



City of Newburgh Council Work Session
*Sesion de trabajo del Concejal de la
Ciudad de Newburgh*
October 24, 2019
6:00 PM

Council Meeting Presentations

1. Hispanic Heritage Month Presentation by Newburgh Free Academy Students and Presentation of Certificates of Recognition by Mayor Torrance R. Harvey
Presentación sobre el Mes de la Herencia Hispana por Estudiantes de Newburgh Free Academy y presentacion de Certificados de Reconocimiento por el Alcalde Torrance R. Harvey

Work Session Presentations

2. Criminal Justice Reform Presentation by Darlene DeJesus-Rosenwasser, from the Office of Orange County District Attorney David M. Hoovler
Presentacion sobre la Reforma de la Justicia Criminal por Darlene DeJesus-Rosenwasser, de la Oficina del Fiscal del Condado de Orange David M. Hoovler

Engineering/Ingeniería

3. License Agreement, 1-3 Morris Avenue (Sunset Ridge Subdivision)
Resolution authorizing the City Manager to enter into a license agreement with Ionic Properties LLC to allow access to 1-3 Morris Avenue (Section 26, Block 3, Lot 58.8) to construct stormwater mitigation improvements related to the Sunset Ridge Subdivision. (Jason Morris & Michelle Kelson)

Una resolución autorizando al Gerente de la Ciudad a entrar en un acuerdo de licenciatura con "Ionic Properties LLC" para permitir acceso a 1-3 de la Avenida Morris (Sección 26, Bloque 3, Lote 58.8) para construir mejoras de mitigación de aguas pluviales relacionadas a la Subdivisión de "Sunset Ridge". (Jason Morris y Michelle Kelson)
4. Contract with ATANE Engineers, Architects and Land Surveyors, DPC for Final Design of the Newburgh Landing Pier
Resolution authorizing the City Manager to execute a contract with ATANE Engineers, Architects and Land Surveyors, DPC for the amount of \$257,610.00 for final design and permitting for the reconstruction of the Newburgh Landing Dock. (Jason Morris)

Una resolución autorizando al Gerente de la Ciudad para ejecutar un contrato con Ingenieros ATANE, Arquitectos y Topógrafos, DPC por el monto de \$257,610.00 para diseños finales y permisos para la

reconstrucción del Embarcadero de Newburgh. (Jason Morris)

Finance/Finanza

5. WageWorks Order Form

Resolution authorizing the City Manager to execute a WageWorks Order form in connection with the City of Newburgh participation in the AFLAC Dependent Care and Health employee benefit program. (Todd Venning)

Una resolución autorizando al Gerente de la Ciudad a ejecutar un formulario de "WageWorks Order" en conexión con la participación de la Ciudad de Newburgh en el Cuidado Dependiente de AFLAC y el programa de beneficios de salud de trabajadores. (Todd Venning)

6. Orange County Exemption for City Reservoir and Filter Plant Properties for 2021

Resolution requesting an exemption from county taxes for the City's reservoir and filter plant properties for the year 2021. (Michelle Kelson)

Una resolución pidiendo una excepción de los impuestos del condado para las reservas de la Ciudad y propiedades de la planta de filtros para el año 2021. (Michelle Kelson)

7. Amend 2019 Budget

Resolution amending Resolution No: 364-2018, the 2019 Budget for the City of Newburgh, New York to adjust for CHIPS funding revenue and expense. (Todd Venning)

Una resolución enmendando Resolución No. 364-2018, el presupuesto para la Ciudad de Newburgh, Nueva York para ajustar la financiación de los ingresos y gastos CHIPS. (Todd Venning)

Planning and Economic Development/Planificación y Desarrollo Económico

8. Purchase of 68 Grove Street

Resolution to authorize the conveyance of real property known as 68 Grove Street (Section 26, Block 7, Lot 21) at private sale to Patrick Cousins for the amount of \$15,300.00. (David Kohl)

Una resolución autorizando el traspaso de bienes raíces conocido como la 68 de la Calle Grove (Sección 26, Bloque 7, Lote 21) en una venta privada a Patrick Cousins por el monto de \$15, 300.00. (David Kohl)

9. Purchase of 115 Johnston Street

Resolution to authorize the conveyance of real property known as 115 Johnston Street (Section 18, Block 11, Lot 15) at private sale to Mark Epstein

for the amount of \$1,000.00. (David Kohl)

Una resolución para autorizar el traspaso de bienes raíces conocidas como la 115 de la Calle Johnston (Sección 18, Bloque 11, Lote 15) en una venta privada a Mark Epstein por el monto de \$1,000.00. (David Kohl)

10. 32 Chambers Street - Satisfaction of Mortgage

Resolution authorizing the settlement of a mortgage from Ryan Roa to the City of Newburgh and authorizing the City Manager to execute a Satisfaction of Mortgage in connection with the premises located at 32 Chambers Street (Section 30, Block 5, Lot 35) (Michelle Kelson)

Una resolución autorizando la liquidación de una hipoteca de Ryan Roa a la Ciudad de Newburgh y autorizando al Gerente de la Ciudad a ejecutar una Satisfacción Hipotecaria en conexión con la instalación ubicada en la 32 de la Calle Chambers (Sección 30, Bloque 5, Lote 35) (Michelle Kelson)

Grants/Contracts/Agreements / Becas /Contratos/Convenios

11. Newburgh Overnight Warming Center - 2019-2020 License Agreement with the Newburgh Ministry

Resolution authorizing the City Manager to enter into an agreement with the Newburgh Ministry, Inc. to establish a warming center at 104 South Lander Street. (Michelle Kelson)

Una resolución autorizando al Gerente de la Ciudad a entrar en un acuerdo con el "Newburgh Ministry, Inc." Para establecer un centro de calentamiento en la 104 de la Calle South Lander. (Michelle Kelson)

Ordinances/ Decretos

12. Ordinance amending Section 288-84 entitled Handicapped Parking

Ordinance amending Chapter 288, "Vehicles and Traffic" Section 288-84 "Schedule XXVI – Handicapped Parking" of the Code of Ordinances of the City of Newburgh. (Michelle Kelson)

Una resolución enmendando Capítulo 288, "Vehículos y Tráfico" Sección 288-84 "Lista XXVI – Estacionamiento para discapacitados" del Código de Ordenanzas de la Ciudad de Newburgh. (Michelle Kelson)

13. 4-way stop at Fowler Avenue and Poplar Street

Ordinance amending Section 288-66 of the Code of Ordinances adding stop signs at the intersection of Fowler Avenue and Poplar Street. (Michelle Kelson)

Una ordenanza enmendando Sección 288-66 del Código de Ordenanzas

agregando una señal de pare en la intersección de la Avenida Fowler y la Calle Poplar. (Michele Kelson)

Local Laws/Leys Locales

14. Resolution scheduling public hearing on a Local Law to override the Property Tax Cap

Resolution scheduling a public hearing for November 12, 2019 to hear public comment concerning a local law authorizing a property tax levy in excess of the limit established in General Municipal Law Section 3-c. (Michelle Kelson)

Una resolución programando una audiencia pública para el 12 de noviembre de 2019 para escuchar comentarios públicos sobre una ley local autorizando un gravamen de impuesto hipotecario en exceso del límite establecido en la Sección de la Reglamentación Municipal General 3-c (Michelle Kelson)

Discussion Items/Temas de Discusión

15. Ice Skating at Downing Park - Rules & Regulations

(As per Councilwoman Patty Sofokles)

*Patinaje sobre hielo en el Parque Downing - Reglas y Regulaciones
(Segun la Concejal Patty Sofokles)*

Executive Session/ Sesión Ejecutiva

16. Proposed, pending or current litigation

Litigación actual, propuesta o pendiente

RESOLUTION NO.: _____ - 2019

OF

OCTOBER 28, 2019

**A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO
A LICENSE AGREEMENT WITH IONIC PROPERTIES LLC TO ALLOW
ACCESS TO 1-3 MORRIS AVENUE (SECTION 26, BLOCK 3, LOT 58.8)
TO CONSTRUCT STORMWATER MITIGATION IMPROVEMENTS
RELATED TO THE SUNSET RIDGE SUBDIVISION**

WHEREAS, Ionic Properties LLC (“Developer”) received approval from the City of Newburgh Planning Board in December 2017 to subdivide property and construct duplex-style townhomes in the City of Newburgh on Morris Avenue, a project more commonly known as the Sunset Ridge subdivision; and

WHEREAS, in connection with the Sunset Ridge subdivision, the Developer is required to construct certain stormwater mitigation measures pursuant to New York State Department of Environmental Conservation rules and regulations, and the Newburgh Code of Ordinances; and

WHEREAS, one parcel upon which the Developer must construct said stormwater mitigation measures is owned by the City of Newburgh, and is more commonly known as 1-3 Morris Avenue (Section 26, Block 3, Lot 58.8) (“Property”); and

WHEREAS, the Developer has requested that the City of Newburgh allow access to the Property for the purpose of constructing said stormwater mitigation measures; and

WHEREAS, access to the Property requires the parties to execute a license agreement, a copy of which is attached hereto and made a part of this resolution; and

WHEREAS, this Council has reviewed such license agreement and determined that entering into the same would be in the best interests of the City of Newburgh and its further development;

NOW, THEREFORE, BE IT RESOLVED, by the Council of the City of Newburgh, New York that the City Manager be and he is hereby authorized to enter into the attached license agreement with the Developer to allow access to the Property for the purpose of constructing stormwater mitigation measures necessary to complete the Sunset Ridge subdivision project.

LICENSE AGREEMENT

This License Agreement ("Agreement") executed this ____ day of _____, 2019, by and between the CITY OF NEWBURGH, a municipal corporation, with an address of 83 Broadway, Newburgh, New York 12550 (hereinafter referred to as "Licensor") and Ionic Properties LLC, with an address of 113 Lamplighter Lane, Lackawaxen, Pennsylvania 18435 (hereinafter referred to as "Licensee"), where the Licensor and Licensee shall be collectively referred to herein from time-to-time as "Parties; now

WITNESSETH

WHEREAS, Licensor is the owner of the real property being more accurately described as Section 26, Block 3, Lot 58.8 on the Official Tax Map of The City of Newburgh located in the City of Newburgh, Orange County, New York ("Licensor's Property"); and

WHEREAS, Licensee intends to construct improvements on the Licensee's Property, (the "Improvements") and, in connection therewith, to perform, or to cause its express agents, employees, contractors or subcontractors to perform, certain construction and related work on the Licensee's Property in connection with the construction of the Improvements (the "Work"); and

WHEREAS, the Improvements and Work are related to stormwater mitigation measures required pursuant to New York State Department of Environmental Conservation rules and regulations, the City of Newburgh Code of Ordinances, City of Newburgh Planning Board approval of Licensee's subdivision application, and Licensee's Stormwater Pollution Prevention Plan;

WHEREAS, Licensor and Licensee desire to set forth certain agreements with respect to such rights as set forth herein.

NOW, THEREFORE, in consideration of the mutual promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Grant of License to Licensee. Licensor hereby grants to Licensee, including Licensee's contractors, subcontractors, employees and express agents, a non-exclusive license ("License") over Licensor's Property for the Improvements and the Work.
2. Term. Except as otherwise provided herein, the License shall commence as of the date of this License and continue throughout the period in which the Work is being performed. The Licensee shall be permitted to utilize its rights under the License as often as it reasonably deems necessary during the period in which the Work is being performed. This Agreement shall remain in full force and effect until the earlier of (i) completion, acceptance and full dedication to the City of the Work; or (ii) December 31, 2020.

3. No Limitation. Except as otherwise provided herein, Licensee agrees that the rights granted to Licensee hereunder shall in no way or manner limit, adversely impact in a material fashion, or restrict the right of Licensor to use, improve, renovate or erect additional improvements on the Licensor's Property in accordance with applicable law; provided, however, that in the event there is a conflict between Licensor's rights and Licensee's rights in this Agreement, Licensor's rights shall be superior to Licensee's.
4. Indemnification.
 - a. To the fullest extent permitted by law, Licensee shall release, indemnify, defend, and hold harmless Licensor from and against all claims, damages, losses, costs, and expenses, including but not limited to attorneys' fees, arising out of or resulting from this Agreement. Licensee's indemnification and defense obligations under this section shall arise regardless of any assertion or finding that any indemnified party is liable by reason of non-delegable duty.
 - b. In addition to the indemnity obligations in paragraph 4(a), Licensee agrees to further indemnify Licensor for personal or bodily injury or death of an employee of the Licensee, contractors, subcontractors of any tier, suppliers of any tier, or their agents.
 - c. To the fullest extent permitted by law, Licensee shall indemnify, defend and hold harmless Licensor from any and against all claims, damages, losses, costs, and expenses, including but not limited to attorney's fees for personal or bodily injury or death of any person arising out of or resulting from the Improvements or the Work until the completion, acceptance and full dedication to the City of the Work.
 - d. This indemnification shall not be limited to damages payable under insurance policies, Workers Compensation claims, disability benefits acts, or any other legislative acts. Licensee's indemnification and defense obligations shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity which would otherwise exist under law.
5. Insurance. Upon execution of this Agreement, Licensee shall procure and maintain (or cause to be procured and maintained) at Licensee's cost, commercial general liability insurance, on an "occurrence" basis (not a "claims-made" basis), for personal injury and property damage having limits of not less than \$1,000,000 per occurrence and \$3,000,000 in the aggregate. In lieu thereof, Licensee shall add the Licensor as an "Additional Named Insured" to its existing commercial general liability insurance with the terms as provided herein. In either event, a certificate showing that such insurance coverage is in effect shall be delivered to Licensor, prior to Licensee commencing the Work. Such insurance shall be reasonably satisfactory to Licensor and shall be maintained in full force and effect during the term of the License and until the completion, acceptance and full dedication to the City of the Work, plus six (6) months. Licensor shall be named as additional insureds under the commercial general liability insurance. The above liability policy shall contain a contractual liability endorsement in favor of the Licensor and shall provide that Licensor will receive written notice prior to termination of coverage. Said

insurance shall be primary, and not contributory, as to any insurance coverage maintained by Licensor. This provision shall survive termination of this Agreement to the extent necessary to protect Licensor from liability arising during the term of the Agreement.

6. Improvements. Any Improvements created or made by Licensee on Licensor's Property shall become Licensor's Property upon the expiration or termination of this Agreement. Licensee shall have no claim to any Improvements made on Licensor's Property upon the expiration or termination of this Agreement. This license agreement shall in no way release the Licensee from any of the requirements set forth in the plans approved by the City of Newburgh Planning Board, any subdivision plans, stormwater pollution prevention plan, or the Newburgh City Code related to the construction and dedication of public works related to this subdivision.
7. Entire Agreement. This Agreement constitutes the entire agreement between the Parties regarding the subject matter hereof and may not be changed without the prior written consent of both Parties.
8. Successors and Assigns. The rights and obligations set forth herein shall be binding upon Licensee, Licensor and their respective successors and assigns, including any future owners of the Licensee's Property and the Licensor's Property.
9. Further Assurances. Licensee and Licensor agree to execute and deliver any instruments or agreements that either party may reasonably request from time to time to evidence or to carry out the intent and purpose of this Agreement.
10. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, and all of which taken together shall constitute one and the same instrument.
11. Notice. All notices shall be given by email combined with a telephone call to the respective counsel except in the event of a default hereunder in which event notice shall be by personal delivery, e-mail, or overnight courier combined with a telephone call to respective counsel. Notices to the parties shall be effective on the date of delivery and shall be delivered to the following addresses:

To Licensee: Ionic Properties LLC
113 Lamplighter Lane
Lackawaxen, Pennsylvania 18435
E-mail: dzgreek@yahoo.com

Copy to: Bob Green, Esq.
55 St. John Street
Goshen, New York 10924
E-mail: bobgreenuniverse@gmail.com

To Licensors: Office of the City Clerk
Newburgh City Hall
83 Broadway
Newburgh, New York 12550
E-mail: jkaufman@cityofnewburgh-ny.gov

Copy to: Office of the Corporation Counsel
Newburgh City Hall, 2nd Floor
83 Broadway
Newburgh, New York 12550
E-mail: jkaufman@cityofnewburgh-ny.gov

12. Maintenance and Repair Obligations. Licensee, at Licensee sole cost and expense, shall promptly replace, restore and repair any damage caused by Licensee, or their contractors, subcontractors, employees or express agents, to any portion of the Licensors' Property, including any improvements located thereon, to its preexisting same or similar condition to the fullest extent possible.
13. License Subject to Encumbrances. Licensee and Licensors hereby acknowledge, stipulate and agree that the License is subject and subordinate to all recorded liens, encumbrances, easements and other matters that may affect Licensors' Property.
14. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York and any local statutes, codes, rules, regulations or other legal requirements in the City of Newburgh or County of Orange.
15. Severability. The invalidity of any one of the covenants, agreements, conditions or provisions of this Agreement, or any portion thereof, shall not affect the remaining portions thereof, or any part thereof, and this agreement shall be modified to substitute in lieu of the invalid provision, a like and valid provision which reflects the agreement of the parties with respect to the covenant, agreement, condition or provision which has been deemed invalid or void.
16. Survival. The Licensee's indemnity obligations in paragraph 4, in its entirety, shall survive the termination of this Agreement for a period of three (3) years from and after the date hereof for acts that occurred prior to completion, acceptance and full dedication to the City of the Work.
17. No Waiver/No Vesting. This Agreement does not constitute a waiver of the City's regulatory authority and the Development and the Licensors' Property remain subject to City Code and all other applicable laws, rules, codes and regulations. Licensee must still obtain any and all necessary permits from the City for construction of the Development and the Work proposed.

18. License. This Agreement constitutes a License and does not rise to the level of a real property interest in the Licensors' Property.

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[Signature Page to Follow]

Signature Page
License Agreement (SBL 26-3-58.8)
City of Newburgh to Ionic Properties LLC

IN WITNESS WHEREOF, the parties have duly executed this agreement as of the day and year first above written.

CITY OF NEWBURGH

By: _____
Joseph P. Donat, City Manager

IONIC PROPERTIES LLC

By: _____
Dimitrios Zahariadis, Member

Approved as to form:

MICHELLE KELSON
Corporation Counsel

Approved as to form:

TODD VENNING
City Comptroller

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[Acknowledgement Page to follow]

Acknowledgment Page
License Agreement (SBL 26-3-58.8)
City of Newburgh to Ionic Properties LLC

STATE OF NEW YORK)
) ss.:
COUNTY OF _____)

On the ____ day of _____, 2019, before me, the undersigned, a Notary Public in and for said State, personally appeared JOSEPH P. DONAT, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or person upon behalf of which the individual acted, executed the instrument.

Notary Public

STATE OF NEW YORK)
) ss.:
COUNTY OF _____)

On the ____ day of _____, 2019, before me, the undersigned, a Notary Public in and for said State, personally appeared DIMITRIOS ZAHARIADIS, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or person upon behalf of which the individual acted, executed the instrument.

Notary Public

RESOLUTION NO.: _____ - 2019

OF

OCTOBER 28, 2019

**A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT
WITH ATANE ENGINEERS, ARCHITECTS AND LAND SURVEYORS, DPC
FOR THE AMOUNT OF \$257,610.00
FOR FINAL DESIGN AND PERMITTING FOR THE RECONSTRUCTION
OF THE NEWBURGH LANDING DOCK**

WHEREAS, by Resolution No. 186-2017 of July 10, 2017, the City Council of the City of Newburgh authorized the City Manager to apply for and accept if awarded a New York State Department of State Local Waterfront Revitalization Program grant through the 2017 Consolidated Funding Application in an amount not to exceed \$270,000.00 with a fifteen percent match to fund the final design and permitting phase of the Newburgh Landing Dock Reconstruction Project (the "Project"); and

WHEREAS, by Resolution No. 91-2019 of April 8, 2019, the City Council amended Resolution No. 186-2017 and authorized the Interim City Manager/City Manager to accept a New York State Department of State Local Waterfront Revitalization Program grant through the 2017 Consolidated Funding Application in the amount of \$280,000.00 for the Project; and

WHEREAS, the City of Newburgh has received a proposal from ATANE Engineers, Architects and Land Surveyors, DPC for professional engineering services to complete the Project for the amount of \$257,610; and

WHEREAS, funding for the proposal shall be derived from the New York State Department of State LWRP Grant #C1001160 with the required 15% matching funds derived from both in-kind services of the Engineering Department and \$39,000 of City funds in budget line A.1918.0400; and

WHEREAS, this Council finds that approving the proposal and authorizing the City Manager to execute a contract with ATANE Engineers, Architects and Land Surveyors, DPC for professional engineering services to complete the Project is in the best interests of the City of Newburgh and its further development;

NOW, THEREFORE, BE IT RESOLVED, by the Council of the City of Newburgh, New York that the City Manager be and he is hereby authorized to accept a proposal and execute a contract with ATANE Engineers, Architects and Land Surveyors, DPC for professional engineering services to complete the Project in the amount of \$257,610.00 with a fifteen percent match to complete the final design and permitting phase of the Newburgh Landing Dock Reconstruction Project.

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ORIGIN ID: SKYA (212) 747-1997

40 WALL STREET
11TH FLOOR
NEW YORK, NY 10005
UNITED STATES US

SHIP DATE: 22A
ACTWGT: 3.00
CAD: 1590153/1

BILL SENDER

TO TODD VENNING
CITY OF NEWBURGH COMPTROLLER OFFICE
83 BROADWAY, 4TH FLOOR

NEWBURGH NY 12550

(845) 569-7320

REF

PO

DEPT



FedEx
Express



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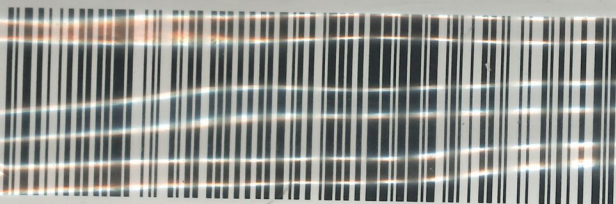
PRIORITY OVERNIGHT

TRK#
0201

7760 5635 7666

EG SWFA

12550
NY-US SWF



@ 10:30am (Cushash)
(Heli shorts)

Express





ATANE Engineers, Architects and Land Surveyors, D.P.C.
47 Hudson Street, Building B&C
Ossining, NY 10562

Todd Venning
City of Newburgh, Office of the Comptroller
83 Broadway, 4th Floor
Newburgh, NY 12550

Proposal for Newburgh Landing Pier
Final Design, Construction Documents and Permitting



SUBMITTED TO:
City of Newburgh
New York

PROPOSAL

RFP NO. 19.19

FINAL DESIGN, CONSTRUCTION DOCUMENTS AND PERMITTING FOR THE NEWBURGH LANDING PIER CITY OF NEWBURGH



SUBMITTED BY:

ATANE >
EXCEL.TOGETHER.



47 Hudson Street
Ossining, NY 10562
tel.: (914) 945-9010

Contact: Ken Mangam, PE
kmangam@ataneconsulting.com

AUGUST 2019

ataneconsulting.com

EXCEL.TOGETHER.

August 23, 2019

Todd Venning
City of Newburgh, Office of the Comptroller
83 Broadway, 4th Floor
Newburgh, NY 12550

Re: Newburgh Landing Pier

Dear Mr. Venning:

ATANE welcomes the opportunity to work with the City of Newburgh on the Newburgh Landing Pier project.

ATANE has been working with New York City and State agencies for over two decades providing design and construction services for various transportation and infrastructure projects, including marinas and piers, boat basins, seawalls and bulkheads, bridges and facility structures, streetscape, street reconstruction, and flood mitigation. Our design services include structural and civil engineering; architectural and MEP design; structural integrity evaluations including disaster recovery/emergency response; facility condition inspections/assessments; land surveying and mapping; material testing; and special inspections.

Key Staff

Our Project Manager, Quaiser Hashmi, PE, has recently managed the completion of design and construction services for the West 79th Street boat basin on the east bank of the Hudson River at Riverside Park for NYC Department of Parks and Recreation (NYCDPR). In addition, he has managed the design of East River Esplanade bulkhead, seawalls and relieving platform between East 60th to East 116th Streets in Manhattan for NYCDPR.

Our Lead Structural Designer, Kenneth Mangam, PE, has been the design lead for Fort Totten Seawall in Queens, East River Esplanade Pier 35, Harbor Marina Bulkhead repair, and many other waterfront structures in the NY metro area.

Our QA/QC Manager, Hassan Rashid, PE, served as project principal for two shoreline restoration projects identical to the proposed project: one at Alice Austen Park in Staten Island, and the other at Traverse Park in Queens. Both projects obtained NYSDEC approval for future construction. Mr. Rashid also served as engineer-in-charge for Marine Borers infestation projects for NYCDOT, and completed the inspection and design for rehabilitation of the FDR Drive relieving platforms stretching from downtown Manhattan to 116th Street.

ataneconsulting.com

EXCEL.TOGETHER.

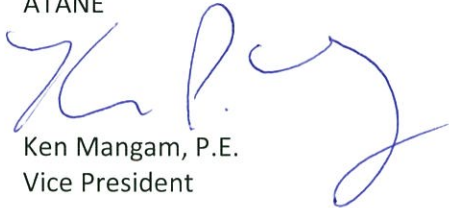
Summary

Please consider the following when making your selection:

- The ATANE team has extensive relevant experience providing design and construction for waterfront projects including piers, marinas, boat basins, seawalls and bulkheads, parks, bridges and facility structures, and flood mitigation.
- ATANE management assembled the proposed team specifically for this project with the City of Newburgh's goals in mind—and we aim to exceed them.
- We will fulfill the 30% M/WBE goal with valuable contributions from our subconsultants KS Engineers (MBE) and Matrix New World Engineering (WBE).
- Our subconsultant, MKW + Associates, served as landscape architects for the original Newburgh Landing project which was completed in time for the 1976 Bicentennial Barge and Festival.

Thank you for considering the ATANE team. We look forward to delivering a beautiful pier renovation project.

Sincerely,
ATANE



Ken Mangam, P.E.
Vice President



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Overview and Resumes

Workload and Schedule

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Fee

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Overview and Resumes

ATANE

ATANE is a vibrant, future-focused organization dedicated to attaining great things for our clients and employees. Headquartered in Lower Manhattan, we perform PM/CM, engineering, architecture, special inspections, survey/mapping, and environmental services in New York, Florida and Texas.

ATANE has been working with New York City and State agencies for over two decades, providing design and construction services for various transportation and infrastructure projects, including marinas and piers, boat basins, seawalls and bulkheads, bridges and facility structures, streetscape, street reconstruction, and flood mitigation. Our design services include structural and civil engineering; architectural and MEP design; structural integrity evaluations including disaster recovery/emergency response; facility condition inspections/assessments; land surveying and mapping; material testing; and special inspections.

Our dedicated professionals have restored critical services to storm-ravaged communities; mitigated flooding from future storms; converted underutilized and undeveloped sites into recreational parks; provided optimum utilization of existing spaces; preserved historical landmarks for future generations; and brought facilities into compliance with the Americans with Disabilities Act. We employ state-of-the-art technology such as BIM, conceptual 3D modeling and mobile LiDAR, and QA/QC is an integral component of all that we do. Our LEED-certified and CCM professionals offer sustainable solutions that result in low-maintenance, energy-efficient building/facility systems.

ATANE is large enough to respond quickly to any client request, yet small enough to bring a personalized approach to every assignment. At ATANE, we “Excel. Together” every day to enhance the lives of valued clients and employees.

Key Staff

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KS Engineers (MBE)

KS Engineers, P.C. (KSE) is an award-winning, multi-disciplinary, very qualified engineering firm. A certified MBE, with offices in New York (NYC and Newburgh), New Jersey, Pennsylvania and Connecticut, the company provides civil engineering; structural engineering; geotechnical engineering; construction management and inspection; landscape architecture; aerial mapping ground control; boundary survey, topographic survey, Right-of-Way and GPS mapping, and laser scanning services.

