope of work entailed roadway milling and paving, curb and sidewalk replacement, new ADA compliant curb ramps, traffic calming measures, and drainage improvements.

Improvements to Stelton Road from Haines Avenue to Ethel Road, Middlesex County, NJ. Resident Inspector for this $4.8M project, located in Piscataway Township, that was part of the County's overall plan to continue to relieve chronic congestion in this area. The project involved 0.65 miles of construction on Stelton Road, between Haines Avenue and Ethel Road and entailed significant relocation efforts of all major aerial and underground utilities. Other major project elements included roadway widening from two to four lanes involving 15,000 SY of milling, 4,550 tons of HMA base and 3,525 tons of HMA surface course, 6,300 LF of granite block and concrete curbs, and 21,000 LF of traffic striping. Two existing signalized intersections were upgraded with new signals, ped heads, image detectors and control equipment. More than 4,300 LF of reinforced concrete drainage pipe and 73 drainage inlets were constructed with a 4,400 CY underground storage basin. Construction phasing for this roadway improvement project was performed in a highly congested traffic corridor within a retail business zone.

NJTA GSP Interchange 77. Resident Inspector on $7.8M project involving ramps, toll plazas, administration building, tunnels, drainage, one mile of new/widened main roadway, traffic signaling, lighting, and parking lot. Duties involved documenting, recording, testing and/or inspecting all elements including roadway culvert, one mile of roadway structural retaining walls and building construction. Directed sub-consultant inspectors, prepared/processed contractor payments and change orders including development and tracking of installed quantities. Documented, processed and acted upon all incoming correspondence. Provided construction and factual input to claims resolutions.

Water Main Installation, Township of Aberdeen, NJ. Project consisted of 8,200 LF water main and included water main installation, pavement, curb and sidewalk restoration and landscape restoration. Designed plan and profile for 20-inch diameter direct drill utility crossing underneath Main Street overpass and intersection improvements in Woodbridge. $12M project consisting of new bridge, retaining walls, culvert replacement, drainage and sewer, roadway and signaling. Also inspected retaining wall installation, curbs and sidewalks, conduit, earthwork and preparation activities for construction of new bridge.

Reconstruction of Scholer Drive, Phase 1, Union Beach Borough, NJ. Inspector for the reconstruction of Scholer Drive from Heckleman Street to the cul-de-sac at the easterly end of the project. Project involved storm drainage system rehabilitation; concrete curbs and sidewalks; roadway excavation, milling and grading; asphalt pavement base and surface courses; utility coordination; traffic control; striping; site restoration and coordination with municipal officials and residents.

Improvements to Hazlet Avenue, Hazlet Township, NJ. Inspector for the roadway improvements to Hazlet Avenue. Project involved storm drainage system rehabilitation; concrete curbs and sidewalks; roadway excavation, milling and grading; asphalt pavement base and surface courses; utility coordination; traffic control; striping; site restoration and coordination with municipal officials and residents.

Improvements to South Washington Avenue, Middlesex County, NJ. Resident Inspector for this $4.8M project, located in Piscataway Township, is part of the County's overall plan to relieve chronic congestion in this area of the County and involves 0.75 miles of construction on South Washington Avenue, between Metlars Lane and Centennial Avenue. The project entails significant relocation efforts of all major aerial utilities, as well as installing casing protection of underground utilities including a 20" high pressure gas pipeline. Other major elements of the project include widening of the roadway from two to four lanes involving 14,000 SY of milling, 8,140 tons of HMA base and 4,530 tons of HMA surface course, 8,000 lf of granite block and concrete curbs,1,100 lf of beam guide rail and 21,000 lf of traffic striping and over 300 RPMs. The existing signalized intersection is being upgraded with a new signals, ped heads, image detectors and control equipment. Over 1100 lf of large diameter reinforced concrete elliptical drainage pipe is being constructed with five new detention basins. Another major element of the project is the construction of a three-sided precast concrete culvert bridge including parapet walls with stone-type form liner and rustification. Significant drainage improvements are also proposed, including construction of three drainage detention basins.

Jaclyn**FLOR**, PE, PP, CME

Group Manager / Value Engineering / Design Services

Education

Florida Institute of Technology, BS, Civil Engineering, 1999

Professional Registrations/ Affiliations

Licensed Professional Engineer in New Jersey and Pennsylvania

Professional Planner in New Jersey

Certified Municipal Engineer

Years in the Industry

15

Areas of Expertise

Municipal Engineering, Civil Engineering, Planning, Transportation

Industry Engagement

She has spoken at several events and sat on numerous panels including:

- 2013 APA NJ Planning Conference on Stormwater Harvesting and Sustainable Infrastructure
- ASCE Infrastructure Seminar at NYU in April 2013 on the Impacts of Sandy to NJ Infrastructure
- Rutgers University, NJ, on the infrastructure damage from Superstorm Sandy
- 2009 APA New Jersey Planning Conference where she provided guidance on the integration of transportation planning and land use planning

Summary of Qualifications

Ms. Flor is a Licensed Professional Engineer and a Licensed Professional Planner. She provides engineering and planning services to a variety of clients which include local governments, county governments and redevelopment agencies. Ms. Flor is the Borough Engineer of Sea Bright, NJ; and an Engineering Consultant to the City of Hoboken, Jersey City, Neptune Township and Hudson County. In these roles, and throughout her career, she has worked closely with clients to evaluate project design features, systems, equipment and material selections for the purpose of achieving essential functions at the lowest life cycle cost consistent with required performance, quality, reliability, and safety.

Ms. Flor, who specializes in sustainable urban design, managed the Canal Crossing in Jersey City project, a 111 acre redevelopment area consisting of 30 Brownfield sites. Ms. Flor is currently the Consulting Engineer for several notable projects in Hoboken, which include First Street Revitalization and Citywide Wayfinding, construction management of Observer Highway and Washington Street "Complete Streets" Redesign. She is also the Consulting Engineer for the bulkheads project in Neptune Township to make areas more resilient post Sandy, and a USEPA Brownfields Community Wide Assessment project that includes 11 targeted sites in the Township. She leads T&M's Storm, Disaster and Recovery Practice, and is the Borough Engineer responsible for the management of design repairs to three miles of seawall in Sea Bright and Monmouth Beach. Ms. Flor managed the Circulation Element of the Jersey City Master Plan which won the 2009 Outstanding Plan Award in NJ as presented by the APA.

Key Projects

Washington Street "Complete Streets" Redesign, Hoboken, NJ. Consulting Engineer responsible for the development of the final integrated design and construction documents for the renewal and improvement of Washington Street, a 15 block commercial corridor in the City. Designated as a "Great Street" by the American Planning Association in 2010, Washington Street is about to undergo enhancements to improve pedestrian safety, expand access to mass transit, and accommodate an increase in multimodal activity and use to support residents, businesses, visitors, and commuters. This "Complete Streets" revitalization project follows an extensive community-based planning process conducted by the City to solicit public feedback and gain consensus on the final preferred design alternative. The project will replace aging watermains, sidewalks, street furnishings, and resurface the roadway. It will also improve mobility with new bikeways, modernized traffic signals at 16 intersections, and new bus shelters; and boost environmental performance and resiliency through added green infrastructure, upgraded LED lighting fixtures, and a new microgrid.

Observer Highway Complete Streets Redesign Project, Hoboken, Hudson County, NJ. Client Manager for the Construction Management of improvements along Observer Highway. The project includes new synchronized traffic signals and dedicated left turn lanes that will create a more efficient and safer County roadway. Between 2010 and 2012, there were an average of 37 crashes per year along Observer Highway. The corridor will be converted to a more pedestrian-friendly street with new, redesigned crosswalk signals and other pedestrian safety improvements as well as a two-way protected bike lane and green infrastructure. The project is Federally funded.

Canal Crossing, Jersey City Redevelopment Agency, Jersey City, NJ. Project Manager for the engineering and survey of Canal Crossing, a 111-acre redevelopment area. The design of this new urban development included a new light rail station, division of the combined sanitary sewer into separate stormwater and sanitary infrastructure, new water mains, streetscapes, multiple parks, roadway designs, and a new street grid that subdivided 17 industrial blocks into 40 new city blocks. The site consists of multiple brownfields and required innovative design for construction within the remediated areas because much of the tract was covered with a capillary break post remediation.

First Street Streetscape Revitalization and Citywide Wayfinding, Hoboken, NJ. Consulting Engineer for improvements of a twelve block corridor including development of a new citywide wayfinding signage plan, city logo and tagline. The overall design integrates the use of green infrastructure and NJDOT's Complete Streets concepts. Streetscape improvements include curb bump outs, rain gardens, landscaping, street trees, banners, bicycle parking, benches, crosswalks, ADA compliant curb ramps, daylighting posts, wayfinding signage, solar powered trash and recycling compactors, and kiosks with touch screens. The project received funding from the NJEDA through a CDBG-DR.

Storm Disaster and Recovery Superstorm Sandy, Borough of Sea Bright, NJ. As the Borough Engineer of Sea Bright, managed the engineering recovery efforts during Superstorm Sandy including Debris Management, Assessment of critical structures and coordination with OEM, NJDOT, Armed Forces assisting the Borough, County OEM, DPW, Police, Fire, and the Governing Body. Managed a multitude of resiliency projects after the storm.

Planning Board, Hudson County, NJ. Currently providing professional engineering services to Hudson County Planning Board for various site plan applications. Services include review of proposed drainage facilities and traffic access with regard to ROW. Participates in monthly technical review committee meetings and Planning Board meetings.

2014 Road Program- Contract B, City of Hoboken, NJ. Consulting Engineer for oversight of project management, engineering design, advertising, bidding, and construction administration and inspection for a project that consisted of complete street design, bike lanes, curb bump outs, a rain garden, ADA ramps, and mill and overlay.

Master Plan Circulation Element, Jersey City, NJ. Responsibilities included overall project management; oversight of a mobility study and survey; organizing and administering technical advisory committee and stakeholder meetings; public visioning meetings and feedback sessions; analysis of projected build-out; development of goals, objectives, strategies and actions; identification of indicators to monitor plan implementation progress; identification of ROW needs and potential alignments/station locations for Hudson-Bergen Light Rail; mapping potential roadway grids; establishing a functional classification system; creation of typical roadway sections; traffic calming and sidewalk maintenance plans; and review of volume capacity ratios on local roadways to verify adequacy of plan.

Lackawanna Station Light Rail Transportation Assessment, Jersey City, NJ. Client Manager for a transportation assessment to determine the number of vehicle trips in the Lackawanna Station Redevelopment Plan area with and without Hudson-Bergen Light Rail service. Two scenarios were analyzed; the build-out of the current redevelopment plan parameters without the Light Rail Station construction and the build-out of the proposed bonus density parameters with Light Rail Station construction and implementation.

Sea Bright & Monmouth Beach Seawall Restoration, Monmouth County, NJ. Borough Engineer responsible for the management of a multi-jurisdictional storm hardening project with multiple stakeholders, including the Borough of Sea Bright, Borough of Monmouth Beach, NJDEP BCE, and FEMA. The project entails constructing, repairing or partially rebuilding portions of the 9,230 LF of seawall between the Boroughs. The project includes demolition of the existing structure, repurposing of the existing stone and construction of 2,160 LF of new seawall; repair of the existing cap stone layer and re-grouting of the voids consisting of approximately 295 LF; construction of new stone seawall where one did not previously exist consisting of approximately 295 LF; partial demolition and reconstruction of the ocean side toe and wall consisting of approximately 500 LF; and additional of spot repairs. The project also includes reconstruction of parking lots affected by the reconstruction of the wall, construction of ADA beach access ramps and vehicular cross overs.

Hudson River Walkway Design and Implementation Plan, Bergen County, NJ. Project Manager for this plan that designed and transformed a disjointed and underused waterfront walkway to a continuous, non-motorized transportation artery and recreational amenity that is a focal point of Bergen County. The walkway runs through Edgewater and Fort Lee and has direct connections to the Palisades Interstate Park, Hudson County's Hudson River Waterfront Walkway, the George Washington Bridge, and New York City's Westside Greenway.

Michael**REGAN**, CCM

CM/PM Practice Leader / Value Engineering

Education

Monmouth University, Master of Business Administration, 2002

University of Notre Dame, BS Environmental Engineering, 1996

Notre Dame Mendoza College of Business, Executive Certificate in Negotiation, 2007

Professional Registrations/ Affiliations

Certified Construction Manager

Member - Construction Management Association of America

Member - Alliance for Action

Years in the Industry

19

Areas of Expertise

Construction and Program Management

Summary of Qualifications

Mr. Regan has nearly two decades of experience in construction and program management for a wide range of clients and project types ranging from the county to federal levels. Prior to joining T&M, he was with Louis Berger where he was responsible for all Program Management and Construction Management services for non-federal clients throughout the Country.

Mike is fully skilled in CPM schedule development and analysis, project budget management, change order negotiation, complex project staging, constructability reviews, quality assurance/control and value engineering. He is a Certified Construction Manager as designated by the Construction Management Association of America. Throughout his career, Mike has successfully delivered a full complement of construction management services, and has actively driven the quality of these services while serving in project leadership roles.

Key Projects

Architect of the Capitol, Cannon House Office Building Renewal, Washington DC. As the Construction Program Executive, led the project planning and design effort for the $750 million renewal of historic Cannon House Office Building. Included a phased-while-occupied renewal of the oldest of the office buildings for the House of Representatives, including a technically challenging replacement of all systems using a limited project site while maintaining historic fabric of the building. Preconstruction effort required a collaborative effort among multiple in-house and external entities including the House Sergeant-at-Arms, US Capitol Police, House Subcommittee on Appropriations for the Legislative Branch, and the Office of the Speaker of the House. In addition to leading the scope development and procurement efforts, created a complex CPM-based project phasing plan including swing space development, systems decommissioning, move management, and construction operations.

Architect of the Capitol, United States Supreme Court Modernization Project, Washington DC. Project Manager responsible for overseeing the entire construction operation for this full-building modernization project within the historic United States Supreme Court building. Project involved the full replacement of all major building systems using a complex phasing approach while protecting this monumental building's historic fabric. The building remained occupied and the Supreme Court remained in operation without disruption throughout construction. Additional considerations included coordination with multiple Supreme Court departments, Justices' Chambers and external governmental agencies for a highly-integrated execution strategy. Assumed the Project Manager position during the second of five project stages, at which point the project was two years behind schedule. Led a collaborative effort to identify alternate project phasing and work sequencing opportunities and realized a recovery of 18 months on the overall project schedule.

Ocean County Jail Renovations, Toms River, NJ. As Project Manager, managed the renovations and repairs at the shower and bathrooms throughout the Ocean County Jail, including development and coordination of an inmate relocation program tied closely to the project schedule. Led the delivery of the full project six weeks ahead of the scheduled completion date.

Ocean County Library Expansion and Renovation, Toms River, NJ. Project Manager responsible for numerous tasks during the pre-construction and construction phases of this project including conducting a value engineering study and recommendations for developing critical cost-saving measures, managing multiple construction contracts and for developing a comprehensive construction management plan that included complex staging to keep the facility operational during construction.

Sludge Thickening Centrifuge and Truck Loading Station Project, DC Water, Washington DC. Construction Supervisor responsible for managing the completion of a $68M project which included the addition of seven Wesfalia Sludge Thickening Centrifuges along with all associated conveyance train equipment, piping, pumps and controls. Project also included construction of enhanced post-liming facilities and sludge storage silos with vehicle scales and automated direct loading of trucks for removal, hauling and distribution of Class B solids. Oversaw installation of facility-wide DDC controls and integration with ongoing plant-wide controls upgrade projects.

District-Wide School Improvement Program, Fair Lawn Board of Education, Fair Lawn, NJ. Project Manager for a district-wide school improvement plan which included a combination of interior renovations, additions, and new construction at ten K-12school sites throughout Fair Lawn. Provided a full range of pre-construction, construction and closeout services for this school program that included an addition and interior modernization work to the historic Radburn Elementary School.

Mott's Run Water Treatment Plant, Fredericksburg, VA. Construction Supervisor responsible for supervising the construction of a new 25 MGD water treatment plant and fresh water intake facility. Provided schedule and claims services on behalf of AIG; identified cost and time-saving measures to recover schedule time and minimize financial exposure; and developed a claim package detailing direct and indirect costs using contract interpretation and schedule analysis.

District-Wide School Improvement Program, Egg Harbor Township Board of Education, Egg Harbor Township, NJ. Project Manager responsible for project management services on a district-wide school improvement program which included a combination of interior renovations, additions, and new construction at ten K-12 school sites throughout Egg Harbor Township. The Program was awarded "Project of the Year" award by the Construction Management Association of America in 2002.

Ocean County College (OCC) Technology Building, Toms River, NJ. Project Manager responsible for pre-construction and construction phases for a new LEED certified technology building on the main OCC campus. Conducted value engineering to ensure delivery of the project within the available budget. Successfully incorporated savings of 20% from the initial project scope without significant impact to the building's operation needs or architectural elements.

Ocean County Courthouse East Wing Renovation, Toms River, NJ. Project Manager responsible for developing a comprehensive construction management plan including the detailed schedule and staging plans for the phased renovation of an operational courthouse including Chambers and support offices for several Courtrooms, as well as the restoration of "Historic Courtroom No. One" to its mid-19th century condition.

Ocean County Fire and EMS Training Center, Waretown, NJ. Project Manager responsible for the construction phase project management activities for a new comprehensive Fire and EMS training center that includes an administration/ classroom building, five training buildings, three training pads (including a natural gas burn simulator) and a catch basin/water recirculation system for capture and re-use of non-potable training water. Construction included extension of sewer, water, gas and electrical utilities along a new 4,000 linear foot access road from Route 9 in Waretown.

Stephen**SHALLCROSS**

Principal-in-Charge

Education

Lehigh University, BS Civil Engineering, 1973

Professional Registrations/ Affiliations

American Society of Civil Engineers

NJ Society of Asphalt Technologists

Federal Aid Requirements & LPA Stewardship Certification, Rutgers University, 2013

Highway Inspection Procedures for Federal Aid Projects, Rutgers University, 2013

Years in the Industry

42

Areas of Expertise

Construction Project Management, Resident Engineering, Construction Claims

Summary of Qualifications

Mr. Shallcross has extensive project, construction management, management consulting and litigation support experience in a broad spectrum of projects spanning project conception through commissioning in both the public and private sectors. The majority of this experience has involved hands-on, key management and technical roles in project management, engineering, construction supervision, cost and schedule controls, contract administration and startup.

His project experience encompasses heavy, commercial, institutional, recreational and transportation construction nationwide. He has served several New Jersey educational institutions, the State of New Jersey, NJ Transit, non-profit agencies and the Delaware River Bridge Authority. Mr. Shallcross' projects include roadways and bridges, new schools, laboratories, dormitories, libraries, fiber optic networks, parks and gardens, cafeterias, train stations, historic renovations, offices, and fossil, hydro-electric and nuclear power plants.

He has also provided management consulting and litigation support to Fortune 500 companies and major national law firms. He consulted nationally with all levels of corporate management regarding executive, project and construction management processes and performance, cost and schedule evaluations of projects, organizational mentoring, and litigation support of capital construction projects.

Key Projects

Van Schoick, Red Hill & Dwight Roads, Holmdel and Middletown, Monmouth County, NJ. Principal-in-Charge for the construction of roadway, traffic signal and intersection improvements. This $2.8 million project consisted of realignment of Van Schoick, Red Hill and Dwight Roads near their confluence east of GSP. Aerial and underground utilities were relocated prior to final construction of new alignment. Initial stages of construction provided base for all utility relocation and therefore needed to be accomplished quickly to allow utility companies to move their facilities and for contractor to meet 300 calendar day completion schedule.

2014 Road Program, Tinton Falls, NJ. Principal-in-Charge for a $2.5 million road project that consisted of the reconstruction of two roadways within the former Fort Monmouth and the milling and resurfacing of another nine roadways throughout the Borough. Extensive drainage underdrain work was required along three of the resurfaced roadways to eliminate groundwater collecting under the asphalt riding surface. Coordination between underground utilities was required for the drainage installation.

2014 Road Improvement Program, Red Bank, NJ. Principal-in-Charge for a $1.9 million road program that consisted of reconstruction of three local roadways and resurfacing of two additional streets. The project included installation of over 5,000 tons of asphalt and 5,500 LF of concrete curb. In addition, a new 8-inch ductile iron water main was installed and over 800 LF of old sanitary sewer main was lined. Traffic control and project staging created daily challenges and were ongoing issues throughout the project.

Atlantic City Expressway (ACE) Westbound Widening, Phase 3, South Jersey Transportation Authority, NJ. Principal-in-Charge for a roadway widening project to add a third

westbound lane on the ACE from the Garden State Parkway to Route 73. As the owner's onsite representative to the contractor duties included supervision of onsite construction staff, provision of quality assurance for ongoing construction activities and checking that plans and specifications conformed to contract documents. The majority of bridge work included demolition of the existing bridge deck and abutment, replacement of rebar and new cast-in-place bridge deck and abutments. Additionally, a new culvert required footing upgrades that resulted in excavation and installation of new rebar and concrete that was poured in and around the existing structure. The project encompassed a distance of 3.5 miles. The goals of this lane addition were to increase roadway capacity, decrease congestion and increase safety by eliminating the need for merging, thereby reducing conflicts between vehicles.

Carteret Waterfront Park – Phase I, Carteret, NJ. Executive Sponsor for an extensive waterfront redevelopment and marina project completed in 2003. This $2.7 million project featured over 9, 500 LF of piling, 97,000 BF of timber framing, 35,000 SF of synthetic decking, 1,400 tons of rip-rap, 2,500 CY of excavation, grading and backfill, cable anchored precast concrete boat ramp, wetlands mitigation plantings, drainage, gazebo, a floating dock and 15,000 SF of contaminated soil lining/capping.

Flood Control Project, Union Township, NJ. A $2.2 million flood protection project located on the Rahway River provided a combination reinforced concrete floodwall and earthen dike and pump station structure to an area prone to extensive river flooding. Project also included slope stabilization and extensive storm drainage and discharge system.

NJ Statehouse. $6 million design-build urban park and plaza constructed atop a 1,100 car garage. Project included structural remediation, granite pathways, sculptures, landscaping and fountains. The $1.7 million capitol complex welcome center and cafeteria included construction of commercial kitchen, serving and dining areas, custom cabinetry and woodwork, terrazzo and ceramic tile, new plumbing, HVAC and electrical service and fixtures. Also included CAT 5 wiring and fiber optic communications.

NJ Transit Train Stations. $14.1 million demolition, renovation and new construction of entire station complex, including design/build high level platforms and parking lot, 1930s style station masonry architecture and precast concrete structural arches. Also included new $10 million station, including station building, high level platforms, site utilities and drainage, parking lot and pedestrian tunnel.

Centenary College, NJ. $1.1 million design-build library expansion programmed to serve multiple current and future academic functions. Work included retrofitting air conditioning in a 1950s building, asbestos abatement, lighting and electrical wiring and fiber optic communications upgrading and reallocation space to include an early childhood development center.

Drew University, NJ. $1.3 million initial communication system overhaul constructing campus-wide fiber optic-based backbone system linking all academic buildings, administration offices and selected housing units. $2.1 million dormitory interior demolition, renovation and ADA upgrade. $200,000 roof replacements of historical buildings. $45,000 land use and historical landscaping plan development and initial phase plantings and hardscape installation of nationally registered building. $50,000 library archive renovation to provide state-of-the-art study space and conferencing. Redesign planning of chemistry labs.

Pingry School, NJ. $105,000 redesign and renovation of chemistry labs and classrooms requiring completion during limited summer months. $75,000 design-build air conditioning system retrofit of library.

East Orange Schools. $7 million new early childhood education academy included site development, building construction and architectural fit-out.

Power Plants. Served in various capacities in power plant construction and operation totaling over 13,000 megawatts of generation.

Claims and Litigation. Provided independent assessments, claims management and testimony preparation and trial support on construction related projects, including the largest US case at the time ($1.8 billion).

Envision Consultants

Nicole Johnson, MBA, LEED AP

Senior Cost Estimator

General Qualifications

Ms. Johnson is an accomplished Project Controls Engineer and Project Manager. She leads the firm's Cost Management Department and has 19 years of relevant experience in transportation design and construction. She has excellent technical, analytical, and relationship management skills. Her areas of expertise include: project management, construction estimating, procurement, contract negotiations, and dispute resolution.

Credentials

Years of Experience: 19

Education: MBA, Production and Operations Management, Drexel University, 2004

B.S., Mechanical Engineering, Temple University, 1996

Registrations: LEED AP Building Design and Construction, Accredited - 2013

Training Certifications: OSHA 30 HR Certified, 2012

Computer Skills: Oracle® Primavera P6 and P3, Suretrak, MS Project, Timberline, Sharpe, MS Office, Prolog Management

Professional Affiliations
Construction Management Association of America

Delaware Valley Green Building Council

Project Experience

School District of Philadelphia, Capital Improvement Program, Philadelphia, PA: Ms. Johnson served as Assistant Deputy of project controls for this capital improvement program which included the renovation of existing buildings and the replacement of older facilities to accommodate the District's new, state-of-the-art curricula. The program also reduced the number of middle school facilities, and created safer learning environments for its 200,000 students. Phase I of the program consisted of the construction of five new high schools, the closing of all middle school facilities and the expansion of numerous elementary schools to accommodate between 700-900 students in a K-8 grade structure, the construction of five new elementary schools, and the construction of numerous additions to various existing school facilities. Ms. Johnson's responsibilities included creating unit rates and costs for the facilities assessment database, preparing estimates to establish budgets for school projects, developing projected fiscal year program budgets, redesigning and implementing various control processes to improve program response to client needs, and maintaining budgets, bond funding and project information in Prolog Database. She was also responsible for evaluating Construction Management and Architect estimates at each phase of design, and for developing various monthly and weekly financial reports for Program Director. She also managed a team of seven people in the Project Controls Group.

School District of Philadelphia, Facilities Master Plan Program Management, Philadelphia, PA: Ms. Johnson served as Deputy Program Manager, leading a cross-functional team of GIS planners, public involvement coordinators and facility assessment experts to provide The Philadelphia School District with a comprehensive five-year facilities planning model; developing recommendations by analyzing demographic data, facilities assessment data, school programmatic Information and community feedback for the 250+ schools across the school district system. The program was necessary in order to develop a long range facility management plan for more efficiency in the use of buildings and resources within the district.

Edison Square Shopping Center, Philadelphia, PA: Ms. Johnson provided hard bid costs and procurement services as well as budgetary and conceptual costing for this project that included the complete demolition of an existing 400,000 SF four story stone building. The existing building was demolished in strategic stages allowing for all onsite demolished masonry material to be crushed and reused on site to create a new flat level site. A 250,000 SF building was retained on site to be used for later development into senior housing. A new 10,000 SF steel building was

erected on the newly compacted site to create new retail space. This retail space was occupied by retail tenants which included a Sav-A-Lot, Family Dollar, and Kicks USA.

Hotel Indigo, Philadelphia, PA: Ms. Johnson provided hard bid costs and procurement services as well as budgetary and conceptual costs. Project is a partial demolition and selective demolition of an existing structure which will be converted into a 99 room Indigo Hotel. It will include an underground parking garage, restaurants, nightclub and cigar bar. Project was set to begin construction in the 3rd quarter of 2014 but met with delays due to historical commission reviews.

Temple University School of Podiatric Medicine Classroom 319, Philadelphia, PA: Ms. Johnson received subcontractor bids and coordinated scopes to identify additional requirements to satisfy all requirements of the job. De-scoped and negotiated with responsive bidders. Created contracts, approved invoices, created and submitted AIA invoices to the University. Purchased supplies and created PO's for vendor purchases. Work included conversion of old classroom in Temple University of Podiatric Medicine into a 20th century technology based classroom in an occupied building. Prepared estimate based on Temple's plans and specifications. Work included aesthetic upgrades, building of a new platform for ADA accessibility, new carpet, new wall panels, new electrical systems, new HVAC systems and new sprinkler systems.

Cheyney University, New Student Housing, Cheyney, PA: Ms. Johnson served as Estimator for this 133,000 SF project to develop a 401-bed dormitory using modular units that were fabricated offsite and assembled on the job site. The project also required demolition of an existing building. Performed contractor change order reviews and cost analysis services on as needed basis.

Pennsylvania Department of General Services, Lincoln University New Learning Center, Lincoln University, PA: Ms. Johnson provided change order review for work on this project which required reviewing plans to understand change, researching RFI's, preparing an estimate, and negotiating final approved cost with contractors. This project was a new 108,000 SF learning/counseling and academic center. It included wellness space, fitness spaces, multipurpose rooms, dining room and cafeteria, and academic areas such as classroom and laboratories.

Temple University, Temple Towers Restroom Renovations, Philadelphia, PA: Ms. Johnson estimated this project as a construction bid. The project was designed to modify all of the residential bathrooms in the Temple Towers residential hall. This work would had to be phased over two summers to avoid impacting the residents and included updates to the ventilation system, as well as, to bathroom finishes such as new wall tile, new tub surrounds, new floor tile, and upgrades to the vanities and lighting. This project required site visits, subcontractor/supplier quote requests, responding to sub bidder questions regarding project content and schedule, preparing a complete estimate that included sub/supplier costs, as well as general conditions and additional requirements to complete the job, attended descope meetings, and submitted best and final bid to Temple. Temple Towers houses approximately 600 students in apartment style units and stands at six floors.

Pennsylvania Department of General Services, East Stroudsburg University Information Commons (Keystone Center) Construction, East Stroudsburg, PA: Ms. Johnson was responsible for reviewing the architect's estimate and performing a constructability review at the DD and 50% CD Phases which required intense review of the drawings and specs and analyzing them to see if a contractor could understand the scope of the work without any question. Created a report of findings and submitted to the prime on the project. She also responded to any questions presented by the Prime, the project Architect, and/or DGS regarding the findings. This project involved the construction of a new 269,000 SF, four story student center which included a student union, library, computer centers, lounges, and meeting rooms. Work was designed to be done in two phases to allow for uninterrupted use of certain amenities during construction. The project required demolition of three existing structures to make room for the new building. The project was designed so that both the student union and the library would receive individual LEED Silver Certification.

envision

Nancy Cunningham

Document Control Coordinator

General Qualifications

Ms. Cunningham has 18 years of experience as an administrative support professional. She is an organized, results-oriented team player, and is helpful coordinating between departments, operating units, field and office staff, and managers. As a Document Control Assistant, Ms. Cunningham's responsibilities include storing, managing, and tracking project documents, adhering to document lifecycle procedures, and facilitating the controlled retrieval and distribution of project correspondence.

Credentials

Years of Experience: 18

Education: A.A., Mercer County Community College, 1983

Licenses/Certifications:

Construction Management Certificate, Pace University, 2014

Computer Skills: Primavera Contract Management, Autodesk Constructware, Autodesk Buzzsaw, MS Word, MS PowerPoint, MS Access, MS Project, MS Excel, MS Visio, Adobe Acrobat

Project Experience

Delaware River Port Authority, Bridge Repainting and Track Replacement, Benjamin Franklin Bridge, Camden, NJ: Ms. Cunningham performed document control services. She was responsible for the processing Inspectors Reports so that they were completed in a timely manner. Field personnel used iPads to write reports, which were then emailed to Ms. Cunningham for entry into a cloud-based Field Automated Communications System (FACS). In addition, Ms. Cunningham managed correspondences between the field and the project office. Such materials included: daily rosters, track outages, and approved lane closures, etc. A shared system, Dash Port, was also implemented. Ms. Cunningham posted submittals and RFIs to Dash Port as they are received.

SEPTA, Silverliner Railcar Procurement Contract, Philadelphia, PA: In the document control role, Ms. Cunningham supported the team in the management of all project documents, including drawings, submittals, requests for information, and correspondence. She is supporting the team for project close-out. Envision is supporting the project team by providing full-time document control management on this important vehicle procurement project. SEPTA is procuring new railcars to begin replacing older models in their fleet. When complete, SEPTA will have 120 new railcars.

New York Rising, Community Revitalization Zone Project, New York, NY: Assisted in the creation of a SharePoint site for this project and quality control of the documents added to the site. This planning project assists NY Rising in fixing the Superstorm Sandy devastation throughout the New York area.

West Deptford Township, Construction and Inspection Office, West Deptford, NJ: Performed administrative work, issued approved permits, and scheduled required inspections. The West Deptford Township Construction and Inspection (C&I) Office is responsible for construction and zoning permits, housing inspections, code enforcement, and fire prevention.

West Deptford Township, West Deptford Riverwinds Community Center, West Deptford, NJ: Ms. Cunningham provided administrative support at this community center, which is owned by the Township of West Deptford and operated for the benefit of its residents. The facility is open year-round with amenities and services to benefit individuals of all ages. She assisted with the member relations and performed duties as required to ensure a consistent and seamless flow to the business management side of operations.

West Deptford Board of Education, Substitute Teacher - West Deptford School District, West Deptford, NJ: Ms. Cunningham served as an on-call substitute teacher. The district includes West Deptford High School and Middle School, Green-Fields Elementary, Red Bank Elementary, and Oakview Elementary Schools.

M & E Engineers

M&E ENGINEERS, INC.

Gerard Hazel,
LEED AP, ASHRAE CPMP
COMMISSIONING AGENT



CERTIFICATIONS

- LEED Accredited Professional BD&C and O&M
- ASHRAE CPMP (Commissioning Process Management Professional)
- ASHRAE HBDP (High Performance Building Design Professional)
- BPI MFBO Certification

EDUCATION

College of Staten Island: Business

ASSOCIATIONS

- Building Commissioning Association (BCA)
- USGBC

EXPEREINCE SUMMARY

Gerard Hazel has over 30 years of experience in the HVAC / Construction industry and has expertise in many areas related to the processes involved in designing, building and operating High Performance Buildings. He provides Commissioning and Retro-Commissioning, Energy Modeling, and LEED Consulting and Technical Support Services. As a Commissioning Agent, LEED consultant, and Energy Modeler, Gerard has contributed to the successful energy performance of new construction as well as adaptive reuse of existing buildings.

PROJECT EXPERIENCE

- ***New Jersey Turnpike Authority – Facilities Improvement Program:*** Commissioning Process Manager for the $500M Facilities Improvement Program to bring NJTA maintenance facilities into a state of good repair. This program is replacing and/or rehabilitating maintenance buildings, storage facilities, and salt facilities. Systems to be commissioned include typical systems such as HVAC, Plumbing, and Generators, as well as some systems not as typical such as vehicle lifts, cranes and vehicle wash systems. M&E is also serving as consultant for a program within the FIP to standardize the BMS systems in the new buildings.

- ***New Jersey Turnpike Authority – Interchange 14A Improvements:*** Commissioning Authority for the renovations to the Toll Plaza Facility, including Administration Building and toll booths, to accommodate the improvements at the interchange. Project was designed to LEED standards. Scope includes the energy consuming systems.

- ***School Development Authority – Elementary Schools:*** Commissioning Authority for two Design-Build projects. The Buckshutem project consists of a 33,000 sq ft addition and a 7,300 sq ft renovation to the existing school, and the Quarter Mile Lane project consists of a 91,000 sq ft addition and a 33,000 sq ft renovation to an existing school.

- ***New Jersey Turnpike Authority – Police Barracks:*** Commissioning Agent for four new police barracks. A prototype was adapted to construct four separate police barracks built to LEED standards. Scope includes the energy consuming systems.

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Consulting Engineers
Responsive Cost-Effective Solutions with Excellence!

RAFAEL RIOS, P.E.
Geotechnical Engineering
Task Leader
ASCE P5

EDUCATION: B.S. - Civil Engineering – 1984 Manhattan College
Nuclear Density Gauge, Troxler Certified
OSHA 29 CFR1910.12 & 1926.65 Supervisor Training (November 2001)
FHWA/NHI – Design & Construction of Driven Pile Foundations (May 2000)
FHWA/NHI – Drilled Shaft Foundation Inspection (October 2003)

PROFESSIONAL STATUS: Licensed Professional Engineer New Jersey - 2000

EXPERIENCE:

Mr. Rios has over thirty (30) years of geotechnical engineering experience. At AmerCom, he has directed and prepared numerous pavement designs, developed subsurface exploration programs, prepared soils engineering reports and designed foundations for various projects throughout the region for the Port Authority of NY & NJ, NJDOT, NJ Turnpike Authority, NJ Transit and other clients. Select projects he has worked on at AmerCom include:

The Port Authority of NY & NJ – Cross Harbor Freight Program between Greenville Yard and 65th Street Terminal – Responsible for geotechnical engineering services on this $118M project. Directed the designs of various slab-on-grade/grade beam foundations supported by closed end steel pipe piles; elevated platform foundations supported by closed end steel pipe piles; drilled shaft (caisson) foundations for high mast light poles; and specialty foundations for other purposes and produced the Foundation Calculation Report (2011-2015).

N.J. Dept. of Transportation – Rt19/CR609 to Rt46 Van Houten Avenue Drainage Improvements – Responsible for all pavement design, pavement lifecycle cost analysis, soil borings, pavement cores and foundation engineering report for the rehabilitation of 0.5 miles of roadway in Passaic County N.J. (2013-2014)

County College of Morris – Route 10 Connector Roadway – Completed pavement design for a new 1000' access roadway into the college. Work included preparation of a boring contract, field inspection, soil profiles, pavement design and pavement life cycle cost analysis. *(2013)*

N.J. Turnpike Authority – GSP 30-63 Widening Program Management – Responsible for the implementation and management of a boring program involving over 1500 hundred borings on the GSP and oversight of the geotechnical designs and pavement designs through 30 miles of widening along the Garden State Parkway. *(2009-2014)*

N.J. Turnpike Authority – OPS P3410 GSP Widening MP 35-38 – Responsible for all geotechnical work and pavement design work for 3 miles of widening along the Garden State Parkway. Duties included subsurface exploration program consisting of over 300 borings, pavement design, and foundation design for bridges, retaining walls, sign structures and report preparation. *(2012-2014)*

N.J. Dept. of Transportation – Route 46 / Route 3 / Valley Road Interchange Improvements – Responsible for all geotechnical work and pavement designs on this $150M project for a new interchange that includes 5 bridges, 5 culverts, 18 retaining walls, 7 noise barriers and 17 sign structures and new roadway alignments. *(2005-2014)*

N.J. Department of Transportation – Route 202 over the Passaic River, Morris County – Project included complete replacement of the existing bridge with a new 90' single span

structure. Responsible for all geotechnical and pavement engineering work including field borings, scour analysis, pile designs and pavement designs. *(2011-2012)*

The Port Authority of NY & NJ – EWR Continental/United Airlines Terminal C Expansion, Peripheral Ditch Culvert – Responsible for finalizing geotechnical recommendations for the expansion of Terminal C. Produced the Soil Engineering and Foundation Report based on the final layout and the required design loadings on the foundation system for the Peripheral Ditch culvert structure. (2009-2012)

N.J. Turnpike Authority – Interchange 18W Ramp NWC Improvements Contract T300.064 – Completed the geotechnical work for the widening of a single lane ramp to a dual lane ramp servicing the Meadowlands Sports Complex. Work included design of a preconsolidation program utilizing wick drains, pavement design, design of piles and drilled shaft foundations for culverts, 4 sign structures, EZ Pass Gantry and camera tower. *(2006-2010)*

The Port Authority of NY & NJ – **EWR Continental/United Airlines Terminal C Ramp Area Pavement Design –** Due to the deteriorated surface pavement of specific pavement sections of the aircraft taxiways and roadways at Terminal C, developed and directed the geotechnical subsurface investigation and pavement assessment. Developed foundation type recommendations utilized in final design and produced the Geotechnical Foundation Report (2009-2012).

N.J. Dept. of Transportation – Rt. 94 Drainage Improvements – Responsible for all pavement design, pavement lifecycle cost analysis, soil borings, pavement cores and foundation engineering report for the rehabilitation of 1.5 miles of roadway in Sussex County N.J. (2005-2008)

N.J. Dept. of Transportation – I-280 Ramp at GSP Interchange 145 – Responsible for all geotechnical work and pavement design work for a new five span bridge over I280 from GSP Interchange 145 under NJDOT's new hyperbuild program. Extensive rock slope analysis and remediation was required. Duties included subsurface exploration program, pavement design, foundation design for bridges, retaining walls, sign structures and report preparation. (2004-2008)

N.J. Dept. of Transportation – Rt. 46 Interchange Improvements Contract 090960384 – This $70M project consisted of ramp realignments, construction of acel/decel lanes, overhead signage and bridge widening to improve safety and the flow of traffic through the interchange. AmerCom was responsible for all geotechnical engineering including pavement designs, field monitoring of over 80 borings, lab testing, and preparation of a soil and foundation engineering report. (1999-2008)

N.J. Dept. of Transportation – Route 9, Route 79 and Shank Road, Freehold Township, NJ – This $12M project realigned the intersection, improving safety, geometric alignment and facilitating traffic flow. Work included pavement designs, preparing Geotechnical Contract Documents for bids to obtain a boring contractor, boring inspections, lab testing, and foundation engineering report. The project included over 30 borings and foundation recommendations for retaining walls, sign structures, and pavement. (2007)

NYSTA Contract # D-2133103 Rehabilitation of the New England Thruway M.P. NE 14 to 15 Edgewood Park, NY – The project includes replacement of two three span bridges over the Thruway, five retaining walls and 3 sign structures. Amercom is responsible for all geotechnical work consisting of over 80 soil borings, pavement cores and rock cores. Work includes preparation of a boring contract, field inspection, soil profiles, foundation recommendations for all structures, pavement design and pavement life cycle cost analysis. (2003-2007)

Key Team Member Data Sheet

HAKS

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME: Alfonso R. Lopez, PE

TITLE: Contract Executive

FIRM: HAKS Engineers, Architects and Land Surveyors, P.C.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
NYCDEP Construction management Services in connection with the Cat/Del Aqueduct at Shaft 4. Construction Cost: $22 M	N/A	Construction Management	Principal-in-Charge	16 Month	5%	2/2014 - 6/15	
NYCDEP Reconstruction of Gilboa Dam located on the North End of the Schoharie Reservoir. Construction Cost: $400 M	Hazen & Sawyer and Gannett Fleming Joint Venture	Reconstruction of Gilboa Dam	Principal-in-Charge	21 Months	5%	2/2014 - Present	
Provide high level support to a multi-year initiative to enhance NYCDEP operations services Operational/ Efficiency Savings realized: $100 Million annually:	N/A	Coordination and Direction in identification and development of optimization recommendations and initiatives	Consultant	37 Months	5%	2011/2014	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

HAKS

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME: John Schweppeheiser III

TITLE: Senior Project Manager

FIRM: HAKS Engineers, Architects and Land Surveyors, P.C.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
NJTA A3559, Construction Management and Inspection Services Facilities Improvement Program Maintenance Districts. Contruction Cost: $300 Million	Gannett Fleming, RBA, Michael Baker and TY Lin	Constrctuion Management and Inspection Services	Project Manager/ Transition Manager	12 months	15%	1/15 - Present	
Design Services in connection with construction of the Rondout-West Branch Bypass Tunnel and repairs to the existing Aqueduct. Construction Value: $1.2 Billion	HAKS	Design Services	Project Executive/ Hydraulics QA Manager	34 Months	15%	1/2013 -Present	
Ocean County - Construction Management / Construction Inspection services for Reconstruction of County Route 571 at County Route 527 in Toms River for Ocean County, New Jersey. Construction Cost: $600,000	Remington and Vernick	Construction Management / Construction Inspection services	Project Manager	11 Months	15%	1/14 - 12/14	
NJTA P3471 Supervision of Construction Services for Contract No. P500.273 Construction of Troop D Bloomfield Station at Milepost 153 NB Construction Cost:13.2 Million	Gannett Fleming	Construction Management Services	Project Manager	42 Months	15%	2012 - 2015	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

HAKS

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME: Donald J. Benanti, Jr.