Since the founding of the firm in 1991, they have grown to a staff of more than 275 full-time professionals, including more than 45 full-time design professionals, more than 100 construction managers and inspectors of various levels, four licensed land surveyors, five survey crews, more than 50 licensed civil/structural engineers, eight LEED Certified Professionals, and more than 20 support engineers and surveyors. KSE is now a 2019 Engineering News-Record Top 500 Design Firm, a Top 100 Construction Management-for-Fee firm, and a Top New York Design Firm (#32).

Matrix New World Engineering (WBE)

Matrix New World Engineering is a company of engineering and science experts who focus on some of the nation's most pressing long-term challenges, including climate change, water supply, disaster response and urban revitalization. Applying their expertise to areas where these challenges are becoming particularly acute, Matrix intends to further focus their offerings and expertise on these and other emerging national strategic issues, where solving environmental challenges through careful planning and engineering is becoming an indispensable measure of success.

Matrix provides a full complement of geotechnical services including soil, rock, and groundwater investigations, geotechnical engineering design and construction support. They have provided a broad spectrum of geotechnical investigations for public agencies, private corporations, architects, engineering firms, and commercial and residential developers.

The Matrix marine team includes engineers experienced in the heavy industrial port arena and balances that focus with a rich history in marine/wetlands ecology. They have designed and constructed some of the nation's most innovative and sizeable mitigation projects.

MKW + Associates

MKW + Associates is an award-winning firm dedicated to the practice of landscape architecture and urban design. For over five decades, MKW has been a leader in shaping environments throughout the New York / New Jersey Metropolitan area. The endurance of their work is a testament to the firm's philosophy: respect for the land, commitment to site-sensitive design, and responsiveness to the human need for environmental harmony.

The firm was established in 1964 and its experience covers a broad range of projects including park, open space and recreational planning and design, waterfront parks and promenades, urban design, environmental design, corporate, institutional, and residential development and planning. The scope of services on these projects includes all aspects of the profession, from site inventory and analysis, programming, master planning and design to the preparation of construction documents, bid analysis and construction supervision.

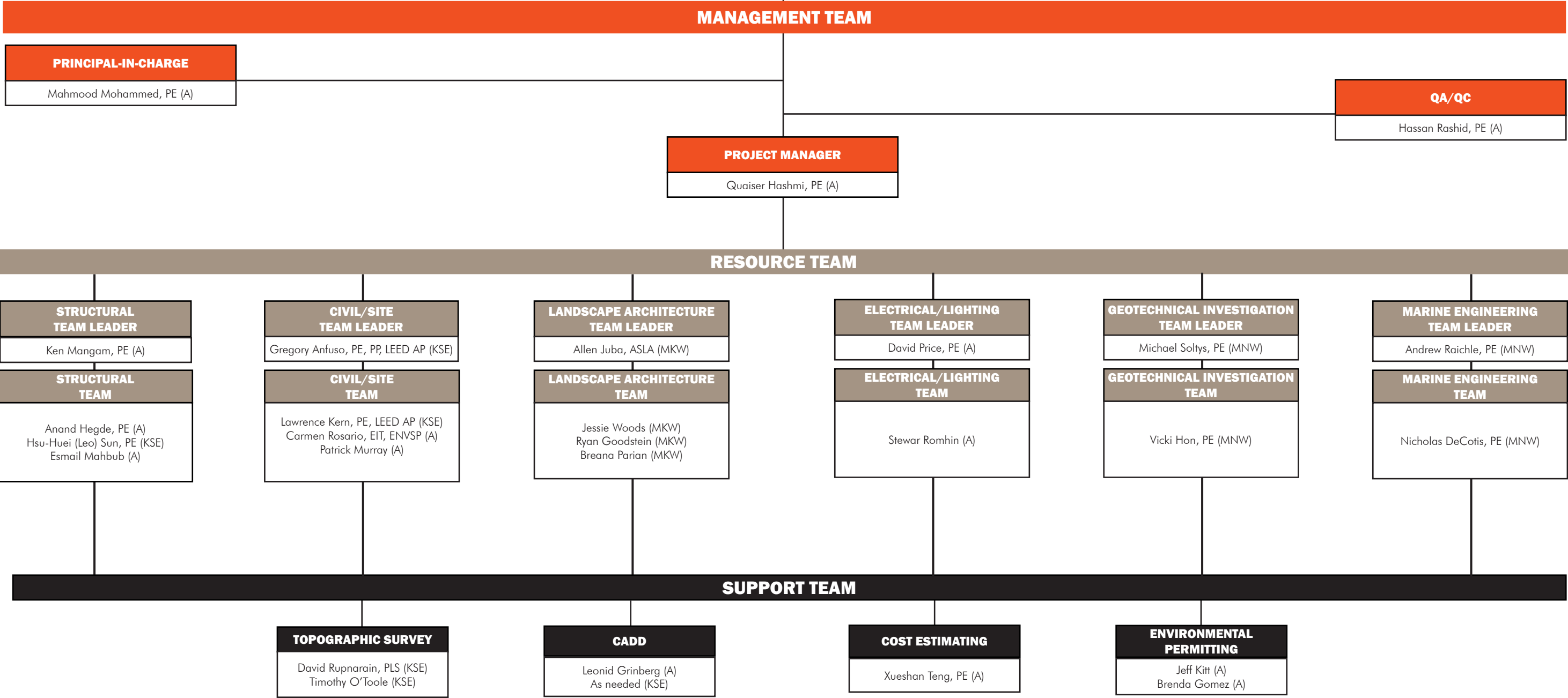
MKW served as landscape architects for the original Newburgh Landing project which was completed in time for the 1976 Bicentennial Barge and Festival. At the time, the firm was known as Miceli Kulik & Associates, and they worked on the pier and boardwalk, and the pavilion and park, all of which were made ready for the Bicentennial Festival.

Following are an organization chart and resumes for the ATANE team.



Team
(A) ATANE

(KSE) KS Engineers (MBE)
(MKW) MKW + Associates
(MNW) Matrix New World Engineering (WBE)





Mahmood Mohammed, PE *Principal-in-Charge*

Education

Master of Science,
Structural Engineering,
California State University,
Fullerton, 1996
Bachelor of Science, Civil
Engineering, India, 1992

Professional Registrations

Professional Engineer
CT 2016, #PEN.0021463;
DC 2016, #PE907978;
FL 2016, #80540;
MA 2015, #51596;
MD 2016, #46202;
ME 2015, #13787;
NJ 2015, #24GE05203300;
NY 2015, #095319;
PA 2017, #PE086800;
TX 2016, #125447;
VA 2016, #0402055760;

Certifications

NHI Course 130053, 2015
NHI Course 130078, 2015
NHI Course 130110, 2017

Summary of Experience

Mahmood Mohammed, Executive Vice President of the Structural Inspection and Evaluation Department, has been instrumental in making ATANE one of the Northeast region's premier bridge inspection and analysis firms.

Since joining the company in 1996, Mahmood served as inspector, assistant project manager and project manager prior to attaining his current position as Executive Vice President. During this time, he has managed the inspection and evaluation of over 4,000 bridges and 3,500 ancillary structures, including major bridges like the Pearl Harbor Memorial Bridge (the first extradosed bridge in the U.S.) and the Walt Whitman Suspension Bridge. He led the biennial inspection of the Manhattan Bridge and the first-of-its-kind investigation/monitoring of the Gold Star Bridge, both of which received ACEC New York Platinum awards. His highly skilled team is currently performing biennial and interim (special) inspections of the iconic Brooklyn Bridge in New York City.

Representative projects include:

New York State Bridge Authority (NYSBA) 2017 Systemwide Biennial Bridge Inspection, Upstate, NY – Department Manager for biennial bridge inspections by ATANE and two other consultants. Over the 6-year contract duration, each consultant will have inspected each of the bridges. NYSBA facilities include the Bear Mountain, Mid-Hudson, Kingston-Rhinecliff, Rip Van Winkle, Newburgh-Beacon NB, and Newburgh-Beacon SB bridges, including Route 44/55 over Route 9W, Balmville Road over I-84 and I-84 over Route 9W bridges. The inspections will be performed in accordance with all current FHWA, AASHTO Element Level guidelines and the NYSDOT 2016 Bridge Inspection Manual. Inspection procedures will consist of visual and hands-on check for all accessible structural elements, including suspension components, pin-connected links and hangers, trusses, roadway decks, columns, bracings, superstructure and superstructure supports, pier elements, connections, bearings, deck expansion joints, abutments, retaining and load-bearing walls, utility and sign supports, wingwalls, and safety railings as well as visible portions of foundations and non-structural elements.

New York State Bridge Authority (NYSBA) 2005-2007 Biennial and Interim Bridge Inspection, NY – Department Manager for inspection of NYSBA facilities including six bridges crossing the Hudson River. The project included inspection of six long-span complex bridges; reviewing as-built plans and previous inspection reports; providing written and



digital photographic documentation of structural and safety deficiencies present on the structures, which included issuing the appropriate structural and safety flags and immediately reporting serious deficiencies to the NYSBA; updating as-built plans with the latest repair details and removal of appropriate flags; and tracking work progress, equipment utilization, and inspection hour usage to ensure that the project was completed on time and within budget. ATANE inspected the Rip Van Winkle Bridge, connecting Greene and Columbia counties; the Kingston-Rhinecliff Bridge and Mid-Hudson Bridge, both connecting Ulster and Dutchess counties; the Newburgh-Beacon Bridge, connecting Orange and Dutchess counties; and the Bear Mountain Bridge, connecting Orange and Westchester counties.

New York State Bridge Authority (NYSBA) Hudson River Crossing Bridges Biennial Inspections, Westchester to Columbia County, NY – Department Manager for biennial inspection services under multiple contracts. These projects include routine and in-depth inspections of the six NYSBA bridges spanning the Hudson River from Westchester County to Columbia County, including the Mid-Hudson and Bear Mountain Suspension Bridges, the Newburgh-Beacon and Rip Van Winkle Thru Truss Bridges and the Kingston-Rhinecliff Deck Truss Bridge. ATANE reviews inspection files for pertinent information and new developments. The inspection teams perform 100% hands-on inspection of fracture-critical members and fatigue-prone details utilizing access equipment, underbridge inspection vehicles, and manlifts as well as climbing techniques. Structural conditions are documented in an inspection report, including photographs. Flagged conditions are reported as soon as they are discovered.

Connecticut Department of Transportation (CTDOT) Gold Star Bridges Gusset Plate Analysis, Groton-New London, CT – Project Manager for special structural inspection, testing and structural analysis and design services for the Gold Star Bridges, two critical link structures that carry I-95 over the Thames River between Groton and New London. Work consisted of gusset plate inspection/evaluation, design of restraining details for the pin and hanger systems and rocker bearing pins, and monitoring and evaluating the effects of frozen bearings on the bridge. The information was used to perform a structural analysis of more than 100 different gusset plate nodes to evaluate their shear, tension, compression and bending capacity in accordance with FHWA guidelines. Truss member forces were derived from modeling and analyzing the deck truss superstructures in STAAD. The gusset plate inspection and evaluation was recognized with the 2011 ACEC New York Platinum Award. The investigation and monitoring of the bridge received the 2015 ACEC New York Platinum Award and the 2015 ACEC Connecticut Engineering Excellence Award.

New York State Department of Transportation (NYSDOT) Manhattan Bridge 2010 Biennial Inspection and Inventory, New York City, NY – Project Manager for the 2010 general bridge inspection and bridge inventory. The inspection focused on accessing critical members and areas of the bridge and bridge approaches for hands-on inspection, including the main cables, trusses, floor system, deck, towers, anchorages, piers, and abutments. Access was gained by climbing and using travelers, scissor lifts, rigging, rolling platforms, bridge moving platforms, manlifts, ladders, and underbridge inspection units. Extensive MPT was required to inspect above-deck elements and street-level sections of the approaches. Project highlights included careful planning and coordination to provide significant cost savings to the client; issuance of 117 structural and safety flags, of which 89 were new; discovery of over 100 new fatigue cracks produced by the bridge's out-of-plane bending caused by asymmetrical loading of the two subway tracks; and excellent coordination with ongoing construction and numerous city agencies. The project received the 2012 ACEC New York Platinum Award. Construction Cost \$2.3 million



Quaiser Hashmi, PE *Project Manager*

Education

Master of Science, Civil Engineering, City College, NY, 1986

Bachelor of Engineering, Civil Engineering, N.E.D. University, Karachi, Pakistan, 1981

Professional Registrations

Professional Engineer
NY, 1991, #068380-1
NJ, 2019, 24GE05496400
CT, 2018, #PEN.0033242

Summary of Experience

Quaiser Hashmi, President and CEO of ATANE, is responsible for spearheading this vibrant full-service consulting firm in Lower Manhattan. Most recently Vice President of the Engineering Design Department, Quaiser has been responsible for the management of critical bridge and highway infrastructure work in the tri-state area, including the design-build reconstruction of the Harlem River Drive Ramp to the Robert F. Kennedy Bridge, recipient of the 2013 ACEC New York Platinum Award for Engineering Excellence, and the Claremont Parkway Bridge over Metro-North Railroad in the Bronx, recipient of the 2015 ACEC New York Gold Award.

Prior to joining the company, he served as a supervisor in the NYSDOT bridge maintenance unit, responsible for reviewing and developing emergency repair contracts to address structurally deficient bridge components, such as steel repairs, bearing replacements, bridge deck and joint repair, steel railings, concrete parapet repairs, approach slab repairs, guiderail replacement/upgrading, and heat strengthening of

steel girders/stringers. He also performed field inspections during construction.

Representative projects include:

New York City Department of Parks and Recreation (NYCDPR) West 79th Street Boat Basin A-Dock Reconstruction, New York, NY – Project Manager for design and construction support services for the reconstruction of “A” Dock, which includes a floating kayak launch and a 400-foot-long promenade. Due to the growth of marine borers, the timber piling supporting the dock was in a state of decay and needed to be replaced. Work also included post-Sandy repairs and strengthening of the bulkheads/piers and replacement of the cap beams and decking to increase resiliency to flooding and hurricane damage. The project involved a detailed investigation, including topographic and bathymetric surveys, marine borings, and geotechnical and structural investigations. The design involved preparation of contract documents for the installation of the new marine piles, dock renovation, staging of construction and utility reconnections, and agency approvals and associated permitting, a key challenge. Tasks included preparation of contract documents and engineer’s estimate for the installation of concrete-filled steel piles, concrete pier caps, fiberglass stringers, timber decking, wave wall, dolphin piles and utility reconnections. As Design/Project Manager, oversaw all aspects of design, including in-depth inspection, development of alternatives for rehabilitation and reconstruction, schematic geometric design, preliminary and final design plans, contract documents, and construction support services. Construction Cost: \$4.5 million

New York City Department of Parks and Recreation (NYCDPR) Reconstruction and Stabilization of Retaining Walls and Seawalls, New York, NY – Principal Engineer for inspection, scope development, construction cost estimates, and preparation of repair/reconstruction plans for three retaining walls in Riverside Park and five seawalls on the East River Esplanade. The walls included a dry-laid stone wall spanning approximately 1,860 feet and varying in height from 13 to 28 feet; a reinforced concrete wall spanning approximately 400 feet (20 feet tall); and a stone masonry wall spanning approximately 650



feet and varying in height from 7 to 10 feet. Lead Design Manager for the rehabilitation of the East River Esplanade from 62nd to 92nd Street. The project involved underwater investigation of low-level and high-level relieving platforms, stone and concrete masonry walls, preparation of letter report to include schematic geometric design to identify the scope of design work for the recommended alternatives, contract drawings and documents for bidding, bid analysis and construction support services.

New York City Department of Parks and Recreation (NYCDPR) Reconstruction and Stabilization of Retaining Walls and Seawalls, New York, NY – Project Manager for inspection, scope development, construction cost estimates, and preparation of repair/reconstruction plans for three retaining walls in Riverside Park and five seawalls on the East River Esplanade. The walls included a dry-laid stone wall spanning approximately 1,860 feet and varying in height from 13 to 28 feet; a reinforced concrete wall spanning approximately 400 feet (20 feet tall); and a stone masonry wall spanning approximately 650 feet and varying in height from 7 to 10 feet.

New York State Bridge Authority (NYSBA) Bear Mountain Bridge Retaining Wall, Peekskill, NY – Project Manager for structural analysis and rehabilitation design of a 200-foot-long, 35-foot-high stone retaining wall adjacent to the Bear Mountain Bridge. The analysis required field testing, probes and borings, including preparation of a complete set of bid documents. ATANE provided design support during construction and participated in the final inspection. After inspecting the wall, we developed several design alternatives to ensure the safety of the structure. The recommended option involved a combination of strengthening and stress relief. The wall was rehabilitated via repointing and replacement of missing stone masonry. A new precast retaining wall was designed for construction directly adjacent to the existing wall to relieve earth pressures. The new wall, consisting of soldier piles with lagging and buttress, was constructed using drilled shaft piles and precast concrete panels. Design also included roadway drainage improvements, architectural detailing and landscaping. Resulting project benefits included: environmental protection, prevention of soil erosion and reduction of maintenance requirements. Construction Cost: \$1 million

Pennsylvania Turnpike Commission (PTC) Replacement of Bridges EB-312, EB-313 and EB-314, Dauphin County, PA – Project Manager for final design and bid documents for the replacement and widening of approximately 1.5 miles of limited-access highway, three mainline bridges, associated structures, additional roadway improvements, drainage and permitting for the Pennsylvania Turnpike from MP 250.76 to MP 251.17. The project is located in Middletown Borough, Lower Swatara Township and Londonderry Township in Dauphin County. The mainline was symmetrically widened from four 12-foot lanes, with 10-foot outside shoulders and a 10-foot-wide median to six 12-foot lanes, 12-foot outside shoulders and a 26-foot-wide median. To minimize right-of-way and environmental impacts and provide adequate room for stormwater management features, ATANE designed two 800-foot-long MSE and two 160-foot-long cast-in-place retaining walls. A comprehensive construction sequencing and traffic control plan was developed to completely reconstruct the mainline to ensure that two lanes of traffic were maintained in each direction at all times during construction. The replacement bridges consisted of two single-span P/S spread box beam structures over SR 2003 and Middletown Hummelstown Railroad and a four-span continuous steel plate girder structure over Swatara Creek and Swatara Creek Road. They replace single-span reinforced concrete T-beam bridges and a six-span steel riveted-plate girder bridge. Substructures consist of cast-in-place abutments and piers founded on spread footings and pile foundations. The project included design of 7,600 lineal feet of ground- and structure-mounted sound barriers to abate traffic noise. Construction Cost: \$54 million



Hassan Rashid, PE QA/QC

Education

Master of Science, Civil Engineering, City College of New York, 1982

Bachelor of Science, Civil Engineering, Bangladesh University of Engineering and Technology, 1978

Professional Registrations

Professional Engineer
NY, #068437
MA, #36584
CT, #PEN0017508
NJ, #24GE03731100

Summary of Experience

Hassan Rashid, an Engineer in the Engineering Design Services Department, joined ATANE in 2018 with experience leading bridge and roadway engineering projects for clients such as the New York City Department of Transportation, New York City Department of Parks and Recreation, the New Jersey Department of Transportation, the Massachusetts Department of Transportation, the Connecticut Department of Transportation, the New York State Department of Transportation, New York City Transit, and the Port Authority of New York and New Jersey.

In a career extending close to four decades, Hassan acquired extensive experience in the rehabilitation and replacement of infrastructure—bridges, buildings, railroads, highways and related facilities—in and around New York and New Jersey. He has been responsible for all phases of project development, from senior management positions to analyses, design and inspection for multidisciplinary engineering projects.

Representative projects include:

New York City Department of Design and Construction (NYCDDC) Randall's Island Roadways, New York, NY – QA/QC Engineer for preliminary and final design and related services for reconstruction of 3.25 miles of Randall's Island's major circulation roads and connector streets. While the island has new sports facilities, playground, and picnic areas, configuration of its major circulation roads needed improvements. The goal of the design team was comprehensive planning and sound engineering design for reconstruction bid documents reflecting community planning, safety and accessibility concerns, and thoughtfully engineered solutions. Design tasks included topographic surveys; traffic counts and studies; schematic geometric design of intersections; safety improvements; new signals and traffic signs and, possibly, widening; bike path, ADA ramps, and potential pedestrian crossings; pavement conditions; lawn and grading; a subsurface exploration program and tree inventory; schematic landscape/urban design; street design including grading, drainage, and signage; tree impact mitigation and planting program; and street lighting and traffic signal design. Hassan reviewed the final report and plans.

New York City Department of Parks and Recreation (NYCDPR) – Director of Engineering: Principal-in-Charge of the following relevant projects:

- **Reconstruction of DOCK A at 79th Street Boat Basin in Riverside Park, New York, NY:** Preliminary and final design, procurement of permits and environmental review. Total design and construction cost \$7 million. 100% FEMA funded.
- **Stabilization of Shorefront at Alice Austen Park in Staten Island and Traverse Park in Queens, NY:** Design of revetment and shore protection for 100 year storm. Procure joint NYSDEC and USACE permit. Total estimated construction cost \$5 million for Alice Austen Park and \$2 million for Traverse Park. 100% FEMA funded.
- **Reconstruction of seawalls, relieving platform and bulkheads along East River Esplanade in New York, NY:** Inspection, study work and reconstruction of East River Esplanade protection extending from East 16th to East 116th Streets. Design complete for two segments between 88th & 90th Streets, 114th & 116th Streets. Construction cost \$15 million, 100% City funded.
- **East 107th Street Pier in Manhattan over East River:** Completed preliminary report and conceptual reconstruction design for a new 400-foot-long recreation pier on East River. Estimated construction cost \$40 million. Final Design and Construction on hold for procurement of funding.

New York City Department of Transportation (NYCDOT), Manhattan and Brooklyn, NY – Engineer-in-Charge responsible for managing and supervising design and construction work for bridges in the boroughs of Manhattan and Brooklyn. Projects included:

- **East 178th Pedestrian Bridge over Metro-North Railroad, Bronx, NY** – Total design and reconstruction. Construction Cost: \$3 million
- **Park Lane South Bridge over LIRR, Queens, NY** – Total design and reconstruction. Construction Cost: \$4 million
- **7th Avenue, Cortelyou Road, 15th, 17th, 18th, 19th and 20th Avenue Bridges over NYCT Subway Lines, Brooklyn, NY** – Total design and construction. Construction Cost: \$35 million
- **Marine Borers Protection at FDR Drive Relieving Platforms, New York, NY** – Total design and procurement of REI contract. Construction Cost Estimate: \$100 million
- **Belt Shore Parkway from Fresh Creek Basin to Bay Ridge Avenue, Brooklyn, NY** – Final design for improved riding condition. The project involved reconstruction and replacement of six bridges carrying Belt Shore Parkway and widening of the Parkway by 10 feet in each direction. Construction Cost Estimate: \$850 million
- **2nd and 14th Avenue Bridges over LIRR and NYCT Sea Beach Line, Brooklyn, NY** – Final design and reconstruction. Construction Cost: \$12 million
- **Congress Street Bridge over the BQE and Lincoln Road Bridge over the NYCT Subway Line, Brooklyn, NY** – Total design and reconstruction. Construction Cost: \$13 million
- **Kings Highway Bridge over NYCT, Brooklyn, NY** – Reconstruction of bridge. Construction Cost: \$3.5 million
- **Metropolitan Avenue and Grand Avenue Bridges over Newtown Creek, NY** – Preliminary design for rehabilitation. Construction Cost Estimate: \$40 million



Kenneth Mangam, PE *Structural Task Leader*

Education

Bachelor of Science, Civil Engineering, Rutgers University, 1992

Professional Registrations

Professional Engineer
CT 2016, #PEN.0031435;
FL 2016, #80615;
MA, #54746 exp 06/30/2020;
MD, #49135;
NJ 2016, #24GE05135200;
NY, #075279
RI 2017, #11781;
PA 2016, #PE084503;
TX 2016, #12498;

Certifications

ASCE Design and Construction of Tunnels, 2005
Deep Foundations Institute Augured Cast-in-Place Piles, 2004
NHI Course 130092, Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures, 2013
NJDOT Training on Standard Specifications for Road and Bridge Construction, 2006
OSHA 10 Hour, Construction Safety and Health Training, 2015

Summary of Experience

Kenneth Mangam, Vice President and Manager of the Infrastructure Design Department, is a project manager in civil and structural engineering design with extensive experience in the rehabilitation and replacement of infrastructure (bridges, buildings, railroads, highways and related facilities) in and around New York and New Jersey. He has been responsible for all phases of project development, including structural inspections, engineering analyses, rehabilitation designs, agency coordination and preparation of comprehensive contract documents for multidisciplinary engineering design projects.

Representative project work includes:

Pennsylvania Department of Transportation (PennDOT) Hartz Mill Road Bridge over Conestoga Creek, Berks County, PA – Structural Design Manager for engineering design services for the rehabilitation/replacement of the Hartz Mill Road Bridge on Mill Road (SR7207) over Conestoga Creek. The original bridge was built in 1956 and reconstructed in 1973. This was ATANE's first PennDOT project, which was funded by state and federal moneys. The original 43-foot single-span structure, classified as structurally deficient, was restricted to carrying vehicles weighing less than or equal to the posted weight—16 tons and 24 tons combined. The project required replacement of the superstructure as well as repairs to the substructure. Approach safety features were upgraded to meet current design standards. Improvements also included the stream alignment and embankments as well as bridge scour protection. The project also included minimal approach roadway reconstruction to ensure that the new superstructure seamlessly tied into the existing setting. Preliminary design took one year; total contract length, including final design and construction support services, was approximately 24 to 36 months. Construction Cost: \$650,000 (est)

Essex County East Northfield Road over Canoe Brook, Livingston Township, NJ – Project Manager for complete replacement of this concrete-encased steel bridge with a new precast concrete superstructure bridge on integral abutments. Work included in-depth bridge inspection; surveying and mapping; traffic study; subsurface investigation; drainage design; roadway geometrics; profile grading; access management; civil/site design; bridge demolition design; superstructure/substructure design; construction staging and maintenance and protection of traffic; and environmental permitting. Construction Cost: \$1.8 million



Rutgers University Pedestrian Bridge over the Raritan River, New Brunswick, NJ – Civil Design Manager for conceptual design for a new 700-foot-long pedestrian crossing based on the Rutgers University master plan for future development. Several bridge options were evaluated, including steel truss, cable stay, and steel multi-girder superstructures. Prepared order-of-magnitude cost estimates, developed permit requirements and identified potential environmental impacts. Construction Cost: \$40 million (est)

New York City Department of Parks and Recreation (NYCDPR) Fort Totten Park Seawall Reconstruction, Queens, NY – Project Manager for reconstruction and stabilization of a 150-year-old, mile-long seawall that protects the park's grounds from the waters of the Long Island Sound and Little Neck Bay. ATANE provided a detailed condition assessment of the masonry wall, evaluated the structural integrity of deteriorated segments, developed repair alternatives and recommendations, and prepared contract documents for repair/restoration of the wall and shoreline stabilization to prevent further deterioration. Rehabilitation work included concrete repairs (cracks, spalls, and delaminations), masonry restoration, strengthening the wall, and full replacement of collapsed wall sections. The design also included soil stabilization at washouts to prevent foundation erosion. The project required significant coordination with the NYSDEC/NYSDOC and the US Army Corps of Engineers to obtain permits for tidal wetlands, excavation and fill in navigable waters, and Clean Water Act water quality certification. Construction Cost: \$1 million

New York City Department of Parks and Recreation (NYCDPR) Collect Pond Park Reconstruction, New York, NY – Project Manager for design of the complete reconstruction of this historic park site adjacent to court buildings in an extremely busy section of Lower Manhattan. The project removed vehicle parking on the park development lot and converted it into open space for passive recreation. It included the design of a shallow pond with a pedestrian bridge, interactive ground sprays, trees and landscape plantings, architectural paving, curbs, sidewalks, benches, game tables, fencing, and lighting. Design work included new city sidewalks and reconstruction of several NYCT ventilation gratings. The NYCDOT implemented significant provisions for maintenance and protection of pedestrian traffic. New stormwater sewer site connections, a new sewer through the site, site drainage piping, private utility relocations, a new NYCDEP water service with backflow preventer, a new Con Edison electrical service for site amenities and separate electrical service for site lighting were required. Construction Cost: \$4.4 million

MTA Bridges and Tunnels Marine Parkway and Cross Bay Bridges 2009-2010 Biennial Inspection and Miscellaneous Structural Repairs, Brooklyn/Queens, NY – Senior Structural Engineer for load ratings and structural analysis of flag conditions for bridges and appurtenances. Level 1 load ratings were prepared for the bridge's concrete T-beam and box-beam sections. Structural flag analysis included high-mast light towers and sign structures at bridge approaches.