TITLE: Superintendents

FIRM: HAKS Engineer, Architects and Land Surveyors, P.C

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
NYCDEP, Water for the Future Program, Catskill and Delaware Interconnection at Shaft 4, Gardiner, NY. Construction Cost: $22 M	Hatch Mott-MacDonald and Malcolm Pirnie	Construction Management Services	Assistant Resident Engineer	24 Months	100%	January 2014 - Present	
NYCDEP, Contract CAT-212B, Gilboa Dam Reconstruction Projects, GIlboa, NY. Construction Cost: $400 M	Hazen & Sawyer and Gannett Fleming Joint Venture	Construction Management Services	Chief Inspector	12 Months	100%	February 2013 - January 2014	
NYCDEP Contract CAT-359, CAT-212A and CAT-212B, Gilboa Dam Reconstruction Projects, Gilboa, NY Construction Cost: $ 175M	Hazen & Sawyer and Gannett Fleming Joint Venture	Construction Management Services	Change Order Engineer	21 Months	100%	May 2011 - February 2013	
NJDOT, Contract No. 032093770, FS-080-5(090), I-80 Westbound and Eastbound over Berkshire Valley Road. Construction Cost $11 M	New Jersey Department of Transportation	Construction Management Services	Office Engineer	12 Months	100%	June 2010 - May 2011	
NYSTA, TANY 08-40, D213797, I-87 Northbound & Southbound, Westchester County. Construction Cost $16.8M	New York State Thruway Authority	Construction Management Services	Office Engineer / Level III Inspector	19 Months	75%	December 2008 - June 2010	
NYSTA, NE Division, TANE 06-21, Bronx & Westchester Counties, NY. Construction Cost $28 M	Michael Baker Engineering	Construction Management Services	Office Engineer / Level II Inspector	37 Months	75%	June 2007 - June 2010	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

HAKS

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME: Alberto Villaman

TITLE: Constructability

FIRM: HAKS Engineers, Architects and Land Surveyors, PC

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Project Executive - BB-28S, Sandy Restoration & Mitigation; BB-28, Phase II/BB-54 Brooklyn Plaza Rehabilitation, Brooklyn, NY – MTA Bridges and Tunnels. Construction Cost: $350M	BB-28/28S - Hatch Mott McDonald BB-54 - Deberry	CM, CPM, Cost Estimating	Project Execitive	23 Months	10%	2014- Present	
NYCDEP CAT-DEL Aqueduct Interconnection Construction Management, New Paltz, NY. Construction Cost: $22M	N/A	CM, CPM, Cost Estimating	Principal-in-Charge	48 Months	5%	6/11- 6/15	
NYCDEP TCM-52, Third City Water Tunnel. Construction Cost: $176 M	N/A	CM, CPM, Cost Estimating	Principal-in-Charge	60 Months	10%	2009-2013	
NYCDEP Reconstruction of Gilboa Dam located at the North End of the Schoharie Reservoir in the Northern Catskill Mountains. Construction Cost $600 M	Gannett Fleming	CM, CPM, Cost Estimating	Principal-in-Charge	83 Months	5%	2009- Present	
NYCDDC Reconstruction of Broadway Phase I, Lower Manhattan. Construction Cost $41.7M	N/A	CM	Principal-in-Charge	27 Months	5%	8/13 - Present	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

HAKS

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME: Thomas Raihl

TITLE: Value Engineer

FIRM: HAKS Engineers, Architects and Land Surveyors, PC

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
NYCDEP TCM-52, Third City Water Tunnel. Construction Cost: $176 M	NYCDEP In House Design/ARCADIS	Supervision of All Aspects of Construction	Construction Manager	40 Months	90%	2012-2015	
NYCDEP Jamaica JA-2CM Construction Project. Construction Cost: $315M	Hazen and Sawyer	Supervision of All Aspects of Construction	Construction Manager	4 Months	100%	8/12-10/12	
Manhattan Pump Station. Construction Cost: $225 M	Hazen and Sawyer	Supervising All Aspects of Design	Design Manager	51 Months	100%	6/00-9/04	
NYCDEP Manhattan Pump Station Upgrade Contract NC-40. Construction Cost $225 M	Hazen and Sawyer	Supervision of All Aspects of Construction	Resident Engineer	75 Months	100%	9/04-12/11	
NYCDEP Newtown Creek WTIP Interim Upgrade.		Design	Design liaison Engineer	42 Months	100%	6/96-6/00	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

HAKS

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME: Richard Hallalan

TITLE: Testing

FIRM: HAKS Engineers, Architects and Land Surveyors, PC

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
SCA - On Call Contract	HAKS	Testing	Principal-in-Charge	68 months	10%	3/10- Present	
NYCHA - On Call Contract	HAKS	Testing	Principal-in-Charge	74 months	10%	9/9 - Present	
NYCHA - Forensic investigative services for various residential and community centers	HAKS	Testing	Principal-in-Charge	49 months	15%	9/9 - 10/13	
Design Services for Palisade Avenue Retaining Wall in Bronx for NYCDDC.	HAKS	Design Services	Principal-in-Charge	12 months	5%	6/8-6/9	
Special Inspection, Testing, Structural Analysis and Design, Gold Star Bridges for ConnDOT.	HAKS	Special Inspection	Principal-in-Charge	27 months	5%	11/9-2/12	
NYCDEP -CRO-329: Reconstruction of Six Upper Croton Watershed Bridges, Putnam County, NY	Michael Baker Corporation	Construction Management	Principal-in-Charge	36 months	10%	2004-2007	
Concrete Quality Assurance Services, Five-Year Contract, New York City, NY, for New York City Department of Environmental Protection.	HAKS	Testing and Inspection	Project Director	45 months	15%	11- Present	

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HAKS

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME: Vincent Plagiaro, Jr.

TITLE: Code Compliance / DCA Coordination

FIRM: HAKS Engineers, Architects and Land Surveyors, PC

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
The School District of Philadelphia Capital Improvement Program, Philadelphia, PA Construction: $3.2 Billion	Various Firms	Program Management Services	Program Director	119 Months	100%	2003 To 2013	
The School District of Philadelphia Facilities Master Plan Construction Cost: $1.5 M	N/A	Program Management Services	Program Director	24 Months	100%	2010 To 2012	
University of Pennsylvania, Philadelphia, PA Construction Cost: $25 M	Various Firms	Construction Management	Senior Project Manager	18 Months	100%	1997 To 1999	
Southwark Plaza Low Income Housing Facility, Philadelphia, PA Construction Cost: $49.5 M	N/A	Condition Assessment and Pre-Construction Services	Project Engineer	18 Months	100%	1993 To 1995	
Carnegie Mellon Research Institute, PA Construction Cost: $ 15M		Construction Management	Project Manager	18 Months	100%	1995 To 1997	
University of Pennsylvania Dental Clinic, Philadelphia, PA Construction Cost: $20 M	Bohlin Cywinski Jackson	Construction Management	Project Manager/Senior Controls Manager	24 Months	100%	1999 To 2002	

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HAKS

The RBA Group

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Bryan VanderGheyst, PE

TITLE Site / Civil Engineering

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Eatontown MVC Renovations Construction Cost $5,500,000	The RBA Group	Design, Permitting, & Construction Support	Principal Engineer	10	10	2013 - Present	
NJDOT Hydrology & Hydraulics Term Agreement (3 Consecutive Terms) RBA Fee $1,000,000	The RBA Group	Flooplain Studies, Drainage Design, Plan Development, Permitting, Construction Support	Project Manager	72	15	2000 - Present	
NJ Turnpike Statewide Facilities Improvement Program GSP - Southern District Construction Cost $60,000,000	The RBA Group	Design, Permitting, & Construction Support	Principal Engineer	24	20	2013-Present	
CCM Access Roadway to Route 10 RBA Fee $150,000	The RBA Group	Design, Permitting, & Construction Support	Project Manager	18	15	2013 - Present	
Greystone Demolition and Site Restoration Parsippany, NJ Construction Cost $35,000,000	The RBA Group	Design, Permitting, & Construction Support	Principal Engineer	24	10	2013-Present	
Lincoln Park Municipal Complex Construction Cost $18,000,000	The RBA Group	Design, Permitting, & Construction Support	Principal Engineer	12	5	2007 - 2009	
Union County College Entrance Drive Reconstruction RBA Fee $60,000	The RBA Group	Design, Permitting, & Construction Support	Project Manager	12	15	2011 - 2012	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Glenn Clabrese, LSRP

TITLE Site Investigation / Environmental Remediation

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Greystone Demolition and Site Restoration Parsippany, NJ Construction Cost $35,000,000	The RBA Group	Site Assessment, Soil Sampling, Hazardous Assessment	Site Remediation/ Hazardous Building Material Project Manager	24	10	2013-Present	
NJ Turnpike Statewide Facilities Improvement Program GSP - Southern District Construction Cost $60,000,000	The RBA Group	Site Assessment, Soil Samping	Site Remediation/ Hazardous Building Material Project Manager	12	15	2013-Present	
Garden State Parkway Interchange 88, Lakewood Twp., NJ RBA Fee $25,000	The RBA Group	Hazadous Screening/ Limited Preliminary Assessment	Site Remediation/ Hazardous Project Manager	2	50	03/2011-06/2011	
The Nutley Remediation Project Nutley, NJ RBA Fee $350,000	The RBA Group	Soil Sampling, Preliminary Assessment, Site Investigation, Remedial Investigations, Groundwater Investigations installations & Aquifer	Site Remediation/ Hazardous Project Manager	30	15	2009-Present	
Ramp NWC at Interchange 18W Carlstadt, NJ RBA Fee $650,000	The RBA Group	Soil and Sediment Sampling, Remedial Investigations, Excavation and Disposal Activities, Remedial Actions-Deed Notice & Engineering Controls	Site Remediation/ Hazardous Project Manager	36	25	2008 - 12/2012	
Flat Rock Brook Nature Center- Quarry Pond, City of Englewood RBA Fee $148,000	The RBA Group	Site Assessments, Sediment Sampling, Preliminary Assessment, Ecological Evaluations, & Remedial Investigations Remediation	Site Remediation/ Hazardous Project Manager	4	15	01/2011-Present	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Charlie Cunion, LLA

TITLE Landscape Architecture

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Roebling Interpretive Center Hamilton, NJ RBA Fee $50,000	The RBA Group	Concept design, final design and bidding documents	Project Manager	6	20%	2008 - 2012	
Bus Rapid Transit Renderings Bergen County, NJ RBA Fee $18,900	The RBA Group	Concept design and renderings	Project Manager	1	75%	2011	
Boyd McGuiness Park Jersey City, NJ RBA Fee $35,000	The RBA Group	Survey, concept design, final design and bidding documents	Project Manager	9	25%	2012-2013	
New Brunswick High School New Brunswick, NJ RBA Fee $500,000	The RBA Group	Survey, site investigation, preliminary engineering, final design, bidding documents and construction admin	Landscape Architect	36	20%	2006-2011	
Softball Field Design Randolph, NJ RBA Fee $34,500	The RBA Group	Survey, concept design, bidding documents, and construction administration	Project Manager	6	25%	2009	
Bridge Street Renovation Project Stockton, NJ RBA Fee $225,000	The RBA Group	Preliminary design, streetscape design and construction document support	Landscape Architect	6	20%	2006-2007	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Patrick McHugh

TITLE Permiting

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Liberty State Park RBA Fee $800,000	The RBA Group	Environmental/Permitting	Environmental Specialist	6	20	1997-1998	
Berkshire Valley Golf Course RBA Fee $1,522,000	The RBA Group	Environmental, Permitting, Construction Support	Environmental Specialist	40	20	1998-2002	
Route 88 Dam, Monmouth County, NJ RBA Fee $150,000	The RBA Group	Dam Imp. Design, Environmental, Permitting, Construction Documents, Construction Support	Environmental Specialist	6	5	1997-2000	
Liberty Lake Dam Improvements, Liberty Township, Warren, NJ RBA Fee $150,000	The RBA Group	Dam Imp. Design, Environmental, Permitting, Construction Documents, Construction Support	Environmental Specialist	6	20	2006-2007	
Route 35 Restoration, Ocean County, NJ RBA Fee $3,500,000	The RBA Group	Environmental, Permitting, Design - Roadway Reconstruction, Drainage Improvements	Environmental Specialist	10	25	2002-Present	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME James Brazel

TITLE EA / EIS

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Liberty State Park RBA Fee $800,000	The RBA Group	Site Engineering, Permitting, and Landscaping	Project Manager	30	25	1997-1998	
Berkshire Valley Golf Course RBA Fee$1,522,000	The RBA Group	Site Eng, Permitting, Landscaping, Access Roadway, Bulkhead, and Construction Support	Project Manager	48	20	1998-2002	
Route 88 Dam, Monmouth County, NJ RBA Fee $150,000	The RBA Group	Dam Imp. Design, Permitting, Construction Documents, and Construction Support	Environmental Task Leader	24	5	1997-2000	
Route 35 Restoration, Ocean County, NJ RBA Fee $3,500,000	The RBA Group	Environmental, Permitting, Design- Roadway Reconstruction, and Drainage Improvements	Environmental Task Leader	10	5	2002-Present	
Ramp NWC at Interchange 18W Carlstadt, NJ RBA Fee $650,000	The RBA Group	Environmental Permits/ EO-215, Remedial Investigations and Related Environmental Studies	Environmental Task Leader	36	10	2008 - 2012	
NYS&W Bicycle & Pedestrian Path Soil Screening Site Investigation, Pequannock, NJ RBA Fee $150,000	The RBA Group	Environmental Studies / Permits, Preliminary Assessment and Site Investigation	Environmental Task Manager	12	10	2010-2011	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Richard Porter

TITLE Cultural Resources/SHPO Coordinator

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Greystone Recordation Morris Plains, NJ $50,000	The RBA Group	Mitigation	Supervisor / Historian	11	2	Feb. 2013 - Jan. 2014	
NJ Route 36 Highlands Bridge Replacement Monmouth County, NJ $300,000	The RBA Group	Mitigation including application for project authorization	Supervisor / Historian	60	5	Dec. 2004 - Jan. 2010	
Delaware Lackawanna & Western Railroad Preservation Plan Various Counties, NJ $120,000	The RBA Group	Mitigation	Supervisor / Historian	18	5	Jan. 2009 - Jan. 2011	
Survey of the Erie Railroad Main Line Various Counties, NJ $90,000	The RBA Group	Mitigation	Supervisor / Historian	12	5	Jan. 2009 - Dec. 2009	
Palaski Skyway HAER Documentation & Documentary Resource Package, Essex & Hudson Counties, NJ $75,000	The RBA Group	Mitigation	Supervisor / Historian	8	2	Mar. 2011 - Nov. 2011	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Jean Howson

TITLE Principal Archaeologist

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Garden State Parkway South Facilities, Ocean, Atlantic, Cape May Counties NJ $100,000	The RBA Group	Archaeological survey	Principal Archaeologist	24	5	Sept. 2013 - Sept. 2015	
W.A.T.E.R. transportation project, Waterbury, CT $150,000	The RBA Group	Archaeological survey	Principal Archaeologist	12	5	March 2014 - Dec. 2015	
NJ Route 173/ Pohatcong River Bridge Replacement, Warren County, NJ $100,000	The RBA Group	Archaeological survey and data recovery	Principal Archaeologist	60	5	Dec. 2012 - Dec. 2015	
US 1&9T Extension, Jersey City, NJ $1,400,000	The RBA Group	Archaeological data recovery	Principal Archaeologist	84	10	July 2006 - March 2014	
NJ Route 36 Highlands Bridge Replacement Monmouth County, NJ $300,000	The RBA Group	Mitigation including archaeological data recovery	Principal Archaeologist	60	10	Dec. 2004 - Jan. 2010	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Micheal Shine, PE

TITLE Utilities

FIRM The RBA Group

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
PSE&G - Gas Main Replacement; Rt 1&9, Section 28 Hudson County, NJ RBA Fee - $200,000	The RBA Group	Final design, bid document preparation, construction administration	Project Engineer	84	60	2004-2011	
NJDOT Route 206, Sect 20&21 Roadway Widening Construction cost - $27,000,000	The RBA Group	Final design, bid document preparation, construction administration	Project Engineer	36	10	2010-20113	
Garden State Parkway Interchange 105 Improvements Monmouth County, NJ Construction cost - $32,500,000	The RBA Group	Final design, bid document preparation, construction administration	Project Engineer	36	50	2011-2014	
PSE&G - Gas Main Support System; Camden Gas Plant Camden, NJ RBA Fee - $70,000	The RBA Group	Final design, bid document preparation, construction administration	Project Manager	15	25	2014-2015	
NJTA 6 to 9 Widening, Section 1 Mansfield, NJ Construction cost - $274,800,000	The RBA Group	Final design, bid document preparation, construction administration	Project Engineer	48	25	2007-2011	

T & M Associates

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME **Louis Tedesco, PE, CME, CPWM**

TITLE Group Manager / Document Controls

FIRM T&M Associates

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Traffic Signal Improvements to 13 Intersections, Hoboken, NJ $1.7M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Construction Project Manager	19	20%	2013-2014	
Roadway Resurfacing & Intersection Safety, Hoboken, NJ $0.9M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Construction Project Manager	12	20%	2014-Present	
Veterans Park Improvement Project, North Brunswick, NJ $9M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Construction Project Manager	7	25%	2015-Present	
Observer Highway Complete Streets Redesign Project, Hoboken, NJ $2.9M (Construction Cost)	Boswell Engineering	Construction Management & Inspection	Construction Project Manager/Resident Engineer	9	20%	2015-Present	
Traffic Signal Improvements to 8 Intersections, Harrison, Jersey City, North Bergen & Union City, NJ $1.2M (Construction Cost)	T&M Associates	Construction Management & Inspection	Construction Project Manager	12	20%	2014-2015	

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME **Steven Amos, PE**

TITLE Group Manager / Superintendent

FIRM T&M Associates

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTACT PERSON AND PHONE NUMBER
Marina Reconstruction, Atlantic Highlands, NJ $17.5M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Construction Project Manager	18	25%	2013-2014	
Atlantic City Expressway 3rd Lane Widening, NJ $15.4M (Construction Cost)	Parsons Brinkerhoff	Construction Administration & Inspection	Construction Project Manager	14	5%	2013-2014	
Laurel Hill Park, Secaucus, NJ $4.7M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Construction Project Manager	16	10%	2007-2008	
Observer Highway Complete Streets Redesign Project, Hoboken, NJ $2.9M (Construction Cost)	Boswell Engineering	Construction Management & Inspection	Construction Project Manager	8 - Present	5%	2015-Present	
Stelton Road Improvements, Piscataway, NJ $3.6M (Construction Cost)	T&M Associates	Construction Management & Inspection	Construction Project Manager	18	20%	2012-2014	

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME **Matthew Szkodny, NICET IV, SAT, ACI, TCC**

TITLE Superintendent / Inspector

FIRM T&M Associates

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Radford Ferry Road Construction, South Amboy, NJ $1.7M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Inspector	12	100%	2007	
Church Lane & Georges Road Improvements, North Brunswick, NJ $2.1M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Resident Inspector	12	100%	2005	
Stelton Road Improvements, Piscataway, NJ $3.6M (Construction Cost)	T&M Associates	Construction Management & Inspection	Resident Inspector	12	100%	2012-2013	
Observer Highway Complete Streets Redesign Project, Hoboken, NJ $2.7 (Construction Cost)	Boswell Engineering	Construction Management & Inspection	Resident Inspector	12	100%	2015-Present	
Improvements to South Washinton Ave, Piscataway, NJ $4.7M (Construction Cost)	T&M Associates	Construction Management & Inspection	Resident Inspector	12	100%	2010-2011	

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME **Jaclyn Flor, PE, PP**

TITLE Group Manager / Value Engineering

FIRM T&M Associates

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Sea Bright and Monmouth Beach Seawall Project, NJ $32M (Construction Cost)	T&M Associates	Design and Construction Services	Engineer of Record	24 Months / Ongoing	25%	2013-Present	
Six Bulkheads and New Pump Station, Sea Bright, NJ $1.4M (Construction Cost)	T&M Associates	Design and Construction Management	Engineer of Record	12 Months / Ongoing	5%	2014-Present	
Washington Street "Complete Streets" Redesign, Hoboken, NJ $24M (Construction Cost)	T&M Associates	Design and Construction Management	Principal in Charge	6 Months / Ongoing	25%	2015-Present	
Observer Highway Complete Streets Redesign Project, Hoboken, NJ $2.9M (Construction Cost)	Boswell Engineering	Construction Management & Inspection	Client Manager	6 Months / Ongoing	5%	2015-Present	
Canal Crossing, Jersey City, NJ $117M (Construction Cost)	T&M Associates	Design	Principal in Chargeg/ Project Manager	36 Months / Ongoing	2012 - 75% 2013 - 75% 2014 - 25% 2015 - 5%	2012-Present	

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME **Michael R. Regan, CCM**

TITLE CPM Scheduler

FIRM T&M Associates

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Cannon House Office Building Renewal. Washington, DC. $750M (Construction)	Shalom Baranes Associates	CM, CPM, Cost Estimating, Design Management, Constructability Analysis, Staging/Logistics Planning	Construction Program Executive	24	80%	3/2011-2/2013	
US Supreme Court Modernization Project; Washington, DC; $145M (Construction)	Hillier Architecture	CM, CPM Scheduling, Value Engineering, Claims Management and Analysis	Supreme Court Modernization Project Manager	46	100%	5/2007-3/2011	
Additional Dewatering Facilities; Washington, DC; $64M (Construction)	AECOM	CM, CPM Scheduling, Value Engineering, Systems Integration, Process Operations	Construction Management; Dispute Resolution	26	75%	3/2005-5/2007	
Motts Run Water Treatment Plant; Fredericksburg, VA; $25M (Construction)	Gannett Fleming	CM, CPM Scheduling, Delay Claim Development/ Analysis	CPM Scheduler	16	60%	5/1998-9/1999	
Ocean County Library Additions and Alterations, Toms River, NJ $18M (Construction)	Hillier Architecture	CM, CPM Scheduling, Value Engineering, Staging/ Phasing Planning, Constructability Analysis	Project Manager	16	100%	11/2003-3/2005	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME **Stephen Shallcross**

TITLE Division Manager / Claims Analysis

FIRM T&M Associates

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Van Schoick, Red Hill & Dwight Roads, Holmdel & Middletown, NJ $2.8M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Principal in Charge	11	25%	2007-2008	
Atlantic City Expressway 3rd Lane Widening, NJ $15.4M (Construction Cost)	Parsons Brinkerhoff	Construction Administration & Inspection	Principal in Charge	9	15%	2013-2014	
Franklin Street Flood Control Project, Union Township, NJ $2.1M (Construction Cost)	T&M Associates	Construction Administration & Inspection	Principal in Charge	14	25%	2002-2003	
Observer Highway Complete Streets Redesign Project, Hoboken, NJ $2.9M (Construction Cost)	Boswell Engineering	Construction Management & Inspection	Principal in Charge	7	20%	2015-Present	
Waterfront Park Superstorm Sandy Repairs Phases 1 & 2, Old Bridge, NJ $6.2M (Construction Cost)	T&M Associates	Construction Management & Inspection	Principal in Charge	12	15%	2013-2014	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME **Frank S. Buczek JR., PE**

TITLE Structures Group Manager / Code Compliance / DCA Coordination

FIRM T&M Associates

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (CM, CPM, COST ESTIMATING)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Storm Hardening Concept Studies, Various Locations, NY/NJ $1.7M (Construction Cost)	T&M Associates	Design	Structural Group Manager	19	20%	2013-2014	
Storm Hardening Design, Various Locations, NY $32M (Construction Cost)	T&M Associates	Design	Structural Group Manager	24	20%	2014-Present	
Belmar Pump Station Rehabilitation, NJ $2.3M (Construction Cost)	T&M Associates	Design	Lead Structural Engineer	7	25%	2014 - 2015	
American Dream (former Xanadu Meadowlands) Development, , NJ $2B (Construction Cost)	T&M Associates	Design and Construction Services	Lead Structural Engineer	24	20%	2008 - 2009	

* TECHNICAL AND MANAGEMENT STAFF LEVEL 5 AND ABOVE ARE DEFINED AS "KEY TEAM MEMBERS"

Envision Consultants

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Luke Van Wagenen

TITLE Scheduler

FIRM Envision Consultants, Ltd.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Mission First Housing Group, Bordentown Senior Housing Building Renovation and Construction, Bordentown, NJ (Cost: $6.4M)	Diamond Trade Group	CPM scheduling services	Luke Van Wagenen, Scheduler	12 months	15%	6/2015 – 6/2016	
Pennsylvania Convention Center, Roof Repair and Replacement, Philadelphia, PA (Cost: $12M)	EDA Contractors, Inc.	CPM scheduling services	Luke Van Wagenen, Scheduler	24 months	5%	5/2015 - 5/2017	
Jersey City Housing Authority, Catherine Todd Senior Living Center Construction, Jersey City, NJ (Cost: $22.5M)	Prestige Building Co.	CPM scheduling services	Luke Van Wagenen, Scheduler	18 months	10%	1/2015 - 6/2016	
Amtrak Accessible Stations Design Program (ASDP), Various Locations (Cost: $1.5M)	George Allen Construction Co.	CPM scheduling services	Luke Van Wagenen, Scheduler	12 months	15%	12/2014 - 2/2015	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Luke Van Wagenen

TITLE Scheduler

FIRM Envision Consultants, Ltd.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Gloucester County College, Adult Center for Transition and the Law & Justice Education Center Construction, Sewell, NJ (Cost: $4.9M)	Fasolino Contracting Corporation	CPM scheduling services	Luke Van Wagenen, Scheduler	14 months	10%	4/2014 - 6/2015	
PA Department of General Services, Harrisburg Capitol Complex	D. A. Nolt, Inc.	CPM scheduling services	Luke Van Wagenen, Scheduler	16 months	10%	8/2014 - 1/2016	
State of New Jersey, Department of the Treasury, Division of Property Management and Construction, New Jersey State House, Trenton, NJ (Cost: $5.5M)	Merrell & Garaguso	CPM scheduling services	Luke Van Wagenen, Scheduler	15 months	20%	5/2014 - 7/2015	

* A KEY TEAM MEMBER IS A TECHNICAL OR MANAGEMENT PERSON DEVOTING 20% OR MORE OF THEIR TIME TO ANY PHASE OF THE PROJECT

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Nicole Johnson

TITLE Senior Cost Estimator

FIRM Envision Consultants, Ltd.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Philadelphia Zoo, ADA Improvements Project, Philadelphia, PA (Cost: $400K)	McKissack & McKissack	Cost Estimating	Nicole Johnson, MBA, LEED AP	9 months	10%	12/2012 - 8/2013	
University of Pennsylvania ICA Roof Rail Protection, Philadelphia, PA ($40K)	McKissack & McKissack	Cost Estimating	Nicole Johnson, MBA, LEED AP	6 months	15%	12/2013- 5/2014	
Pennsylvania Department of General Services (PA DGS), Lincoln University New Learning Center, Lincoln University, PA ($28M)	McKissack & McKissack	Cost Estimating	Nicole Johnson, MBA, LEED AP	2 months	20%	7/2010 – 9/2010	
Rowan University, Rohrer College of Business Building Construction, Glassboro, NJ (Cost: $64M)	Joseph Jingoli & Son, Inc.	Cost Estimating	Nicole Johnson, MBA, LEED AP	18 months	20%	6/2015 - 1/2017	

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Nicole Johnson

TITLE Senior Cost Estimator

FIRM Envision Consultants, Ltd.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Lindley Court Apartments, Senior Housing Development (CM-At Risk), Philadelphia, PA (Cost: $10M)	WES Health	Cost Estimating	Nicole Johnson, MBA, LEED AP	35 months	5%	6/2012 - 5/2015	
PA Department of General Services, East Stroudsburg University	Hunter Roberts	Cost Estimating	Nicole Johnson, MBA, LEED AP	7 months	10%	9/2012 - 4/2013	
Temple University School of Podiatric Medicine Classroom 319, Philadelphia, PA (Cost $160K)	McKissack & McKissack	Cost Estimating	Nicole Johnson, MBA, LEED AP	4 months	10%	11/2013 - 2/2014	

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M & E Engineers

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Gerard Hazel, ASHRAE CPMP, LEED AP

TITLE Commissioning Authority

FIRM M&E Engineers

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
NJ Turnpike Authority Facilities Imprv Program Various Locations, NJ $500M Program	Hill International	Commissioning	Commissioning Agent	17	30	2012 - Present	
School Development Authority 14 Sylvan Way Bridgeton, NJ $105,000 - Fee	M&E Engineers	Commissioning	Commissioning Agent	24	20	2013 - Present	
NJ Turnpike Authority Police Barracks (4) Various Locations, NJ $50M	Gannett Fleming	Commissioning	Commissioning Agent	20	25	2010 - Present	
NJ Turnpike Authority Interchange 14A Jersey City, NJ $350,000 - Fee	Gannett Fleming	Commissioning	Commissioning Agent	10	20	2014 - Present	
Realogy Headquarters Building Madison, NJ $29,500 - Fee	M&E Engineers	Commissioning; Energy Modeling	Commissioning Agent	16	20	2012 - 2013	
Bloomfield College Resdience Hall Bloomfield, NJ $32,320 - Fee	M&E Engineers	Commissioning; Energy Modeling	Commissioning Agent	15	20	2012 - 2015	
Wyndham Worldwide 22 Sylvan Way Parsippany, NJ $35,500 - Fee	M&E Engineers	Commissioning; LEED Consulting	Commissioning Agent	17	20	2012 - 2014	

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AmerCom Corp.

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Ralph Rios, P.E.

TITLE Geotechnical Engineering Task Leader

FIRM AmerCom Corporation

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Route 3 / Route 46 & Valley Road Interchange Clifton, N.J.	Stantec	Geotechnical	Geotechnical Task Leader	24	20%	2007-2015	
GSP OPS 3243 30-63 Widening Program Management	Atkins	Geotechnical	Geotechnical Task Leader	48	20%	2009-2013	
Bernardsville Pedestrian Bridge Replacement Bernardsville, N.J.	RBA Group	Geotechnical	Geotechnical Task Leader	1	20%	2012	
Garden State Parkway Widening MP75.0-80.8 Contract 200.044	RBA Group	Geotechnical	Geotechnical Task Leader	48	15%	2006-2012	

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2. CMF Experience on Contracts / Projects of a Similar Size and Nature

HAKS is a multi-disciplined construction management, engineering, architecture, land surveying and material testing firm serving public and private clients since 1991. We offer a comprehensive range of high quality services in the infrastructure, transportation, buildings and facilities, environmental, utilities, security and asset management markets. HAKS delivers these services through the combined efforts of over 600 professional, support and administrative staff members. We have established a distinguished performance record founded on management skills; experienced and highly capable professional staff; understanding and anticipating client needs; completing all assignments efficiently, within budget and on time; planning and implementing quality assurance/quality control for every project; and managing resources in the client's best interests.

HAKS has extensive Construction Management experience having managed major infrastructure projects related to transportation and water resources. This experience demonstrates both design expertise and construction management/inspection expertise on major facilities programs for the NJ Turnpike Authority, demolition projects for the NJ DPMC, and dam rehabilitation projects throughout New Jersey and in New York. The combination of both design and CM/CI expertise provides resources fully able to understand the issues associated with complex projects such as the winning Rebuild by Design projects in New Jersey; the New Meadowlands, Productive City + Regional Park; and the Hudson River Project. Using our expertise we develop solutions that respond to unanticipated conditions as they arise; ensuring adherence to client requirements and protection of existing assets and infrastructure.

This Team also brings with it extensive experience managing flood repairs and related rehabilitation work resulting from the aftermath of Superstorm Sandy.

The projects that follow, including those of the subconsultants listed below, demonstrate extensive, and directly relevant, experience in managing the type of work that will be required on this Contract. These projects further demonstrate our experience in the effective coordination and management of multiple Prime Contractors and the site logistics of construction; our previous experience with public clients; implementation of our QA/QC and Safety Programs.

Additional members of the HAKS Team also bring directly relevant experience. As required, they are all prequalified with the DPMC in the necessary disciplines to fulfill their respective tasks.

- T&M is a well-known firm headquartered in Middletown, NJ with over 400 professionals. It has an established practice that includes the full range of storm recovery and resiliency solutions, from preparedness planning and resiliency implementation to funding, response and rebuilding support. The firm was instrumental in helping rebuild more than 30 communities impacted by Superstorm Sandy. In addition, the firm offers owners an expert construction management partner who will successfully navigate projects from concept through completion on-time and within budget. It also offers a team of construction professionals that provides dependable, attentive construction administration, inspection and project representation services for roads, bridges, parks, linear construction, bulkheads/marinas, buildings and development projects. Particularly relevant to this Contract is T&M's work in the City of Hoboken where they have provided various consulting engineering and construction management services.

- The RBA Group, headquartered Morristown, NJ, provides engineering and environmental services and has worked on various projects throughout New Jersey that are relevant to this Contract including work at the Greystone Park Psychiatric Hospital for the NJDPMC, and various environmental, flood studies and drainage improvements for various state agencies including the NJDEP and the NJDOT.

- Envision is an established woman-owned small disadvantaged business headquartered in southern New Jersey. The firm provides professional project and construction management services to state and local agencies for a widely diverse portfolio of projects. Envision has successfully worked as a subconsultant on design, construction, and program management teams, as well as with a variety of contractors. The firm has a diversified outlook by working within all aspects of a project lifecycle. Locally, services have included developing the master schedule, schedule updates, monitoring project schedule and cost claims avoidance, time impact analysis, cost estimating, document control, and public involvement. Directly relevant projects are shown on the project pages included in this section.

- AmerCom, also an established SBE firm, headquartered in Parsippany, NJ, brings their expertise in geotechnical and construction inspection services to the team. Their relevant work includes drainage improvements to various locations in the State for the NJDOT, emergency repair services to local municipalities, and construction inspection services for the NJDOT, the NJTA and many local County and Municipalities.

- M&E Engineering provides a full range of engineering, design, and advisory services for electrical, plumbing, and fire protection systems, and specializes in Commissioning services. Their successful practice comes from their understanding of project requirements and regulatory requirements, and with the common goal of achieving occupant wellbeing. The firm is experienced in dealing with the NJ DCA on projects throughout the State and brings this experience to this Contract should it be required.

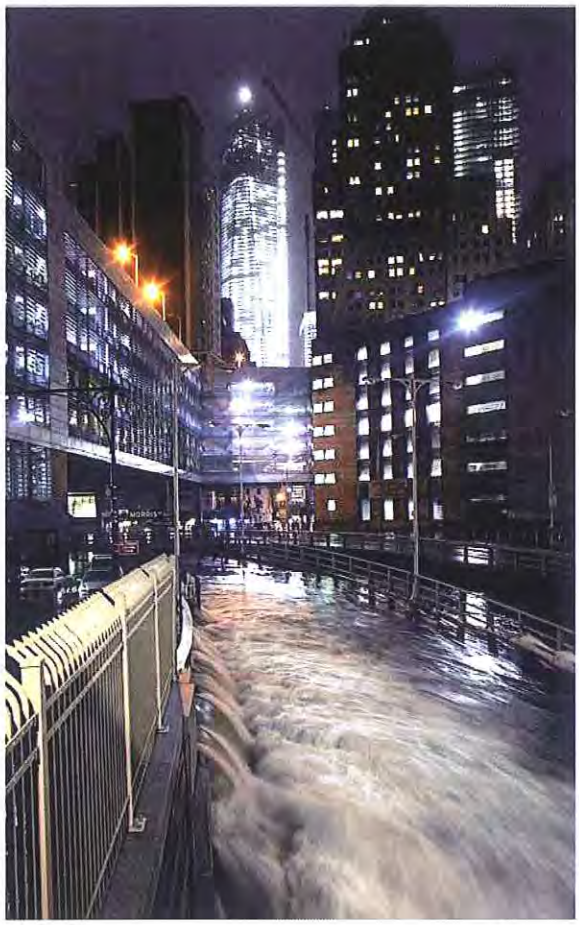
The following detailed project descriptions clearly present the wide range of experience that HAKS and our teaming partners have with projects of similar size and nature to those that may be performed under this Contract. Particularly relevant are those that were carried out during the aftermath of Superstorm Sandy, both as emergency response and for remediation. Moreover, the size of our team, comprised of over 1000 locally based professional staff, provides the NJ DPMC the assurance that we can respond quickly and efficiently to any Work Order that may be issued under this Contract.

HAKS

HUGH L. CAREY TUNNEL SUPERSTORM SANDY RESTORATION AND MITIGATION/TUNNEL AND BROOKLYN PLAZA REHABILITATION

Manhattan/Brooklyn, New York

The Hugh L. Carey Tunnel crosses under the East River, connecting Manhattan and Brooklyn via 18,235-foot-long twin tubes, making it the longest continuous underwater vehicular tunnel in North America. As part of its long-term plan to cope with extreme weather conditions, and to guarantee a reliable transportation system, MTA Bridges and Tunnels initiated the Superstorm Sandy Restoration and Mitigation and Rehabilitation of the Hugh L. Carey Tunnel and Brooklyn Plaza. HAKS is providing Construction Management services for this massive $350 million, six-year restoration and rehabilitation project.



Our services include preconstruction (constructability and biddability review); construction administration, inspection, testing and specialty CPM services; independent confirmatory inspections and testing; and post-construction, including project close-out. Prior to pre-construction, HAKS conducted a Constructability and Biddability assessment of electrical, mechanical, plumbing, civil, environmental, structural, surveying, traffic and fiber optic cabling work. This entailed a review of the latest drawings, specifications, project schedule and other supporting documents for all three contracts and provided comments. HAKS is ensuring that critical systems such as ventilation, communications, traffic, lighting, fire and drainage are maintained and is providing construction oversight, including MPT, to ensure safe and uninterrupted tunnel operations for the duration of the project.

Key project features include:

- Repairs to the concrete liner and roadway ceiling slab and air ducts
- Replacement of tunnel finishes, low-tension duct bank, lighting, E-box, traffic control, communication, CCTV, fiber optics and fire line
- Rehabilitation/replacement of the cathodic protection and pumping systems
- Temporary construction to ensure uninterrupted tunnel operations during construction
- Plaza rehabilitation, including structural slabs and subsurface, expansion joints, curbs, gutters and restoration of the plaza roadway
- Lead and asbestos abatement
- Maintenance and protection of traffic

Challenges include minimizing tunnel and/or lane closings in this heavily trafficked area and giving motorists advance notice of such changes.

OWNER
MTA Bridges and Tunnels

COMPLETION DATE
2020

CONSTRUCTION COST
$350 million

REFERENCE

ST. GEORGE TERMINAL INTERLOCKING SANDY REPAIRS

Staten Island, New York

The St. George Terminal in Staten Island is a park-and-ride and sea, railway and bus transit center located on the northernmost end of the Staten Island Railway. The Staten Island Ferry operates between the St. George Terminal and Whitehall Terminal in Lower Manhattan. Flooding from Hurricane Sandy caused irreparable damage to switches, cables and wiring of the existing interlocking area, which consists of 17 switches and 12 operating tracks.

HAKS is a vital member of the construction management team providing services to New York City Transit (NYCT) to restore vital flood-damaged signal systems of the St. George Terminal yard and interlocking. The three-year, $85 million project includes modernization and replacement of the St. George interlocking signal system; removal of existing track and ballast; installation of new ballast and track and a new traction power system; and drainage and site work.

HAKS will be specifically responsible for conformance to Sandy audit requirements; utilization of Constructware software as a project management tool; overseeing monitoring of noise, vibration and air and water quality; and coordination of material testing, including off-site testing by an independent entity. Upon construction completion, HAKS will acquire as-built drawings and documentation for review and approval.

HAKS is providing the constructability review with a focus on site access, working space and materials storage; sequence of operations; logistics and handling; specification tolerances; vulnerability of materials; and environmental and safety considerations. Environmental protection and safety will focus on removal of hazardous materials and protocols for access and protection of NYCT assets.

The project team will monitor occupancy and acceptance procedures to ensure a smooth transition from construction to occupancy and use of the facility.





OWNER
New York City Transit

COMPLETION DATE
2017

CONSTRUCTION COST
$85million

REFERENCE

POST-HURRICANE SANDY EMERGENCY CM SERVICES CONEY ISLAND, RED HOOK (EAST & WEST) AND MARINERS HARBOR PUBLIC HOUSING DEVELOPMENTS FOR THE NEW YORK CITY HOUSING AUTHORITY (NYCHA)

HAKS responded to Hurricane Sandy under its contract with NYCHA to provide CM oversight of emergency services for public housing developments in Coney Island and Red Hook (East and West), Brooklyn, and in Mariners Harbor, Staten Island.

In Coney Island and Red Hook since the storm, some of the most battered parts of New York City, HAKS has been managing the work of about 10 contractors with approximately 150 skilled trades and laborers working two 12-hour shifts on a 24/7 schedule. HAKS managed all mechanical, electrical and plumbing (MEP) work for the installation of temporary boilers and generators, and for the emergency replacement of damaged electrical equipment and water pumps to restore water to affected buildings. HAKS' quick response to Hurricane Sandy returned power, heat and hot water to 44 buildings in Coney Island and 28 buildings in Red Hook within three weeks of the storm. HAKS is maintaining these emergency systems installations and overseeing clean-up operations in its ongoing work at both these public housing developments. Additionally, HAKS is providing condition assessments of buildings for short- and long-range restoration.

In Mariners Harbor, HAKS is managing cleaning and restoration services for 22 NYCHA public housing development buildings.



OWNER
NYCHA

COMPLETION DATE
Ongoing

CONSTRUCTION COST
$4.6 million

REFERENCE

POST-HURRICANE SANDY EMERGENCY CM SERVICES P.S. 52, I.S. 2 AND P.S. 38, STATEN ISLAND, NY P.S. 61 AND P.S. 112, MANHATTAN, NY FOR THE NEW YORK CITY SCHOOL CONSTRUCTION

Immediately following Hurricane Sandy, HAKS responded to the NYCSCA's request for emergency CM support to remediate severe damage to schools in Staten Island and Manhattan.

HAKS dispatched personnel within two hours to P.S. 52, South Beach, and I.S. 2, Midland Beach, both hard-hit areas in Staten Island, and to P.S. 61 and P.S. 112, Manhattan.

Both Staten Island schools were in Zone A areas and flooded, sustaining severe damage to their electrical systems and boiler plants. HAKS assessed the damage, managed the cleaning of the basements, and had emergency generators and temporary boiler systems installed. HAKS' contractors worked mostly around the clock to finish the MEP work required to bring power and heat back, restoring these services in both schools within three weeks. New electrical panels were installed in both buildings, and Con Edison electrical service was returned to the schools.

In Manhattan, P.S. 112, in Zone B of East Harlem near the RFK Bridge, flooded with 8-10 feet of water that submerged the basement and boiler pit located 10 feet below basement grade. School staff pumped out the water, but the boiler plant and associated electrical equipment were damaged and inoperable. HAKS contractors had a temporary boiler system installed and restored heat after completion of MEP work, six days after the temporary boiler and fuel tank delivery.

The basement of P.S. 61, in Zone A of the East Village, was filled with six to eight feet of water. HAKS oversaw the rapid work of contractors who completed pumping out the basement and cleaning the site in 36 hours.

Additionally, temporary classroom unit (TCU) trailers at P.S. 38, Midland Beach, were flooded, requiring some demolition work, replacement of floors, ceiling tiles and walls, as well as electrical work and other interior repairs.



OWNER
NYCSA

COMPLETION DATE
Ongoing

CONSTRUCTION COST
Approc. $1.6 million

REFERENCE

GILBOA DAM RECONSTRUCTION

Schoharie County, New York



A HAKS-led joint venture is providing Construction Management services for the reconstruction of the Gilboa Dam—the firm's largest construction management project to date. Constructed in 1927, the Gilboa gravity and embankment dam consists of a massive 155-foot-high by 1,326-foot-long stair-stepped spillway constructed with a 3- to 5-foot-thick masonry façade of mortared quarried stone blocks. The dam impounds the 5-mile Schoharie Reservoir in upstate New York, which provides 16% of New York City's water supply. The reservoir and dam form part of the Catskill Water Supply System, which provides 40% of the city's water. A 2005 inspection found that the facing on the dam had been damaged by freeze/thaw cycles and the mechanical components needed repair and updating.

In order to extend the life of the dam another 100 years, bring it into compliance with New York State Department of Environmental Conservation safety standards and protect downstream residents from flooding, New York City Department of Environmental Protection (NYCDEP) initiated a $400 million reconstruction project. NYCDEP initially undertook emergency stabilization work to strengthen the dam, and interim improvements were completed in 2006.

Phase 3 of this massive undertaking, the Reconstruction of the Gilboa Dam, has been completed two years ahead of schedule in spite of $18 million in damage and an eight-month delay caused by Hurricane Irene. The $140 million dam reconstruction phase, which began in 2011, adds up to 12 feet of mass concrete to the face of the dam and required approximately 120,000 cubic yards of concrete. The project team completed reconstruction of the spillway control section, removed and reconstructed the spillway channel and plunge pool, installed a new under-drain system, modified and repaired the existing spillway training walls, modified the existing upstream embankment slope to meet current stability requirements, placed earthfill on the crest of the embankment section to create a level and uniform surface, refurbished the upper gate chamber and made further improvements to the instrumentation and surveillance system. Two 6-foot-diameter temporary siphons were installed to enable NYCDEP to draw down water levels in the reservoir for snowpack mitigation and support project

OWNER
NYCDEP

COMPLETION DATE
2022

CONSTRUCTION COST
$400 Million

REFERENCE

NJTA FACILITIES IMPROVEMENT PROGRAM
NEW JERSEY TURNPIKE & GARDEN STATE PARKWAY

New Jersey

HAKS is a member of the construction management team providing construction management/inspection services to the New Jersey Turnpike Authority (NJTA) in support of its five-year, $500 million Facilities Improvement Program.

The objective of the program is to bring the Authority's facilities on the New Jersey Turnpike and the Garden State Parkway, many of which are as old as 60 years, into a state of good repair. This portion of the program focuses on the NJTA's maintenance facilities, salt storage buildings, and state police barracks and supports construction of facilities that will service NJTA roadways for the next 50 years.

HAKS will be providing resident engineering inspection services, office engineering support and program management personnel for the various maintenance district facilities and providing transition liaison services for contractors new to the NJTA.

HAKS is involved with the following facilities:

- PEMB Telegraph Hill
- PMD4 Herbertsville
- PMD5 Telegraph Hill
- PMD6 Clark
- BMVF Bloomfield Motor Vehicle Facility
- TMD1 Swedesboro
- TMD3 Crosswicks
- TMD5 Milltown
- TMD6 Elizabeth
- TMD9 Jersey City



Herbertsville PMD 4



Telegraph Hill Pre-Engineered Building



Bloomfield MVF

OWNER
New Jersey Turnpike Authority

COMPLETION DATE
March 2018

CONSTRUCTION COST
$5.3 million

REFERENCE
John Keller, Deputy Chief Engineer (732) 750-5300

CONSTRUCTION MANAGEMENT SERVICES FOR THE DEMOLITION AND SITE RESTORATION OF FORMER MARLBORO PSYCHIATRIC HOSPITAL

MARLBORO, MONMOUTH COUNTY NEW JERSEY





HAKS is currently providing complete Construction Management Services as a sub consultant to Hatch Mott McDonald for the New Jersey DPMC. HAKS is providing oversight of the contractor and providing coordination between the design team members during the construction phase of the project. This project involves the complete demolition of over 90 buildings and structures including underground tunnels totaling over 1.14 million square feet. The facility was opened in 1931 and has been vacant since 1998 and is over 400 acres in size. The ultimate finished project will allow the State of New Jersey to transfer the property to the County of Monmouth. Many of the structures and tunnels that are scheduled for demolition have various types of hazardous material which requires remediation and removal prior to the razing of the buildings. The project also involves the coordination of numerous utility abandonments and relocations. Several utilities are required to remain active to keep the existing treatment facility located across Conover Road active during the demolition activities. Various utilities such as Gas, Water, Sanitary Sewer and Electric require extensive coordination and permitting efforts to allow for the safe removal of the structures and associated infrastructure.