New York State Department of Transportation (NYSDOT) Hylan Boulevard Bridges Rehabilitation, Staten Island, NY – Project Manager for project scoping and preliminary/final design services for the rehabilitation of two steel multi-girder bridges over the high-volume Staten Island Expressway (I-278). Rehabilitation includes deck replacement, superstructure repairs, bearing replacement and substructure modifications. Work includes in-depth inspection, load ratings, traffic analysis, hazardous materials investigation and a concrete coring and assessment program. Provided design support throughout construction. Design was completed under budget, and the first bridge was reopened to traffic over four months early, earning critical acclaim from the Governor's office. Construction Cost: \$10 million

Anand Hegde, PE *Structural Engineer*

Education

Master of Engineering,
Civil Engineering
(Structures), Stevens
Institute of Technology,
Hoboken, NJ
Bachelor of Civil
Engineering, SDM College
of Engineering and
Technology, Dharwad,
India

Professional Registrations

Professional Engineer
NY 2015, #095411;

Professional Associations

American Iron and Steel
Institute
American Society of Civil
Engineers
Construction
Management Association
of America

Summary of Experience

Anand Hegde, an Assistant Vice President in the Engineering Design Department, joined ATANE in 2017 with extensive experience on major infrastructure projects in the US, Australia and Qatar during the tender, detailed design and construction phases. He has demonstrated knowledge in bridge design and inspection, and well-developed technical knowledge in structural design and problem-solving. He is adept at project management and construction support services; familiar with development of technical proposals, specifications, reports, contract drawings and details; experienced in managing design teams, leading internal and external teams, and coordinating team members in a multidisciplinary environment; client liaison and relationships; and mentoring and coaching of junior engineers.

Representative projects follow.

Brooklyn Bridge Park Development Corporation, New York, NY – Structural Engineer for design of a cast-in-place reinforced concrete walkway bridge at Pier 5 bulkhead; verified plate girder walkway bridge connecting Piers 1 and 2; verified precast composite walkway bridges connecting piers and bulkhead; and designed custom-made reinforced concrete pedestals/foundations for 45-foot-tall light poles.

New York State Department of Transportation (NYSDOT) West Side Pier, Bulkhead and Building Inspection, New York, NY – Structural Engineer for condition inspection, load rating and study/report for 16 piers along the Hudson River between Battery Park City and 34th Street. Project involved in-depth inspection of bulkhead, concrete under deck and above-water piles and supporting system (pile bents) and preparation of concrete, pile and pile bent repair alternatives for construction drawings and cost estimates.

Saw Mill Road Bridge Replacement, Town of Guilford, CT – Technical Lead/Senior Engineer for semi-final and final design of a new precast prestressed deck unit bridge structure for the town of Guilford in

Connecticut. The new simple span bridge structure consists of 62 ft span length and supported on 3 ft dia drilled shaft supported abutment. Responsibility includes guiding junior engineers with design calculations, development of drawings and details, review of calculations and QA/QC. Even though this is a simple span bridge, the design has been challenging due the site constraints and depth constraints. We have recently submitted semi-final design for review and comments.



Rutgers University Pedestrian Bridge over the Raritan River, New Brunswick, NJ – Lead Bridge Engineer for conceptual design for a new 700-foot-long pedestrian crossing based on the Rutgers University master plan for future development. Several bridge options were evaluated, including steel truss, cable stay, and steel multi-girder superstructures. Prepared order-of-magnitude cost estimates, developed permit requirements and identified potential environmental impacts.

New York City Department of Parks and Recreation (NYCDPR) Reconstruction and Stabilization of Retaining Walls and Seawalls, New York, NY – Structural Engineer for inspection, scope development, construction cost estimates, and preparation of repair/reconstruction plans for three retaining walls in Riverside Park and five seawalls on the East River Esplanade. The walls included a dry-laid stone wall spanning approximately 1,860 feet and varying in height from 13 to 28 feet; a reinforced concrete wall spanning approximately 400 feet (20 feet tall); and a stone masonry wall spanning approximately 650 feet and varying in height from 7 to 10 feet.

Pennsylvania Department of Transportation (PennDOT) Hartz Mill Road Bridge over Conestoga Creek, Berks County, PA – Lead Bridge Engineer/Team Leader for engineering design services for the rehabilitation/replacement of the Hartz Mill Road Bridge on Mill Road (SR7207) over Conestoga Creek. The original bridge was built in 1956 and reconstructed in 1973. This was ATANE's first PennDOT project, which was funded by state and federal moneys. The original 43-foot single-span structure, classified as structurally deficient, was restricted to carrying vehicles weighing less than or equal to the posted weight—16 tons and 24 tons combined. The project required replacement of the superstructure as well as repairs to the substructure. Approach safety features were upgraded to meet current design standards. Improvements also included the stream alignment and embankments as well as bridge scour protection. The project also included minimal approach roadway reconstruction to ensure that the new superstructure seamlessly tied into the existing setting. Preliminary design took one year; total contract length, including final design and construction support services, was approximately 24 to 36 months. Construction Cost: \$650,000 (est)

QENFB Access Bridge – Package Manager for a bridge-causeway-bridge configuration with a total length of about 1,400 meters. The Access Bridge connects the new offshore navy base and the mainland. Managed tender package from beginning to evaluation stage. Responsible for technical component of contract documents, including technical write-up, scope of work, design requirements, quality requirements, safety requirements, milestone completion requirements, and time schedule. Worked closely with the concept stage designers, the client and stakeholders to produce tender package, and provided regular progress reports to the client. Coordinated and managed interfaces between the access bridge and other infrastructure packages on either side of the bridge during the design stage to reduce conflicts during construction. Organized mid-tender meeting and site visit; managed tender queries; led and managed technical evaluation of tenders; and assisted in preparing the evaluation report. Anand tracked costs and managed the design budget and was responsible for design review, coordination and management. He reviewed technical (structural) drawings, specifications, and design reports related to new port quay walls, ship-to-shore crane beams, utility buildings and infrastructure, etc. Produced design review comments, make recommendations, and coordinated review activities between different geographies. He served as liaison and coordinated and interfaced between different disciplines, design packages, designer, client and stakeholders. Reviewed and monitored design activities of design consultant and completion of designer's scope of work and design milestone completion and ensured compliance with client's contract requirements.

Esmail Mahbub, EIT *Structural Designer*

Education

Master of Science,
Structural Engineering,
Stevens Institute of
Technology, Hoboken, NJ,
2015

Bachelor of Civil
Engineering, Herat
University, Herat,
Afghanistan, 2006

Professional Registrations

Engineer-in-Training, NY

Certifications

NYCDOB 16-Hour User
Course,
NYCDOB 4-Hour
Supported Scaffold User
Certificate
OSHA 10 Hour

Summary of Experience

Esmail Mahbub, a Structural Designer in the Facilities Design Department, joined ATANE in 2018 with experience in façade envelope repair and Local Law 11 compliance; roofing system repair and restoration; sidewalk and on-vault slab repair and renovation; building structural demolition and restoration; special inspections and site supervision; steel, concrete, brick masonry, and composite construction; concrete and steel structures design; structural analysis; computer-aided design; construction management; and geotechnical design.

Representative projects include:

New York City Housing Authority (NYCHA) Gravesend Houses Superstorm Sandy Recovery, Brooklyn, NY – Structural Engineer for development of design plans for new roof, building envelope, centralized boiler plant, and electrical distribution system, and replacement of all mechanical equipment in each of the 15 buildings, which suffered considerable damage during Superstorm Sandy. Constructed in 1954, the 12.41-acre campus is home to approximately 1,680 residents in 634 apartments. Construction Cost: \$115 million

New York City Transit (NYCT) Enhanced Station Initiative (ESI) Package 8: Two Stations on the IND Line and One Station on the IRT Line, Manhattan/Bronx, NY – Structural Designer for joint venture architectural and engineering design services for the rehabilitation of three stations in support of the design-builder. ESI Package 8 encompasses two stations on the IND Concourse Line in the Bronx (174/175th Street Station and 167th Street Station) and one station on the IRT Lenox Avenue Line in Manhattan (145th Street Station). Station enhancements include: improved LED lighting and signage, including digital, real-time updates at subway entrances; custom industrial design elements such as stair canopies, benches, and receptacles, and informational components such as “totems” and “dashboards”; amenities such as countdown clocks, cellular connectivity, Wi-Fi, new art, and security cameras; renovations that consider the architectural legacy of each station; historic preservation for components at the 145th and 167th Street stations; and steel entrance canopy at the 174/175th Street Station. Construction Cost: \$88 million

Massachusetts School Building Authority (MSBA) Accelerated Repair Program (ARP), Worcester Public Schools Window, Door, and Miscellaneous Repairs at Three Schools, Worcester, MA – Structural Engineer for architectural and engineering services for three schools as part of our services for the ARP: Lincoln Street School (window, door, and slate roof replacement); Thorndyke Road School (window and door



replacement); and Elm Park Community School (window and door replacement). ATANE performed field investigation surveys at each school and documented existing conditions, including exterior windows and doors, door hardware, slate roof (Lincoln School), accessible ramps and restrooms, and drinking fountains; topographic surveys for design of new ADA ramps; a limited asbestos survey of the building interior areas to be impacted by ADA upgrades; and façades, windows, doors, and roofing materials. A feasibility report for the three schools will cover architectural, structural, MEP, environmental, survey, and cost estimating. The next project deliverables will include a schematic design submittal, 60% CD submittal, and 100% construction documents submittal. The contract includes bid assistance and construction administration services during the construction phase. As Structural Engineer, Esmail evaluated the capacity of the existing slab and structures to withhold additional ramp slab construction at the entrance area. Construction Cost: \$7.5 million

Architectural Firm, New York, NY – Structural Project Engineer for preparing construction drawings and documents; Local Law 11 report preparation and submission to DOB; reviewing and approving engineering design calculations; commercial and residential restoration projects; façade renovation; structural calculations; communications with clients; attending meetings; inspecting sites; project assessment and evaluation; preparing sketches and field directives; and writing and preparing site reports. Major projects included:

- Sidewalk Slab and Vault Restoration, 67 East 11th Street
- Façade Renovation, 200 Central Park South and 52 East End Avenue
- Structural Renovation and Repair, 55 Wall Street, 200 Central Park, and 101 Clark Street
- Local Law 11 and FISP Projects, 400 Riverside Drive, 2 West 29th Street, 40 East 9th Street, 301 East 87th Street, 789 West End Avenue, 212 West 18th Street, etc.

Superstructure and Engineering Firm, New York, NY – Structural Project Engineer for preparing structural drawing sets for various projects related to NYU, NYCHA, DASNY, CUNY, etc. Performed calculations and analysis of façade structural components as well as existing structures. Prepared demolition and renewal plans. Conducted site visits. Performed structural assessments of various projects; and terra cotta, façade, and parapet structural component design. Reviewed contractors' submittals for approval. Prepared specifications for construction sets and sketches; performed site measurements; and supervised project construction activities. Major projects included:

- Sidewalk Slab and Vault Restoration, 16-20 Cooper Square
- Façade Renovation, New York University (NYU), 404 Lafayette; and Court Officer Training Center
- Structural Renovation and Repair, NYU, 404 Lafayette and 708 Broadway; New York City Health and Hospitals Corporation; and City University of New York (CUNY)
- Structural Concrete Replacement and Addition, Queens – Five-story 1950s college
- Partial Demolition and Renewal, Munchery Facility; and NYU, 404 Lafayette
- Roof Renovation and Replacement, Queens College Gym; and CUNY Bronx Community College
- Local Law 11 and FISP Projects, –Big Six Towers; 1 Atlantic Avenue; NYU Colleges and Dormitory; etc.)



Carmen Rosario, ENV SP, EIT *Senior Civil Engineer*

Education

Bachelor of Science
Civil Engineering
City College of
New York, 2008

Professional Registrations

Engineer-in-Training, NY
Envision Sustainability
Professional

Professional Associations

American Society of Civil
Engineers

Summary of Experience

Carmen Rosario, a Senior Civil Engineer, specializes in the design of civil work (soil erosion and sediment control, grading, site restoration, sanitary and storm drainage, stormwater management, maintenance and protection of traffic, and environmental permitting) for state and city agencies, including the New York State Department of Transportation, New York City Department of Transportation, New York City Department of Design and Construction, and New York City Department of Parks and Recreation.

New York City Department of Parks and Recreation (NYCDPR) West 79th Street Boat Basin A-Dock Reconstruction, New York, NY – Assistant Engineer for an in-house survey, condition inspection, structural engineering and geotechnical design services for the reconstruction of the public pier (A-Dock) at the West 79th Street Boat Basin. Our pre-design services included topographic and bathymetric surveying, testing, structural condition inspection of the pier deck and geotechnical investigations. After the substructure inspection was completed by the New York City Department of Parks and Recreation, ATANE completed the superstructure condition inspection and report, which included recommendations for both reuse and replacement. In Fall 2012, the storm surge from Superstorm Sandy damaged A-Dock, rendering it unsafe for use. A completely new superstructure was designed and approved by the Public Design Commission. Tasks included preparation of contract documents and engineer's estimate for the installation of concrete-filled steel piles, concrete pier caps, fiberglass stringers, timber decking, wave wall, dolphin piles and utility re-connections. Carmen was responsible for preparing bid documents (drawings, technical specifications, estimate, and contract book). Construction Cost: \$4.5 million

New York City Department of Parks and Recreation (NYCDPR) East Park at Freshkills Park, Staten Island, NY – Assistant Engineer for engineering design for the 482-acre East Park, which sits along Richmond Avenue, Staten Island's major commercial corridor. Freshkills Park is a long-term project that will provide open space, recreational and cultural facilities, and landscape enhancements at the Fresh Kills landfill site. The East Park project includes the construction of a boardwalk connecting the roadway to Richmond Avenue and a kayak launch. Amenities will increase the quality and quantity of recreational opportunities in East Park, while preserving and improving the natural setting. Enhancements to the park include three new ADA-compliant entrances from Richmond Avenue; new connecting pathway segments and wayfinding signage; a



wetlands boardwalk; new fencing and gates; sign structures; storm drainage modifications; landscape planting; drinking fountains; and lighting. We also prepared a stormwater pollution prevention plan and obtained various permits. Construction Cost: \$10 million

New York City Department of Parks and Recreation (NYCDPR) Collect Pond Park Reconstruction, New York, NY – Assistant Engineer for design of the complete reconstruction of this historic park site adjacent to court buildings in an extremely busy section of Lower Manhattan. The project removed vehicle parking on the park development lot and converted it into open space for passive recreation. It included the design of a shallow pond with a pedestrian bridge, interactive ground sprays, trees and landscape plantings, architectural paving, curbs, sidewalks, benches, game tables, fencing, and lighting. Design work included new city sidewalks and reconstruction of several NYCT ventilation gratings. The NYCDOT implemented significant provisions for maintenance and protection of pedestrian traffic. New stormwater sewer site connections, a new sewer through the site, site drainage piping, private utility relocations, a new NYCDEP water service with backflow preventer, a new Con Edison electrical service for site amenities and separate electrical service for site lighting were required. Carmen was responsible for preparing contract documents (drawings, technical specifications, and cost estimates) and obtaining NYCDEP site connection permit and NYCDOB curb cut and pavement plan permits. Construction Cost: \$4.4 million

New York City Department of Parks and Recreation (NYCDPR) Fort Totten Park Seawall Reconstruction, Queens, NY – Assistant Engineer for reconstruction and stabilization of a 150-year-old, mile-long seawall that protects the park's grounds from the waters of the Long Island Sound and Little Neck Bay. ATANE provided a detailed condition assessment of the masonry wall, evaluated the structural integrity of deteriorated segments, developed repair alternatives and recommendations, and prepared contract documents for repair/restoration of the wall and shoreline stabilization to prevent further deterioration. Rehabilitation work included concrete repairs (cracks, spalls, and delaminations), masonry restoration, strengthening the wall, and full replacement of collapsed wall sections. The design also included soil stabilization at washouts to prevent foundation erosion. The project required significant coordination with the NYSDEC/NYSDOC and the US Army Corps of Engineers to obtain permits for tidal wetlands, excavation and fill in navigable waters, and Clean Water Act water quality certification. Construction Cost: \$1 million

New York City Department of Parks and Recreation (NYCDPR) Coney Island Boardwalk Entrance Ramps, Brooklyn, NY – Assistant Engineer for design of new entrance ramps from the street to the boardwalk at West 33rd Street and Brighton 2nd Street in Coney Island, as part of a team. Each location required structural and geotechnical design and field investigation of retaining walls to support the new pathways. We provided topographical land surveys, civil engineering design of the roadway geometrics, design of water supply features for the inclusion of ground hydrants, and electrical design for new lighting along the paths. The project required coordination with the New York City Department of Transportation, the New York City Department of Environmental Protection, the New York City Division of Street Lighting, and the New York City Fire Department to obtain sign-offs.

New York City Department of Parks and Recreation (NYCDPR) Reconstruction and Stabilization of Retaining Walls and Seawalls, New York, NY – Engineer for inspection, scope development, construction cost estimates, and preparation of repair/reconstruction plans for three retaining walls in Riverside Park and five seawalls on the East River Esplanade.



Patrick Murray *Junior Civil Engineer*

Education

B.S., Civil Engineering,
Manhattan College, 2017

Professional Registrations

Engineer-in-Training, NY

Summary of Experience

Patrick Murray joined the Engineering Design Department in 2017 with experience in project management, administration of renovation activities, and asset management for the Port Authority of New York and New Jersey. His contributions to current projects include those for the NYCDDC, NYCDPR, and Westchester County, including Randall's Island Roadway Improvements, Rehabilitation and Reconstruction of Retaining Walls and Seawalls along FDR Drive, Green Infrastructure in the Gravesend Bay CSO Tributary Area, and Roadway Improvements at Commerce Street in Westchester County. Patrick's experience includes AutoCAD, field investigations, permitting, GIS, and review of survey drawings.

Representative projects include:

New York City Department of Parks and Recreation (NYCDPR) Reconstruction and Stabilization of Retaining Walls and Seawalls, New York, NY – Junior Civil Engineer for inspection, scope development, construction cost estimates, and preparation of repair/reconstruction plans for three retaining walls in Riverside Park and five seawalls on the East River Esplanade. The walls included a dry-laid stone wall spanning approximately 1,860 feet and varying in height from 13 to 28 feet; a reinforced concrete wall spanning approximately 400 feet (20 feet tall); and a stone masonry wall spanning approximately 650 feet and varying in height from 7 to 10 feet. Patrick was responsible for New York City Department of Small Business Services and New York State Department of Environmental Conservation permit preparation and submittal. He updated the future cost analysis for reconstruction/rehabilitation of the seawalls.

New York City Department of Parks and Recreation (NYCDPR) Community Parks Initiative, New York City – Junior Civil Engineer for civil engineering design services for the construction of green infrastructure practices at 16 parks as part of the NYC Community Parks Initiative to transform neighborhood parks by repairing, redesigning, and reconstructing smaller local parks as capital projects. An additional goal of this initiative is to remove a one-inch volume of rainfall from the City's sewer system by combining green infrastructure practices into a cohesive stormwater management plan and design. ATANE used the landscape architect's site plans and rain garden/bioswale locations to determine media thicknesses, piping connections, hydraulic characteristic, and subsurface storage requirements and performance based on geotechnical soil characteristics (site permeability), allowable site discharge, available land areas and uses, and GI practice draw down



times for clearing the stormwater from the practices. Engineer's construction cost estimates and preparation of special specifications are included in the project as well as water supply service designs for NYCDPR located facilities, including reduced pressure zone devices and new water connections as well as water services to on-site park water spray showers and play features. Patrick provided construction support services and addressed contractors' questions to respond to Requests for Information during construction.

New York City Department of Design and Construction (NYCDDC) Randall's Island Roadways, New York, NY – Junior Civil Engineer for preliminary and final design and related services for reconstruction of 3.25 miles of Randall's Island's major circulation roads and connector streets. While the island has new sports facilities, playground, and picnic areas, configuration of its major circulation roads needed improvements. The goal of the design team was comprehensive planning and sound engineering design for reconstruction bid documents reflecting community planning, safety and accessibility concerns, and thoughtfully engineered solutions. Design tasks included topographic surveys; traffic counts and studies; schematic geometric design of intersections; safety improvements; new signals and traffic signs and, possibly, widening; bike path, ADA ramps, and potential pedestrian crossings; pavement conditions; lawn and grading; a subsurface exploration program and tree inventory; schematic landscape/urban design; street design including grading, drainage, and signage; tree impact mitigation and planting program; and street lighting and traffic signal design. Patrick reviewed drafts of topographic survey submissions and assisted with the development of the schematic geometric design, roadway pavement design, and preliminary design investigation reports.

Westchester County Department of Public Works (WCDPW) Commerce Street (CR 29) Rehabilitation from Liberty Street to West Stevens Avenue, Westchester, NY – Junior Civil Engineer for milling and overlay of 1.2 miles of Commerce Street in the Hamlet of Hawthorne in Mount Pleasant. The project involved milling and overlay of 1.2 miles of Commerce Street, a traffic and safety study, and alternative schemes for reconfiguration of the Commerce Street/Elwood Avenue intersection. Patrick has performed field investigations and street asset data collection for current roadway conditions. He also prepared existing and proposed roadway cross-sections in AutoCAD to describe existing conditions.

New York City Department of Design and Construction (NYCDDC) Gravesend Bay CSO Tributary Area, Phase II, Brooklyn, NY – Engineer for site selection and engineering design services for 836 acres of the Gravesend Bay CSO Tributary Area. Site selection includes tributary drainage area analysis and walk-throughs, where the team is responsible for identifying areas for geotechnical assessment and, subsequently, green infrastructure implementation. A boring and permeability testing program will help ascertain rock and groundwater elevation and overall suitability of each potential site for right-of-way green infrastructure. Sites selected after geotechnical review will be surveyed and design packages prepared for groups of 250 to 300 sites. ATANE is following the NYCDEP Office of Green Infrastructure (OGI) site selection procedure, which includes evaluating each specific sub-tributary area using NYCDEP GIS sewer maps; performing walk-throughs with the OGI, NYCDOT, and NYCDPR; conducting site analysis prior to design; limited geotechnical investigation (soil borings and permeability testing); and limited topographical, utility, vault and basement surveying.

David Price, PE, LEED AP *Electrical/Lighting Task Leader*

Education

Bachelor of Science,
Electrical Engineering,
Drexel University,
Philadelphia, PA 1994

Professional Registrations

Professional Engineer
MD #34014;
NJ 2014, #24GE04629800;
PA 2000, #PE055637E;

Certifications

LEED AP, 2006
MTA NYC Transit Track
Safety Certification, 2016

Professional Associations

Institute of Electrical and
Electronics Engineers

Summary of Experience

David Price, MEP Group Leader within the Architecture/Facilities Design Department, joined ATANE in 2016 with extensive experience in the consulting engineering industry. Over the course of his career, David has managed large, multidisciplinary projects that often required close interaction with MEP engineers, architects, planners, contractors and other subconsultants. He has considerable experience on transportation (rail/transit/highway/aviation), federal, educational, hospitality, entertainment and commercial projects that involve low- and medium-voltage distribution, communications infrastructure, intelligent transportation, fire alarm, security, CCTV, paging, mass notification, and photovoltaic elements.

His managerial approach is to focus on teamwork, accuracy and effectiveness. He believes that communication with team members as well as clients is important to convey goals and expectations on an ongoing basis. In addition to leading successful teams, David has managed the financial functions of the group, including budgeting, staffing, invoicing, and proposal preparation with pricing and assisted with accounts receivables.

Representative project work follows:

Lower Merion Township, Belmont Hills Pool Renovation, Lower Merion, PA – Project Manager and Senior Electrical Engineer for revamping facility to include new tot pool, bathhouse, and filter room. This involved revisions to site electrical distribution system, new plumbing and mechanical systems, data and telecom layout, and site lighting.

Liberty Property Trust Axalta Philadelphia Navy Yard LEED Fundamental and Enhanced Commissioning and Energy Modeling, Philadelphia, PA – Team Leader for LEED fundamental and enhanced commissioning and energy modeling services for a 175,000-square-foot, two-story core and shell building in the Philadelphia Navy Yard. Commissioning involved site lighting, building exterior-mounted lighting, ventilation of two stair towers, and interior code required egress lighting. The Philadelphia Navy Yard is a 1,200-acre dynamic and urban development, offering the region a unique and centrally located waterfront business campus committed to smart energy innovation and sustainability. The Navy Yard is home to more than 12,000 employees and 152 companies in the office, industrial, manufacturing, and research and development sectors, occupying 7.5 million square feet of real



estate in a mix of historic buildings and new high-performance and LEED-certified construction.

New York City Housing Authority (NYCHA) Exterior Site Lighting at 12 Developments, New York City – Project Manager for lighting upgrades at 12 NYCHA developments—Ravenswood, Boulevard, Bushwick, Castle Hill, Stapleton, Brownsville, Van Dyke I, Van Dyke II, Tompkins, Ingersoll, Queensbridge North, and Queensbridge South—composed of 150 buildings and more than 200 acres. ATANE designed lighting for the grounds, building entrances, walkways, parking lots, and outdoor recreational areas. The new lighting gave residents a greater comfort level and enabled them to use the basketball courts, baseball fields, and tennis courts past dark. We conducted a site lighting analysis of conditions at each development to determine the proper number and layout of new LED lighting fixtures and provided a layout and photometric analysis using selected LED fixtures. We designed new site lighting along with concrete foundations, conduits, and wiring, as well as new electrical distribution and controls dedicated to the new site lighting. The fast-track project allowed three months for each development. The new LED fixtures resulted in a significant reduction in electrical demand. The project received the 2017 ACEC New York Platinum Award. Construction Cost: \$58.3 million

Sugar House Casino, Parking Lot and Access Roadway Lighting, Philadelphia, PA – Senior Electrical Engineer for lighting design of 1,800-space parking lot and access roadway lighting. Responsibilities included calculation of illumination levels, developing plans for lighting fixture locations and power circuitry, and coordination with landscape architects and civil engineers for successful installation of lighting fixtures and achieving required illumination levels.

Montgomery Township, PA – Street Lighting Engineer for actively working with the Township to review lighting drawings from developers, develop specifications and guidelines, and set standards for lighting. This work involved meeting the standards of IESNA, Pennsylvania Department of Transportation, and LEED.