HAKS is performing the following tasks on a daily, weekly and/or monthly basis while overseeing the construction activities:

- Coordination of Scheduling and schedule compliance
- Conducting regular bi-weekly progress meetings with agenda and minutes preparations
- Coordination the submittal log to assure quick turn around on RFI's
- Conducting daily site inspections to assure compliance with the contract documents and review payments
- Conducting various meetings with stakeholders, utility companies and the design group
- Reviewing and tracking multiple NJDCA permits to assure continuous operations occur without delay
- Reviewing contractor quantities and approving of all invoices
- Processing all change order requests

OWNER
New Jersey DPMC

COMPLETION DATE
July 2015

CONSTRUCTION COST
$45 million

REFERENCE

DESIGN AND CONSTRUCTION MANAGEMENT SERVICES FOR DIAMOND MILL POND DAM, MILLBURN TOWNSHIP

ESSEX COUNTY, NJ





The Diamond Mill Pond Dam is located within the South Mountain Reservation in Millburn Township, Essex County, along a tributary of the West Branch of the Rahway River drainage basin where it impounds Diamond Mill Pond. The pond impoundment area is approximately 3.5 acres at the normal pool level. The primary use of the pond is recreational.

HAKS was selected by the Essex County Parks Department (Department of Public Works) to perform a structural/ stability analysis of the dam, to prepare a design for rehabilitating the structure, to obtain all necessary permits, and inspect and manage the construction. In preparation for assessing the hydraulics of the dam, we visually inspected the upstream areas that contribute flow at the dam. We then examined USGS quadrangle topography maps to determine the watershed of Diamond Mill Pond Dam and outline the contributory drainage areas. We were then able to estimate flows into the dam and to establish a design flow.

Based on our assessment of the various hydraulic structures and structural requirements, we decided to retain the existing 100-foot brick/mortar spillway in the rehabilitated structure but design repairs to it. The design called for replacing the existing low-level outlet, and for adding a new, 100-foot-long secondary emergency spillway with articulated concrete block armoring. In addition, our design met the various environmental permitting requirements, including the protection of the Freshwater Wetlands near the dam.

HAKS' design of the dam rehabilitation would enable the structure to pass the design flows and provide adequate freeboard while doing so, as required by the NJDEP. This requirement condition was not met previously, which resulted in major erosion of the upstream and downstream slopes, and a constant problem for the dam owner after every major storm.

OWNER
Essex County Parks Dept.

COMPLETION DATE
Spring 2010

CONSTRUCTION COST
$1,500,000

REFERENCE

CONSTRUCTION MANAGEMENT SERVICES FOR THE REHABILITATION OF VERONA LAKE DAM\

ESSEX COUNTY, NJ





HAKS provided construction management services for Verona Lake Dam, located in Verona Park on the Peckman River in Essex County, New Jersey. In accordance with NJDEP, the Verona Lake Dam has been classified as a High Hazard Class 1 structure. Verona Park is a 54.32-acre, picturesque park with a lake bordered by Lakeside and Bloomfield Avenues in the southern part of Verona. This is the fifth largest park within the Essex County Parks system.

The dam is a 79 year old masonry structure which crosses the Peckman River and holds back water to form the Verona Park Lake which has a normal surface area of 13 acres. The scope of the rehabilitation project included repairing leaks on the face of the dam and the spillway, removing all vegetative growth from the dam, repairing cracked concrete and caps on the spillway, extending the wing walls, repairing the flood control wall, stabilizing the banks around the spillway with a concrete armor block system to protect overtopping from the NJDEP Dam Safety design storm and replacing an existing fence.

HAKS provided onsite inspections and monitoring of construction. HAKS was in charge of reviewing plans & specifications, contractor's submittals, design changes, analyzing and updating construction schedules and preparation of inspection reports. HAKS provided NJDEP Dam Safety with all documentation based on their criteria.

OWNER
Essex County Parks Dept.

COMPLETION DATE
2008

CONSTRUCTION COST
$740,000

REFERENCE

The RBA Group

GREYSTONE PARK PSYCHIATRIC HOSPITAL
REMEDIAL INVESTIGATIONS/REMEDIAL ACTIONS

Project Name: Greystone Park Psychiatric Hospital

Location: Morris Plains, NJ

Client: State Treasury-Division of Property Management and Construction (DPMC)





Services

EDR Database Search

Historical Topographical/ Aerial Map Reviews

Site Reconnaissance

Collection of Soil/ Sediment/Surface Water/ Groundwater Samples

Site & Remedial Investigations

Development of Ecological Sediment Screening Standards

Development of Alternative Soil Remediation Standards

Monitoring Well Installations

Contractor Specifications & Drawings

Landfill Site Investigations





Description of Project: The RBA Group conducted a remedial investigation for over 100 AOCs. Soil, sediment, surface water, and groundwater were investigated at the project site. This included the collection of 1,300 soil samples and 100 concrete samples. Fourteen (14) monitoring wells were installed and sampled to assess groundwater conditions. AOCs included the following: a tank farm; two (2) landfills; a waste water treatment plant; creeks; railroad tracks; and sludge drying beds. Alternative Soil Remediation Standards were developed for the entire project site for a passive recreational park. Prepared Contractor Specifications & Drawings for remediation of site-wide contamination.

RBA's Services Included:

Preliminary Assessment/Site & Remedial Investigations/ Development of Alternative Soil Remediation Standards

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BLUE ACRES PROGRAM HAZARDOUS MATERIALS ASSESSMENT - 12 PROPERTIES (NOVEMBER 2014)

Project Name: Hazardous Materials Assessment

Location: : New Jersey Department of Environmental Protection, Blue Acres Program, Sayreville, NJ

Client: New Jersey Department of Property Management and Construction (NJ DPMC)



Services

Asbestos Inspection, Sample Collection and Inventory

Regulatory Compliance

Bid Administration

Plans and Specification Design

Developed Construction Cost Estimates

Project Coordination and Construction Administration

Construction Oversight

Asbestos Assessment Final Report







Description of Project: The RBA Group conducted 12 residential hazardous materials assessments, which included asbestos containing materials survey, sample collection/ material cataloguing, and remedial design as a precursor to demolition of acquired residential properties. Inspections were completed within the designated timeframe under NJ DPMC Work Order in November 2014. The Hazardous Materials Assessment was conducted in close coordination with on-site client representatives and with a focus on cost factors that could arise during the environmental remediation phase of the project prior to demolition. Limited destructive sampling and partial demolition of existing building systems was employed to develop an accurate sampling plan based on the cross section of properties acquired under the program. The RBA Group developed site assessment plans to address damage to structures that included water intrusion and damage from flood events. A variety of out buildings were included as a part of this assessment and were assessed and inventoried with the same guidelines and procedures. Prepared abatement specifications, plans, and construction cost estimates. Reviewed submittal packages and prepared Assessment Reports and the Final Report. Assisted the NJ DPMC in bid and contract procurement and modifications to project documents with an emphasis on cost effectiveness and construction process. Provided QA/QC in coordination with NJ DPMC during the hazardous materials abatement and demolition process. This is a projected 3-Year Contract addressing flood prone at risk properties in municipalities throughout Central and Northern New Jersey.

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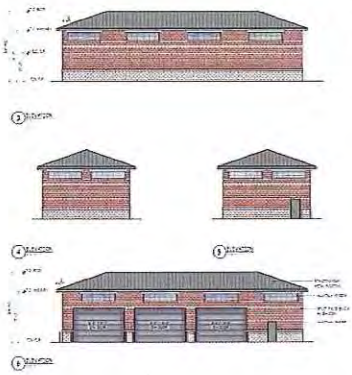
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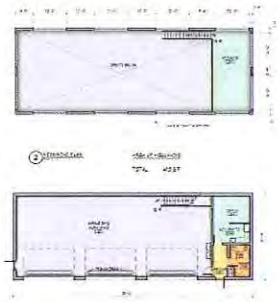
BELLE MEAD GSA DEPOT PHASE 1 PARK DEVELOPMENT PROJECT

Project Name: Belle Mead GSA Depot

Location: Hillsborough Township, Somerset County, NJ

Client: Somerset County





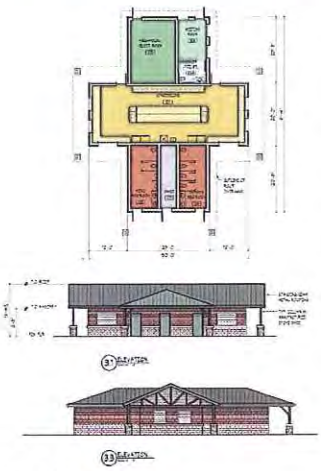


Services

Landscape Architecture
Survey/Base Mapping
Environmental Permits
Architectural Design
Construction Permits/ Documents







Description of Project: In 2009, RBA was hired as the lead consultant to develop a master plan for 369 acres of the Belle Mead Depot as a future park. The resulting master plan, completed in spring of 2011, included among other recommendations a long range phasing for the development of the park consisting of eight phases. In 2013, The RBA Group was subsequently hired to provide professional Engineering, Landscape Architectural, Environmental and Architectural design services to develope Phase 1 (± 88 acres) of the master plan. Phase 1 of the master plan included various elements of a public park such as a new park entrance road, (6) natural grass ballfields, a synthetic turf ballfield, a restroom/concession building, (2) park picnic shelters, a playground, a ballfield storage/maintenance shed, and parking.

The following documents, maps and drawings were prepared:

- *Geotechnical Investigation & Base Mapping*
- *Preliminary & Final Design Documents*
- *Permits*
- *Construction Documents & Bidding Phase*
- *Construction Support Services*

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ASSUNPINK CREEK AND POND RUN FLOOD STUDY

Project Name: Assunpink Creek and Pond Run Flood Study

Location: City of Trenton, Mercer County, NJ

Client: New Jersey Department of Transportation

Services

Hydrology & Hydraulics

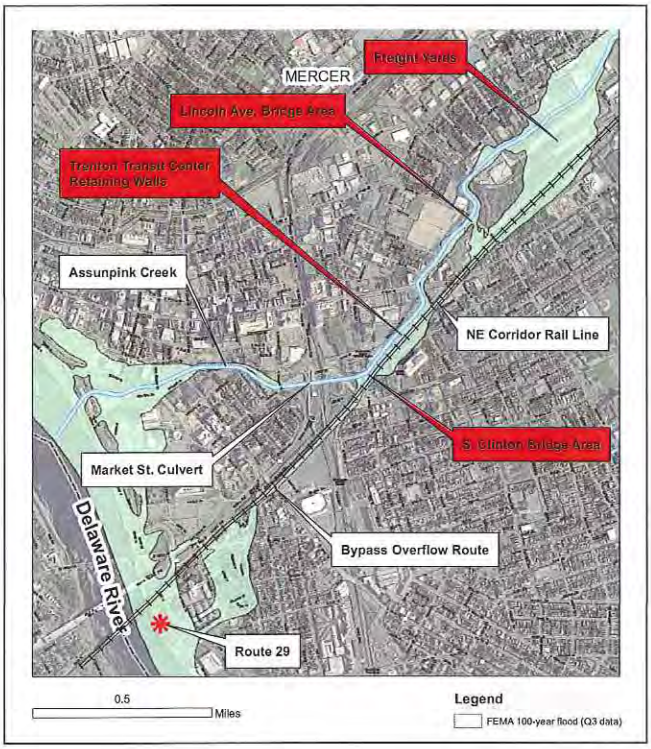
Flood Mapping & Mitigation

Engineering Design

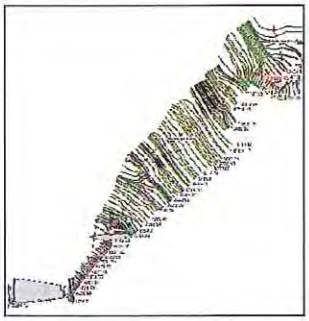
Surveying











Description of Project: In August 2011, the effects of Hurricane Irene resulted in major flooding of New Jersey Department of Transportation (NJDOT)'s Route 29, causing closures in both directions in addition to flooding of the lower City of Trenton. While the source of flooding in this region is frequently attributable to the adjacent Delaware River, floodwaters from the Delaware River did not inundate Route 29 during Hurricane Irene. During extreme events, the Northeast Corridor rail line conveys diverted discharge from the Assunpink Creek at several overtopping locations along the Assunpink Creek floodplain's drainage divide, in which the bypassed floodwaters are conveyed by the rail corridor, through several streets, ultimately impacting Route 29. The Assunpink Creek has a contributing drainage area of approximately 92 square miles and traverses through the City of Trenton to its confluence with the Delaware River located further northwest of the reported flooding location. The RBA Group, Inc. was retained by NJDOT to perform a comprehensive flood study in order to evaluate and assess flood conditions and to evaluate flood mitigation alternatives.

The following highlights key tasks performed by RBA:

- ***Data Collection*** *– RBA collected extensive hydrologic data from USGS gages and FEMA/State data to generate peak flowrates for flood recurrence intervals. RBA extensively evaluated the stream hydrograph recorded during Hurricane Irene to understand the magnitude of flooding and performed frequency analysis to estimate the flood recurrence interval that occurred during the extreme event.*
- ***Developed detailed Existing Conditions Hydraulic Analysis*** *– RBA developed a detailed existing conditions HEC-RAS model of the lower Assunpink Creek and lower Pond Run including 27 major bridges/culverts. Critical overtopping locations were investigated and subsequently modeled in HEC-RAS as lateral weirs to account for the diverted discharge occurring at multiple locations and to quantify the discharge leaving the Assunpink Creek.*
- ***Developed detailed Conceptual Alternatives Hydraulic Analysis & Design*** *– Flood Mitigation alternatives considered included levee/detention/containment, dredging/channel improvement, hydraulic improvements and strategically located bypass culverts. Detailed HEC-RAS models and Conceptual Design Plans were developed for the various flood mitigation alternatives.*
- ***Floodplain Mapping*** *– RBA developed detailed floodplain mapping utilizing advanced 3D mapping technology and techniques to accurately delineate the floodplain. Floodplain mapping was developed to compare and quantify the benefits and impacts.*

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ROUTE 35 RESTORATION - DRAINAGE & PAVEMENT IMPROVEMENTS



Project Name: Route 35 Restoration - Drainage & Pavement Improvements

Location: Townships of Toms River, & Brick Boroughs of Lavallette, & Mantoloking

Client: New Jersey Department of Transportation





Services

Survey & Mapping
Environmental Studies
Environmental Permitting
Highway Engineering
Traffic Engineering
Traffic Signal Design
Structural Engineering
Coastal Engineering
Drainage Design
Wetland Mitigation
Utility Design & Coordination
Community Involvement
Cultural Resources





Description of Project: In response to extensive damage caused by Hurricane Sandy to the Rt.35 corridor, the NJDOT hired RBA to complete final design documents for reconstruction of Rt.35 from MP 4.0 to MP 9.0 in the NJ shore communities of Lavallette, Mantoloking, Toms River and Brick. The project involved full-depth pavement replacement, drainage outfalls and check valves to prevent tidal or storm surge backflow, shoreline stabilization, pedestrian improvements, Complete Streets features, such as sidewalks, enhanced crosswalks, and Americans with Disabilities Act (ADA)-compliant ramps, utility relocation/ adjustments. Detailed services included survey and mapping, geotechnical, highway and structural design, coastal environmental permitting, mitigation design, landscape design, drainage design, ROW plans, traffic signal and electrical plans, maintenance and protection of traffic plans, utility design and coordination and construction cost estimates.

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PASSAIC RIVER BASIN FLOOD CONTROL STUDY

Project Name: Passaic River Basin Flood Control Study

Location: New York & New Jersey

Client: U.S. Army Corps of Engineers, New York District

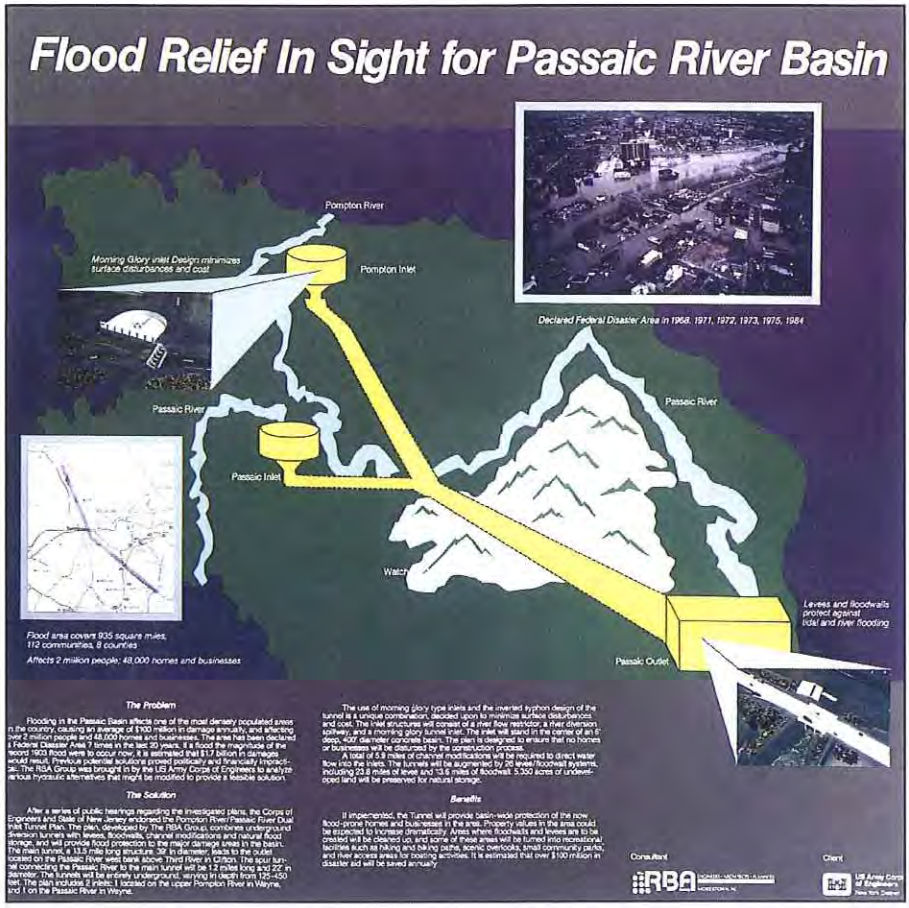
Services

Hydraulic Design

Flood Control Study

Cost Analysis

Alternatives Analysis



Description of Project: The RBA Group prepared the initial hydraulic models for over 100 miles of the Passaic River and major tributaries to predict existing condition flood levels and the increased levels that can be expected with future development in the basin. Conceptual designs were also developed to determine the hydraulic effect of various flood control improvements. Also included were evaluation of a tidal barrier across the Passaic River near Kearny Point, levee/floodwall plans (with the necessary ponding and pumping facilities) to separate the rivers from the areas flooded, and channel dredging and realignment schemes. The hydraulic design and flood reduction effects of floodwater diversion tunnels as long as seven miles was evaluated to bypass critical damaged areas by diverting floodwaters to Newark Bay. Each plan was analyzed and costed to allow for detailed benefit/cost analyses to be performed in evaluating and selecting the best alternative plan.

NJDOT MULTI-YEAR TASK ORDER CONTRACTS FOR HYDROLOGIC & HYDRAULIC SERVICES



Project Name: Four (4) NJDOT Multi-Year (2000-2001, 2002-2004, 2005-2008 & 2011-2014)Task Order Contracts for Hydrologic and Hydraulic Services

Location: Statewide, NJ

Client: New Jersey Department of Transportation



Services

Hydrology & Hydraulics

Environmental Permitting

Drainage Design

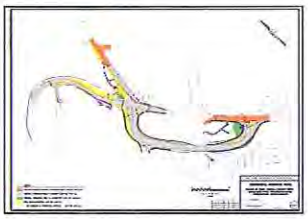
Stormwater Management

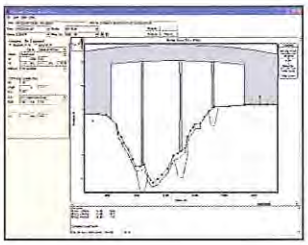
Flood Mapping & Mitigation

Construction Document Preparation

Surveying

Community Outreach





Description of Project: The RBA Group performed various hydrologic and hydraulic services from project scoping, through preliminary & final design under four consecutive multi-year task order contracts for NJDOT involving the provision of. RBA developed flood mapping for numerous watercourses throughout the State in association with transportation improvement projects. RBA also performed the study and design of stormwater collection and control facilities; design of drainage piping systems for capacity and inlet spread; and water quantity and quality facilities, (i.e. extended detention basins, recharge basins/swales, stormwater wetlands, wet ponds, grass-lined swales, sand filter chambers and other certified treatment devices), complying with local, state, and federal/ FHWA standards. Work involved detailed hydrologic and hydraulic studies for bridge and culvert replacements (HEC-RAS software) for scour analysis and regulatory compliance, hydrologic analysis for intersection improvements and associated highway design elements, investigation of innovative stream stabilization measures, groundwater mounding analyses (MODFLOW) for infiltration basins; and preparation of Flood Hazard Area Permit Applications, Freshwater Wetlands, and Pinelands Approvals. Tasks also included preparation of final design and construction documents, including plans, specifications, and estimates.

Assignments included:

- *Route 34 & CR 537 Intersection Improvements Colts Neck Township, Monmouth County*
- *Route 46 & New Road Intersection Improvements Montville Township, Morris County*
- *I-95 & Route 31 Intersection Improvements Hopewell & Ewing Townships, Mercer County*
- *Route 9 & CR 524 Intersection Improvements Freehold Township, Monmouth County*
- *Route 202 Drainage Improvements Bernardsville & Far Hills, Somerset County*
- *Route 23 Park & Ride Facility, Wayne Township, Passaic County*
- *Route 72 Basin Feasibility Study, Stafford Township, Ocean County*
- *Route 9 & County Route 524 Stream Encroachment Permit, Freehold Township, Monmouth County*
- *Route 46 Park & Ride Facility, Parsippany-Troy Hills, Morris County*
- *Route 130 Over Mae Brook Bridge Replacement, Montville Township, Morris County*
- *Route 206 Flood Mitigation & Streambank Stabilization Project, Princeton Township, Mercer County*
- *Route 48 Bridge Widening over Game Creek, Carney's Point, Salem County*
- *Route 10 & Powder Mill Road Intersection Improvements, Parsippany Troy-Hills, Morris County*
- *Route 179 Bridge Improvements over Alexauken Creek, West Amwell Township, Hunterdon County*
- *Route 22, Park Avenue, Bonnie Burn Road, & New Providence Road Intersection Improvements, Watchung & Scotch Plains Boroughs*
- *Route 56, Maurice River, Vineland City, Cumberland County*
- *Route 22, Vosseller Avenue, Green Brook, Middlesex County*
- *Route 130 Over Raccoon Creek Bridge Replacement, Logan Township, Gloucester County*
- *Route 40, Babcock Road/Cologne Avenue Intersection Improvements, Hamilton Township, Atlantic County*
- *Route 159 Over Passaic River, Borough of Fairfield, Essex County & Montville Township, Morris County*

NJDOT 3-YEAR (2005-2008)(2011-PRESENT) MULTI-DISCIPLINE ENVIRONMENTAL TERM AGREEMENTS



Project Name: NJDOT 3-Year (2005-2008) (2011-Present) Multi-Discipline Environmental Term Agreements

Location: Statewide, NJ

Client: New Jersey Department of Transportation





Services

Environmental Studies

Environmental/ Haz Mat Screenings

Categorical Exclusion Documentation

Environmental Assessments

Cultural Resources

Wetland Delineations

Permitting

Environmental Impact Statements



Description of Project: The RBA Group is performing various environmental tasks under a three-year task order contract. This is the eighth consecutive term contract of this kind awarded to RBA by NJDOT. Tasks involve technical environmental studies and environmental screenings, including air quality, ecology, hazardous waste, Green acres coordination, noise, socioeconomics and land use, and cultural resources (SHPO coordination), as well as preparation of Categorical Exclusion Documents, Environmental Assessments, Environmental Impact Statements (EIS), Section 4(f) Documents, Green Acres coordination, and EO 215 EIS. RBA also performed wetland delineations and environmental permitting. NJDEP Environmental Databases were utilized as part of the constraints analysis.