Civic Center Boulevard, Street Lighting Design, Philadelphia, PA – Street Lighting Engineer for designing street and pedestrian lighting for the one-way loop consisting of South Service Drive, Civic Center Boulevard, and Convention Avenue. Design required coordination with City of Philadelphia Streets Department to ensure consistency with standards of the city and University City District. Performed photometric calculations, voltage drop, and wire and conduit sizing. (2009)

Coal Street, Wilkes-Barre, PA, Street Lighting Design – Street Lighting Engineer for designing street and pedestrian lighting. Design required coordination with the Pennsylvania Department of Transportation to ensure consistency with their standards. Performed photometric calculations, voltage drop, and wire and conduit sizing.

New York City Department of Parks and Recreation (NYCDPR) Fire Alarm System Installation, New York City – MEP Manager for complete design drawings and expediting services for the installation of new fire alarm and detection systems at more than a dozen recreation centers across the city. We are conducting facility surveys to determine equipment placement and assessing fire alarm infrastructure and electrical power needs and requirements, including linking existing elements such as HVAC systems and elevator recall systems. ATANE is generating and furnishing complete plotted floor plans showing the installation of the system designed according to New York City construction and fire codes and other industry standards, governmental regulations, and technical requirements.



Stewar Romhin *Electrical Engineer*

Education

Bachelor of Science,
Engineering Science &
Electrical Engineering, The
City University of NY,
College of Staten Island,
2015

Associate of Science,
Mathematics, The City
University of NY, College
of Staten Island, 2015

Certifications

OSHA 10 Hour

Summary of Experience

Stewar Romhin, an Electrical Engineer in the Facilities Design Department, joined ATANE in 2015 with responsibility for CAD drafting including all phases from design to construction, cost estimating, and responding to RFIs on various MEP projects. He has participated in projects for clients including the New York City Housing Authority, the New York City School Construction Authority, and the School District of Philadelphia.

Representative projects include:

New York City Housing Authority (NYCHA) Exterior Lighting Upgrades at 12 Developments, New York City – Electrical Engineer for lighting upgrades at 12 NYCHA developments—Ravenswood, Boulevard, Bushwick, Castle Hill, Stapleton, Brownsville, Van Dyke I, Van Dyke II, Tompkins, Ingersoll, Queensbridge North, and Queensbridge South—composed of 150 buildings and more than 200 acres. ATANE designed lighting for the grounds, building entrances, walkways, parking lots, and outdoor recreational areas. The new lighting gave residents a greater comfort level and enabled them to use the basketball courts, baseball fields, and tennis courts past dark. We conducted a site lighting analysis of conditions at each development to determine the proper number and layout of new LED lighting fixtures and provided a layout and photometric analysis using selected LED fixtures. We designed new site lighting along with concrete foundations, conduits, and wiring, as well as new electrical distribution and controls dedicated to the new site lighting. The fast-track project allowed three months for each development. The new LED fixtures resulted in a significant reduction in electrical demand. The project received the 2017 ACEC New York Platinum Award. Construction Cost: \$58.3 million

New York City Housing Authority (NYCHA) On-Call Architectural and Engineering Services, New York City – Electrical Engineer for architectural and engineering services including oversight of projects in more than 300 buildings. For Gravesend Houses, as part of a storm recovery project, ATANE designed a new elevated boiler plant, provided stand-by generators, and flood-proofed buildings. Services included architectural design and structural, civil, and MEP engineering as well as façade restorations. In another major effort, ATANE prepared plans and specifications for lighting upgrades at 12 developments to increase security and safety. We assessed existing lighting and developed comprehensive design and construction documents to illuminate walkways, parking lots, and recreational areas. Projects also included architectural inspections of 26 developments to measure compliance



with Americans with Disabilities Act and U.S. Department of Housing and Urban Development Section 504 regulations in apartments, parking facilities, playgrounds, offices, community centers, day care and senior centers, and health clinics. Additional projects entailed design of new boiler plants, installation of energy-efficient rooftop AC units and heat pump units and design for fire suppression for kitchens in common areas. Construction Cost: \$300 million

New York City Housing Authority (NYCHA) Ravenswood Houses Site Lighting Upgrade, Queens, NY – Electrical Engineer for a site lighting survey and design for 31 six- and seven-story buildings with 2,163 apartments. ATANE prepared a site lighting assessment report and design and construction documents and provided construction administration services. The goal of this project was to assess the site lighting at and around the complex and develop a comprehensive site lighting design that maintains a safe and secure environment. In general, the site lighting at Ravenswood Houses is composed of wall packs and wall bracket arms at the buildings, street lighting poles with cobra-head luminaires and floodlights, and park-style light poles with top luminaires. The light lamps are high-pressure sodium with some surface-mounted fluorescent lamps. ATANE developed a design for new LED lighting at existing locations augmented with LED lights at new locations in order to obtain uniform lighting for a safe housing complex. We also replaced fuse panels with new molded-case circuit breaker panels at appropriate locations. Lighting controls were replaced with new photocells, time clocks and bypass switches as required. Visual 2012 was used for the new lighting design. Construction Cost: \$3.8 million

New York City Housing Authority (NYCHA) Beach 41st Street Houses Sandy Recovery, Far Rockaway, NY – Electrical Engineer for design of repairs to restore building components damaged by Superstorm Sandy. The development will receive new stand-by generators to back up all building systems; replace the community center's submerged underground electrical service feeders and conduits as well as all pipes and insulation in pipe access spaces; and upgrade site lighting. Flood mitigation and resiliency plans will protect the development from future hurricanes, storm surges, and wave actions, and increase the flood elevations for sea level rise at all electrical equipment locations. A structural analysis of each building determined the hydrostatic and hydrodynamic loads to which they could be subjected and revealed which walls, floors and mechanical pits required additional reinforcement. The dry flood-proofing of the first floors of all buildings required installation of flood doors and shields, additions/modifications to existing egress, and creation of new flood refuge areas. ATANE also conducted a full site topographical survey and Hazmat investigations and coordinated an exploratory geotechnical report on soil conditions to understand real conditions at the site. Construction Cost: \$25 million

New York City Department of Parks and Recreation (NYCDPR) Fire Alarm System Installation, New York City – Electrical Engineer for complete design drawings and expediting services for the installation of new fire alarm and detection systems at more than a dozen recreation centers across the city. We are conducting facility surveys to determine equipment placement and assessing fire alarm infrastructure and electrical power needs and requirements, including linking existing elements such as HVAC systems and elevator recall systems. ATANE is generating and furnishing complete plotted floor plans showing the installation of the system designed according to New York City construction and fire codes and other industry standards, governmental regulations, and technical requirements.



Jeffrey Kitt *Senior Environmental Planner*

Education

Master of Science, Urban Planning, Columbia University School of Architecture, 1993
Bachelor of Arts, History, Columbia College, Columbia University, 1988

Professional Associations

American Planning Association,
Staten Island Economic Development Corporation

Summary of Experience

Jeffrey Kitt, an accomplished Senior Environmental Planner, joined ATANE in 2016 after serving in the private and public sectors. His expertise encompasses the preparation of environmental review documents and analyses for environmental and transportation projects under the jurisdiction of the New York City Environmental Quality Review Act, New York State Environmental Quality Review Act, and the National Environmental Policy Act. Jeffrey is also adept at the preparation of necessary permitting applications for federal, state and local agencies. His career began as a Transportation Planner for MTA New York City Transit and Long Island Bus.

Jeffrey also has over 23 years of experience complying with applicable regulations relating to environmental issues governing projects in New York City, New York State, Connecticut, and New Jersey as well as the federal government.

Representative projects include:

Rutgers University Pedestrian Bridge over the Raritan River, New Brunswick, NJ – Senior Environmental Planner for a new 700-foot-long pedestrian crossing linking the historic College Avenue campus with the Livingston campus across the Raritan River. ATANE is providing professional engineering services to determine environmental assessment and permitting requirements and developing schematic structural plans, substructure options and sequencing of possible construction of the bridge along with an order-of-magnitude cost estimate. We will identify all permits to satisfy numerous stakeholders, as well as necessary coordination with planned construction on the adjacent Rutgers campus. ATANE will serve in an advisory role for the geotechnical engineering and subsurface investigation, and will identify alternatives for plantings, street furniture, surfacing, and configuration and location of the bridge as well as security elements such as gates, lighting, and cameras. Final design considerations will include seismic, wind, fatigue and vibrations.

Municipal Entity Environmental Assessment Statements and Permitting Compliance, NY – Senior Environmental Planner for preparation of environmental review documents including environmental assessment statements, environmental assessment forms with corresponding analyses, and EISs for both environmental and transportation projects under the jurisdiction of the New York City Environmental Quality Review Act, the New York State Environmental Quality Review Act, and the National Environmental Policy Act. Responsible for preparing permitting applications for various federal,



state, and local agencies. Additional responsibilities consisted of permit management, including utilizing permit identification checklists for New York City Department of Environmental Protection (NYCDEP) projects for identification of required permits and preparation, maintenance, and updating of permit tracking databases for tracking required permits and monitoring permit compliance for all NYCDEP projects. As part of these responsibilities, prepared regulatory compliance plans during the design phase and regulatory transition plans as the process moved from design to construction. Prepared transportation analyses as part of Brownfield Opportunity Area studies, which included an analysis of existing conditions as well as recommendations for future initiatives.

Staten Island Economic Development Corporation (SIEDC) West Shore Stormwater Engineering Study, Staten Island, NY – Project Manager for environmental and design services, as a team member, as part of an effort to improve the economic future of the borough's West Shore through a variety of initiatives, including effective stormwater management, drainage planning, road restructuring, and infrastructure resiliency. ATANE helped to prepare a stormwater engineering study to further identify and address the constraints to development on the West Shore. Green infrastructure improvements may include bioswales, permeable pavement, green roofs and streets, bluebelts, constructed wetlands, walls and barriers, and retention ponds. We also identified prioritized the construction of new infrastructure; evaluated and determined strategic sites for these projects; developed a maintenance program; and provided recommendations on future planning efforts.

Municipal Entity Environmental Assessment Statements and Permitting Compliance, NY – Environmental Planner for management of permitting aspects of reservoir projects in New York State. Tasks included updating permit databases and managing resident engineers and other project team members to ensure compliance, and submitting weekly and monthly reports. Assisted in the preparation of land use, zoning, and land use plan sections for NEPA EIS projects in New York State, including providing technical expertise and gathering land use and zoning regulation information. Assisted in preparation of EAS and EAF analyses and provided permit monitoring analysis for water pollution control systems and water supply reservoirs in New York City. Performed environmental justice analyses for regulated medical waste transfer stations in New York City, and assisted in preparation of categorical exclusion documents for railroad station expansion projects in New Jersey. (11/05 – 08/11)

Environmental Assessment Statement, Environmental Assessment Forms and Environmental Impact Statements for Developers, Property Managers, and Environmental Attorneys, NY – Senior Environmental Planner for preparation of multiple Environmental Assessment Reviews for submission to a number of New York City, New York State and federal agencies, including the New York City Department of City Planning, the New York City Board of Standards and Appeals, the New York City Department of Housing, Preservation and Development, the New York City Department of Environmental Protection, the New York City Department of Homeless Services, the New York City Department of Sanitation, the New York State Department of Environmental Conservation, the Metropolitan Transportation Authority, and the US Department of the Interior, Bureau of Indian Affairs for projects that involved residential, commercial, industrial and municipal components.

Brenda Gomez *Geologist*

Education

Master of Arts,
Environmental Policy and
Sustainability
Management, The New
School

Bachelor of Science,
Geosciences-Geology, Elm
University of
Massachusetts

Certifications

OSHA 10 Hour, 2015
OSHA Respirator
Clearance, 2017

Professional Associations

Urban Green Council

Summary of Experience

Brenda Gomez is an experienced Geologist with a background in environmental consulting. She has participated in diverse remediation projects, including site investigations; UST investigations; contaminated soil and groundwater; oversight monitoring of drilling rigs, including hollow stem augers and GeoProbe units; logging of soil borings; monitoring of well installations; and groundwater sampling using high-flow and EPA low-flow procedures and methodologies. She has assisted with the collection of soil samples, community air monitoring utilizing multiple types of instrumentation, and bio-enhancing procedures to accelerate site remediation. A competent researcher with significant knowledge of environmental policy and regulatory and legal procedures, Brenda is also an efficient technical writer familiar with communicating and interacting with various professional levels.

Representative projects include:

New York City Department of Parks and Recreation (NYCDPR) West 79th Street Boat Basin A-Dock Reconstruction, New York, NY – Geologist for an in-house survey, condition inspection, structural engineering and geotechnical design services for the reconstruction of the public pier (A-Dock) at the West 79th Street Boat Basin. Our pre-design services included topographic and bathymetric surveying, testing, structural condition inspection of the pier deck and geotechnical investigations. After the substructure inspection was completed by the New York City Department of Parks and Recreation, ATANE completed the superstructure condition inspection and report, which included recommendations for both reuse and replacement. In Fall 2012, the storm surge from Superstorm Sandy damaged A-Dock, rendering it unsafe for use. A completely new superstructure was designed and approved by the Public Design Commission. Tasks included preparation of contract documents and engineer's estimate for the installation of concrete-filled steel piles, concrete pier caps, fiberglass stringers, timber decking, wave wall, dolphin piles and utility re-connections. Construction Cost \$4.5 million

Rutgers University Pedestrian Bridge over the Raritan River, New Brunswick, NJ – Geologist for a new 700-foot-long pedestrian crossing linking the historic College Avenue campus with the Livingston campus across the Raritan River. ATANE is providing professional engineering services to determine environmental assessment and permitting requirements and developing schematic structural plans, substructure options and sequencing of possible construction of the bridge along with an order-of-magnitude cost estimate. We will identify all permits to



satisfy numerous stakeholders, as well as necessary coordination with planned construction on the adjacent Rutgers campus. ATANE will serve in an advisory role for the geotechnical engineering and subsurface investigation, and will identify alternatives for plantings, street furniture, surfacing, and configuration and location of the bridge as well as security elements such as gates, lighting, and cameras. Final design considerations will include seismic, wind, fatigue and vibrations.

Waterpointe-Whitestone Waterfront Residential Development/Brownfield Redevelopment, Whitestone, NY – Geologist for environmental engineering services for the remediation and subsequent environmental closure of a 12.5-acre waterfront property under the New York State Department of Environmental Conservation Brownfield Cleanup Program. The property was remediated to meet Track 4 Restricted Residential Soil Cleanup and Protection of Ground Water Regulatory Objectives as required to facilitate the development of a proposed high-end residential community. Work included environmental engineering design for soil and sediment controls; preparation of a Stormwater Pollution Prevention Plan; stormwater control and engineering design; regulatory coordination; hazardous waste delineation; dust control and air monitoring; remedial support and oversight; and preparation of a Final Engineering Report. Responsible for environmental oversight of ex-situ remediation.

Field Geologist– Responsible for obtaining safety knowledge and community air monitoring practices, working on projects such as the former Exxon Terminal at Cold Spring Harbor, NY; New York City Department of Design and Construction remedies program; GATX in Staten Island wetlands; BASF in Rensselaer, Upstate New York; Exxon Divestiture Project Phase II; Kinder Morgan Terminal in Staten Island, as well as knowledge of Exxon-Mobil's health and safety code. Additional responsibilities included updating the database, developing and translating safety documents such as Job Safety Analyses according to Exxon-Mobil and company's safety parameters and concerns.

Representative projects included:

- MTA Bridges and Tunnels Hugh L. Carey Tunnel FEMA Reconstruction Project and Queens Midtown Tunnel Rehabilitation Project
- NYC Department of Transportation Belt Parkway Bridge Complex, Fresh Creek Bridge Reconstruction.
- Former Exxon Terminal at Cold Spring Harbor
- GATX Terminal in Staten Island
- BASF facility in Rensselaer, New York
- Exxon Divestiture Phase II, Gas Stations for Exxon Mobil in Brooklyn, Queens and Staten Island
- Kinder Morgan Terminal in Staten Island
- Combe Fill South Landfill, EPA Superfund Site, New Jersey
- Newtown Creek Superfund Site, New York



Xueshan Teng, PE *Estimator*

Education

Bachelor of Science
Civil Engineering
Southeast University
Nanjing, China

Master of Science
Civil Engineering
Southeast University
Nanjing, China

Professional Registrations

Professional Engineer
New York, #098992, 2018

Summary of Experience

Xueshan Teng, PE, an Estimator in the Construction Management Department, joined ATANE in 2018 with decades of experience as an estimator and project manager responsible for bidding; cost estimating; site visits; developing construction projects with architects and engineers; and planning, coordinating, and monitoring construction projects. His experience encompasses commercial, residential, and performing arts school new construction and renovation projects. Xueshan has both a Master's and Bachelor's degree in Civil Engineering from Southeast University in Nanjing, China, and is a licensed Professional Engineer in the State of New York.

Representative projects include:

New York City Housing Authority (NYCHA) Gravesend Houses Superstorm Sandy Recovery, Brooklyn, NY.

Estimator for development of design plans for new roof, building envelope, centralized boiler plant, and electrical distribution system, and replacement of all mechanical equipment in each of the 15 buildings, which suffered considerable damage during Superstorm Sandy. Constructed in 1954, the 12.41-acre campus is home to approximately 1,680 residents in 634 apartments. Construction Cost \$115 million

New York City Housing Authority (NYCHA) Coney Island Houses Superstorm Sandy Recovery Program, Brooklyn, NY. Estimator for comprehensive fortifications, resiliency and repairs. Work includes flood-proofing above base flood elevation to protect building envelopes in flood-prone areas; installation of backup generators with associated electrical equipment and new natural gas piping to maintain electricity during power outages; removal and replacement of damaged submerged site-wide underground conduits, feeders, and site lighting; replacement of damaged boilers in a new boiler plant above the design flood elevation (DFE); replacement of damaged mechanical equipment associated with the boiler and hot water systems and relocation above the DFE; and replacement and relocation of damaged electrical distribution systems above the DFE. Construction Cost \$65 million

New York City School Construction Authority (SCA) 2016-2019 Capital Improvement Program, New York City. Estimator for architectural and MEP services for the rehabilitation of school facilities throughout New York City. Assignments encompass a wide range of design and construction projects, including interior and exterior repairs, complete system replacement, and reconfiguration of existing facilities. Safety is of paramount concern, and ATANE follows the SCA's extensive protocols for performing the most intrusive work over the summer and after school hours. Assignments have included auditoriums, computer/technology labs, dance



studios, libraries, locker rooms, science labs, fitness centers, school-based health clinics, and cafeterias/lunchrooms. A/E services have been provided for more than 75 tasks. Construction Cost \$10 million+

New York City Transit (NYCT) 57th Street Station ADA Upgrades, New York, NY. Estimator for consultant construction management (CCM) services to make the station fully ADA compliant and improve customer egress. NYCT is installing three elevators at the south end of the station—one street-to-mezzanine elevator and two mezzanine-to-platform elevators. These improvements will require relocation of major underground utilities; reconfiguration of the southern mezzanine and its stairways; construction of three elevator shafts and elevator machine rooms; installation of operating equipment for the elevators; replacement of all platform edges and rubbing boards and installation of warning strips; and environmental health and safety services, including asbestos abatement. Due to the project's location adjacent to Carnegie Hall, hotels, schools, hospitals, houses of worship, and residences, protection of traffic and pedestrians is key. As CCM, ATANE is maintaining close coordination with various involved agencies—including NYCT, NYCDOT, NYCDEP, and Con Edison—and ensuring that permits are obtained in a timely fashion. The ambitious project will require regular review and updating of the MPT master plan, tracking of permits, public advisories, and contractor readiness. Construction Cost \$52.3 million

New York City Housing Authority (NYCHA) Justice Sonia Sotomayor Houses, Bronx, NY. Estimator for comprehensive upgrading/rehabilitation of 28 buildings. Work includes repairs such as Local Law 11 brick façade repair/waterproofing for areas of significant disrepair (including brick masonry, window sills/lintels, and brick parapet replacement with metal railing); gas riser replacement; environmental soil mitigation of crawlspaces and asbestos abatement; interior repairs/sheetrock/painting to apartments with water damage; new window installation at all locations; replacement of water tanks and pumps and repairs to the water tank structures in particular buildings; repairs to the property's main loop; and improvements to entrances, lobbies, and security. Construction Cost \$216 million

General Contractor, Bullville, NY. Estimator for reviewing whole bidding packages, including provisions, specifications, drawings (civil, architecture, structure, and MEP), geotechnical reports, etc. Marked and took notes on all cost items and key information, omissions, conflicts, and other questions. Conducted site visits; contacted architects and engineers; correctly understood the bidding process; and worked closely with the project manager, account, and construction team. Used estimating software for quantity takeoff and estimating; printed out material quantity, company self-cost, bidding price lists, and reports. Used estimating documents and construction engineering experience in supporting and monitoring construction projects. Estimated commercial new construction projects, including Dana Distributors warehouse expansion and new building in Goshen, NY; a new store for a tractor supply company in Greenville, NY; a new Hampton Inn & Suites hotel in Monticello, NY; and a New City senior living center. Estimated commercial renovation projects, including Greek Mountain Dairy in Goshen, NY and Poughkeepsie Plaza in Poughkeepsie, NY. Estimated dozens of residential new construction and renovation projects.



Leonid Grinberg *Senior CADD Operator*

Education

Bachelor of Science, Civil Engineering, Civil Engineers Institute, Russia 1984

Certifications

OSHA 10 Hour, 2015
PANYNJ Secure Worker Access Consortium (SWAC), 2009
TSC Site Safety Manager, 2018

Summary of Experience

Leonid Grinberg, Senior CADD Operator in the Design Services Department, joined ATANE in 1998. He has extensive experience in preparing architectural and structural drawings for bridges, highways, and commercial and industrial buildings as well as a variety of structures for utilities. This experience entails the use of AutoCAD and Intergraph MicroStation.

Representative projects include:

New York City Department of Parks and Recreation (NYCDPR) West 79th Street Boat Basin A-Dock Reconstruction, New York, NY – CADD Operator for design and construction support services for the reconstruction of “A” Dock, which includes a floating kayak launch and a 400-foot-long promenade. Due to the growth of marine borers, the timber piling supporting the dock was in a state of decay and needed to be replaced. Work also included post-Sandy repairs and strengthening of the bulkheads/piers and replacement of the cap beams and decking to increase resiliency to flooding and hurricane damage. The project involved a detailed investigation, including topographic and bathymetric surveys, marine borings, and geotechnical and structural investigations. The design involved preparation of contract documents for the installation of the new marine piles, dock renovation, staging of construction and utility reconnections, and agency approvals and associated permitting, a key challenge. Tasks included preparation of contract documents and engineer’s estimate for the installation of concrete-filled steel piles, concrete pier caps, fiberglass stringers, timber decking, wave wall, dolphin piles and utility re-connections. Construction Cost: \$4.5 million

New York City Department of Parks and Recreation (NYCDPR) Reconstruction and Stabilization of Retaining Walls and Seawalls, New York, NY – CADD Operator for inspection, scope development, construction cost estimates, and preparation of repair/reconstruction plans for three retaining walls in Riverside Park and five seawalls on the East River Esplanade. The walls included a dry-laid stone wall spanning approximately 1,860 feet and varying in height from 13 to 28 feet; a reinforced concrete wall spanning approximately 400 feet (20 feet tall); and a stone masonry wall spanning approximately 650 feet and varying in height from 7 to 10 feet.



New York City Department of Design and Construction (NYCDDC) Siah Armajani Lighthouse and Pedestrian Bridge, Staten Island, NY – CADD Operator for design services for the rehabilitation of this lighthouse and pedestrian bridge in the vicinity of the St. George Ferry Terminal. Erected in 1996, the Siah Armajani Bridge was funded by the New York City Percent for Art Program, which promotes public art projects. The objective of the project was to determine the cause of deterioration and develop mitigation measures, including rehabilitation design, to bring the structure to a state of good repair and prevent future maintenance problems. The project included in-depth inspection, load rating and forensic investigation. The investigation program involved extensive testing and CCTV inspection of the inside of the steel tubes. ATANE determined that the main cause of the deterioration was water infiltration into the tubes and impact damage due to inadequate vertical clearances above the roadway. ATANE developed several design alternatives for the bridge and lighthouse rehabilitation and produced contract documents for the selected design scheme. A key issue was restoring and protecting the bridge from future deterioration while maintaining its visual appearance and artistic integrity. The project involved extensive coordination with stakeholders and outside agencies, including the artist, the Public Design Commission and the local community board.

New York City Department of Transportation (NYCDOT) Manhattan and Bronx Bridges, Manhattan and Bronx, NY – CADD Operator for total design and construction support services for Manhattan College Parkway, West 239th Street, West 252nd Street and West 232nd Street bridges over the Henry Hudson Parkway; Wards Island Pedestrian Bridge over the Harlem River; and the Claremont Parkway Bridge over Metro-North. Managed a topographic survey for the superstructure and substructure and ULURP. Construction Cost: \$20 million

New York City Department of Parks and Recreation (NYCDPR) Coney Island Boardwalk Entrance Ramps, Brooklyn, NY – CADD Operator for the design of new entrance ramps from the street to the boardwalk at West 33rd Street and Brighton 2nd Street in Coney Island, as part of a team. Each location required structural and geotechnical design and field investigation of retaining walls to support the new pathways. We provided topographical land surveys, civil engineering design of the roadway geometrics, design of water supply features for the inclusion of ground hydrants and electrical design for new lighting along the paths. The project required coordination with the New York City Department of Transportation, the New York City Department of Environmental Protection, the New York City Division of Street Lighting and the New York City Fire Department to obtain sign-offs.

New York State Bridge Authority (NYSBA) Bear Mountain Bridge Retaining Wall, Peekskill, NY – CADD Operator for structural analysis and rehabilitation design of a 200-foot-long, 35-foot-high stone retaining wall adjacent to the Bear Mountain Bridge. The analysis required field testing, probes and borings, including preparation of a complete set of bid documents. ATANE provided design support during construction and participated in the final inspection. After inspecting the wall, we developed several design alternatives to ensure the safety of the structure. The recommended option involved a combination of strengthening and stress relief. The wall was rehabilitated via repointing and replacement of missing stone masonry. A new precast retaining wall was designed for construction directly adjacent to the existing wall to relieve earth pressures. The new wall, consisting of soldier piles with lagging and buttress, was constructed using drilled shaft piles and precast concrete panels. Design also included roadway drainage improvements, architectural detailing and landscaping. Resulting project benefits included: environmental protection, prevention of soil erosion and reduction of maintenance requirements. Construction Cost: \$1 million

EDUCATION

MS/Civil Engineer, New Jersey Institute of Technology May 1982

BS/Civil Engineer, New Jersey Institute of Technology Newark, New Jersey, May 1975

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Professional Engineer – NJ / Professional Planner – NJ

LEED NC 2.2 Accreditation

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineer Member

American Water Works Association – former member

EXPERIENCE SUMMARY

Mr. Anfuso has more than 40 years of experience in Civil Engineering and Site Planning. He has worked on projects in urban areas and successfully addressed the unique challenges of designing site improvements which communicate with the existing architecture in the surrounding area. He has been responsible for designing dry well stormwater management systems, landscaping and lighting, utility plans, roadway geometry and site grading for new construction projects and renovations. In rural settings, Mr. Anfuso has designed retention ponds, fire storage pond stormwater management systems, and onsite wastewater disposal system. He has experience incorporating TR-55 for hydrology into designs. He has experience making presentations to local planning boards and coordinating design and construction plans with project owners, architects and construction managers.

NYC Department of Parks and Recreation, Civil Engineering Design Services, Bloomingdale Park, Staten Island, NY: Project Engineer for the multi-year task order agreement at various NYCDPR park locations. Responsible for overseeing the Geotechnical, Utility, and Drainage design engineering aspects for the installation of a new all-purpose field and the reconstruction of an existing soccer field in Bloomingdale Park, in Staten Island, NY. Geotechnical work pertained to the investigation of potential green infrastructure elements for the use of stormwater control. Utility coordination providing engineering support in the areas of utility discovery, mapping, coordination, and final design for the installation of new water services to the all-purpose field. Mr. Anfuso was also responsible for calculating the pre- and post- stormwater design flows and designing the detention system in accordance with the NYCDEP standards. He designed the outflow structure and prepared a drainage report that summarized the study and included the stormwater hydrographs and other back up material for submission to NYCDEP. Mr. Anfuso also prepared the grading plan for the site, prepared the construction details, and checked the design against the existing and new site utilities for conflicts.

PANYNJ, New Employee Parking Lot at Stewart International Airport, NY: Civil Engineer responsible for the preparation of a Stormwater Pollution Prevention Plan (SWPPP) using Stormceptor pretreatment and underground Rain Tank detention System to meet NY Department of Environmental Conservation requirements. Design incorporated TR-55 for hydrology and utilized Hydroflow Hydrographs and Rain Tank spreadsheet for stormwater management. Stormwater piping was designed using Hydroflow Storm Sewers 2008.

PANYNJ, Expansion of Parking Lot “D” at Stewart International Airport, NY: Civil Engineer responsible for the design of underground benched detention /infiltration beds for porous pavement and for preparation of Stormwater Pollution Prevention Plan (SWPPP) to meet NY Department of Environmental Conservation requirements. Design incorporated TR-55 for hydrology and utilized Hydroflow Hydrographs and Rain Tank spreadsheet for stormwater management. Stormwater piping was designed using Hydroflow Storm Sewers 2008.

NYS Department of State, New York Rising Community Reconstruction Program, Long Island, NY: Civil Engineer responsible for site visits on Long Island in Oakdale, West Sayville, Babylon and West Babylon, Amityville, Copiague, West Gilgo and Captree, and Lindenhurst to examine the damage caused by Hurricane Sandy. Based on the site visits, reports were prepared that detailed the proposed solutions to reduce flooding and improve the quality of life for the residents in these towns. The projects varied from cleaning existing drainage systems to constructing new culverts; repairing bridges and dams; creating flood plains and wetlands to hold the overflowing water from the canals, creeks, and lakes; raising the roadway elevations to the new FEMA flood elevations; instituting tire-wheeled trolley and water taxi service; providing a bike service similar to the Citi-Bike program in New York City; and installing tide gates and repairing / building new bulkheads to reduce localized street flooding. Improvements projects were developed in each town based on input from community groups. Key issues that needed to be addressed included: The impact to surrounding homes and businesses if the local streets are raised to meet the new FEMA flood elevations; The permits that would be required from regulating agencies for construction of the proposed improvements; Impacts to wetlands and forested areas that could be used as future flood plains; and preparation of construction costs for each project.

NYS Department of State, New York Rising Community Reconstruction Program, Lake Placid and Capital Regions, NY: Civil Engineer responsible for the review of proposed projects in the Lake Placid Region, Town and Village of Esperance, Village of Middleburgh, Village of Schoharie, Town of Waterford, Town and Village of Florida, City of Schenectady, and City of Rotterdam to reduce flooding caused by Hurricanes Irene and Sandy. The projects vary from cleaning existing drainage systems to constructing new culverts, bridges, and dams; creating flood plains to hold the overflowing water from the local rivers and creeks; and improving the flow of water in the Au Sable and Mohawk Rivers. KSE made a site visit to the Lake Placid Region, looking at projects in Keene, Upper Jay, and Au Sable Forks. During our site visits, we met with local community leaders and representatives of the Appalachian Planning Association (APA). We also met with local officials, who provided a tour of their towns, explained where the damage occurred, and discussed potential projects that could reduce flooding.

NJTA, Design Services for Garden State Parkway Shoulder Restoration & Improvements, NJ: Engineer for drainage inspection including inlets, manholes, and outfalls as well as video inspection of the piping systems and for storm water and basin design for this project for shoulder restoration and improvements along the Garden State Parkway milepost 93.5 to 99.5. The existing GSP roadway has variable but generally substandard lane and shoulder widths throughout the project limits. The bridges have minimal shoulders with most of the decks approaching the end of their design life. A high accident rate in the area is a driving force to make these improvements. The proposed work will provide a uniform cross section of three 12 foot lanes and 12 foot left and right shoulders. Substandard horizontal, vertical, and accel/decel lane geometry will be corrected. Compliance with NJDEP regulations will require significant drainage and basin facilities.

County of Mercer, Replacement of Bridge 641.1 carrying Sweetbriar Avenue (CR 649) over Miry Run, Hamilton Township, NJ: Senior Civil Engineer for the roadway design services for the replacement of Bridge 641.1. The bridge consisted of a 72-foot-long, three-span, pre-stressed concrete T-beam superstructure, supported on reinforced concrete substructure units with concrete pile foundations. The bridge was determined to be structurally deficient, with a sufficiency rating of 30.0, and scour-critical based on the Stage II in-depth scour evaluation. Roadway design services included horizontal and vertical alignment, grading, drainage and storm water management, stream analysis, geotechnical investigations and foundations, soil erosion and sediment control, utility coordination and relocations, maintenance and protection of traffic, traffic signs and markings, specifications, and construction cost estimates. All work was completed in accordance with the requirements of the NJDOT Design Manual – Highways, the NJDOT Design Manual – Bridges and Structures, and the NJDOT Specifications for Highway and Bridge Construction 2007.

MTA, LIRR, Hicksville Station Improvements and North Track Siding, Hicksville, NY: Civil Engineer for evaluating the necessity of drainage upgrades to accommodate the new canopy and platform lengthens to the east and west platforms. Evaluation of the existing drainage facilities in the vicinity of the station determined that the ballast area was clogged with fines and debris to a point where water does not flow freely to the vertical pipe system, causing backups. KSE recommended the replacement of the ballast to adequately drain the platform and canopy, and to prevent flooding of the station's track bed.

NYCSCA, PS339Q New School, Woodside, NY: Civil / Drainage Engineer for this new school. The school will be located adjacent to the LIRR. The site is currently occupied by three apartment buildings and a commercial warehouse. Key tasks include preparation a geotechnical report to determine the foundation type, connections to water, sewer, electrical, telephone, gas, and communication utilities. Mr. Anfuso was also responsible for calculating the pre- and post- stormwater design flows and designing the detention system in accordance with the NYCDEP standards. He designed the outflow structure and prepared a drainage report that summarized the study and included the stormwater hydrographs and other back up material for submission to NYCDEP. He prepared the site grading plan that maintained the integrity of the existing site grades in relation to the adjacent private homeowner properties. Plans that were prepared included a site demolition plan, site grading and drainage plan, utility plan, soil erosion and sediment control plan, and construction details. Services also include coordination of the design activities with the NYC Department of Environmental Protection, Con-Edison, NYC Water Department, and Verizon.

EDUCATION

BS/Civil Engineering, New Jersey Institute of Technology, 1979

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Professional Engineer: NJ

LEED-AP, NC 2.2 Accreditation ■ LEED-AP, BD&C Accreditation

40-Hour HAZWOPER 29 CFR 1910.120 ■ OSHA 29 CFR 1910.120, Hazardous Worker/Supervisor Waste Operations
Emergency Response Annual Refresher ■ Traffic Control for Street & Highway Construction & Maintenance
Operations, NJDOT ■ Job Safety Training Sessions I & II on Manual of Traffic Control in Work Areas, Certificate of
Completion, NJHA-GSP ■ Transportation Safety & Management Workshop Seminar, .375 CEU credits, American
Society of Highway Engineers

EXPERIENCE SUMMARY

Mr. Kern has more than 40 years of experience in the preparation of all aspects of civil / roadway plans from geometrics, grading, and drainage to ROW and Utility Engineering to specification and estimate preparation. He has worked on a variety of projects including rail / subway stations improvements, roadway widenings and realignments, circle eliminations, bridge reconstructions, streetscapes, intersection improvements, and site engineering. He has performed civil engineering and utility work for a number of rail / transit projects for various clients including MTA LIRR, MTA NYCT, NJ Transit and SEPTA including station improvement projects.

NYC Department of Parks and Recreation, Hurricane Sandy Damage Assessment and Reconstruction of Damaged Facilities, New York, NY: Civil Engineer for hurricane damage assessment services in the wake of the passage of Hurricane Sandy, including the inspection of building foundations, exteriors and interiors, utilities, bulkheads, light poles, and fixed and floating piers. The following sites were included:

- Sports Lighting at McCarren Park and Colonel Charles Young Park
- Buildings at Blissenbach Marina and the Conference House Caretaker's House
- Piers/Docks/Floating Pool at Barretto Point Park, Hunts Point Riverside Park, and North 5th Street Pier

Consultant services included the following: Studies/Investigations, Engineering, Engineering Analysis and Reports, Preparation of scope and schematic plans, Preparation of topographic survey, Preparation of preliminary construction documents, Preparation of final plans, specifications, and estimates, Filing with and obtaining approvals from all required agencies, Bid and construction administration services. The initial phase included the assessment of damage caused as a result of Hurricane Sandy, and the preparation of reports with our findings, recommendations, and repair and replacement cost estimates. Underwater inspections of piers and bulkheads were completed as required. The second phase involved the development of design, demolition, and construction documents, including specifications and cost estimates.

NYS, New York Rising Community Reconstruction Program, Long Island, NY: Civil Engineer responsible for site visits on Long Island in Oakdale, West Sayville, Babylon and West Babylon, Amityville, Copiague, West Gilgo, Captree, and Lindenhurst to examine the damage caused by Hurricane Sandy. Based on the site visits, KSE prepared reports detailing the proposed solutions to reduce flooding and improve the quality of life for the residents in these towns. The projects recommendations vary from cleaning existing drainage systems to constructing new culverts; repairing bridges and dams; creating flood plains and wetlands to hold the overflowing water from the canals, creeks, and lakes; raising the roadway elevations to the new FEMA flood elevations; instituting tire-wheeled trolley and water taxi service; providing a bike service similar to the Citi-Bike program in New York City; and installing tide gates and repairing/building bulkheads to reduce localized street flooding. KSE developed improvement projects in each town based on input from community groups. Key issues that needed to be addressed included:

- The impact to surrounding homes and businesses if the local streets are raised to meet the new FEMA flood elevations;
- The permits that would be required from regulating agencies for construction of the proposed improvements;
- Impacts to wetlands and forested areas that could be used as future flood plains; and
- Preparation of construction costs for each of the projects.

MTA LIRR, Third Track Expansion Project from Floral Park to Hicksville, Nassau County, NY: Senior Project Engineer for civil / utility engineering support in the areas of utility discovery, mapping, and coordination with public and private utility owners. Prepared and sent initial inquiry letters to each of the 17 utility owners serving the 10-mile long corridor. The mapping was used to identify locations of potential conflicts between existing utility facilities and the proposed improvements, which include the addition of a third track, platform and station upgrades at the stations serving the corridor, the widening of 7 bridge crossings and the elimination of 7 at-grade crossings, retaining and sound walls to minimize community impacts, and upgrades to the utilities serving the Railroad. Because of the limited time frame available to complete the preliminary studies and environmental documentation, the utility impact verifications required a series of face-to-face with groups of related utility owners to review the utility mapping and verify impacts to their facilities. Help prepare the utility portions of the Technical Memorandum supporting the EIS, as well as the utility technical specifications for the Design-Build procurement documents.

MTA NYCT, 5th Avenue Subway Station Rehabilitation at Bryant Park, New York, NY: Project Engineer, responsible for Grading Plan development, supervised drainage, surveying, and drafting. Performed field sidewalk and station platform surveys to produce condition reports. Determined the necessary measures to be taken to investigate and recommend remedies for water leaks in the station. Supervised subconsultant survey efforts to develop accurate site plans for both the street level and the 2 sub-levels that make up the station. Seeing that Bryant Park and the NY public Library are Historic Landmarks, special care was taken to match street side improvements to the surrounding area.

MTA LIRR, Hicksville Station Improvements and North Track Siding, Hicksville, NY: Civil / Utility Engineer for evaluating the necessity of utility and drainage upgrades to accommodate the new canopy and platform lengthens to the east and west platforms. Evaluation of the existing drainage facilities in the vicinity of the station determined that the ballast area was clogged with fines and debris to a point where water does not flow freely to the vertical pipe system, causing backups. KSE recommended the replacement of the ballast to adequately drain the platform and canopy, and to prevent flooding of the station's track bed.

AMTRAK, Amtrak Northeast Corridor at Bronx and Pelham Bay Parkway, Drainage Swale Rehabilitation, NY: Design Manager, designed and prepared engineering drawings for an asphalt and stone drainage swale located between the southbound outer track and northbound inner track of the Northeast Corridor line.

NJ Transit, Long Branch Terminal Station, Long Branch, NJ: Engineer, responsible for grading, MPT, and estimates. Supervised drainage and responsible for the preparation of civil plans and specifications for the rehabilitation of the Long Branch Railroad Station. Also responsible for all COGO calculations, layout of rail mainline and yard track, and the development and design of the station's commuter parking lot.

NJ Transit, Train Storage Yard, Phase 2 Design, Morrisville, PA: Civil Engineer for the site grading and drainage system design, utilities distribution system, and access roadway and pavement design for the Morrisville Train Storage yard.

SEPTA, West Chester Systems Improvements, PA: Senior Engineer, responsible for grading and alignment. Supervised survey, drainage, and drafting, for the rehabilitation of 15 miles of track, a railroad crossing / signal and station improvements. Directly responsible for the design of a second mainline track, reconfiguring the station's yard track to accommodate a new station platform. Supervised subconsultant activities for environmental activities and surveying.

PANYNJ, Teterboro Airport, Hangar #1 Site Improvements, Teterboro, NJ: Utility Coordinator and construction inspection services that included the preparation of demolition and construction design plans, specifications and construction estimate for repairing the existing surface parking lot adjacent to Hangar #1. The project included providing an existing conditions plan of the existing parking area and adjacent properties, preparing a demolition plan for the removal of raised islands, electrical conduit, junction boxes and perimeter fencing. The construction plan showed the proposed parking layout, location of pedestrian crosswalks, and placement of wheel stops. KSE had to prepare the Tenant Alteration Forms for submission and approval to the Port Authority of New York and New Jersey.

EDUCATION

MS/Computer Science, Polytechnic University, Brooklyn, NY, 1991

MS/Civil Engineering, Northwestern University, Evanston, IL, 1987

BS/Civil Engineering, National Cheng Kung University, Tainan, Taiwan, R.O.C., 1978

Continuing Education, Information Technologies, New York University, New York, NY, 1995

PROFESSIONAL REGISTRATION

Professional Engineer: NY, CT

FHWA-NHI # 130092 Fundamentals of LRFR and Applications of LRFR for Bridges Superstructures (February 2013)

EXPERIENCE SUMMARY

Mr. Sun has 38 years of demonstrated success as a project engineer, designer, and inspector on a variety of projects, including bridges, highways, buildings, rail, and transmission towers, as well as commercial and industrial facilities for multiple public and private clients. His expertise includes the design of complex bridge and building structures and detailed inspections, as well as load rating analysis, coordination, and cost estimation.

NYSDOT, Wurts Street Bridge, Kingston, NY – Senior Structural Engineer performed alternative analysis for the rehabilitation of both sidewalks. Three alternatives were prepared. Prepared cost estimate and schedule for each alternate. Currently preparing contract documents for the rehabilitation of the sidewalk including cost estimate, specifications, and construction schedule.

Consolidated Edison, Three Bridge Crossings for Natural Gas Mains: E. 168th Street and Park Avenue, Bronx, NY, W. 178th Street and Broadway, Manhattan, NY and Anderson Hill Road and I-684 Westchester, NY – Structural Engineer for engineering design services, drawings, detailed design calculations, specifications, permitting services, cost estimates and schedules for the installation of new gas mains at three (3) bridge crossings: E. 168th Street and Park Avenue in the Bronx; W. 178th Street and Broadway in Manhattan; and Anderson Hill Road and I-684 Westchester, NY.

NYSDOT, Replacement of the Route 121 Bridge over the Stone Hill River, Bedford, NY - Senior Structural Engineer for design services associated with the replacement of a concrete jack-arch bridge originally constructed in 1910. To design a new prestressed concrete beam bridge including specifications and cost estimate. The project included the design of the prestressed concrete superstructure and concrete retaining walls.

NYSDOT, Replacement of the Taconic State Parkway Bridges (NB & SB) over Angell Hill Road, Austerlitz, NY - Senior Engineer providing bridge design for the replacement the two three-span structures with two single-span prestressed concrete box beam bridges.

NYSDOT, Rehabilitation of Route 22 Bridge over Rye Lake Outlet, North Castle, NY - Project Engineer for providing load rating for this 5 concrete-arch bridge with 2 multi-span approaches. The load rating analysis included an evaluation of the existing floor beams and concrete deck and concrete arch for the existing and proposed superstructures.

MTA NYCT, A/E Discretionary Contract (14073), Task Order #13, Forensic Specialty Consultant, Multiple Locations, NY – Senior Structural Engineer for the forensic evaluation of the deteriorated ceiling at thirty-four (34) NYCT stations. Preliminary inspections will be performed to determine the cause of the deterioration and prioritize the stations for repairs. In-situ bond strength testing and laboratory analysis will be conducted. A report summarizing the forensic investigations, testing results, and recommendations for repairs will be provided.

County of Mercer, Replacement of Bridge 641.1 carrying Sweetbriar Avenue (CR 649) over Miry Run, Hamilton Township, NJ - Senior Structural Engineer for the engineering services of the replacement of Bridge 641.1. The bridge consisted of a 72-foot-long, three-span, pre-stressed concrete T-beam superstructure, supported on reinforced concrete substructure units with concrete pile foundations. The bridge was determined to be structurally deficient, with a sufficiency rating of 30.0, and scour-critical based on the Stage II in-depth scour evaluation. Preliminary Engineering included topographic survey; delineation of wetlands; a hydraulic study; utility verification; soil borings; Preliminary Design (including alternative structure analysis and ROW plans); and foundation design and a report.

Monmouth County Department of Public Works and Engineering, Reconstruction of Bridge HL-18, Kent Road over North Branch of Metedeconk River, Howell and Lakewood Townships, NJ – Structural Engineer for preliminary and final design services for the reconstruction of Monmouth County Bridge HL-18, which carries Kent Road over the North Branch of the Metedeconk River. KSE is currently developing concepts for design alternatives to replace the existing

structurally deficient and load posted bridge. Key issues include environmental permits and maintaining pedestrian access over the bridge.

NYCDDC, Preliminary and Final Design Services for East Side Coastal Resiliency, Borough of Manhattan, NY – Senior Structural Engineer for this project, which is intended to build upon the Rebuild by Design proposal for coastal protection for the East Side of Manhattan, from Montgomery Street to East 25th Street. KSE is currently involved with Task 6 for Park Resiliency options under this project to identify and review options and develop costs for increased resiliency of park features, above and beyond in-kind reconstruction of existing facilities. Includes assessing the four (4) existing DPR building facilities located in East River Park to determine structural condition and provide resiliency options and cost estimates.

MTA Bridges and Tunnels, Design/Build Services - Rehabilitation of Rockaway Point Boulevard and Jacob Riis Pedestrian Overpass Bridges at the Marine Parkway-Gil Hodges Memorial Bridge, Contract MP-21, Queens, NY – Structural Engineer for this \$15 Million Design/Build project to rehabilitate the Rockaway Point Boulevard and Jacob Riis Pedestrian Overpass Bridges at the Marine Parkway-Gil Hodges Memorial Bridge, as well as the on-grade ramps and roadways leading to and from the Rockaway Point Boulevard Overpass and the Marine Parkway Bridge. The base contract consists of replacing the existing superstructure of Rockaway Point Boulevard Bridge. Typical structural work for this contract will include construction of a reinforced concrete deck with an integral wearing surface supported on even galvanized steel girders for each span; construction of new pedestals and bearings; elimination of the expansion joints at the abutments/piers and construction of approach slabs and sleeper slabs at the approaches; construction of a new concrete median barrier; construction of a new concrete barrier at each fascia with architectural enhancement; and concrete spall and crack repairs at the abutments and piers.

County of Hudson, Professional Engineering Services for the Design and Construction Management of the Rehabilitation of J.F.K. Boulevard Bridge (Columbus Bridge) over Conrail Track and PATH Station, Jersey City, NJ – Senior Structural Engineer for the preparation of contract plans and specifications of this two-span, reinforced concrete arch bridge which spans over Conrail Track and the Journal Square PATH Station in Jersey City. The purpose of this project is to repair deteriorated concrete to the underside of the deck, arch ribs, spandrel columns. Work includes investigation of the substandard vertical and lateral underclearances in both main spans along the center pier which have rendered the bridge functionally obsolete. Close coordination with PANYNJ/CONRAIL is required thru completion and final acceptance of the construction contract work.

County of Passaic, Repairs to Lakeside Avenue Bridge over Pompton Lake, Structure 1600041 and Repair of Lakeside Avenue Culvert over Acid Brook, Structure 1600421 and Replacement of Adjacent Pedestrian Bridge Borough of Pompton Lakes, Passaic County, NJ – Senior Structural Engineer for the engineering design services for the repair of several county bridges. The project involved inspection, design and preparation of the final construction plans and specifications for the repair of the roadway and pedestrian bridges.

County of Hudson, Improvement to the Single Span Arch on West Hudson Park Road over Davis Avenue, Harrison, NJ - Senior Structural Engineer for the design and construction management of the improvements to the single span arch. The bridge was functionally obsolete and the objective of this project was to improve the existing deck geometry curb to curb width of 22' -9" to 28'; and to increase the existing vertical clearance of 13'-9" to 16' to meet AASHTO standards.

Essex County Department of Public Works, Replacement of Center Street Bridge Over Third River, Nutley, NJ - Senior Structural Engineer for the design of the new bridge and the reconstruction of the approach roadways. The project included surveying, mapping, structural design, roadway design, drainage design, cross sections, typical sections, maintenance and protection of traffic, permits, detour plans, demolition plans, specifications, and submission of construction contract documents in accordance with the County's two-phase review process. Additional tasks include environmental permitting, geotechnical engineering, cultural resource services and construction inspection.

NJDOT, Replacement of Route 27 Culverts, Franklin Township and South Brunswick Township, NJ – Structural Task Leader for final design and construction period services for the replacement of two culverts along Route 27, which were classified as structurally deficient and functionally obsolete. KSE provided engineering design services for the preparation of preliminary and final contract documents, environmental documents (CED), permits, utility accommodations, right-of-way plans and cost estimates, and construction period services. The project was designed in accordance with the current NJDOT Procedures Manual; the NJDOT Roadway Design Manual; the NJDOT Bridges and Structures Design Manual; and appropriate sections of the Federal Aid Policy Guide.

EDUCATION

Professional Land Surveying Diploma, Government Technical Institute, Georgetown, Guyana, South America, 1977

PROFESSIONAL REGISTRATION

Registered Professional Land Surveyor: NY, NJ, PA

PROFESSIONAL AFFILIATIONS

New Jersey Society of Professional Land Surveyors
New York Society of Professional Land Surveyors
Pennsylvania Society of Professional Land Surveyors
Association of State Flood Plain Managers (ASFPM)
New Jersey Association of Floodplain Management (NJAFM)

EXPERIENCE SUMMARY

Mr. Rupnarain has more than 40 years of experience in Professional Land Surveying. His responsibilities include the management and direction of survey projects, as well as, the supervision of all 3D laser scanning operations. Other responsibilities included the management of GPS activities including network design, raw data processing, and network adjustment and delivery. He has supervised field crews, and overseen the management of crew personnel, scheduling, and allocation. He possesses extensive civil design knowledge of subdivision and commercial site development projects, and major roadway design and facilities projects.

NYCEDC, Design of Storm Resiliency Features for the Homeport Substation, Staten Island, NY: Survey Project Manager for responsible for survey in support of KSE's investigation to the existing water services serving the pier and preparation of designs for modifying and upgrading those services so that they match the requirements of the City's operations on the pier. Survey was performed with a combination of conventional Total Station ground survey and GPS mapping, together with 3D Laser scanning techniques, for the collection of the existing topographic and utility hardware survey data. Among the topographic features located were pathways/driveways, visible utility hardware, and all features within the pier (walks, buildings, walls, etc.).

NYCDOT, Staten Island Ferry St. George Slip Survey, Staten Island, NY: Vice President of Survey for the survey and detailed measurement of four (4) ferry slips at the St. George Terminal. There are one lower bridge and two upper bridges per slip. The lower bridge has two dead load counterweights and the upper bridge has one counterweight per bridge. For each bridge in both the lowered and raised positions, KSE team determined the elevation on the ferry side of the bridge, the elevation on the building side of the bridge, the location of sheaves on bridges and the pivot points of bridges, and the elevations and positions of counterweights. Also the elevation of the power machinery floor was determined at a few points, and a reference location of point coinciding with a point below on the bridges or buildings was identified.

Delaware River Port Authority, General Engineering Consultation Services, Cruise Terminal Hydrographic Survey, Pier 2, Philadelphia, PA: Survey Manager, provided hydrographic survey services for the Delaware River encompassing the existing Cruise Terminal Pier 2 bulkhead area to the newly installed dolphin system. After initial records research and establishing project control, the hydrographic survey was performed using a hydrographic system consisting of differential global positioning system (DGPS), a mobile GPS unit mounted over a transducer, antennae, data links and a survey quality thermal recording depth sounder all linked to an on-board laptop computer to perform the data acquisition.

DASNY, Planning Services for Fresh Creek Coastal Protection, Brooklyn, NY: Director of Survey for this project, which includes planning for the coastal resiliency of Fresh Creek, a tributary to Jamaica Bay in Brooklyn, NY. The Fresh Creek Coastal Protection Project is funded by the Governor's Office of Storm Recovery (GOSR), through the NY Rising Community Reconstruction Program. The Planning Project is managed by the Dormitory Authority of NY. The project is a multi-phased resiliency project. The Phase I study portion of the project aims to identify strategies to mitigate flooding and erosion along Fresh Creek. Phase II will include the design and construction of the most effective mitigation measures. Tasks include the identification of all tangential and auxiliary projects impacting resiliency in the drainage area, and the evaluation of climate criteria and climate change for projecting storm protection levels. Alternative resiliency measures may include living shorelines, stormwater barriers, green infrastructure, and sewer system improvements. The KSE/Urban JV will develop a combination of rainfall, storm surge, and sea level rise projections, and will utilize "what-if" scenarios for drainage system improvements, as well as for characterizing any remnant risk of flooding within the study area. The team will work with DASNY and the project stakeholders to identify a set of realistic combinations of scenarios that will be used for hydrologic and hydraulic modeling. A combination of risk factors including storm surge, sea level rise, coastal erosion potential, rainfall volume/intensity/duration, ecological drivers such as flora/fauna, and ongoing Jamaica Bay water quality studies by DEP, DPR, and the Stevens Institute will be discussed with DASNY to guide the screening and selection of scenarios.

PANYNJ, Brooklyn Marine Terminal 65th Street Yard, Brooklyn, NY: Project Manager for the survey mapping services extending 200' west of the 2nd Street portal through the covered area and 200' east of the 4th Street portal.

NYCDOT, 11th Avenue Viaduct, Manhattan, NY: Project Surveyor, supervised this extensive surveying project on a major urban roadway and structure over Long Island Rail Road and Amtrak railway facilities. Services included establishment of a horizontal and vertical control network encompassing approximately eight city blocks; detailed planimetric and topographic locations; a utility survey; cross sections; structural locations of piers, abutments, joints, etc.; and the establishment of the existing Right-of-Way within the project limits. Prepared all existing base mapping. All field survey and office processing was performed using the metric system.