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T & M Associates

T&M's familiarity with specific storm-related recovery needs of New Jersey's communities is extensive.

T&M understands that municipalities damaged by Superstorm Sandy require specific types of support to develop community recovery plans that address post-storm conditions, implement storm-resistant approaches to rebuilding, and encourage sustainable economic growth. We were on the front lines for the Superstorm Sandy relief and recovery effort. With some of our long-time clients, suffering the greatest damages from the storm, T&M has played an instrumental role in providing strategic services to support long-range planning for community redevelopment, as well as planning to reduce our clients' vulnerabilities to future disasters.

Our practice includes the full range of storm recovery and resiliency solutions, from preparedness planning and resiliency implementation to funding, response, recovery and rebuilding support — our work helped to rebuild more than 30 communities impacted by Superstorm Sandy. This includes the preparation and implementation of many Strategic Recovery Planning Reports (SRPRs), master plans, capital improvement plans, hazard identification and risk assessments, storm hardening planning and energy assessments for counties and municipalities throughout New Jersey. Additionally, our planning professionals have prepared SRPRs for more than a dozen clients resulting in over $2.8 million in Phase 2 Post-Sandy Planning Assistance Program Grants (PSPAGP) for the communities on the table below.

Municipality **As an appointed Planner of the community, T&M assisted the community with the preparation of the SRPR submission.*	SRPR PHASE I	PSPAGP PHASE II	Plan Reports, Amendments and/or Updates								GIS Development	Zoning Ordinance Updates & Design Standards	Special Planning Study	Permit Automation & Process Improvement
			Master Plan Reexamination. & Community Resiliency	Hazard Mitigation	Capital Improvement	Debris Management	Emergency Operations	Floodplain Management	Redevelopment & Revitalization	Green Building & Sustainability				
Borough of Highlands	●*	●	✓											
Borough of Keansburg	●	●	✓		✓			✓			✓	✓	✓	✓
Borough of Pt. Pleasant Beach	●	●	✓			✓		✓			✓	✓		✓
Borough of Rumson	●	●	✓	✓	✓	✓	✓	✓			✓			✓
Borough of Sea Bright	●*	●				✓								
Borough of Union Beach	●	●	✓		✓				✓		✓	✓	✓	✓
Township of Little Egg Harbor	●	●	✓		✓	✓		✓			✓	✓		✓
Township of Aberdeen	●	●	✓											
Township of Berkeley	●	●	✓			✓	✓				✓			✓
Township of Brick		●	✓							✓		✓		
Township of Ocean (Ocean Co.)	●	●	✓		✓			✓			✓	✓		✓
Township of Middletown		●							✓					
Township of Toms River		●	✓						✓				✓	
SRPRs for Various Locations	●		Boroughs of Deal, Monmouth Beach and Pt. Pleasant, Township of Lacey & County of Union											

PLANNING SERVICES: PRE- AND POST-SUPERSTORM SANDY | Borough of Union Beach, NJ

Having served as the appointed Borough Engineer for Union Beach for more than ten years, T&M's staff was familiar with the community's civil engineering challenges pre-Superstorm Sandy. Some of our planning experience within the Borough prior to the storm included the preparation of a new master plan in 2005, which contained a Land Use Plan Element, Housing Plan Element, Recycling Plan Element and a Statement of Consistency Plan Element. The Plan created a new vision for established residential, neighborhood, commercial and highway districts.



After the storm, the Borough experienced near total destruction of residential structures, and unprecedented destruction of municipal infrastructure systems—such as power, sanitary services and potable water. Approximately 90 percent of the Borough was inundated from the floodwaters, and the entire Borough was littered with storm damage debris. More than 500 structures were significantly damaged; 177 were completely demolished; and more than 100 additional structures are slated to be taken down.

In response to the storm damage, T&M has provided a variety of planning and engineering services within the Borough. Our assistance with the relief, recovery and rebuilding efforts have included:

- Storm damage assessment, and post disaster revisions to maps and Borough Plans, including:
  - Advisory Base Flood Elevations Post Disaster HGMP Home Elevation Project Map
  - Community Map for the Proposed Post Disaster HGMP: Stone Revetment Wall Construction
- Performing a Post Sandy Planning and Recovery Study
- Pre-design Planning and Assessment Services for Multiple Infrastructure Rehabilitation and Redevelopment Projects
- Grant Administration and Funding Assistance, including FEMA funding through the:
  - Hazard Mitigation Grant Program which required narrative descriptions, cost estimates, and associated mapping for proposed projects
  - Flood Mitigation Assistance Grant Program
  - Severe Repetitive Loss Grant Program
  - Pre Disaster Mitigation Grant Program
  - Repetitive Flood Claim Grant Program



Additionally, T&M prepared the recently adopted Union Beach Borough **Strategic Recovery Planning Report.**

References:

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STRATEGIC RECOVERY PLANNING REPORT | Borough of Rumson, NJ

T&M completed the SRPR for the Borough which evaluates the impacts of the disaster on relevant community features. It focuses on planning goals, strategies, and priorities leading to actions that are most urgently needed for public safety and economic recovery within Rumson. The report serves as a guide for future actions and recovery efforts in the Borough and includes detailed descriptions of the projects proposed as part of the Borough's comprehensive strategy to aid recovery efforts to make the Borough more resilient to future storm events and identify the Borough's priorities moving forward. T&M successfully assisted the Borough in obtaining over $250,000 in additional Phase 2 PSPA grants from the NJDCA to fund a variety projects that will help support recovery and improve resiliency in the Borough.

Reference: Tom Rogers, Borough Clerk/Administrator, Borough of Rumson, 80 East River Road, Rumson, NJ 07760-1526. 732.842.3300

STRATEGIC RECOVERY PLANNING REPORT | County of Union, NJ

T&M completed the SRPR for the County which evaluates the impacts of the disaster on relevant community features. It focuses on planning goals, strategies, and priorities leading to actions that are most urgently needed for public safety and economic recovery within Union. This includes the preparation of a report and proposals for additional funding that will be developed in accordance with the requirements of the NJDCA grant. It provides:

- A summary of storm-related vulnerabilities in the community and a recommended approach storm-resistant rebuilding
- Suggested priorities and recommendations for municipal actions to implement the approach
- Details of projects specifically related to an application for a NJ Department of Community Affairs' Post Sandy Planning Assistance Grant
- A list of critical infrastructure and related vulnerability
- Maps of areas of critical current and future vulnerability, including FEMA flood plain zones and elevation requirements.

Reference: William Inglefield, Department of Parks and Community Renewal, Union County Administration Building, 10 Elizabethtown Plaza, Elizabeth, NJ 07207, 908.527.4000

STRATEGIC RECOVERY PLANNING REPORT | Borough Point Pleasant Beach, NJ

T&M completed the SRPR for the Borough that evaluated the impacts of Superstorm Sandy on relevant community features. The SRPR focused on planning goals, strategies, and priorities that will lead to actions that are most urgently needed for public safety and economic recovery within Point Pleasant Beach. The report serves as a guide for future actions and recovery efforts in the Borough and includes detailed descriptions of the projects proposed as part of the Borough's comprehensive strategy to aid recovery efforts to make the Borough more resilient to future storm events and identify the Borough's priorities moving forward. T&M successfully assisted the Borough in obtaining over $235,000 in additional Phase 2 PSPA grants from the NJDCA to to fund a variety projects that will help support recovery and improve resiliency in the Borough.

Reference [redacted] Borough Administrator, Borough of Point Pleasant Beach, 416 New Jersey Avenue, Point Pleasant Beach, NJ 08742, [redacted]

Client
Bergen County

Location
Little Ferry, NJ

Contact
Principal Engineer - Hydraulics
County of Bergen - Department of Public Works

Services Provided
Hydrology & Hydraulic Engineering & Design

Completion Date
2014

Little Ferry Drainage Evaluation

The Main Street area of the Borough of Little Ferry experienced chronic flooding from both frequent and extreme rainfall events, primarily due to undersized drainage infrastructure incapable of capturing and conveying large volumes of stormwater runoff generated from the heavily urbanized contributing watershed. The Borough's Department of Public Works indicated that this area experienced frequent and extreme rainfall events, with severe flooding occurring on low lying areas along Main Street, and also in areas adjacent to neighboring Garden Street, Brandt Street and Grand Street. T&M was tasked with analyzing the ongoing flooding problems and providing potential solutions to prevent surface flooding up to the 25-year event.



T&M engineered a unique reconfiguration of the existing drainage infrastructure. The existing undersized drainage system was redesigned and upgraded to larger diameter pipes with additional inlets to effectively capture and convey stormwater runoff. In addition, neighboring Willow Lake was proposed as a stormwater equalization basin and will be serviced by an upgraded pump station. This configuration will maintain operable water levels in the lake and keep stormwater runoff in the drainage network below pavement grade within the Main Street and neighboring flood prone areas.

With this unique reconfiguration of the existing drainage system, the pump station will negate the effects of high tide on low lying areas of the Borough, and will maintain passable streets up to the 25-year event.

The deliverables for this project included hydraulic evaluation of the existing drainage system and design of a preferred drainage design alternative to address the ingoing flooding issues.

Client
City of Hoboken

Location
Hoboken, NJ

Contact
[redacted]
AICP, Municipal Manager,
[redacted]

Services Provided
Streetscape Design, Roadway Design, Civil Engineering, Permitting, Green Stormwater Design, Landscape Architecture, Grant Administration, Public Meetings, Press Briefings, Branding & Wayfinding, Construction Management & Inspection

Project Duration
2014 – Ongoing

Construction Cost
Estimated $665,000

FIRST STREET STREETSCAPE REVITALIZATION & CITYWIDE WAYFINDING SYSTEM

T&M was recently awarded the City of Hoboken's First Street Streetscape and Citywide Wayfinding System project, which is currently in the early design phase. The First Street Corridor is a mixed use commercial area in a low to moderate income area of the City. Businesses and property owners in this area experienced 7 feet of floodwaters during Superstorm Sandy that caused extensive devastation.

The First Street Revitalization project is an opportunity to support the rebirth of this 12 block corridor between Paterson Street and Bloomfield Street, through wayfinding improvements, streetscape, pedestrian safety, and ADA improvements. T&M's integrated design approach will create a sense of place and will focus on green infrastructure and NJDOT's Complete Streets concepts.

This approximately 0.8 mile corridor, spanning from Bloomfield Street to Paterson Street, will be enhanced with curb bump outs, rain gardens, landscaping, street trees, banners, bicycle parking, benches, crosswalks, ADA compliant curb ramps, daylighting posts, wayfinding signage, solar powered trash and recycling compactors, and kiosks with touch screens. One project goal is to re-establish this corridor as a commercial destination to support local businesses recovering from the effects of Superstorm Sandy.

This project received CDBG-DR funding from the NJEDA for construction of the First Street Revitalization Project. T&M is also assisting the city with the management of the NJEDA grant and will perform all tasks necessary for successful administration and completion of the project.

The wayfinding component involves public engagement, meetings with stakeholders, and focus groups. The new wayfinding signage will create a more navigable City, promoting the use of all forms of transportation; i.e., biking, walking, bus, rail, taxi, parking, etc. Through T&M's creative and comprehensive visioning process, the wayfinding component will not only direct pedestrians to the First Street corridor, but also to other commercial destinations, landmarks, parks, institutions, vehicular gateways, kiosks, directional blades, historic locations, etc., throughout the City. The project includes navigation signage as well as commercial district branding and signage. The use of banners, murals, mosaics, and kiosks allow for future sponsorship opportunities. T&M is working with M Studio on the graphic design for the branding and wayfinding component of this very challenging project.



Client
Jersey City Redevelopment Agency

Location
Jersey City, NJ

Contact
[redacted]
Director of Development
[redacted]

Services Provided
Planning, Design, Survey, Environmental, Public Outreach, Green Infrastructure, Stormwater Design, Grant Procurement & Administration of HUD Community Challenge & DOT TIGER II Grants

CANAL CROSSING ENGINEERING & DESIGN, MULTIPLE STREETSCAPES WITH GREEN INFRASTRUCTURE

Canal Crossing is a 111-acre tract in Jersey City, which was declared an "area in need of redevelopment" in 2009. The tract was formerly tidally flowed land filled in the 1800s for industrial development. The Canal Crossing project reconfigures 17 industrial blocks into 40 walkable city blocks and provides a wide mix of commercial, residential and public open space development opportunities. The Project design is developed around themes of building neighborhoods, reconnecting the urban grid and sustainable design which included numerous streetscape designed roadways.

The project focused on sustainability, the goals were to: (1) reuse existing infrastructure where feasible; (2) reduce the reliance on potable water through the use of stormwater harvesting; (3) focus on green design techniques; and (4) include a robust transportation network of complete streets which serve pedestrian and bikeway needs, as well as provide connections to open space, and a new train station.

The project is currently in design phase and the complete build-out will occur over a period of 10-15 years, and the distributed property ownerships present unique staging issues further complicated by individual site remediation requirements.

One element of the project included the design of sanitary sewer collection and water main systems of a 111-acre redevelopment area consisting of outdated infrastructure and large tracts of contaminated brownfields. Work included investigation of existing combined storm/sanitary sewer system, pre and post development water system model, sanitary sewer and water system basis of design reports, preparation of the horizontal and vertical alignment of approximately 17,600 LF of 8-inch – 30-inch diameter sanitary sewer, 74 manhole structures, horizontal alignment of 24,800 LF of 8-inch – 16-inch diameter water main, location of fire hydrants, wet taps and valves.



Additionally the project includes multiple "green complete streets" with bio retention, stormwater harvesting, rain gardens, and LED light fixtures, connections to transit and open space etc. The streetscapes include Canal Way, Passaic Street, Halladay, Carteret Ave and Caven Point Ave. The area was serviced by a combined sewer system that connected to a regulator, and then to a combined sanitary outfall that discharged combined sewer flow during wet weather conditions to the Hudson River. Ultimately, the project separates the sanitary sewer from the storm sewer into two separate infrastructure systems, which eliminated sanitary flow to the Hudson River from the 111-acre property.

Envision Consultants

NJ TRANSIT
Super Storm Sandy Recovery PMO

Various Locations, NJ

The intention of the Super Storm Sandy Recovery Project (SSRP) was intended to fully repair all of the damage to NJ TRANSIT properties, equipment, bridges, stations, tracks, signal systems, communications systems, power systems, and rolling stock resulting from Superstorm Sandy.

Envision provided overall program planning and resource allocation including review of implementation schedules, overall program schedule with respect to industry capacity and NJ TRANSIT's capacity to support construction, ongoing review of project budget and schedules change orders and claims, and ongoing preparation of cost and schedule trend analysis.

The SSRP also provided for the hardening of selected NJ TRANSIT facilities against damages from future storms. The overriding goal of the program was for NJ TRANSIT to complete all Sandy-related repair work within two years from the time funding was obligated, in accordance with all applicable Federal Transit Administration (FTA), New Jersey Department of Environmental Protection (NJDEP), New Jersey Department of Transportation (NJDOT), U.S. Army Corp of Engineers (USACE), Federal Railroad Administration (FRA), and State Historic Preservation Office (SHPO) requirements.



Project Information

Owner
NJ TRANSIT

Client
Hill International
One Commerce Square
2005 Market Street
17th Floor
Philadelphia, PA 19103
Contact:
Phone:

Project Start: May 2013
Project End: May 2015
Project Cost: $2B

Envision's Role:

- Overall Program Planning
- Resource Allocation
- Implementation Schedules Review
- Overall Program Schedule Review
- Ongoing Project Budget Review
- Ongoing Schedules Change Orders Review
- Ongoing Claims Review
- Ongoing Cost and Schedule Trend Analysis Preparation

State of New Jersey, Department of the Treasury, Division of Property Management and Construction (DPMC) Projects

Trenton, NJ



Envision serves/served as a subconsultant to Merrell & Garaguso on the following projects:

Labor and Industry Building Elevator Upgrades, Trenton, NJ. Envision was responsible for CPM scheduling services including the development of the baseline schedule and follow-up monthly updates to the baseline schedule. This project involved the upgrading of seven elevators and their controls and system components located in the Labor and Industry Building.

New Jersey State House Garage and Elevator Mechanical Rooms Renovation, Trenton, NJ. Envision was responsible for CPM scheduling services including the development of the baseline schedule and updates. This project involved the relocation of the Garage Mechanical Equipment Room and Elevator Mechanical Rooms at the New Jersey State House and included the demolition of the existing mechanical rooms, relocation of the plumbing, HVAC, and electrical utilities, installation of new HVAC equipment, and structural and roof repairs.

Project Information

Owner
State of New Jersey, Department of the Treasury, Division of Property Management and Construction (DPMC)

Client
Merrell & Garaguso
190 Locke Avenue
Swedesboro, NJ 08085
Contact:
Phone:

Project Start: May 2014
Project End: April 2017
Project Cost: $7.4M

Envision's Role:
- CPM Scheduling Services
- Baseline Schedule Development
- Follow-up Monthly Updates

envision

NJSDA
Region 8 Program Management
Manasquan, NJ

Envision Consultants, Ltd. assisted the GREYHAWK project team as a subconsultant monitoring work for the New Jersey School Construction Corporation's (NJSCC) $8.6 billion Abbott School Program, a state-wide school construction initiative. This was the largest public construction program ever undertaken by the State of New Jersey, and was one of the largest of its type to be implemented in the nation. This program included the oversight of twelve school construction projects in six different school districts across the state, each with demanding delivery schedules; costs range from $9 million to $70 million. The project team functioned as an extension of SCC's staff, providing oversight during both the design and construction phases including budgeting, site selection, design development, swing space requirements, permitting, approvals, bidding, construction, start-up and close-out.

Envision established, implemented, customized, and maintained a comprehensive web-based project controls system utilizing Primavera Contract Manager 11.1 (original conversion from Expedition 8.5) for the project team ensuring that the database met the needs of the NJSCC. The team was comprised of numerous companies that needed access to the database remotely via a web server and was customized to meet the needs of multiple users. Envision produced a variety of customized management and owner reports and provided training to the individual project users (A/E firms, General Contractors and Project Managers). Envision was responsible for CPM scheduling services, Document Control and Database Management full-time for the program.



Project Information

Owner
New Jersey Schools Development Authority (NJSDA)

Client
GREYHAWK North America
224 Strawbridge Drive, Suite 100
Moorestown, NJ 08057
Contact:
Phone.

Project Start: January 2003
Project End: February 2008
Project Cost: $100 million

Envision's Role:
- Project Controls
- Reporting
- Training
- CPM Scheduling Services
- Document Control
- Database Management

M & E Engineers

M&E ENGINEERS, INC.
Integrated Engineering Solutions
26 West High Street, Somerville, NJ 08876
908-526-5700 • Fax: 908-526-9681
www.MEengineers.com • ME@MEengineers.com

Relevant Project Experience

NJ Turnpike Authority

- **Facilities Improvement Program, Various Locations, NJ**
  - M&E Engineers is providing Commissioning Services for a $500 million dollar Facility Improvement Program (FIP) to replace/upgrade many NJTAs facilities, including multi-use buildings and maintenance faculties. Systems to be Commissioned include typical systems such as HVAC, Plumbing, and Generators, as well as some systems not as typical such as vehicle lifts, cranes and vehicle wash systems. M&E is also serving as consultant to the Authority for a program within the FIP to standardize the BMS systems in the new buildings to Niagara based platforms.
- **Police Barracks, Various Locations, NJ**
  - The New Jersey Turnpike Authority is replacing (4) four prototypical state police facilities. Two facilities are located on the Garden State Parkway and two on the New Jersey Turnpike. The buildings have been designed as prototypical facilities, but are flexible so they may be adapted to each site location. The barracks are being built to LEED standards. Scope includes the energy consuming systems.
- **Interchange 14A, Jersey City, NJ**
  - Commissioning Authority for the renovations to the Toll Plaza Facility, including Administration Building and toll booths, to accommodate the improvements at the interchange. Project was designed to LEED standards. Scope includes the energy consuming systems.

DPMC & SDA

- **NJ State Police Headquarters, West Trenton, NJ**
  - Measurement & Verification
- **Buckshutem & Quarter Mile Lane Elementary Schools, Bridgeton, NJ**
  - Commissioning
- **Department of Transportation (DOT) Headquarters, Ewing, NJ**
  - Energy Audits
- **Hunterdon Developmental Center, Clinton, NJ**
  - Engineering Design and Construction Administration
- **Regional Operations Intelligence , Ewing, NJ**
  - Engineering Design and Construction Administration
- **Green Brook Regional Center, Green Brook, NJ**
  - Engineering Design and Construction Administration

AmerCom Corp.

NJ Route 35, MP 4 - 9
Reconstruction and Drainage Improvements
Dover, Lavallette and Brick, NJ

Services Provided by AmerCom: Geotechnical Engineering and Foundation Design Recommendations
Client: New Jersey Department of Transportation, The RBA Group
Client Contact:
Total Construction Cost:
Completion Date: 2000-2008



The NJDOT has proposed improvements to Route 35 between Sixth Avenue (M.P. 4.00) and Curtis Point Drive (M.P. 9.00). Within these project limits, Route 35 runs south to north along the center of the barrier island, with sections of the northbound (NB) and southbound (SB) lanes separated by residential and light commercial development. The SB lanes are nearest the western shoreline of the island within close proximity of Barnegat Bay. The improvements also addressed some of the existing drainage problems resulting from storm surge events and tidal backflow as well as the current safety and operational problems.

AmerCom Corporation, as sub-consultant to The RBA Group, was commissioned to conduct a subsurface investigation within the project limits addressing the geotechnical concerns primarily for the improvements proposed for the Route 35 SB section of the roadway. A total of thirty-six outfall locations have been slated as drainage structures to be improved on this project.

AmerCom completed the following scope of services:

1. Collected and reviewed existing geotechnical data.
2. Prepared a subsurface investigation program, specifications and contract documents, and to solicited the services of a boring contractor to perform the necessary drilling operations.
3. Provided on-site inspectors to monitoring the execution of the boring program and to aided in gathering geotechnical data.
4. Prepared boring logs and reviewed subsurface data.
5. Evaluated the physical and mechanical properties of the soils from laboratory tests and other existing data.
6. Conducted geotechnical analysis and design of the proposed structures by correlating, evaluating, and analyzing existing data.
7. Prepared and submitted a Geotechnical Foundation Report with design soil parameters and recommendations, and provided foundation type recommendations to be utilized in design.