NYCDOT, Thirteen Bridges over MTA SIRT, Staten Island, NY: Project Surveyor, supervised and directed all surveying services on these urban roadways and structures over SIRT railway facilities. Services included establishment of a horizontal and vertical control network encompassing several city blocks; detailed planimetric and topographic locations; a utility survey; cross sections; structural locations of piers, abutments, joints, etc.; and the establishment of the existing Right-of-Way within the project limits. Prepared all existing base mapping.

MTA TBTA, Marine Parkway Bridge over the Rockaway Inlet, Brooklyn, NY: Director of Surveying, supervised and directed all surveying procedures and methodologies necessary to perform a navigational clearance survey for submission to the U.S. Coast Guard. Services included establishment of a horizontal and vertical control network, detailed structural locations of the bottom of the superstructure, fender systems, navigation lighting and bulkhead lines. In addition the project involved the establishment of a tertiary water level station (tide Gauge) at the site to obtain current tide level data. This data was subsequently utilized in conjunction with published data from N.O.A.A. at the "Battery" to ascertain the Mean High Water and Mean Low Water elevations in the current Tidal Epoch, which were utilized to compute the vertical clearances.

MTA TBTA, Triborough Bridge Lift Span, New York, NY: Director of Surveying, supervised and directed all surveying procedures and methodologies necessary to perform a navigational clearance survey for submission to the U.S. Coast Guard. Services included establishment of a horizontal and vertical control network, detailed structural locations of the bottom of the superstructure, fender systems, navigation lighting and bulkhead lines. In addition the project involved the establishment of a tertiary water level station (tide Gauge) at the site to obtain current tide level data. This data was subsequently utilized in conjunction with published data from N.O.A.A. at the "Battery" to ascertain the Mean High Water and Mean Low Water elevations in the current Tidal Epoch, which were utilized to compute the vertical clearances.

MTA TBTA, Henry Hudson Parkway Bridge over the Harlem River, New York, NY: Project Surveyor, supervised and directed all surveying procedures and methodologies necessary to perform a navigational clearance survey for submission to the U.S. Coast Guard. Services included establishment of a horizontal and vertical control network, detailed structural locations of the bottom of the superstructure, fender systems, navigation lighting and bulkhead lines. In addition the project involved the establishment of a tertiary water level station (tide Gauge) at the site to obtain current tide level data. This data was subsequently utilized in conjunction with published data from N.O.A.A. at the "Battery" to ascertain the Mean High Water and Mean Low Water elevations in the current Tidal Epoch, which were utilized to compute the vertical clearances. Perform a detailed bathymetric survey of the Harlem River.

PANYNJ, World Trade Center Permanent PATH Terminal, New York, NY: Project Manager in connection with the design of the New Permanent Path Station, required accurate detailed topographic, planimetric, structural and utility information to address their design concerns and needs. NPI was retained to establish Primary Geodetic Control Networks utilizing GPS technology, tied into and coordinated with the PANYNJ control system at the World Trade Center Site; Secondary horizontal and vertical control networks; Detailed topographic, planimetric, structural and utility surveys of the entire WTC East Bathtub site, extending from Liberty Street to Vesey Street and from Church Street to the WTC Diaphragm Wall including the remains of the multilevel former H & M Terminal and the exposed 1 & 9 Subway-Cortlandt Street Station Box. All of the above referenced survey tasks were performed utilizing state of the art global positioning systems, high density 3D laser scanning equipment, reflectorless electronic total station systems, robotic electronic total station systems and electronic digital level and bar coded staffs. Final deliverables included three dimensional (3D) mapping of the entire site, 1 foot contour topographic mapping, cross sections derived directly from the 3D model, indicating floor and structural locations and elevations within critical areas of design.

MTA NYCT, Second Avenue Subway Project, New York, NY: Survey Manager, services included establishing existing Right-of-Way from 60th Street to 106th Street. Preparing Right-of-Way damage and acquisition documents in accordance with MTA standards for 143 parcels.

EDUCATION

AAS/Forestry, Paul Smith's College, June 1989

AWARDS

Recipient of the NJSPLS. 2000 Mapping Contest for Topographic Survey

EXPERIENCE SUMMARY

Mr. O'Toole has more than 27 years of experience working as a survey field crew member and evolving to project surveyor where his duties range from processing all electronic mapping data to being responsible for survey deliverables. Mr. O'Toole has extensive experience in AutoCAD, Microstation (V7 and V8), Bentley InRoads and Land Development Desktop. His experience also extends to processing and data collection utilizing GPS technology. Mr. O'Toole has been involved in nearly every survey KSE has performed for the MTA NYCT, LIRR, Metro-North and other New York projects.

Battery Park City Authority, Emergency Survey of Damage from Hurricane Sandy, New York, NY: Project Land Surveyor for an emergency survey of damage to Battery Park City in the wake of Hurricane Sandy. The subject area of the survey was located on the western side of Lower Manhattan, from Pier A (near Battery Place) to Vesey Street. The survey assessed the water levels in Battery Park City and the resultant flooding from both the rain and the storm surge which accompanied the hurricane. Also assessed were the physical impacts, such as debris carried onshore or translocated by floodwaters, and damage to structures and other facilities. The survey team set markers throughout the project area to define the extent of the damage. These markers, along with the data gathered regarding conditions in Battery Park City, were used to develop mapping to delineate the damage. The maps and information have aided in New York City's assessment of the impacts of the storm upon the city, and the ongoing planning and execution of recovery activities.

NYCDOT, Staten Island Ferry St. George Slip Survey, Staten Island, NY: Project Surveyor for the survey and detailed measurement of four (4) ferry slips at the St. George Terminal. There are one lower bridge and two upper bridges per slip. The lower bridge has two dead load counterweights and the upper bridge has one counterweight per bridge. For each bridge in both the lowered and raised positions, KSE team determined the elevation on the ferry side of the bridge, the elevation on the building side of the bridge, the location of sheaves on bridges and the pivot points of bridges, and the elevations and positions of counterweights. Also the elevation of the power machinery floor was determined at a few points, and a reference location of point coinciding with a point below on the bridges or buildings was identified.

DASNY, Planning Services for Fresh Creek Coastal Protection, Brooklyn, NY: Project Surveyor for this project, which includes planning for the coastal resiliency of Fresh Creek, a tributary to Jamaica Bay in Brooklyn, NY. The Fresh Creek Coastal Protection Project is funded by the Governor's Office of Storm Recovery (GOSR), through the NY Rising Community Reconstruction Program. The Planning Project is managed by the Dormitory Authority of NY. The project is a multi-phased resiliency project. The Phase I study portion of the project aims to identify strategies to mitigate flooding and erosion along Fresh Creek. Phase II will include the design and construction of the most effective mitigation measures. Tasks include the identification of all tangential and auxiliary projects impacting resiliency in the drainage area, and the evaluation of climate criteria and climate change for projecting storm protection levels. Alternative resiliency measures may include living shorelines, stormwater barriers, green infrastructure, and sewer system improvements. The KSE/Urban JV will develop a combination of rainfall, storm surge, and sea level rise projections, and will utilize "what-if" scenarios for drainage system improvements, as well as for characterizing any remnant risk of flooding within the study area. The team will work with DASNY and the project stakeholders to identify a set of realistic combinations of scenarios that will be used for hydrologic and hydraulic modeling. A combination of risk factors including storm surge, sea level rise, coastal erosion potential, rainfall volume/intensity/duration, ecological drivers such as flora/fauna, and ongoing Jamaica Bay water quality studies by DEP, DPR, and the Stevens Institute will be discussed with DASNY to guide the screening and selection of scenarios.

PANYNJ, Topographic & Boundary Surveying Services (MBE/WBE) on a "Call-In" Basis during 2010-2012, NJ Marine Terminal Topographic and Utility Location Survey, NJ: Project Land Survey responsible for the development of a Topographic and Utility Location Survey of an approximate 34 acre site at the NY/NJ Port Authority New Jersey Marine Terminal in Elizabeth, New Jersey. The project included the taking of roadway cross sections of major marine terminal thoroughfares abutting the site. To obtain the accuracy required on site, elevations were taken utilizing an approximate 25' grid. Existing NY/NJ Port Authority horizontal and vertical control was used and verified by KS Engineers. All above ground and visible physical features were located including surface evidence of existing utilities. Underground utilities were located by the field locations of surface markouts by an SUE company contracted by the NY/NJ Port Authority. All mapping was to NY/NJ Port Authority Central Survey Group CADD Standards.

PANYNJ, Topographic & Boundary Surveying Services (MBE/WBE) on a "Call-In" Basis during 2010-2012 Various PANYNJ Projects, New York / New Jersey: Project Surveyor, provided surveys or have assisted PANYNJ CSG staff by providing field crews and/or office staff for surveys at Brooklyn Marine Terminal, Brooklyn Army Terminal, and numerous PATH sites. Surveys have included, layout surveys; control surveys; railroad track/switch surveys; location and topographic surveys; and support for laser scanning projects. We have provided office personnel to process survey data and prepare CAD files/drawings.

PANYNJ, Aerial Mapping Control, Northeast Auto Marine Terminal Survey, Cities of Bayonne / Jersey City, Hudson County, NJ: Project Surveyor for the establishment of horizontal and vertical control utilizing GPS technology for aerial mapping of the Northeast Auto Terminal (NEAT) for the PA of NY&NJ. A Survey Control Report was also established.

PANYNJ, Aerial Mapping Control Port Elizabeth / Port Newark, Union / Essex County, NJ: Project Surveyor responsible for the horizontal and vertical location of 37 aerial mapping picture points located at Port Newark and Port Elizabeth Marine Terminals utilizing both fast static and RTK GPs technology.

MTA LIRR, Design Services for Jamaica Capacity Improvements, Phase II, Queens, NY: Director of Survey responsible for the topographic and utility location survey of the project area. The identified project area for land surveying was the Jamaica Station Area from the underpass of Hollis Avenue to the east of Jamaica Station to the westerly limit of Metropolitan Avenue. Within this area, KSE located will-be pathways/driveways, and any visible utility hardware etc. and all features within the LIRR Right-of-Way (i.e. location and caliber of trees with 6" and greater, walks, buildings, walls, etc.). Spot elevations with additional elevations at break in grade, contours at one foot intervals, on site utilities from visible field locations of surface vents, valves, manholes etc. and information other utilities information obtained. This data were then compiled and processed into X, Y, Z coordinates and included into the Existing Conditions Database. In addition, KSE prepared a Metes and Bounds Survey and Deed Description of the properties involved in accordance with the specifications in the request for proposal obtained. KSE researched public records available for the subject properties and adjoining properties as well, obtained tax maps, deeds, filed maps, highway plans and any other available documentation necessary to meet project specifications. Where property acquisitions and/or easements are required for the proposed site improvements, a Metes and Bounds Survey and Deed Description of the properties involved in the improvements were developed as part of the MTA property acquisition process. KSE located the top of rail points of frogs and switches and track centerline in the areas designated as "meet existing track" on the Conceptual Design plans of the designated project area. KSE was also responsible for providing As-Needed survey stakeout services during the Construction Phase Services Contract.

County of Mercer, Replacement of Bridge 641.1 Carrying Sweetbriar Avenue (CR 649) over Miry Run, Hamilton Township, NJ: Project Surveyor responsible for the development of Topographic, Utility and Right of Way Surveys for this bridge replacement project. KSE established GPS (Static) horizontal and vertical control, developed topographic mapping of 1000' of Sweetbriar Avenue along with the taking of cross sections of Miry Run stream for 700' until its intersection with Assunpink Creek. All above ground and visible physical features were field located. KS also researched all adjoining properties to the project area for deeds, tax maps, etc. A deed mosaic was developed and deed calls and other physical evidence of possession was field located. The Right of Way of Sweetbriar Avenue was determined from this data. Construction Easements were developed for the site and the applicable Individual Property Parcel Maps (IPPM) were developed along with mapping for design to County of Mercer standards.

NYCDDC, Requirements Contract for Topographical Surveying Services, for Various Structures Survey Services for Grand Street, Brooklyn NY: Project Surveyor responsible for the development of Topographic, Utility Location and Right of Way Mapping of 6600' of Grand Street in the Borough of Brooklyn. This project was a task under KSE's "Requirements Contract for Topographical Surveying Services for Various Structures Projects, Borough of Brooklyn". All physical features within the Right of Way for Grand Street were located. Mapping included centerline profiles that included all utilities. KSE researched all deeds, utility information, Brooklyn Borough Section and Damage and Acquisition Maps. All mapping for this site was to NYCDDC standards and review.

MTA NYCT, Topographic Mapping of 149th Street and Grand Concourse Subway Station, New York, NY: Project Surveyor for the development of Topographic Mapping of the subway platforms and tracks at the 149th Street and Grand Concourse station, Bronx, NY. All physical features were located including the center of track, top of rail, edge of platform, stairways, etc. All field survey personnel were track safety trained by New York City Transit. All mapping was delivered in MicroStation format to New York City Transit Standards.

MICHAEL J. SOLTYS, PE
Geotechnical Engineer
Matrix New World Engineering

Professional Qualifications

Mr. Soltys is a structural, geotechnical, and civil engineer. With more than a decade of experience, he is well-versed in steel, concrete, masonry, and timber design; plans and specifications preparation; engineering report development; structural evaluations; and overall project management for a wide variety of public and private projects. His diverse structural consulting experience includes the design of waterfront structures, piers, marinas, bulkheads, roller coasters, water slides, buildings, bridges/culverts, retaining walls, grandstands, treatment plants, dams and more. Mr. Soltys' background includes complete management of geotechnical investigations; driller and laboratory procurement and coordination; development of geotechnical investigation reports; evaluation of geotechnical data for bearing capacity, settlement, global stability, sliding, overturning, and liquefaction potential; and design development and coordination of shallow and deep foundations, slab and pavement subgrade, ground improvements, and retaining walls, in addition to the analysis of bearing capacity, settlement, global stability, sliding, overturning, and liquefaction potential. His civil engineering background has focused on site plan development, including site layout, drainage, grading, utility and soil erosion plans; front end and technical specification development for public bid projects; and project management of multi-discipline civil engineering projects.

Education

MS, Civil Engineering, Rutgers University, 2010
BS Civil Engineering, University of Notre Dame, 2007

Professional Experience

U.S. Merchant Marine Academy, Crowninshield and Cressy Pier Reconstruction, Kings Point, NY - Project Manager responsible for the design of a replacement timber pier, aluminum gangway, timber floating docks, composite wave screen, concrete retaining wall, and site amenities and utilities. Responsibilities include structural design and calculations, drafting, site design, and overall project coordination and management. The original piers have been damaged from past storm events and are in dire need of repair/replacement. The proposed pier is designed for heavy duty loads up to 400 psf loading or 20T mobile crane loading. The facility, once constructed, is to be used primarily by students and employees of the Academy for educational purposes.

NYCEDC South Brooklyn Marine Terminal Pier 39, Borough of Brooklyn, Kings County, NY - Structural /Geotechnical Engineer for design of 1,000 LF of king pile bulkhead along the southern edge of Pier 39. Design included use of soil anchors to avoid disturbance to structures immediately upland. Project also included mooring bollards and fendering system.

City of Peekskill, Fleischmann Pier Reconstruction, Peekskill, NY - Project Manager responsible for the design of a replacement timber pier. Responsibilities include structural design and calculations, drafting, site design, and overall project coordination and management. The original six-foot wide by 500-foot long pier was originally used for piping molasses from ships on the Hudson River to the nearby Fleischmann yeast production plant in the early 1900's. The pier is currently in a significantly deteriorated state with the last 150 feet rendered unsafe, and the remainder is primarily used by recreational fishermen. The proposed pier will be constructed wider than the existing pier and will be programmed for daily cruise tours, while maintaining the tourist attraction and recreational use it has today.

Pier 13 Marina and Beer Garden, Hoboken, Hudson County, NJ - Project Engineer responsible for the extensive structural renovation of the existing pier and complete replacement of the marina infrastructure destroyed by Superstorm Sandy. Responsibilities included complete design of a new floating dock marina, bulkhead replacement, and concrete platform structure replacement as well as rehabilitation of the existing pier for the beer garden, including pile jacketing and concrete spall repair.

USDOT Maritime Administration Puerto Rico Port Condition Assessments, Puerto Rico – Structural Engineer primarily responsible for property condition assessments and marine structure assessments at numerous ports throughout Puerto Rico in response to destruction caused by Hurricanes Irma and Maria. Responsibilities included visual inspections and evaluations at each of the ports and development of an in-depth condition assessment of the buildings, marine structures, site features, and utilities located within the property limits of each port.

MICHAEL J. SOLTYS, PE
Geotechnical Engineer
Matrix New World Engineering

DPMC Liberty State Park Ferry Terminal Reconstruction, City of Jersey City, Hudson County, NJ - Project Manager providing engineering design services for the reconstruction of the Liberty State Park ferry terminal and the dredging of the area to provide boat access into and adjacent to the slips and docks. Liberty State Park is one of the highest-visited state parks in New Jersey and is home to the Central Railroad New Jersey (CRRNJ) Terminal and Ferry Terminal, both of which are listed on the State and National Registers of Historic Places. The ferry terminal, consisting of ferry house platforms, fender rack piers, and timber access bridges, was utilized for transferring millions of immigrants that came through Ellis Island. The ferry terminal sustained significant damage from Superstorm Sandy in 2012 and reconstruction was a high priority. The scope of work also included 3D Laser Scanning and an existing conditions inspection survey, including underwater diving, of the dilapidated piers. Using remote sensing, the dolphins and pier data was collected from the safety of the shore without the need for additional marine equipment. Services also included geotechnical soils analysis, full waterfront and structural engineering services, and construction administration.

Patchogue River East Jetty Replacement, Patchogue, NY - Structural Project Manager responsible for the replacement of the east jetty at the mouth of the Patchogue River between the Village of Patchogue and the Town of Brookhaven. Responsibilities include structural design and calculations, drafting, ADA access considerations, coastal loading and impact assessments, and overall project coordination and management. The existing jetty was placed without engineering controls and has become more deteriorated over the years, allowing substantial beach sand into the inlet and requiring more frequent dredging of the inlet. The proposed jetty will hold the same footprint, but will be constructed of large armor stone and a concrete surface to allow for pedestrian access for tourism and recreational fishing. It will also include a new USCG-approved beacon for proper vessel navigation.

DPMC / NJDEP Rebuild by Design Hudson River, Hoboken/Jersey City/Weehawken, Hudson County, NJ - Geotechnical Project Manager responsible for coordinating engineering services to investigate subsurface conditions for the high-profile design and construction of flood resiliency measures along the Hudson River. The project involved a substantial subsurface investigation program of nearly 60 borings, extensive rock coring, in situ permeability testing, environmental sampling, soil drumming and disposal, pump and slug tests, and CPT drilling. Responsibilities included coordination with city officials and police and transit employees for maintenance and protection of traffic. At the conclusion of the investigation, Matrix provided a full geotechnical report complete with boring logs, laboratory results, and recommendations for design and construction.

NYCEDC Bronx River Green Infrastructure, Queens, NY - Project Manager for the geotechnical investigation of nearly 400 locations identified as potential green infrastructure locations. The project included oversight of the driller, soil split spoon sampling and blow counts, and permeability testing at each location in conformance with NYCDEP OGI guidelines.

NYCEDC Lower Concourse Infrastructure, New York, NY – Structural and geotechnical engineer for the investigation for the evaluation of on-site soils for the proposed infrastructure improvements in the Lower Concourse portion of the Bronx along Exterior Street. Project involved a total of 10 borings ranging from 17 to 62 feet in depth, procurement and oversight of the driller, development of a lab testing program, and preparation of a complete geotechnical investigation report complete with pile design capacities.

NYCEDC Marine Infrastructure On-Call Structural Inspections, NY - Structural Engineer responsible for routine and rapid inspections in conformance with Waterfront Facilities Maintenance Management System (WFMMS) standards at multiple facilities, including Riker's Island and FDNY Marine facilities.

Professional Registrations and Certifications

Professional Engineer - New Jersey 2011, New York 2016, Connecticut 2013, Pennsylvania 2014, Utah 2017, North Carolina 2017, South Carolina 2017, Oregon 2017

ANDREW W. RAICHLE, PE
Marine Engineer
Matrix New World Engineering

Professional Qualifications

Mr. Raichle is a civil and marine engineer with nearly 30 years of experience in a broad range of waterfront development and maritime projects throughout the U.S., its territories, and the Caribbean. Skilled in the planning and design of coastal and port structures, sub-aqueous utilities, navigational dredging, and shore protection projects, Raichle is well-versed in the technical, political, and regulatory specialties that are unique to the process of waterfront development/redevelopment; delivering projects within and adjacent to the waterfront, including ports, warehousing, parks, shore protection and urban redevelopment projects. His breadth of work highlights his proficiency and expertise in both civil and marine engineering, with projects that include post-Hurricane port restoration in Puerto Rico, redevelopment of NY Harbor's urban waterfront, the response and recovery effort for Superstorm Sandy in the metro New York region, leading the teams responsible for rebuilding the marinas, boardwalks, and other infrastructure of the Jersey Shore; and resort projects throughout the Caribbean. Experienced with federal, state and county guidelines and processes, Mr. Raichle comfortably interfaces with all regulatory agencies.

Education

ME, Ocean Engineering, Davis Fellow, University of Delaware, 1992
BE, Civil Engineering, University of Delaware, 1990

Professional Experience

PANYNJ Replacement of Holland Tunnel Protective Piers 9 & 204 – Engineer for environmental permitting associated with Holland Tunnel pier replacement. Work included consideration of ecological impacts of shading, navigation issues, public access to the waterfront, and archaeological/historical resource issues.

MARAD Puerto Rico Critical Port Assessments – Project Manager responsible for managing and coordinating the preparation of Structural, Biological, and National Environmental Policy Act (NEPA) Environmental Assessments for ports throughout Puerto Rico in response to the devastation resulting from Hurricane Maria, which made landfall as a Category 5 hurricane. Matrix conducted assessments to evaluate potential impacts associated with proposed site restoration and resiliency measures at nationally significant port facilities throughout Puerto Rico. Mr. Raichle oversaw and coordinated land and water field inspections completed by more than 40 engineers and scientists and assisted with preparation of findings reports for structural and biological assessments at 30 critical port facilities.

Pier 35 Reconstruction, New York, NY – Consultant for marine engineering and environmental matters associated with reconstruction of a former industrial pier along the East River.

Hoboken Pier Collapse, Hoboken, NJ – Engineer of Record for the securing, demolition, and reconstruction of circa-1900 relieving platform. Managed underwater inspections, geotechnical investigations, structural engineering, permitting, and construction activities.

Brooklyn Marine Terminal, New York, NY – Consultant for marine engineering and environmental matters associated with reconstruction of former industrial piers.

Post-Sandy Port Authority of New York & New Jersey Resiliency Projects, Multiple Locations in NY and NJ – Consulting Environmental / Coastal Engineer for the Port Authority of New York & New Jersey's multi-billion-dollar resiliency programs, including resiliency infrastructure for the Authority's three airports, PATH train system, two tunnels, and port infrastructure. Work included evaluation of design flood elevations, permitting requirements, NEPA, and archaeological/historical concerns.

NYCEDC Rockaway Shoreline Stabilization, Queens, NY – Engineer managing permitting, surveying, inspection, alternatives analysis, and design of a rock revetment to replace an existing, failed bulkhead along a major roadway in Rockaway, New York City. Permitting effort included coordination with NYSDEC and NGO's for potential incorporation of living shoreline and sea level rise design components.

ANDREW W. RAICHLE, PE
Marine Engineer
Matrix New World Engineering

TBTA Throgs Neck and White Stone Bridge Threat Protection Design, New York, NY – Consultant for marine engineering and environmental matters associated with design of fendering systems for East River crossings. Work included extensive marine engineering calculations to simulate vessel collisions with proposed fendering systems, and regulatory permitting complexities associated with fill of open water areas.

Port Authority of New York & New Jersey, LaGuardia Airport - Flood Control & Resiliency Program, Queens County, NY - Project Engineer responsible for evaluation of all required permits from other agencies, such as USACE, New York State Department of Environmental Conservation, NYS Department of State, New York City Parks Department, NYC Department of Environmental Protection, NYS and NYC Departments of Transportation; and preparation of environmental permit applications and supporting documentation for submission to regulatory agencies.

NJEIT-Funded Sherwin Williams Redevelopment Project - Engineer of Record for the design, permitting, and funding administration of Portfields redevelopment project. Work included civil, geotechnical, and marine engineering design, NJDEP/USACE permitting, and construction administration. Project funded with a complex “conduit” agreement between the redeveloper, City and NJEIT. Raichle oversaw all components of the funded project, including site remediation.

Landings at Harborside Redevelopment Project, Perth Amboy, NJ – Marine Engineer of Record for owner, providing specialty marine and redevelopment engineering for various components of proposed residential redevelopment, including seawall design, FEMA map modifications, marina design, and permitting consultation.

Post-Sandy Rapid Infrastructure Assessment, Township of Brick, NJ – Leader for team of 10+ engineers evaluating impact of Superstorm Sandy in days and weeks following storm’s impact. Work included life/safety evaluation of structures and infrastructure, coordination with FEMA, and recommendations/cost-estimates for repairs. Work culminated in preparation of master infrastructure repair phasing plan and served as basis for FEMA funding of Township’s infrastructure responses.

Redevelopment of Military Ocean Terminal, Bayonne (MOTBY), Bayonne, NJ - Engineer of Record for Bayonne Local Redevelopment Authority’s redevelopment of more than 700-acre former military base. Redevelopment included extensive site remediation of contaminated soils and groundwater. Coordinated remediation design and construction activities, including applicable regulatory requirements (NJDEP waterfront development permits, deed notices, CEA’s, etc.). Produced remediation record documents, including record surveys and engineering certifications, permitting, and negotiations for the filling and associated mitigation of 2.9 acres of contaminated freshwater wetlands on the site. Managed the closing and maintenance of former C&D landfill on site. Responsible for design, procurement, and execution of \$5M square feet of building demolition, including asbestos abatement. Planned and executed modification of contamination engineering controls for new buildings, infrastructure, and utilities. Secured and executed more than \$30M of New Jersey Environmental Infrastructure Trust (NJEIT) funding for site remediation and water quality improvements.

Dredge Processing Facility Approval, Staten Island, NY – Dredging consultant for private entities effort to secure NYSDEC and NYCDOS approvals for first permanent dredge processing facility in New York. Consultation included technical representation on matters of dredge processing techniques, navigation issues at the berthing facility, dewatering activities, amended dredge transport, and beneficial use determination (BUD) acquisition for the amended dredged material.

Professional Certifications and Registrations

Professional Engineer – New Jersey, #24GE04188900, 1990, New York, #077338-1, 2003, Florida, 1995
Transportation Worker Identification Credential (TWIC)
OSHA Hazardous Waste Site Operations
Health and Safety Certification

ALLEN E. JUBA, ASLA
LANDSCAPE ARCHITECTURE TASK LEADER

Experience:

Mr. Juba, a principal with the firm since 2001, is currently involved in various projects with responsibilities ranging from site planning and conceptual design to construction documentation development, quality review and construction administration. His expertise in design detailing and the detailed aspects of planting design is evident throughout much of the firm's work.

Mr. Juba headed the firm's New York office for seven years, where the focus was the design of Hudson River Park, Segments 6 and 7 and where he was Managing Principal of that project. This \$85 million project established a 2-mile long linear greenspace along the Hudson River, on the west side of Manhattan, between 25th and 59th Streets. On this project, the firm was engaged for the entire design process from concept and schematic design through design development, contract documentation and construction administration.