A total of 29 test borings were performed to evaluate the subsurface soil conditions within the project limits and in the vicinity of the proposed work.

3. Project Approach / Management Plan for Potential Projects

Hurricane Sandy made landfall in New Jersey on October 29, 2012 causing significant damage to numerous communities, major infrastructure components in the State, and affecting the lives of millions of people, not just in New Jersey but in New York as well. As a result, the US Department of Housing and Urban Development (HUD) launched the Rebuild by Design (RBD) competition to develop ideas to improve the physical, ecological, economic, and social resiliency of the regions affected by Sandy. Two projects in New Jersey were selected by HUD for implementation:

- Resist, Delay, Store, Discharge: A Comprehensive Strategy for Hoboken
- New Meadowlands, Productive City + Regional Park

This Contract is intended to provide Construction Management services to assist with these two projects as well as other projects related to flood mitigation and environmental infrastructure. It is the intent of the NJ DPMC to hire a Construction Management Firm (CMF) to provide these services. The CMF will act as the Owner's representative on individual work order assignments.

The HAKS Team understands the complexity of successfully managing a large program with various tasks of significant magnitude, and we possess an overall understanding of program management, project design, project controls (i.e. scope, schedule and budget), utility coordination, construction management, procurement, oversight and federal fund grant management.
The HAKS Team is prepared to provide Construction Management and specialized staff to meet the requirements of this Contract and to assist the DPMC in its mission. Specifically, the HAKS team will be led by a Contract Executive who will coordinate the activities of the Team, and who will be responsible for communications with the DPMC's Team.

For this proposal the HAKS Team offers a strong and committed full service Construction Management, Design and Environmental support Team with a dedicated group of professionals and a proven track record in the performance of a variety of Program and Project Management, Engineering and Inspection Services. We carefully assembled our team to ensure program success, through our:

- Knowledge of Federal Housing and Urban Development (HUD) Community Development Block Grants for Disaster Recovery (CDBG-DR) processes, requirements and programmatic details stemming from our experience in NY and NJ;
- Highly qualified and massive NJ-based field inspection staff including many of the same people involved with the projects included in Section 2;
- Dedicated project management and leadership staff, located in NJ, ready to work immediately and diligently for the full duration of the project;
- Ability to develop reporting protocols, to ensure compliance with established requirements;
- Strong understanding of field communication and monitoring challenges and related reporting mechanisms to track and control activities; and
- Demonstrated understanding of local communities affected by Sandy and challenges faced by local residents and businesses to access much needed assistance.

For this Contract, the HAKS Team will follow all the requirements set forth in the Agreement Documents and perform the services as identified in the Agreement. Care will be taken that no work is performed

unless there is an approved Work Order, that the right staffing is assigned to the specific project and that the Senior Project Manager, or Project Manager is in responsible charge for each assignment.

For specialized work which may include professional services, special consultants or testing laboratories, our Team already includes firms that can perform these services, thus we will be able to identify the necessary staff, scope and pricing easily. As with the standard CM services that may be provided, the specialized work will be managed by our Senior PM or PM with the level of involvement and attention to quality, which we will provide on all CM tasks.

At the onset of each Work Order, we will develop a Project Specific Quality Assurance and Procedures Manual that will include all necessary procedures and requirements to successfully complete the work. This will also identify project related contacts from the DPMC, DEP, Design Consultant, Contractors, and project stakeholders; schedule and budget; communication and reporting protocols; documentation control protocols; QA/QC and Health and Safety procedures. This Manual will be submitted to the DPMC for review, comments and approval and will be distributed and utilized by all staff assigned to the Work Order.

The HAKS Team includes experts in construction of major projects that have similar elements to what is expected for projects under this Contract. These experts will be available to perform reviews for constructability, construction scheduling and sequencing, environmental and site constraints, and most important for reasonableness of cost estimates. We are prepared to develop independent (third party) Cost Estimates to support the DPMC with the evaluation of each project element under consideration. We are also prepared to make recommendations regarding changes in materials, construction methodology, or design alternatives that may lessen the impacts of the projects and make them more cost effective.

The HAKS Team is fully aware that for any of the Resiliency and flood mitigation projects that may be done under this program to succeed, coordination with key stakeholders will be of paramount importance. Major agencies such as NJDOT, NJ Transit, NJ Turnpike Authority and Utility companies will have significant stakes on some of these projects. In addition, local municipalities will also need to be involved regarding emergency services, school access and safety, local police operations, etc. Local businesses and public service institutions may also be affected and need to be included in the planning process. Coordination with these stakeholders is typically undertaken by the Design Team, however the CMF will need to be actively involved as well to understand and familiarize ourselves with the issues, the individual stakeholders, and to provide construction related input that would be valuable. This effort will be carried on through construction as well, particularly as it relates to Maintenance and Protection of Traffic at all levels (local and state roads and highways), and as it relates to Utility Coordination to avoid the costly and time sensitive issues that may arise when conflicts are not addressed early on in the design. This effort will be carried out by the HAKS Team through our Partnering Sessions and any construction activities.

CCM SERVICES DURING PRE-CONSTRUCTION PHASE

The broad benefits of construction management are seen clearly in preconstruction activities. These benefits help to ensure more efficient construction, more time-and-cost-efficient project delivery, reduction of claims and early acceptance by the DPMC. From the issue of NTP to HAKS, our CCM review team will work closely with the design team, to eliminate potential design conflicts, provide technical expertise, and offer independent judgment on constructability and coordination issues. During

the pre-construction phase, HAKS participation will involve the preparation of contract documents with the primary task of preparing "Suggested Method of Construction and Sequencing," conducting Constructability Reviews, and for reviewing Pre-Final Contract documents with emphasis on Safety, Quality and Constructability. HAKS will also attend and participate in the pre-bid conference, site tour, review of proposals and negotiations in the RFP contractor selection process, and in the qualification hearing of the selected Contractor. We will review all RFIs from the Contractor and seek answers from the Designers for proper disposition of the RFI. HAKS will assist DPMC in reviewing and assembling the specification and providing addenda to the contracts. HAKS goal is to have construction documents that can be constructed in the field without unnecessary cost or construction delays and without sacrificing quality on the project.

Constructability Reviews – As part of the quality control process, technical and constructability reviews must be completed in a timely fashion. HAKS has participated in many such procedures and has the ability and experience to provide this analysis. HAKS will provide DPMC's Manager with a constructability review checklist for approval. The focus of these reviews will be to ensure that all contract documents are in agreement and the intent of the project is fully captured. This exercise will also eliminate or minimize conflicts and the potential for Contractor claims or change orders (AWOs). HAKS' constructability reviews will take into consideration on site access by workers, material storage, sequence of operations, logistics, specifications and environmental and safety considerations. HAKS will also review the contract drawings for compliance and completeness. Although such reviews cannot identify every discrepancy, they will identify potential problems; reduce disputes, delays and additional costs during construction.

Schedule Control – HAKS will review the design team's schedule for compliance with the overall schedule. We will recommend changes to mitigate potential delays that may arise. HAKS will review construction activities recommended by the design team for contractual compliance and coordination issues, and will provide recommendations for special coordination needs to DPMC for approval.

Cost Control – As part of cost management HAKS will monitor the design team's budget for consistency and accuracy. The budget submitted to DPMC by the design team will be used to evaluate proposed design changes, account for all expenditures, and compare actual and planned expenditures, forecast future expenditures and plan cash flow. HAKS will alert DPMC of any potential cost overruns and, if requested, will assist with developing strategies of corrective action or develop full independent estimates, from historical comparisons through detailed quantity takeoffs and pricing.

HAKS has demonstrated its ability to successfully perform Constructability, Schedule and Cost Control tasks on numerous large scale projects, as noted in other sections of this proposal. These projects include the $400 million dollar Gilboa Dam Rehabilitation project for the NYCDEP, the $200 million dollar Gowanus Expressway reconstruction for the NYCDOT and the CM services that HAKS is currently managing that total over $300 million in construction cost for the Facilities Improvement Program for the NJ Turnpike Authority.

CCM SERVICES DURING CONSTRUCTION PHASE

To ensure effective and consistent administration of all Work Orders on this Contract, the HAKS Team will rapidly develop administrative policies which will be the framework for all communication and administrative activities. All policies and procedures will confirm to DPMC's established standards and

policies and will be reviewed with DPMC during their development to establish approval before implementation.

Introduction of Key Members – These projects will require a skilled and seasoned construction management team to manage the numerous issues that will arise. The HAKS Team will be led by experienced management staff that brings a unique set of skills that when combined offer the DPMC with the assurance that no issues will be left unresolved, and that the work performed will be of the highest quality and to the complete satisfaction of the DPMC. On similar projects, HAKS has consistently proven the ability to think fast and resolve issues quickly in order to avoid any delays and to complete the project ahead of schedule and under budget.

Meetings - HAKS will chair the construction kick-off meeting, schedule kick off meetings, and will conduct work sessions for safety, quality and submittals. We will schedule and chair progress meetings, schedule review meetings and coordination meetings. For all meetings we will prepare an agenda, take minutes of the meeting, and will distribute them to all attendees. HAKS will follow up on all action items generated from the meetings to ensure that decisions have been reached and critical items are not delayed. It is vital that all contractors "get out of the box" quickly and HAKS makes it common practice to assist contractors from day one of the award to ensure a quick start of construction.

Reports - We will prepare and provide weekly status reports in a format acceptable to DPMC including but not limited to issues, summary of planned work, actual work performed, manpower utilization, flagging and work train activity, summary of meetings, two week look ahead, safety and health report, Submittals, RFIs, AWOs, QA report and photographs. HAKS will prepare monthly progress reports, which will include an executive summary, contract summary, project status, critical path update with narrative, areas of concern and proposed actions, cost report, logs and summaries of submittals status, RFI status, potential AWOs, AWO status and Subcontractor approvals.

Document Control and Accessibility – Clear cut document control procedures ensure a better flow of implementation which in turn ensures smoother operations and timely work. HAK's staff will be logging, tracking and reporting on the status of all documents, correspondence, RFI's, Shop drawings, O&M Manuals and Daily Reports thru an electronic system. The HAKS team will be the point of control for all project documents.

Partnering – Open and transparent communication among Designers, Construction Contractors, DPMC, project stakeholders and the HAKS Team is integral to successful project completion. HAKS will host partnering sessions with the DPMC, DEP, client agencies, design Consultants, Contractors and subcontractors and other parties involved in the project. These partnering sessions will enhance project team building, problem solving, communication, scheduling, working proactively as partners, and avoiding confrontation and litigation. HAKS will continue to hold additional discussions and evaluations of performance with the DPMC, the Contractor and other stakeholders until substantial completion is reached. A professional facilitator will be utilized if necessary to support this effort. The success of partnering and establishing a team approach has been demonstrated time and time again with HAKS with its joint ventures, design build partners and quality teaming partners all put in place to provide the maximum amount of qualified talent for our clients to achieve successful projects.

Staging – HAKS will thoroughly review the staging plans, and will ensure that the staging areas are in compliance with the submitted and approved plan. HAKS will oversee the Contractor's mobilization and

start-up of construction activities including ensuring and assisting the Contractor in obtaining all initial permits as well as monitoring and confirming the validity and currency of all required permits. HAKS will also provide help and input to obtain all necessary permits, licenses and approvals for compliance with utility companies and local, state and federal authorities having jurisdiction over the construction of the project. Should there be a need for a change in any staging plan per the Construction Contractor's request or as a result of operational changes, HAKS will diligently review and analyze the impact of such changes to the project schedule, and budget. HAKS will provide the DPMC with a timely report and recommendations on such changes. If the recommended changes are agreed to by DPMC, HAKS will take the required action to verify that all interested personnel are kept informed of the new schedule and changes are properly reflected on the CPM schedule.

Shop Drawings and Working Drawings – As part of our construction management effort, HAKS will monitor and coordinate all shop drawings, working drawings and catalogue cuts submitted by the Construction Contractor and will obtain approval from the Designer in a timely fashion. HAKS will process submittals and hold periodic meetings with the Designers and the Construction Contractor to review outstanding submittals in an attempt to expedite the process. HAKS will provide DPMC with a log showing the status of all the submittals on a weekly basis as part of the weekly progress report. HAKS will create a check list of submittals sequenced relative to the CPM schedule, and will ensure that before any activity commences we have verified that all related items on the checklist (shop drawings, catalogue cuts, working drawings, etc.) have been approved. HAKS has initiated an in house electronic submission system that expedites the review, approval and final processing of all Shop Drawings. All contracts of this magnitude should strive to have a very quick turn around on reviews and HAKS is committed to implement this process.

Safety – Safety is a top priority at HAKS, with a zero incident expectation on every project that we undertake. To that end, we have included two of our best Safety and Environmental Managers, Jan M. Brown and Amy Kohn as safety engineers for this project. HAKS approach to safety is to remain vigilant and proactive on potential issues so risk is mitigated. Our Field Engineers are all OSHA trained and will monitor safety as part of their oversight activities during their assignments. HAKS Safety Engineers will perform daily walkthroughs with the Contractor's safety supervisor. In addition to ensuring that the contractors have their site safety plans filed, HAKS will also prepare a program-wide Site Safety Plan for the CM team. This safety plan will include all employees, including sub consultant and vendors, working on this project must adhere to. There will be a zero tolerance policy for anyone who does not comply with the requirements of the SSP.

Quality – HAKS will review, comment and make written recommendations concerning the Construction Contractor's Quality Control and Assurance Programs with regard to coverage, adequacy and conformance to contracts requirement. Through an aggressive inspection program, all work will be performed properly the first time, eliminating the need for costly rework of noncompliant construction. HAKS will provide DPMC with formal written reports indicating status of quality programs, non-conformances and any deficiencies noted on a monthly basis. The HAKS oversight team, as part of their daily activities, will perform surveillance and inspections of the Construction Contractor's work to ensure that the work is being completed in accordance with the requirements of the contract without compromising of quality.

Non-Conformances – HAKS will work with the Construction Contractor to eliminate or keep non-conformances to a minimum. Similar to what HAKS is accustomed to and has done in the past, we will

maintain a log of all non-conforming items installed or performed by the Construction Contractor, obtain the Construction Contractor's plan of action and proposed schedule to correct the non-conforming items. HAKS will monitor and document all corrective activities and provide DPMC with a comprehensive monthly log of the status of all non-conforming items.

Request for Information (RFI) – HAKS will receive and review all Requests for Information (RFIs) for completeness and validity and will provide recommendations to the Designers and the DPMC for review and response. HAKS will prioritize the RFIs based on the construction schedule and requirements and will follow up with the Designers to ensure that responses are provided within the contract's specified time limit. Aside from discussing high priority RFIs at progress meetings with the Contractor, HAKS will periodically hold meetings with the Designer and the Contractor to further discuss specific RFIs at the Designer or the Contractor's request. A monthly log and status of all RFIs will be provided to DPMC as part of the monthly progress report. The processing of RFI's takes the same precedence and timely processing as the shop drawing submissions. The same electronic processing and procedures used for the shop drawing analysis will be utilized for the RFI's.

CPM Scheduling – HAKS will thoroughly review the Construction Contractor's baseline schedule, distribution of cost loading, and monthly CPM schedule updates using Oracle's Primavera P6 and verify if the work completed matches the submitted monthly schedule update. HAKS will review, monitor and update each monthly schedule, provide monthly critical path analyses and prepare summary level bar chart schedules of key activities. The summary level bar chart will be updated monthly to show actual progress plotted against planned progress. Our team will provide written narratives highlighting monthly accomplishments, issues, recommended recovery plans and corrective actions. HAKS will also ensure that the Construction Contractor's weekly and monthly look aheads are submitted on time, are accurate and are in agreement with the updated CPM schedule. Should a revised CPM schedule be required as a result of a Change Order, delay or stop work order, HAKS will thoroughly review the revised CPM schedule furnished by the Construction Contractor and provide DPMC with comments and recommendations. Written reports documenting schedule and cost impacts of any revision will be prepared by HAKS and issued to DPMC.

Change Orders (COs) / Claims Avoidance Administration – Throughout the course of any work order HAKS will constantly put in place a process to assist in claims avoidance. Recognizing that changing conditions do occur outside of anyone's control, HAKS will identify and notify DPMC of any potential conditions that could lead to a Change Order or claim. Any Change Order request submitted by the contractor will be thoroughly reviewed by our team and substantiated prior to sending it to DPMC. HAKS will assist DPMC in estimating and negotiating Change Orders (COs), will prepare and process the documents, use the appropriate forms (long form, short form, etc.), obtain the necessary DPMC signatures, and will provide an analysis of any schedule or cost impacts including recommendations to DPMC. In cases where the Construction Contractor is performing approved additional work on a unit price for time and material basis, HAKS will verify daily the amount of time and material provided and inform DPMC on the status and progress of the work in a timely fashion.

Detail Cost Breakdown and Payments – HAKS will review and approve the Detailed Cost Breakdown of the bid work and verify all work. We will perform detailed quantity takeoffs to determine material and equipment requirements and make certain that the appropriate labor and construction equipment rates, crew sizes, productivity and material prices were used to determine the overall cost. Contractor overhead and indirect costs will be calculated in detail, not merely approximated by percentage rate mark-up.

Our Estimator will analyze the Contractors bid to make certain that they used appropriate factors for escalation ad profit (with consideration of the prevailing market and geographic conditions).
HAKS will utilize the earned value based loaded schedule to facilitate progress payments. Invoices submitted by the Contractor will be promptly reviewed for conformance and accuracy. We will also verify the Contractor's insurance information for compliance with the contract requirements. If we agree with the submitted invoice then it will be forwarded to the DPMC Manager recommending payment for the services.

SERVICES DURING CLOSEOUT

HAKS maintains a policy that closeout truly begins during the early stages of every project. Waiting until final close out period tends to delay the ultimate end of any project and it is expeditious to use any down time to continuously update all close out documents when appropriate. During the final closeout phase of the project, the HAKS Team will conduct pre-final inspections for recommending substantial and final completion. HAKS staff will prepare a detailed punch list, and will see that all outstanding items are resolved prior to final acceptance of work. The document control system maintained throughout the construction process will be completed and prepared for delivery to DPMC within the designated time frame.

Substantial Completion, Final Completion and Project Closeout – HAKS has worked with numerous agencies, authorities and private entities and has successfully administered certifications on many types of infrastructure, building and flood control projects. HAKS has a very close working relationship with the NJDCA who may be very active in permit acquisitions, periodic inspections and temp/final Certificate of Occupancies. HAKS has also worked with many other agencies including the NJDPMC, NJDOT, FHWA, HUD, and New Jersey Dam Safety and are familiar with all of their process and procedures for project close out. As part of our construction management effort, HAKS will conduct pre-final and final inspection along with the user groups, develop a punchlist, list of remaining work, review as-built drawings and operating manuals, develop and arrange testing and training, assisting DPMC in issuing a certificate of substantial completion and closeout of the project. HAKS will on the same day of the inspection issue to the Construction Contractor a copy of the punchlist from the inspection so they can begin working on the items until the formal DPMC punchlist is issued. HAKS will actively monitor, provide DPMC with frequent updates on the Construction Contractor's performance and ensure that all items have been corrected on punchlist. Our Superintendents and the Construction Contractor will perform a joint walk through to ensure that all punchlist items have been corrected prior to inviting the user group for a final inspection.

Closeout documents will include but not be limited to a construction punchlist, equipment status, certificate of substantial completion, as-built record status, closeout progress report, contract closeout checklist, contractor guarantees, completion of DPMC standard closeout forms and archiving documents. Once HAKS verifies that all punchlist items have been completed, they will notify the DPMC Manager that the work is ready for final acceptance and will accompany DPMC on a walkthrough to review all elements of the work.

4. CPM Scheduling – Experience and Capabilities

The HAKS Team has provided Critical Path Method (CPM) scheduling services on a diverse array of project types and sizes. Through our decades of program and project experience, the team has successfully utilized its scheduling expertise to establish effective schedules at every project phase, develop highly complex schedules for similarly challenging projects, established rigorous but appropriate contractor scheduling requirements, and actively managed the scheduling process to deliver on-time project completion.

The HAKS Team offers several CPM scheduling experts who develop task-specific schedules using a common scheduling framework for consistency in approach and quality. Our approach to scheduling results in a dynamic tool which supports the following program goals:

- Effective Project Management: First and foremost, the project schedule must represent an optimized approach to project delivery. HAKS will identify the critical elements of the project plan, work with the entire project team (DPMC, Design Consultants, Contractors) and stakeholders as appropriate to devise an approach to deliver them, and construct a suitably detailed schedule around that approach. The HAKS scheduling team offers not only detailed schedule management experience across a diverse array of project types and sizes, but also a broad base of project management roles. This ability to see the program from multiple perspectives, understand how to define a path to completion, and incorporate the details of this plan into a quality schedule will ultimately support successful program delivery.
- Timely Decision Making: The ability to make well-informed decisions when they are required is an important component of any successful program. HAKS will provide a program schedule with sufficient detail to highlight such decision points so that they can be anticipated and executed in a timely manner, with proactively prepared analysis and input from any critical external stakeholders.
- Clear Communication: Project reporting both internally to the project team and externally to the interested public will be an important contributor to the success of these CDBG-DR funded programs. HAKS develops schedules which communicate real-time progress and reliable forecasting, including an appropriate level of detail in an easy to understand format.

Once a Work Order is defined and approved, in order to consistently deliver a high-quality CPM Schedule development and management program, HAKS implements the following elements:

1. Master Program Schedule
   The HAKS Team will develop a master schedule at the program level to reflect the execution plan for all stages and sub-projects of each Work Order required to complete the scope of work. In order to produce a reliable CPM-based master schedule, HAKS will typically undertake an extensive process which includes detailed technical planning; interfacing with the DPMC, the Designers, the Contractor, and multiple stakeholders including municipalities, regulatory agencies, utility companies, and community groups; and an iterative process of optimizing sub-project definitions and sequencing each sub-project and its project stages to support successful program delivery. The master program schedule will include internal and external requirements,

key design deliverables, review processes, and procurement activities in support of a proactive, well-planned, and methodical approach to maintaining the overall program schedule with each project phase.

2. Work Breakdown Structure Development

   An important part of organizing the project controls is the definition of an effective Work Breakdown Structure. As part of its master program schedule planning effort, HAKS leads the program team in developing a common understanding of how the project is best broken down into a hierarchical system of well-defined sub-projects and tasks. This incremental classification of project components establishes the framework for defining the project at various levels of detail and underlies all project controls, including scheduling, cost estimating, and reporting. The consistent application of a well-defined Work Breakdown Structure from the outset of each program will facilitate management, analysis, and reporting of the project at appropriate levels of detail and in measurable and manageable components.