Currently, he is involved with a number of projects in various phases of the design process: overall master planning and phased design of Highbridge Park, New York, NY, part of the NYC's Anchor Parks Program; overall design and document review for four playgrounds in Brooklyn, NY, part of NYC Mayor De Blasio's Community Parks Initiative (CPI); design and review of the renovation of the Ag Quad, Cornell University, Ithaca, NY; site and roof design for 416 and 420 Kent Avenue, a new luxury residential complex in Brooklyn, NY; and overall design and document review for Lafayette Playground, Brooklyn, NY and Harlem Lane, New York, NY, both projects with City of New York Parks and Recreation.

One of Mr. Juba's specialties is the design of public children's gardens. Previously constructed projects of this type include the Everett Children's Adventure Garden at the New York Botanical Garden, Bronx, NY; the Outdoor Learning Center in Newark, NJ; and the Rory Meyers Children's Adventure Garden at the Dallas Arboretum, Dallas, TX. He has most recently

been involved in the schematic design for a new children's garden at the State Botanical Garden at the University of Georgia, Athens, GA.

In addition, Mr. Juba is responsible for much of the firm's graphic work, including the design and illustrations of firm brochures and exhibit materials.

His work has been exhibited at Cucina Dell'Arte Gallery, Long Island City, and in an alumni program at Rutgers University. His work has also been published in *Plan Graphics*, Fourth Edition.

Mr. Juba maintains a 1/8 acre property in Central New Jersey planted with a varied, detailed and seasonal planting palette which further informs planting design throughout the firm.

Education:

Rutgers University
Bachelor of Science
Landscape Architecture, 1983

Parson's School of Design: Courses in Fine Art

Years with Firm:

35

Registration:

Registered Landscape Architect: New York
Licensed Landscape Architect: New Jersey

Professional Activities:

American Society of Landscape Architects

Rutgers, The State University
Department of Landscape Architecture, Visiting Critic

American Horticultural Society

JESSIE WOODS
JR. LANDSCAPE ARCHITECT

Experience:

Ms. Woods, a Jr. Landscape Architect, joined the firm shortly after graduation with a Bachelor of Science in Landscape Architecture from Rutgers University in May, 2014. She is involved with several phases of project development with MKW, including conceptual and schematic design, the production of design development drawings, construction documents, cost estimates, specifications, construction administration and project management, 3D modeling, presentation graphics and renderings on a wide variety of projects. Ms. Woods is also involved with the graphic design, social media marketing, and award submissions of the firm and participates in the preparation of proposals in response to various RFPs.

Ms. Woods has helped develop schematic design packages and construction documents for several major projects, including two parks that are part of the New York City Department of Parks and Recreation's Community Parks Initiative (CPI): Bloomingdale Playground on the Upper West Side of Manhattan and the reconstruction of four bundled Brooklyn playgrounds (Jesse Owens Playground in Bedford Stuyvesant, Saratoga Ballfields in Crown Heights, Ten Eyck Playground in East Williamsburg, and Stockton Playground in Bushwick).

Currently, Ms. Woods is the project manager for the second phase of the Highbridge Park in Manhattan along the Harlem River, one of the city's five new anchor parks. She is also involved in the design and production of the master plan document for Highbridge Park which addresses the needs of the local community and fulfills the aspirations for this iconic site to play a key role in New York City's public open space system. She is also on the design team for Dundee Island Park, the redesign of a neglected 6.73 acre park located in Passaic, New Jersey. In collaboration with Trust for Public Land and Boswell Engineering, the new park design will not only restore over a quarter mile of waterfront but will also serve as an essential community resource for active and passive recreation, nature

education, and event space. Early on in the design process, she participated in the community scoping and outreach and the analysis of public feedback. She was involved with initial concept design and producing the full schematic design package.

Prior to joining MKW + Associates, Ms. Woods conducted research on campus sustainability and planning. Her focus within this study was on the active involvement of the student population within the design process for a campus-wide bicycle and pedestrian network. "Re-Envisioning Campus: Master Planning for Students by Students" was awarded the NJASLA Student Merit Award (Analysis and Planning Category) in 2015. She also participated in the schematic redesign of a main train station as part of a collaborative design workshop at Technische Universität in Berlin, Germany, and has completed work surveying community gardens for the American Community Garden Association annual report.

Ms. Woods is currently involved in the following projects:

Highbridge Anchor Park Phase 2, Manhattan, NY
Dundee Island Park, Passaic, NJ
Frank Golden Memorial Park, Queens, NY
Bloomingdale Playground, Manhattan, NY
Jersey City Reservoir Trail, Boonton, NJ

Education:

Rutgers University School of Environmental and Biological Sciences
Bachelor of Science in Landscape Architecture,
May 2014

Years with Firm:

2014 - Present

RYAN GOODSTEIN

JR. LANDSCAPE ARCHITECT

Experience:

Mr. Goodstein, a Jr. Landscape Architect, joined the firm in December of 2014. He graduated with a Bachelor of Science in Landscape Architecture from Rutgers University in May, 2014. Before Rutgers, Ryan studied Architecture at Mercer County Community College where he received his Associates Degree in 2011.

He is involved with conceptual and schematic design, the production of design development drawings, construction documentation, construction administration, cost estimates, specifications, 3D modeling, presentation graphics and renderings on a variety of projects.

Mr. Goodstein has worked on the waterfront property and rooftops for a new high rise along Kent Avenue in Brooklyn, NY. For that project he helped with the production and development of schematic and construction documents. Also, Mr. Goodstein has worked on a suitability analysis for the Holland and Lincoln Tunnels. This work included plans, shade studies, cost analysis, and specifications regarding the potential for Extensive Vegetative Roof Assemblies. Mr. Goodstein has been involved with multiple projects for Ramapo College. These projects include a new ramp and stairs, courtyard design including new pavement, stone walls, and planting and landscape improvements. More recently, Mr. Goodstein has worked on the new layout of pedestrian and vehicular paths, new plaza entrances and landscape revitalization for the AG Quad at Cornell University. In addition to construction documentation, he managed the construction administration which was completed in 2017.

Mr. Goodstein has also been involved with several NYC Parks projects, including the construction of four playgrounds located in Brooklyn, NY that are a part of the NYC DPR Community Parks Initiative. Mr. Goodstein's focus on these projects was schematic presentations, the development of green infrastructure design, cost estimates and the production of construction documents. He also has

worked on design development and the production of construction documents for the first phase of Highbridge Park, located in Manhattan. This project is a part of NYC Parks' Anchor Park Initiative.

Currently, Mr. Goodstein operates as the project manager for the revitalization of two adjacent playgrounds in Harlem, NY. He also manages the design and documentation for a new NYC Department of Sanitation Garage, located in Brooklyn, NY. This project includes a 50,000 SF extensive vegetative roof system and streetscape design. He is also the project manager for the proposed landscape and site lighting of a senior living community in Delaware County, PA.

Before joining MKW + Associates, Mr. Goodstein worked as an Intern for the Center of Urban Environmental Sustainability (CUES). There, he worked on a master plan for the redevelopment of a brownfields site in Somerville, NJ. During that time, Ryan also acted as a project manager for the design and construction of a rain garden at the Floriculture Greenhouses at Rutgers University.

Mr. Goodstein is currently involved in the following projects:

Harlem Lane Playground, Manhattan NY
Frederick Johnson Playground, Manhattan NY
FMCP Fields 8+9, Queens NY
Brooklyn Community District 3 Garage, Brooklyn NY
Bronx River Greenway, Bronx NY
Maris Grove Senior Living Community, Glen Mills PA

Education:

Rutgers University School of Environmental and Biological Sciences
Bachelor of Science, Landscape Architecture, 2014
Mercer County Community College
Associate of Science in Architecture, 2011

Years with Firm:

2014 - Present

BREANA PARIAN
JR. LANDSCAPE ARCHITECT

Experience:

Ms. Parian, a Jr. Landscape Architect, joined the firm immediately after graduating from SUNY ESF in Syracuse NY with a Bachelor of Landscape Architecture. She is involved with several phases of project development with MKW, including conceptual and schematic design, the production of design development drawings, construction documents, cost estimates, specifications, construction administration and project management, presentation graphics and renderings on a wide variety of projects.

Ms. Parian has taken projects from conceptual design to schematic design packages, through to construction documents and construction administration for several projects, including major New York City Parks & Recreation projects. The most notable ones being New York City Department of Parks and Recreation's Community Parks Initiative (CPI) bundled Brooklyn playgrounds (Jesse Owens Playground in Bedford Stuyvesant, Saratoga Ballfields in Crown Heights, Ten Eyck Playground in East Williamsburg, and Stockton Playground in Bushwick) and Phase 1 of Highbridge Park, a New York City Anchor Park.

Her most recent computer graphic production work is centered on the NYC DPR Community Parks Initiative, specifically Morningside Park. Early in the design process she participated in the community scoping and outreach sessions and then analyzed the public feedback to produce schematic design renderings. She has also prepared hand-sketched graphics for the conceptual design presentation of a Financial Office Campus in New Jersey.

Ms. Parian has also been involved in the production of cost estimates, specifications and managing projects during construction administration. She has successfully prepared contract document sets including layout and materials plans, planting plans and site details.

Prior to joining MKW + Associates, Ms. Parian conducted an independent research study on the correlation between the food and the landscape in Cape Town, South Africa. In the past, she interned at the James Rose Center, located in Ridgewood NJ, where she helped create a patent package for the ASLA award winning James Rose Bench.

Currently, Ms. Parian is involved in the following projects:

Bowne Park, Queens NY
Edenwald Playground, Bronx NY
Lafayette Playground, Brooklyn NY
Highbridge Park, Manhattan NY
Morningside Park, Manhattan NY
New Jersey Bell Tower, Newark NJ
KPMG Campus, Montvale NJ
Harlem Lane Playground, Manhattan
Frederick Johnson Playground, Manhattan

Education:

SUNY College of Environmental Science and Forestry
Bachelor of Landscape Architecture, 2015

Years with Firm:

2015 – Present

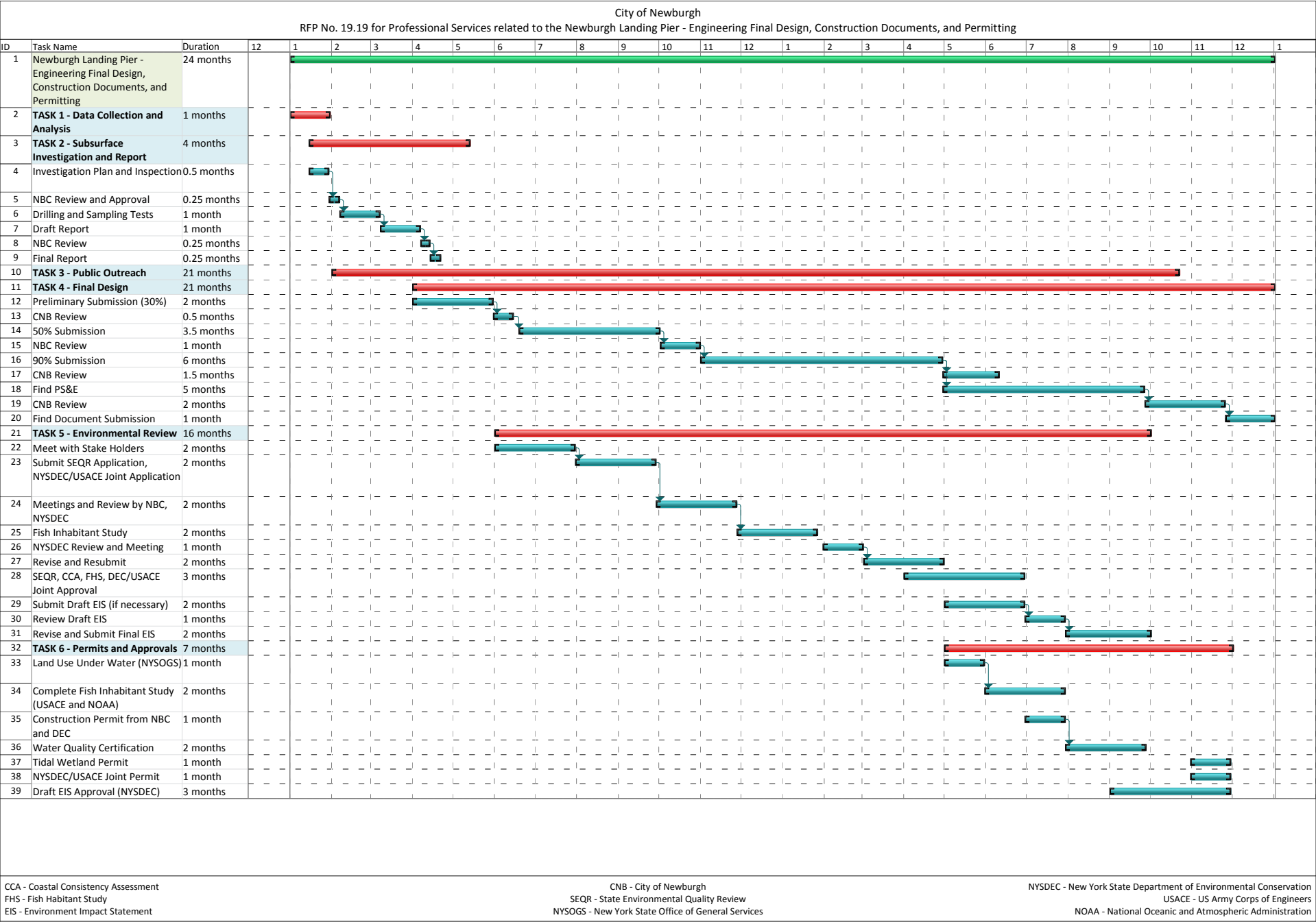
Professional Activities:

American Society of Landscape Architects

Workload and Schedule

ATANE typically provides professional and technical services on some 200-250 projects at any one time with construction values that vary on a month-by-month basis. In 2017, ATANE managed a total of \$450 million in construction. The depth and breadth of our professional resources far exceeds the requirements of our current commitments.

ATANE's projected workload anticipates, without difficulty, the absorption of any work presented by this project even in the event of a significant increase in the project's scope, and we have the resources available to commence work immediately. ATANE's project personnel can accomplish the work under this contract in a timely and efficient manner, as their workload is comparable to the overall firm workload. By maintaining our reserve availability in our staffing workload projections, ATANE is readily prepared to handle changes in our project scopes and deadlines, as well as with project backlog.



WEST 79TH STREET BOAT BASIN A-DOCK RECONSTRUCTION New York, NY

ATANE provided in-house survey, condition inspection, structural engineering and geotechnical design services for the reconstruction of the public pier (A-Dock) at the West 79th Street Boat Basin.



Originally constructed in 1937 under Robert Moses, all piers at the boat basin were reconstructed in 1961 and rehabilitated in 1994. Since that time, the waters of the Hudson River have been environmentally cleaner, promoting infestation from marine borers in the wooden piles, which weakened the structure. In 2005, several dolphin pile clusters at the end of the pier and ice breaker structures were reinforced using hollow steel piles.

Our pre-design services included topographic and bathometric survey, testing, structural condition inspection of the pier deck and geotechnical investigations. After the substructure inspection was completed by the New York City Department of Parks and Recreation, ATANE completed the superstructure condition inspection and report, which included recommendations for both reuse and replacement.

In Fall 2012, the storm surge from Superstorm Sandy completely damaged A-Dock, rendering it unsafe for use by the public. A completely new superstructure was designed and approved by the Public Design Commission. A final comprehensive list of tasks included preparation of contract documents and engineer's estimate for the installation of concrete-filled steel piles, concrete pier caps, fiberglass stringers, timber decking, wave wall, dolphin piles and utility reconnections.

Owner: New York City Department of Parks and Recreation

Location: New York, NY

Construction Value: \$7 million

Start Date: February 2011

End Date: September 2016

Reference:

Heidy Grullon

(718) 760-6723



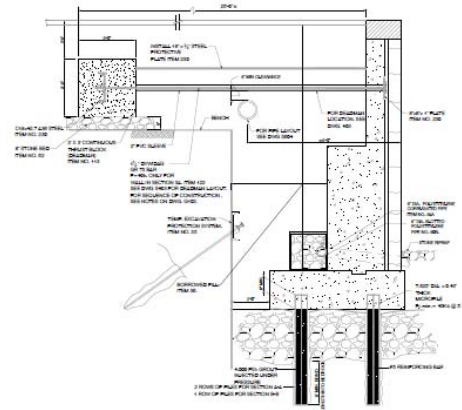
EAST RIVER ESPLANADE SEAWALL BETWEEN EAST 88TH AND EAST 90TH STREETS New York, NY

As part of an on-call contract for reconstruction and stabilization of retaining walls and seawalls for the New York City Department of Parks and Recreation, ATANE provided design services for the East River seawall on the west side of the river between East 88th and East 90th Streets. The objective of the project was to restore/reconstruct the gravity retaining wall to an acceptable safe working condition and extend its useful service life.



The gravity wall, which extends approximately 640 feet within the project site, is comprised of granite stone fascia blocks set into a reinforced concrete seawall immediately behind. Grout bags placed intermittently at the base of the wall along the mudline are most likely to prevent scouring but may also be remnants from the original construction where concrete bags were used to conform to the shallow rock surface to create a uniform bed onto which the wall was constructed.

ATANE prepared a Project Scoping Letter Report that provides a proposed course of action for the rehabilitation and/or reconstruction of the structure. This report included a brief description of the gravity wall, including its existing condition, available historical information and drawings, and potential rehabilitation and reconstruction scenarios with preliminary schematic-level construction cost estimates for each alternative. This report also provided recommendations for which alternative(s) should be considered as part of the follow-on Schematic Geometric Design (SGD) Report task and for field investigations required to support future design development and final design.



Each alternative studied included a brief description of the scope, SGD plans, constructability, life cycle cost analysis, and estimate. The final contract plans were prepared to replace the collapsed section of stone masonry wall with a cast-in-place concrete stone facing wall on micropiles and removal of fill materials with a lightweight concrete to stabilize the existing wall.

Owner: New York City Department of Parks and Recreation
Location: New York, NY
Construction Cost: \$10 million
Start Date: June 2016
End Date: December 2018

Reference:

Gabrielle Czernik, PE
Project Manager
(718) 393-7353
Gabrielle.czernik@parks.nyc.gov



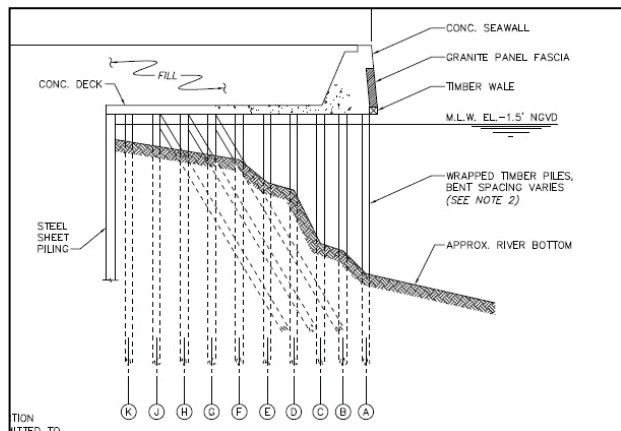
EAST RIVER ESPLANADE SEAWALL FROM 62ND STREET TO 64TH STREET New York, NY

ATANE provided professional engineering design services, on a task order basis, to the NYC Department of Parks and Recreation for the reconstruction and stabilization of retaining walls and seawalls at six locations along the East River Esplanade. The 62nd Street to 64th Street segment is approximately 297 feet and supported on approximately 90 pile bents, with each bent having approximately 10 plumb piles and four batter piles, for a total of approximately 1,260 piles. The existing 35-foot-wide, low-level relieving platform is primarily constructed of timber piles that support a concrete deck.



A concrete seawall with a granite panel fascia is located on top of the deck at the offshore edge and retains approximately 8 feet of fill. A steel sheet pile bulkhead forms a cut-off wall on the inshore side of the wharf.

The project included preparation of a report identifying existing conditions, historical information, and potential rehabilitation and reconstruction scenarios with preliminary schematic-level construction cost estimates for the alternatives to restore/preserve the structure to an acceptable level of service for a long-term solution.



The recommended alternative included structural encasements of approximately 540 timber piles; mass concrete encasement for the inshore piles and bulkhead; and miscellaneous repairs to isolated portions of the concrete deck, seawall, fascia and topside.

Owner: New York City Department of Parks & Recreation
Location: New York, NY
Construction Cost: \$12 million
Start Date: 2015
End Date: 2017

Reference:

Erik Linsalata, PE
(718) 760-6785



HARBOR MARINA BULKHEAD REPLACEMENT Guilford, CT



ATANE provided design and contract administration services for this \$1 million fast-tracked bulkhead replacement project that involved installation of the latest-generation bulkheads in the historic Town Dock area, a well-used community facility adjacent to popular restaurants and the bustling town marina. The area was previously the location of a state pier.

Working closely with town officials, the project entailed reconstruction of a tidal bulkhead with new 40-foot steel sheetpiles and a streetscape concrete cap.

Amenities included installation of marine furnishings including cleats, safety ladders and utility services, as well as drainage improvements.

The design and construction accommodated local and state permitting, including strict adherence to all environmental requirements and regulations, as well as residential and commercial boating community needs and requirements.



Owner: Town of Guilford
Engineering & Public Works Department
Location: Guilford, CT
Construction Cost: \$1 million
Start Date: September 2012
End Date: May 2013

Reference:

James Portley, PE
Town Engineer
Director of Public Works
(203) 453-8029

RALPH DEMARCO PARK SHORELINE STABILIZATION **Queens, NY**



Ralph DeMarco Park is located along the eastern bank of the East River between 20th Avenue and Ditmars Boulevard in Queens. It extends approximately 1,800 feet along the river with a stone revetment shoreline, pedestrian walkways and paths, sitting areas, trees, and varying widths of open green space. Superstorm Sandy had damaged the revetment, and subsequent erosion along the shoreline compromised the stability of the slope and upland areas immediately adjacent to the park. Initial efforts to determine the extent of damage by examining historic materials was inconclusive.

In general, most of the revetment slope exhibited displaced and missing stones, ranging from nearly the entire slope to the upper one-third, and directly impacted sections of concrete walkway. The erosion exposed tree roots and created runoff gullies down the unprotected slope to the river. Significant erosion was also evident in numerous locations, with erosion cuts in the slope of up to five vertical feet. Of the five outfall pipes indicated by available records, four were observed and surveyed; one pipe was not visually evident. There were areas of significant erosion, and one pipe was completely disconnected. The remaining outfall pipes appeared intact and extended beyond the revetment shore. There were no visible measures to protect the exposed pipes from damage.

To re-establish the shoreline protection, ATANE recommended a complete \$2.5 million reconstruction of the shoreline and revetment. The reconstructed revetment consists of a stone system, including filter fabric, a base layer of smaller stone, revetment stone, and a toe stone set one to two feet below mean lower water to anchor the slope below the fluctuations of the tidal zone. The stone size was confirmed with design calculations based on the site exposure. As part of the reconstruction, each outfall pipe was reset with revetment stone placed around the outfall to provide protection to the pipes.

Reconstruction of the revetment impacted the walkway and sections of Shore Boulevard, requiring localized reconstruction, particularly where the upland space between the street and shoreline is limited. To minimize street impacts, construction used both land- and barge-based operations. The project was federally funded through FEMA.

Owner: NYCDPR
Location: Queens, NY
Construction Cost: \$2.5 million
Start Date: August 2014
End Date: December 2017

Reference: Erik Linsalata, PE
(718) 760-6785

FORT TOTTEN PARK SEAWALL RECONSTRUCTION **Queens, NY**

ATANE provided design and construction support services for reconstructing the seawall in historic Fort Totten Park near the Long Island Sound in northeastern Queens. The work was performed under an on-call design contract with the New York City Department of Parks and Recreation (NYCDPR).

The mile-long masonry retaining wall along the East River was in poor condition after years of weathering and tidal action. It had four large holes through the seawall that rendered it structurally unstable and in need of immediate repair to avoid collapse. The remainder of the seawall exhibited cracking along the concrete cap stone, minor and major displacements, deteriorated railing, loose/missing joint mortar and random missing stones.



ATANE investigated existing conditions to determine options for rehabilitating the structure and designed and submitted repair, cleaning and maintenance design documents to the NYCDPR which, along with city, state and federal agencies, approved the submitted documents. We also prepared the bid package. The project included:

- Hands-on inspection of the entire length of seawall
- Topographic surveying to establish the top and bottom of the seawall for its entire length, plus detailed survey of the general area surrounding the four holes through the seawall
- Development of alternatives for rehabilitating the seawall at the four holes and for general maintenance-type repairs and cleaning along the rest of the wall
- Preparation of documents for New York State Department of Environmental Conservation permitting and for New York City Landmarks Commission approval
- Preparation of construction contract documents, keeping the scope within budgeted funds

The project required significant coordination with the NYSDEC/NYSDOC and the U.S. Army Corps of Engineers to obtain permits for tidal wetlands, excavation and fill in navigable waters and Clean Water Act water quality certification.

Owner: New York City Department of Parks and Recreation

Location: Queens, NY

Construction Cost \$1 million

Contract Fee: \$125,000

Start Date: 2009

End Date: 2011

Reference:

Heidy Grullon, PE
(718) 760-6723



COLLECT POND PARK RECONSTRUCTION DESIGN SERVICES New York, NY



ATANE designed the complete reconstruction of Collect Pond Park, which encompasses a full city block adjacent to court buildings in an extremely busy section of Lower Manhattan. The work was performed under an on-call agreement with the NYC Department of Parks and Recreation. The project removed existing vehicle parking on the park development lot and converted it into open space for passive recreation.

The project included the design of a shallow pond with a pedestrian bridge, interactive ground sprays, trees and landscape plantings, architectural paving, curbs, sidewalks, benches, game tables, fencing, and lighting. The pond design was complicated by the presence of an existing building below grade upon which the pond was constructed.

Design work also included new city sidewalks and reconstruction of several NYC Transit ventilation gratings for flood study purposes and reconstruction of several custom subway emergency exits. The NYCDOT implemented significant provisions for maintenance and protection of pedestrian traffic on the surrounding busy city sidewalks. New storm water sewer site connections, a new sewer through the site, site drainage piping, private utility relocations, a new NYCDEP water service with backflow preventer, a new Con Edison electrical service for site amenities and separate electrical service for site lighting were required.



Owner: NYCDPR
Location: New York, NY
Construction Cost \$4.4 million
Duration: October 2009-September 2010

Reference:
George Bloomer, RLA
(718) 760-6712



FORT TRUMBULL BEACH REVETMENT RESTORATION Milford, CT



On an emergency response, ATANE performed a detailed damage assessment of several areas of the Milford, CT shoreline that were hard hit by Tropical Storm Irene. One of the most heavily impacted areas was the Fort Trumbull Beach Revetment, which was overtopped by Irene's storm surge and wave action, causing significant erosion and undermining the backside and top of the structure.

ATANE worked closely with local, state and FEMA officials to develop repair alternatives and estimated costs. We were subsequently selected to perform data collection; surveying; project management; preliminary and final design; local, state and federal permitting; and construction administration and inspection of this major FEMA-funded shoreline restoration project.



Design and permitting were completed early. All project work was completed several months ahead of schedule and well below initial FEMA budget estimates.

Owner: Department of Public Works
Location: Milford, CT
Contract Fee: \$1.1 million
Start Date: June 2012
End Date: November 2013

Reference:
Christopher Saley
(203) 783-3265

EAST RIVER WATERFRONT ESPLANADE PIER 35 New York, NY

The East River Waterfront Esplanade is a 2-mile-long, city-owned public open space extending from the Battery Maritime Building to the south to Montgomery Street to the north. Pier 35 is located near the intersection of South Street and Jefferson Street in downtown Manhattan. The pier is being rehabilitated into a public park by the New York City Economic Development Corporation.