3. Public Interface

   The two Rebuild by Design projects identified as the centerpieces of this CDBG-DR funded program will involve extensive interface with public operations (events, transportation, community, environment, parallel capital projects, etc.), and the master schedule will therefore need to show how these programs and each of their sub-projects and tasks will work around the community not only in terms of physical logistics and layout, but also in terms of time and scheduling. Through our project planning efforts, the HAKS Team will identify these critical points of interface and incorporate them into the master program schedule, clearly delineating how we will mitigate construction impact on public operations without sacrificing time, cost, or quality. The HAKS Team offers a number of existing relationships within the affected communities, including local government officials, regulatory agencies, community groups, and other stakeholders at multiple levels. Our ability to leverage these relationships to effectively identify, understand, and incorporate these points of interface will maximize the team's ability to balance community impact in support of better overall program efficiency.

4. External Project Milestones

   The HAKS Team will identify external activities requiring integration into project schedules, including but not limited to reporting requirements, community outreach, funding milestones, regulatory reviews, and other tasks associated with external entities which could impact the program's progress. These milestones will be monitored regularly, and proactive requirements such as advance data collection and regular communication will be included to maintain visibility on these requirements.

5. Contractor Scheduling Requirements

   Detailed construction schedules will ultimately be provided by the contractors awarded the individual project contracts. The HAKS Team takes a proactive approach in the preconstruction phases to include language in the contract documents which communicates clearly the requirements surrounding the development and maintenance of project schedules. These requirements may include some of the following:

Category	Sample Requirement
Software Requirements	Latest version of Primavera P6
Maintenance Requirements	Monthly Updates, submission of which is a prerequisite to processing payment applications.
Deliverable Requirements	Electronic File, Gantt Chart Reports, Claimdigger Reports, Schedule Risk Reports, Monthly As-Built Reports
Owner Insertion Requirements	Identification of specific external fragnets which must be included in baseline schedule and maintained in all updates, as well as ongoing ability for Owner to direct inclusion of fragnets into schedule as appropriate for future events.
Minimum Requirements for Delay Claims	Specific process and method of evaluation for any delay claims, including notification requirements. The requirement is typically based around a detailed Time Impact Analysis of contemporaneous schedules, with immediate notice and a mitigation conference required before impacts will be measured or evaluated. These requirements eliminate disputes related to methodology, establish a "high bar" for demonstrating entitlement and quantum, and establish the opportunity to mitigate potential delays proactively.
Schedule Management Requirements	The ability for the Owner's team, led by the CMF, to actively manage the scheduling process without taking true "ownership" of the schedule's contents can be established through a well-written set of specification requirements.

6. Thorough Initial Schedule Reviews

The HAKS Team will conduct its baseline schedule review using a combination of objective and subjective methods to evaluate the completeness and reasonability of the Contractor's baseline schedule. The checklist review will objectively assess measurable characteristics such as compliance with milestone/contract dates, absence of negative float, appropriate inclusion of required external fragnets, and absence of artificial activity constraints. At the same time, the our schedule experts will assess the suitability of the project schedules based on qualitative items such as trade stacking, weather considerations, sufficient accounting of submittal review processes, reliance on preferential logic, reasonability of predecessor/successor activities, and ultimately the assessment of whether or not the submitted schedule represents a reasonable and complete plan for timely completion of the contracted scope of work. These reviews will be conducted promptly, and resubmissions will be closely monitored so that the project schedule is in place from the onset of the project.

7. Engaged, Dynamic Schedule Management

Following the establishment of the project baseline and through the final completion of the project, the HAKS Team will maintain an active role in the management of the project schedule. Relying on contract requirements which permit regular schedule review meetings, we will deploy a proven technique of collaborative schedule-specific working sessions to review and evaluate, at a detailed level, specific high-risk segments of the project schedule. This has proven to be a

valuable tool for early identification and mitigation of potential delay items as well as an effective forum for open communication and team-building around the project schedule. While the Contractor maintains contractual ownership of the schedule contents throughout the process, the ability for full-team input and open discussion results in heightened awareness and better optimization of the project schedule, both of which increase the likelihood of a successful project.

5. Costs Estimating / Budget Control – Experience and Capabilities

The HAKS Team has been performing program budget and project cost control / cost analysis for decades. Our team brings unique abilities to guide stakeholders in preparing budgets that fit their needs and aid in timely decisions. Early on, we meet with all stakeholders to determine and prioritize the needs of the program/project, set realistic budgets that would include allowances for anticipated construction phasing or existing conditions and develop an initial estimate based on the original project requirements.

- Ideas to Design: During the design process, we monitor design team progress for compliance with the client and stakeholder's requirements on a regular basis. This limits scope creep during the design process and avoids the schedule impact for re-design necessary to maintain the originally approved project budget. As the design develops and stakeholder's options and choices are further developed we will perform independent detailed estimates to assure adherence to the approved budget. A master schedule is periodically updated with the design budget and choices that tracks compliance with the program. At this time we try to work with the Design Team to identify possible conflicts related to Utilities, site constraints, environmental commitments, etc. which would adversely affect the cost of the project. The HAKS Team will work with the designers to help minimize these issues.

- Decision Time: As design develops, HAKS will assist the DPMC and the Designers in making timely decisions and guide the project toward its goal of providing the needed facility or repairs within the time frame required and available budget. All options are explored as it relates to cost and schedule.

- Regulatory Overview: It is critical to incorporate permitting and regulatory agency input prior to the completion of the design. The HAKS Team will solicit input as design develops through or working meetings with state/local officials and will evaluate associated costs of requirement that arise. We will notify the stakeholders of any requirements that exceed the approved budget and make recommendation to adhere to the project budget.

- Finalize Design / Schedule: During this phase, the HAKS Team prepares a detailed estimate to show exactly how the design addresses the requirements of the stakeholders in the approved timeframe and budget. The estimate would account for all time required for reviews, bidding and regulatory permitting, and value engineering performed.

- Bid & Award: During the bid period, further refining of the project design may be performed. Responses to contractor Requests for Information (RFIs), schedule and stakeholder input completed. Budget is updated and a final estimate is performed which will include any alternates required. This would set the final detailed estimated budget once the bids are received, alternates picked and lowest responsible bidders de-scoped. Recommendation for award would occur with hard bid numbers and budget rolled up to date. In the event that bids received are higher than estimated, HAKS has led bid review and de-scoping processes to allow for reconsideration of the bid without compromising the ultimate project goals.

- Construction Phase: The Contractor(s) would be required to provide a resource loaded CPM schedule showing all milestone dates are met, costs to reach each milestone and schedule for anticipated cost per month to be paid. From day one, all costs will be tied to the schedule, all changes analyzed as to cost and schedule and tracked through a thorough cost analysis updated monthly.

- Change Management: All modifications in the contract scope would be estimated to determine the cost of the work and schedule impact. This information will allow the stakeholders and management make decisions in a timely manner to maintain budget and schedule.

- Project Closeout and Commissioning: As the project nears completion, all cost control will be updated, showing expenditures to date, as they relate to the project. We will reconcile any outstanding costs, claims, changes and owner requests, and prepare a final cost analysis recapping all project costs.

As a result of the Team's extensive portfolio of Construction Management experience, we have developed a database of costs associated with construction work in the NJ and NY Metropolitan area. This database is updated on a regular basis, and is utilized by our Estimators as a basis for developing independent Cost Estimates for projects. Our experience with Sandy related projects, and flood mitigation projects, particularly in NJ at the municipal and state level, provides us with an additional layer of information regarding costs associated with this type of work. In addition, our experienced Construction Managers and Inspectors also bring valuable input to this process. They routinely look at design plans and consider how the work will actually be constructed, time frames involved, and any conflicts regarding long lead time items or site constraints that could affect the cost of a project. All of this is incorporated into our estimating activities and results in thorough and accurate Cost Estimates.

CMF 003 TERM CONTRACT RATE SCHEDULE
BASE PERIOD (EST. 1/1/16 – 12/31/17)

NAME OF FIRM: HAKS Engineers, Architects and Land Surveyors, P.C.

INSTRUCTIONS
Give an hourly rate ($ per hour; no cents please) below for all Personnel for each of the years listed. Please refer to the RFP for a description of each of the personnel types. Your proposal may be considered unresponsive if you leave blanks. Provided and hourly rate for ALL Personnel Levels even though you may not at the present time have staff for some of these levels.

PERSONNEL TYPE	Estimated Man Hrs.	CMF Proposed Hourly Rate	Evaluated Price
LEVEL 7	1250	$ 225	$ 281,250
LEVEL 6	2500	$ 215	$ 537,500
LEVEL 5	2000	$ 190	$ 380,000
LEVEL 4	1750	$ 160	$ 280,000
LEVEL 3	2400	$ 120	$ 288,000
LEVEL 2	1500	$ 90	$ 135,000
LEVEL 1	1000	$ 65	$ 65,000
TOTAL EVALUATED PRICE			$ 1966750

RETURN THIS COMPLETED DOCUMENT TO DPMC
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CMF 003 TERM CONTRACT RATE SCHEDULE
OPTION YEAR 1 (Est. 1/1/18 - 12/31/18)

NAME OF FIRM: HAKS Engineers, Architects and Land Surveyors, P.C.

INSTRUCTIONS
Give an hourly rate ($ per hour; no cents please) below for all Personnel for each of the years listed. Please refer to the RFP for a description of each of the personnel types. Your proposal may be considered unresponsive if you leave blanks. Provided and hourly rate for all Personnel Levels even though you may not at the present time have staff for some of these levels.

PERSONNEL TYPE	Estimated Man Hrs.	CMF Proposed Hourly Rate	Evaluated Price
LEVEL 7	1250	$ 232	$ 289,688
LEVEL 6	2500	$ 221	$ 553,625
LEVEL 5	2000	$ 196	$ 391,400
LEVEL 4	1750	$ 165	$ 288,400
LEVEL 3	2400	$ 124	$ 296,640
LEVEL 2	1500	$ 93	$ 139,050
LEVEL 1	1000	$ 67	$ 66,950
TOTAL EVALUATED PRICE			$ 2,025,753

RETURN THIS COMPLETED DOCUMENT TO DPMC
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CMF 003 TERM CONTRACT RATE SCHEDULE
OPTION YEAR 2 (Est. 1/1/19 - 12/31/19)

NAME OF FIRM: HAKS Engineers, Architects and Land Surveyors, P.C.

INSTRUCTIONS
Give an hourly rate ($ per hour; no cents please) below for all Personnel for each of the years listed. Please refer to the RFP for a description of each of the personnel types. Your proposal may be considered unresponsive if you leave blanks. Provided and hourly rate for all Personnel Levels even though you may not at the present time have staff for some of these levels.

PERSONNEL TYPE	Estimated Man Hrs.	CMF Proposed Hourly Rate	Evaluated Price
LEVEL 7	1250	$ 239	$ 298,378
LEVEL 6	2500	$ 228	$ 570,234
LEVEL 5	2000	$ 202	$ 403,142
LEVEL 4	1750	$ 170	$ 297,052
LEVEL 3	2400	$ 127	$ 305,539
LEVEL 2	1500	$ 95	$ 143,222
LEVEL 1	1000	$ 69	$ 68,959
TOTAL EVALUATED PRICE			$ 2,086,525

RETURN THIS COMPLETED DOCUMENT TO DPMC
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CMF 002 TERM CONTRACT RATE SCHEDULE
OPTION YEAR 3 (Est. 1/1/20 - 12/31/20)

NAME OF FIRM: HAKS Engineers, Architects and Land Surveyors, P.C.

INSTRUCTIONS
Give an hourly rate ($ per hour; no cents please) below for all Personnel for each of the years listed. Please refer to the RFP for a description of each of the personnel types. Your proposal may be considered unresponsive if you leave blanks. Provided and hourly rate for all Personnel Levels even though you may not at the present time have staff for some of these levels.

PERSONNEL TYPE	Estimated Man Hrs.	CMF Proposed Hourly Rate	Evaluated Price
LEVEL 7	1250	$ 246	$ 307,329
LEVEL 6	2500	$ 235	$ 587,341
LEVEL 5	2000	$ 208	$ 415,236
LEVEL 4	1750	$ 175	$ 305,964
LEVEL 3	2400	$ 131	$ 314,705
LEVEL 2	1500	$ 98	$ 147,518
LEVEL 1	1000	$ 71	$ 71,027
TOTAL EVALUATED PRICE			$ 2,149,121

RETURN THIS COMPLETED DOCUMENT TO DPMC
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CMF 003 TERM CONTRACT RATE SCHEDULE
OPTION YEAR 4 (Est. 1/1/21 – 12/31/21)

NAME OF FIRM: HAKS Engineers, Architects and Land Surveyors, P.C.

INSTRUCTIONS
Give an hourly rate ($ per hour; no cents please) below for all Personnel for each of the years listed. Please refer to the RFP for a description of each of the personnel types. Your proposal may be considered unresponsive if you leave blanks. Provided and hourly rate for all Personnel Levels even though you may not at the present time have staff for some of these levels.

PERSONNEL TYPE	Estimated Man Hrs.	CMF Proposed Hourly Rate	Evaluated Price
LEVEL 7	1250	$ 253	$ 316,549
LEVEL 6	2500	$ 242	$ 604,961
LEVEL 5	2000	$ 214	$ 427,693
LEVEL 4	1750	$ 180	$ 315,142
LEVEL 3	2400	$ 135	$ 324,147
LEVEL 2	1500	$ 101	$ 151,944
LEVEL 1	1000	$ 73	$ 73,158
TOTAL EVALUATED PRICE			$ 2,213,594

RETURN THIS COMPLETED DOCUMENT TO DPMC
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HAKS

CMF 003 TERM CONTRACT

CONSULTANT AFFIDAVIT

IMPORTANT - PLEASE READ, SIGN AND PROVIDE INFORMATION REQUESTED BELOW

Affidavit: I, being duly sworn upon my oath, hereby represent and state the foregoing information contained in the Term contract Proposal and any attachments thereto the best of my knowledge are true and complete. I acknowledge that the State of New Jersey (Owner) is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the Owner, or its contractors, to notify the Owner in writing of any changes to the answers or information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreements(s) with the Owner and that the Owner, at its option, may declare any contract(s) or sub-contract(s) resulting from this certification void and unenforceable.

Signature of the consultant below attests that the Consultant has read, understands and agrees to all terms, conditions and specifications set forth in the CMF 003 Term Contract Request for Proposal (RFP). Signature of the Consultant signifies that a contract is established immediately upon notice of award by the State of New Jersey for any or all of the items and the length of time indicated in the proposal. Failure to accept a contract award, to hold prices or to meet any other terms or conditions as defined in the request for proposal and agreement, and subsequently the Notice of Award, during the term of the contract, shall constitute a breach of contract an may result in suspension or debarment from further contractual agreements with the Owner.

Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:

Firm Name: HAKS Engineers, Architects and Land Surveyor, P.C

Signature: _____ Print Name: Lissette Miquel

Title: Senior Vice President Date: Decemeber 3,2015

ATTESTED: Sworn and subscribed to before me on the 3rd day of December, 2015.

Signature: _____
(Notary Public-Not an Officer of the Firm)

MARIA J TAVARES
NOTARY PUBLIC OF NEW JERSEY
[illegible]432
My Commission Expires 4/13/2016

RETURN THIS COMPLETED DOCUMENT TO DPMC
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Public Law 2005, Chapter 92
Formerly: Executive Order 129

SOURCE DISCLOSURE CERTIFICATION FORM

Bidder: HAKS Engineers, Architects and Land Surveyors, P.C.

I hereby certify and say:

I have personal knowledge of the facts set forth herein and am authorized to make this Certification on behalf of the Bidder.

The Bidder submits this Certification as part of a bid proposal in response to the referenced solicitation issued by the State of New Jersey, Department of Treasury, Division of Property Management and Construction (DPMC), in accordance with the requirements of Public Law 2005, Chapter 92, (N.J.S.A. 52:34-13.2 et seq., superseding Executive Order 129 (2004)).

The following is a list of every location where services will be performed by the bidder and all subcontractors.

Bidder or Subcontractor	Description of Services	Performance Location(s) by Country
HAKS Engineers, Architects and Land Surveyors, P.C.	Construction Managemenr , Design Support Services	US
The RBA Group	Design Services and Environmental Services	US
T & M Associates	Design Services, Environmental Services, Construction Management and Support Services	US
Envision Consultants	Scheduling, Estimating, Cost Analysis and Document Control	US
M&E Engineers	Commissioning	US
AmerCom	GeoTechnical and Inspection Services	US

Any changes to the information set forth in this Certification during the term of any contract awarded under the referenced Project Number will be immediately reported by the Bidder to the Contract Compliance Unit in the DPMC, Department of Treasury, State of New Jersey, PO Box 034, Trenton, NJ 08625.

I understand that, after award of a contract to the Bidder, it is determined that the Bidder has shifted services declared above to be provided within the United States to sources outside the United States, prior to a written determination by the Director, Division of Property Management and Construction, that extraordinary circumstances require the shift of services or that the failure to shift the services would result in economic hardship to the State of New Jersey, the Bidder shall be deemed in breach of contract, which contract will be subject to termination for cause under its contract with DPMC.

I further understand that this Certification is submitted on behalf of the Bidder in order to induce DPMC to accept a bid proposal, with knowledge that the State of New Jersey and DPMC are relying upon the truth of the statements contained herein.

I certify that, to the best of my knowledge and belief, the foregoing statements by me are true. I am aware that if any of the statements are willfully false, I am subject to punishment.

Bidder: HAKS Engineers, Architects and Land Surveyors, P.C.
[Name of Organization or Entity]

By: Lissette Miquel Title: Senior Vice President

Print Name: Lissette Miquel Date: December 3,2015

RETURN THIS COMPLETED DOCUMENT TO DPMC
(PAGE 9 OF 9)

The RBA Group

CMF 003 TERM CONTRACT

CONSULTANT AFFIDAVIT

IMPORTANT - PLEASE READ, SIGN AND PROVIDE INFORMATION REQUESTED BELOW

Affidavit: I, being duly sworn upon my oath, hereby represent and state the foregoing information contained in the Term contract Proposal and any attachments thereto the best of my knowledge are true and complete. I acknowledge that the State of New Jersey (Owner) is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the Owner, or its contractors, to notify the Owner in writing of any changes to the answers or information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreements(s) with the Owner and that the Owner, at its option, may declare any contract(s) or sub-contract(s) resulting from this certification void and unenforceable.

Signature of the consultant below attests that the Consultant has read, understands and agrees to all terms, conditions and specifications set forth in the CMF 003 Term Contract Request for Proposal (RFP). Signature of the Consultant signifies that a contract is established immediately upon notice of award by the State of New Jersey for any or all of the items and the length of time indicated in the proposal. Failure to accept a contract award, to hold prices or to meet any other terms or conditions as defined in the request for proposal and agreement, and subsequently the Notice of Award, during the term of the contract, shall constitute a breach of contract an may result in suspension or debarment from further contractual agreements with the Owner.

Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:

Firm Name:

Signature: _____ Print Name: John J. Maiorana

Title: Senior Vice President Date: November 20, 2015

ATTESTED: Sworn and subscribed to before me on the 20th day of November, ~~1998~~ 2015

Signature: _____
(Notary Public-Not an Officer of the Firm)

JANET E. MANGER
NOTARY PUBLIC OF NEW JERSEY
I.D. # 2426819
My Commission Expires 11/9/2017

RETURN THIS COMPLETED DOCUMENT TO DPMC
(PAGE 1 OF 9)

T & M Associates

CMF 003 TERM CONTRACT

CONSULTANT AFFIDAVIT

IMPORTANT - PLEASE READ, SIGN AND PROVIDE INFORMATION REQUESTED BELOW

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Signature of the consultant below attests that the Consultant has read, understands and agrees to all terms, conditions and specifications set forth in the CMF 003 Term Contract Request for Proposal (RFP). Signature of the Consultant signifies that a contract is established immediately upon notice of award by the State of New Jersey for any or all of the items and the length of time indicated in the proposal. Failure to accept a contract award, to hold prices or to meet any other terms or conditions as defined in the request for proposal and agreement, and subsequently the Notice of Award, during the term of the contract, shall constitute a breach of contract an may result in suspension or debarment from further contractual agreements with the Owner.

Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:

Firm Name: T&M Associates

Signature: _____ Print Name: Gary C. Dahms

Title: President & CEO Date: November 20, 2015

ATTESTED: Sworn and subscribed to before me on the 23 day of November.

Signature: _____
(Notary Public Not an Officer of the Firm)

KIRA M. CRONIN
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 4/21/2016

RETURN THIS COMPLETED DOCUMENT TO DPMC
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Envision Consultants

CMF 003 TERM CONTRACT

CONSULTANT AFFIDAVIT

IMPORTANT - PLEASE READ, SIGN AND PROVIDE INFORMATION REQUESTED BELOW

Affidavit: I, being duly sworn upon my oath, hereby represent and state the foregoing information contained in the Term contract Proposal and any attachments thereto the best of my knowledge are true and complete. I acknowledge that the State of New Jersey (Owner) is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the Owner, or its contractors, to notify the Owner in writing of any changes to the answers or information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreements(s) with the Owner and that the Owner, at its option, may declare any contract(s) or sub-contract(s) resulting from this certification void and unenforceable.

Signature of the consultant below attests that the Consultant has read, understands and agrees to all terms, conditions and specifications set forth in the CMF 003 Term Contract Request for Proposal (RFP). Signature of the Consultant signifies that a contract is established immediately upon notice of award by the State of New Jersey for any or all of the items and the length of time indicated in the proposal. Failure to accept a contract award, to hold prices or to meet any other terms or conditions as defined in the request for proposal and agreement, and subsequently the Notice of Award, during the term of the contract, shall constitute a breach of contract an may result in suspension or debarment from further contractual agreements with the Owner.

Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:

Firm Name: Envision Consultants, Ltd.

Signature: Victoria Malaszecki Print Name: Victoria Malaszecki, MBA

Title: President & CEO Date: November 24, 2015

ATTESTED: Sworn and subscribed to before me on the 24th day of November, 1998. 2015

Signature: Shawn A. Kuni
(Notary Public-Not an Officer of the Firm)

SHAWN A. KUNI
NOTARY PUBLIC OF NEW JERSEY
ID # 50003810
My Commission Expires 9/28/2016

RETURN THIS COMPLETED DOCUMENT TO DPMC
(PAGE 1 OF 9)

M & E Engineers

CMF 003 TERM CONTRACT

CONSULTANT AFFIDAVIT

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Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:

Firm Name: M & E Engineers, Inc

Signature: William Amann Print Name: William Amann

Title: President Date: 11/24/15

ATTESTED: Sworn and subscribed to before me on the 24th day of November, ~~1998.~~ 2015

Signature: Maryann Shoaf
(Notary Public-Not an Officer of the Firm)

MARYANN SHOAF
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES JUNE 2, 2019

RETURN THIS COMPLETED DOCUMENT TO DPMC
(PAGE 1 OF 9)

AmerCom Corp.

CMF 003 TERM CONTRACT

CONSULTANT AFFIDAVIT

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Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:

Firm Name:

Signature: _____ Print Name: Richard Lee

Title: President Date: 11/24/2015

ATTESTED: Sworn and subscribed to before me on the 24th day of November, ~~1998.~~ 2015

Signature: _____
(Notary Public-Not an Officer of the Firm)

ALICE V COLLINS
ID # 2048125
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires July 25, 2018

RETURN THIS COMPLETED DOCUMENT TO DPMC
(PAGE 1 OF 9)



HAKS

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