ATANE, as a team member, created a 3D high-definition survey using a laser scan to depict conditions at the pier, including the wall foundation, pedestrian bridge, pier perimeter, and northeast corner transition into the Sanitary Building area. The survey consisted of a registered and unified point cloud with conventional data augmented from the point cloud. Specifically, we:

- Scanned the property from multiple viewpoints to minimize shadows and obscured areas. The scan covered fixed plainly visible features such as structures, unfinished ramp, pier and bulkhead; and anchor bolts on the ramp and pier.
- Surveyed additional fixed features beyond the construction zone such as the railing and entrances.
- Surveyed a few discrete features such as corners for QA/QC check of the point cloud.
- Registered point clouds together to create one point cloud for the entire building.
- Created TruViews (for example, rectified spherical images) of each scan location showing imagery of the project site.
- Imported conventional data along with discrete elements from the point cloud into Civil 3D. The result was a CAD drawing of the site, including the subject area and surrounding features to the pier railing and entrances.



Owner: New York City Economic Development Corporation

Location: New York, NY

Start Date: April 2016

End Date: April 2016

Reference:

Mishel Mako

(212) 699-4816

mmako@hrcg.com



INTREPID PIER REHABILITATION New York City

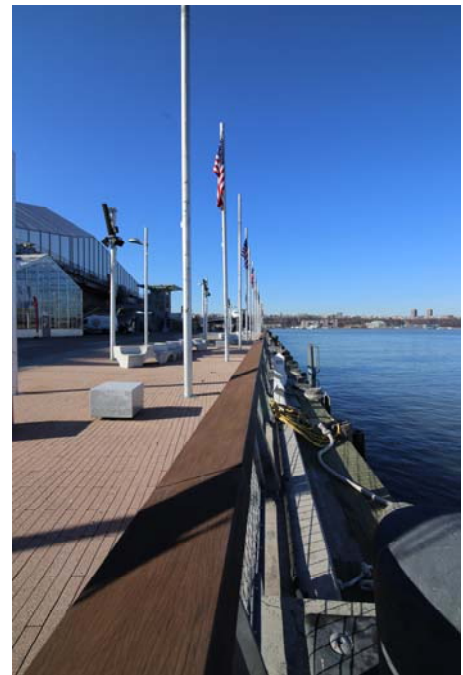
ATANE, as a team member, provided construction inspection and procurement/bidding services to the Hudson River Park Trust for the \$50 million rehabilitation of the Intrepid Pier.

Pier 86, located at 12th Avenue and 46th Street, is home to the USS Intrepid Sea, Air & Space Museum. The pier underwent a complete demolition and reconstruction while the World War II-era aircraft carrier was towed to New Jersey and, later, Staten Island to undergo refurbishments.



The overall project included construction of a new 782-foot-long, 150-foot-wide military-style pier, along with four stair/elevator towers and park elements. ATANE approved the 336 steel pipe piles used to secure the new pier into the Hudson River. Additionally, limited construction coordination and project management was provided during the dredging process.

ATANE also prepared the bid documents, conducted a pre-bid meeting and site visit, reviewed and analyzed bids and made a recommendation to award for the dredging work associated with moving the USS Intrepid prior to pier renovations, and oversaw the dredging operation in the field.



Owner: Hudson River Park Trust
Location: New York City
Construction Cost: \$50 million
Start Date: 2006
Start Date: 2008

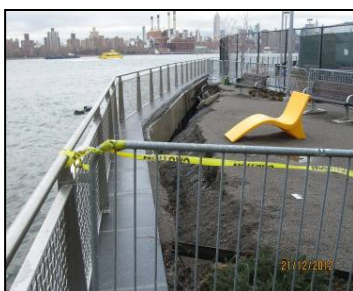
Reference:
Daniel Kolakowski
Senior Vice President
(917) 367-2360



KS Engineers, P.C.
Engineers . Surveyors
Construction Managers

New Jersey
New York
Pennsylvania

info@kseng.com
www.kseng.com



Civil Engineering Design Services for Parks, Buildings, and Facilities in the Five Boroughs of New York City

New York, New York

PROJECT NAME

Hurricane Sandy Damage Assessment and Reconstruction of Damaged Facilities
Work Order #1, Contract No. CNYG-412M

PROJECT OWNER

City of New York Department of Parks and Recreation
The Arsenal-Central Park
New York, NY 10065

PROJECT CLIENT

City of New York
Parks & Recreation
Olmsted Center
Flushing Meadows – Corona Park
Flushing, NY 11368
Susan Rosenstadt-Bresler, RA
718.760.6921

START/END DATES

2012 –2014

CONTRACT AMOUNT

\$2,000,000 (Total On-Call)
\$150,000 (Work Order #1)

PROJECT DESCRIPTION

KS Engineers, P.C. (KSE) provided hurricane damage assessment services in the wake of the passage of Hurricane Sandy through the area, including the inspection of building foundations, exteriors and interiors, utilities, bulkheads, light poles, and fixed and floating piers. The following sites were included in Work Order #1:

- Sports Lighting at McCarren Park and Colonel Charles Young Park
- Buildings at Blissenbach Marina and the Conference House Caretaker's House
- Piers/Docks/Floating Pool at Barretto Point Park, Hunts Point Riverside Park, and North 5th Street Pier

Consultant services included the following:

- Studies/Investigations, Engineering, Engineering Analysis and Reports
- Preparation of scope and schematic plans
- Preparation of topographic survey
- Preparation of preliminary construction documents which included examining raising the seawall elevations
- Preparation of final plans, specifications, and estimates
- Filing with and obtaining approvals from all required agencies
- Bid and construction administration services.

The initial phase included the assessment of damage caused as a result of Superstorm Sandy, and the preparation of reports with our findings, recommendations, and repair and replacement cost estimates. Underwater inspections of piers and bulkheads were completed as required. The second phase involved the development of design, demolition, and construction documents, including specifications and cost estimates.





KS Engineers, P.C.
Engineers . Surveyors
Construction Managers

New Jersey
New York
Pennsylvania
Connecticut

info@kseng.com
www.kseng.com

Wagner Park Revitalization – Prepare Resiliency Design for Park

New York, New York

PROJECT NAME

Wagner Park Revitalization – Prepare Resiliency Design for Park

PROJECT OWNER

Battery Park City Authority
One World Financial Center, 24th Floor
New York, NY 10281

CLIENT

Perkins-Eastman
Eric Fang
212.353.0147
e.fang@perkinseastman.com

START/END DATES

2016 – 2017

CONTRACT AMOUNT

\$28,000

PROJECT DESCRIPTION

The Battery Park City Authority (BPCA) is examining potential improvements to Wagner Park in light of the damage caused by Super Storm Sandy. The park and buildings are in need of repair and BPCA is examining various use changes to improve the park and resiliency. The potential ideas include demolishing the existing buildings and constructing a new restaurant with separate storage space for BPCA Conservancy equipment. There would also be a pedestrian bridge that would connect the park directly to the Pier A restaurant. Along the seawall, a wetland area would be constructed along with a terraced sitting area. There is also the potential for a dock and gangway to allow boaters to access the restaurant. Finally, a movable wall would be constructed along edge of the park that would protect the street from flooding. KSE prepared a construction cost estimate for the proposed improvements. This including the costs associated with constructing a new restaurant, demolition of the existing buildings, constructing the gangway, dock, wetland area, retaining walls, and repairs to the existing walkway.

An Architectural/Engineering Assessment of the interior, exterior, rooftop terrace, and a high level review of the mechanical and electrical systems at the Robert F. Wagner Pavilion, Battery Park City, NY was performed by KS Engineers, P.C./Perkins Eastman during the month of November 2016. The survey was conducted to determine the overall condition of the facade, exterior stairs, roof terraces, and mechanical and electrical systems/equipment and to identify structural and non-structural deficiencies. The site including lawn area, benches and plaza walkway was also inspected.

The Pavilion was built in 1994 and located in the Parks' northeastern periphery. The Pavilion consists of two structures approximately 5,500 square feet in total connected by a rooftop walkway. The Pavilion's ground level houses public restrooms and limited maintenance support space in its northern structure and a small restaurant in its southern structure. Both structures contain rooftop terraces accessed by masonry stairways on the eastern side. KSE prepared a report explaining the work and costs required to upgrade and repair the damages to the buildings and restaurant





KS Engineers, P.C.
Engineers . Surveyors
Construction Managers

New Jersey
New York
Pennsylvania

info@kseng.com
www.kseng.com



Condition Inspection of LGA Bulkhead at Bowery Bay

LaGuardia Airport, Flushing, New York

PROJECT NAME

Professional Structural Engineering Services As Requested on a "Call-In" Basis
(Agreement No. 415-10-058) Condition Inspection of LGA Bulkhead at Bowery Bay.
(Agreement No. 415-12-029) Design Services for Structural Repairs.

PROJECT OWNER/CLIENT

Port Authority of New York & New Jersey
Two Gateway Center
Newark, NJ 07102-5005
Rao Chava, PE
212.435.6215
rchava@panynj.gov

START/END DATES

2011 – 2012

CONTRACT AMOUNT

\$57,000

PROJECT DESCRIPTION

KS Engineers, P.C. (KSE) performed an in-depth field investigation of the east-west 80-foot section of the bulkhead at Bowery Bay. The objective of the project was to assess the condition of the bulkhead through hands-on inspection, evaluate its serviceability, recommend various repair schemes to extend the bulkhead's life, and estimate the repair costs of each scheme. Recommendations were also included to reduce future corrosion.

The scope of work for this site included:

- In-depth inspection of the east-west section only, including measuring the thickness of the remaining sheet-piles using ultrasonic testing equipment.
- Quantify the extent of noted deficiencies.
- Determine the structural capacity of the existing sheet-piles.
- Research sheet-pile repair and rehabilitation options.
- Estimate costs for repair options/schemes.
- Provide report with corrective measures, recommendations and details.

KSE developed methods of patching the bulkhead to mitigate the structural weakness caused by corrosion by welding or otherwise attaching steel plate, sheetpile sections or other steel shapes such as angles or Ts to the existing sheets where such connections can be made effectively. It was assumed that the base metal of the sheeting is weldable and that the sheeting has retained its structural capacity below grade.





KS Engineers, P.C.
Engineers . Surveyors
Construction Managers

New Jersey
New York
Pennsylvania

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www.kseng.com



Structural Repairs to Bulkhead at Bowery Bay, LaGuardia Airport

Queens, New York

PROJECT NAME

Structural Engineering Services on a Call-In Basis (MBE/WBE), 2011-2014

Task 08 – Contract LGA – Structural Repairs to Bulkhead at Bowery Bay, LaGuardia Airport

PROJECT OWNER/CLIENT

Port Authority of New York & New Jersey
Two Gateway Center, 16th Floor, NE
Newark, NJ 07102
Robert Kumapley
201.395.5257

START/END DATES

2012 – 2014

CONTRACT AMOUNT

\$70,000

PROJECT DESCRIPTION

KS Engineers, P.C. (KSE) was retained by the Port Authority of New York and New Jersey (PANYNJ) to provide structural engineering services on a call-in basis for PANYNJ facilities.

KSE prepared plans, specifications, and a construction cost estimate for miscellaneous repairs to deteriorated sheet piles in the badly deteriorated steel sheet-pile bulkhead supporting Bowery Bay Boulevard, which provides the only access to a large employee parking area on the west side of LaGuardia Airport. The sheet piling along the east-west portion of the wall was in very poor condition, and stone behind the bulkhead had been previously lost through an opening around a drain pipe, causing a sinkhole in the roadway. The bulkhead needed to be repaired or replaced.

KSE performed the Stage I Study Report for the project, which included three repair/rehabilitation options. KSE was subsequently authorized to prepare the Stage III and IV design services for a short-term repair option which involved the grouting of holes in the sheeting. The locations and sizes of the repair areas were identified and proposed design repair details were prepared. Plans were prepared in AutoCAD, following the PANYNJ's CADD Standards.

The scope of work also included the replacement of existing walkway girders and a fiberglass walkway and railings between Bent 19 and 20 at the ALS 13 Pier. KSE performed a field evaluation survey of the existing walkway and stringers, developed structural design criteria, and performed a structural analysis for the design of replacement walkway girders. KSE also investigated a feasible approach to temporarily support existing electrical conduits and an existing ladder. KSE provided contract drawings for construction in accordance with the design criteria, a compilation of PANYNJ standard (and, where necessary, non-standard) specifications, a construction cost estimate, Quality Plan Documentation (including checked calculations and sign-off sheets), and answers to Requests for Information (RFIs) during the bid process and addenda.



Fleischmann Pier Reconstruction Peekskill, New York

PURPOSE OF CONTRACT

Fleischmann's Pier is an early 1900's industrial pier which was formerly used by the Fleischmann Yeast Company to transport molasses to their Peekskill factory. Portions of the existing pier were previously determined to be structurally unsound, and the remainder of the pier is underutilized. Fleischmann Pier and the adjacent park feature picturesque views of the Hudson River and the pier is one of the few deep-water piers on the Hudson River north of Manhattan, making it an ideal candidate to become a premiere tour destination on the Hudson. Matrix survey prepared a Bathymetric survey of land under water under the Pier and along the shoreline in proximity of the Pier. A recent upland topographic survey was combined with the Bathymetry by Matrix and compiled into one digital mapping product to be used for the design of the reconstruction.

The City of Peekskill engaged Matrix to evaluate the Pier's physical condition, evaluate options for its redevelopment, obtain the necessary regulatory approvals, and prepare construction documents for its reconstruction. Matrix, and our subconsultants, first conducted geotechnical, topographic, hydrographic, and ecological surveys to assess the existing structure and environment and engaged with stakeholders to develop a range of redevelopment opportunities that envision an active waterfront use. Matrix prepared concept plans and cost estimates, and subsequently engaged with regulatory agencies and the local stakeholders to recommend a plan for implementation.

CLIENT

City of Peekskill
840 Main Street
Peekskill, NY 10566

CONTACT

Jean Friedman
Director of Planning
(914) 734-4218

COST

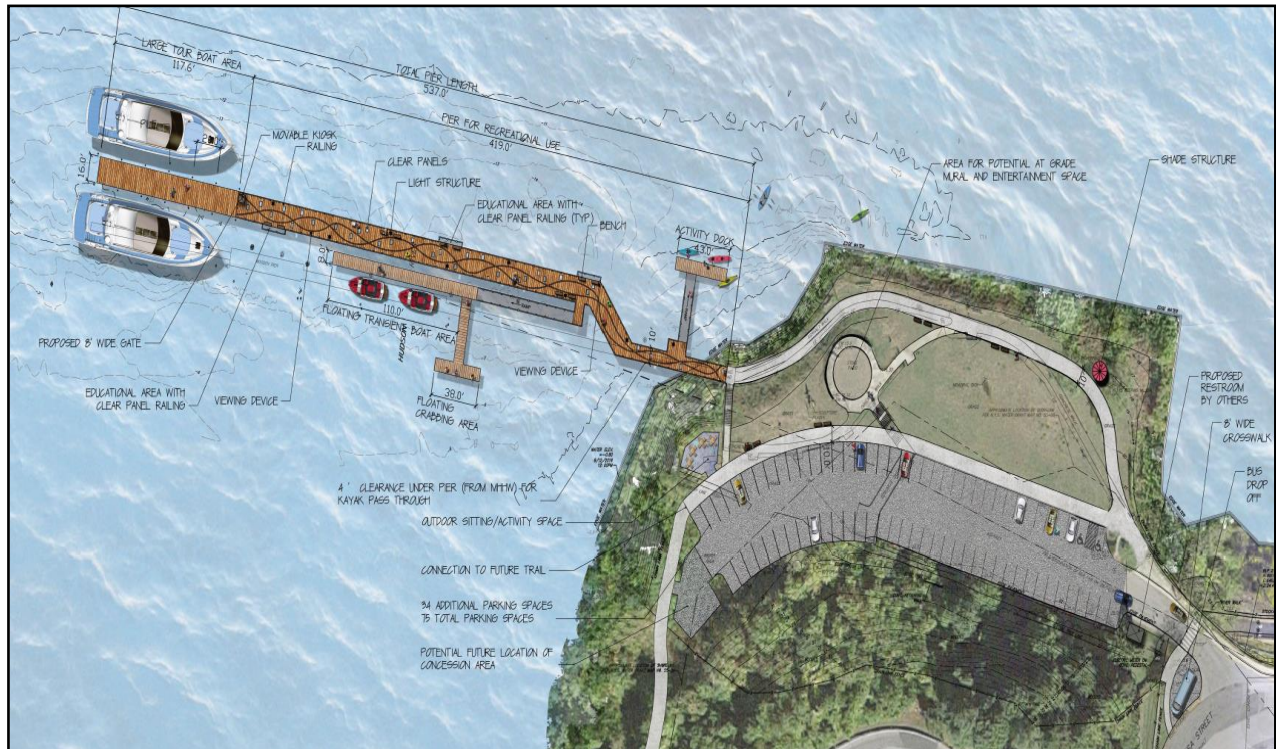
\$350,000

DURATION

2015 - 2017

KEY PERSONNEL

Paul Calabrese, PE
Michael Soltys, PE
William Reimer, RLA
Nicholas DeCotiis, PE
Andrew Raichle, PE
Stephen Moncrief, Jr., PLS



Pier 13 Marina Reconstruction Hoboken, New Jersey

PURPOSE OF CONTRACT

Matrix New World Engineering (Matrix) professionals led an effort to convert a former industrial pier in the City of Hoboken to a multi-component recreational destination. The project included extensive structural renovation of the existing pier and complete replacement of defunct marina infrastructure destroyed by Superstorm Sandy. Work completed included:

- Floating Dock Marina Construction
- Pile Jacketing
- Concrete Spall Repair
- Complete Replacement of Failed Concrete Platform Structure
- Bulkhead Replacement
- Utilities
- Salt-Tolerant Landscaping

During Superstorm Sandy this existing pier sustained extensive damage. The high wind and wave event led to the destruction of the floating docks. A large portion of the damage was due to the height of the existing guidepiles of the floating docks. The docks rose above the height of the piles and when the tide dropped the docks were suspended in the air on top of the piles destroying the floats and utility systems. The photos below of the marina after the hurricane show the damage. The marina needed to be reconstructed after this event.



After the Hurricane, the client tasked Matrix with the engineering assistance to reconstruct the marina and pier. The pier had also sustained substantial damage as well to the utility systems and platform. The pier is an old commercial shipping pier which required upgrades to extend its useful life and purpose. The project included an evaluation of the pier and cost estimates for the repairs. An underwater and waterfront structural inspection was completed along with estimated timelines, budgets and permitting requirements for the repairs for the client's review. The design included the concrete repairs, pile jackets, utility upgrades and landscaping improvements. The Pier is currently being utilized as a restaurant/beer garden as well as the entrance to the marina.



CLIENT

Shipyard Associates, LP
50 Washington Avenue
Hoboken, NJ 07030

CLIENT

Colin Leary
(201) 963-5200 x5147

SERVICES PROVIDED

Marine Engineering
Geotechnical
Hydrographic Surveying
Permitting
Environmental Engineering
Procurement
Construction Administration

COST

\$2,500,000

DURATION

January 2011 – May 2016

KEY PERSONNEL

Andrew Raichle, PE
Paul Calabrese, PE, PP, CME
Michael Soltys, PE
Robert Fiorile
Frank Barlowski, PLS



The next phase of the project was the reconstruction of the floating dock marina. For the new design we needed to evaluate the damages from the storm to develop a more robust system for future storms. This included a wave analysis and evaluation of replacement products. Ultimately steel piles with aluminum gangways and concrete floating docks were selected. The concrete floating docks were selected as they offer a more stable platform for access to the boats by the customers. Steel piles were selected due to the water depths and the additional strength offered compared to timber piles. The steel piles were designed to exceed the new 100' storm elevation and they extended well above the water level to minimize the potential of the floats disengaging from the guide piles in a storm event. The first phase of this marina has been constructed along with electric and water utilities. The second phase is pending based upon demand of the first phase and development of additional budget.



USMMA - Crowninshield and Cressy Piers Replacement and Partial Seawall Rehabilitation Kings Point, Nassau County, New York

PURPOSE OF CONTRACT

Matrix New World Engineering (Matrix) was retained by the U.S. Merchant Marine Academy (USMMA) to provide structural and civil engineering, surveying, and environmental review and permitting services for the replacement of the Crowninshield Pier and the Cressy Pier, and the rehabilitation of southern sections of the seawall at USMMA located in Kings Point, New York.

The original piers have been damaged from past storm events and are in dire need of repair/replacement. The existing Crowninshield Pier will be replaced with a composite wave screen and floating docks. The Cressy Pier will be replaced in-place, in-kind, and is designed for heavy duty loads up to 400 psf loading or 20T mobile crane loading. The facility, once constructed, will continue to be used primarily by the USMMA students and employees for educational purposes. The project also includes the rehabilitation of an existing dilapidating southern section of the concrete seawall as well as the replacement of amenities and utilities in the project area.

For this project, Matrix completed the structural design, site survey, hazardous materials review, utilities design and evaluation of the subsurface soil conditions, prepared various permit applications and submitted to regulatory agencies (NYSDEC, NYSDOS, USACE), prepared necessary State Environmental Quality Review (SEQR) documentation, and conducted SHPO Section 106 Consultation. Additionally, Matrix also prepared an Environmental Assessment (EA) pursuant to the National Environmental Policy Act of 1969 (NEPA) guidelines. Matrix utilized existing data to prepare an EA for the project that addressed baseline environmental conditions and project-specific and cumulative impact analysis for natural resources, cultural resources, visual resources, noise, land use, coastal resources, socioeconomic and environmental justice, traffic circulation, utilities and infrastructure, hazardous materials/waste, and public services for four alternatives (including No Action). Matrix also helped develop mitigation measures to minimize potentially adverse environmental impacts below the significant threshold.

CLIENT

U.S. Merchant Marine Academy
Div. of Procurement, USMMA-5206
300 Steamboat Road
Kings Point, NY 11024

CONTACT

Edward Kaja, PE
(516) 726-5903

SERVICES PROVIDED

Land Surveying
Civil Engineering
Structural Engineering
Environmental Review & Permitting

COST

Design: \$175,000
Construction: \$6,000,000 (est.)

DURATION

May 2016 - Ongoing

KEY PERSONNEL

Paul Calabrese, PE
Michael Soltys, PE
Robert Fiorile
Rejina Sharma
Andrew Raichle, PE
Nicholas DeCotiis, PE



MATRIXNEWORLD



Port Authority of New York, New Jersey Holland Tunnel Access Pier Replacement City of Jersey City, New Jersey

PURPOSE OF CONTRACT

As part of this project, the Port Authority of New York and New Jersey (PANYNJ) is replacing of Holland Tunnel Piers 9 and 204. The purpose of the proposed replacement of the existing piers is to: 1) provide protection to the Holland Tunnel Tubes, the New Jersey River Ventilation Building, and the Ventilation Shafts from damage resulting from vessels travelling on the Hudson River; and 2) provide a means of access and egress from the New Jersey River Ventilation Building to the shore for maintenance activities and during emergency situations.

For this project, Matrix lead the effort to obtain necessary State and Federal environmental permit applications, securing U.S. Army Corps of Engineers (USACE) Individual Section 10 Permit and NJDEP Waterfront Development In-water Individual Permit. Improvements include: removal and replacement of existing piers to protect the Holland Tunnel and ventilation shafts from potential damage from vessels and to provide a means of access and egress to the ventilation building to for maintenance activities and emergency situations. Matrix's involvement includes the following: Team leader for environmental and permitting matters; Permitting agent for NJDEP and Corps of Engineers approvals; Historical Preservation consulting coordination; Public access to the waterfront planning; NEPA consultation; Hazardous materials surveys and abatement/remediation.

Matrix completed the project on-time and within budget.

CLIENT

PANYNJ (sub to Moffat & Nichol Engineering, P.C.)

CONTACT

Kathy Walsh, P.E. (M&N)
212-768-7454

COST

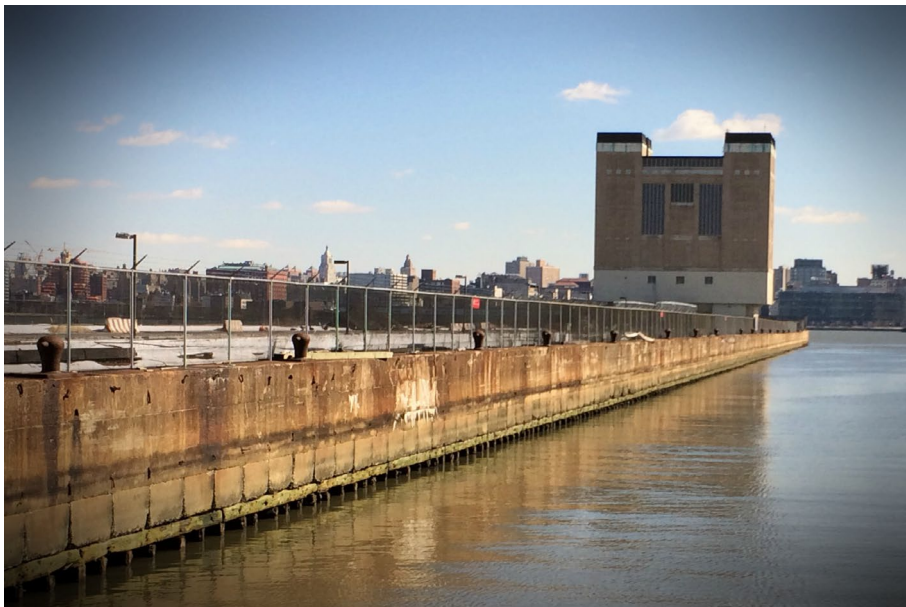
\$50,000

DURATION

2013 - 2015

KEY PERSONNEL

Andrew W. Raichle, PE
Robert Fiorile
Rejina Sharma



PIER 66 UPLAND - HUDSON RIVER PARK: SEGMENT 6

54th Street to 29th Street, New York, NY



Pier 66 Upland Park, a 2.5 acre parcel located west of the West Side Highway between West 26th and West 29th Streets, represents the southern terminus of Segments 6 and 7 of Hudson River Park.

This relatively narrow strip of parkland along the river features a granite and bluestone paved esplanade immediately adjacent to the water with access plazas at 26th and 29th Streets. At the southern access plaza, the historic working waterfront is recalled through railroad tracks set into the pavement at Pier 66a which once allowed transfer of rail cars on barges to factories along the west side. The northern access plaza accommodates a public art piece, Two Too Large Tables by Allan and Ellen Wexler surrounded by shade trees and offering views across the river. Parkwide lighting, furnishings and railings identify this segment as part of the overall Hudson River Park project.

Unlike other sections of Hudson River Park, this portion includes an intensively-planted habitat area which also acts as a buffer between the esplanade and the traffic of Route 9A and the adjacent bikeway. Multi-level plantings of native trees, shrubs, grasses and groundcovers occur on gently-sloped berms to attract resident and migrant birds and insects, fulfilling in part the sanctuary plan established for all of Hudson River Park.

Pier 66 and its boathouse act as dramatic counterpoints to the linear esplanade and allow park visitors to walk further out into the Hudson. This narrow boardwalk pier is furnished with benches and lighting and terminates in a broadened area with a shade structure, allowing views up and down the river. This is also the location of a public art piece, a beautiful waterwheel that interacts with changing tides, currents and winds.

DESIGN

Feb. 2001 - Feb. 2005
Joint Venture Partner -
Dattner Architects

CONSTRUCTION

Completed December 2006

COST

Approximately \$18.2 million

CLIENT

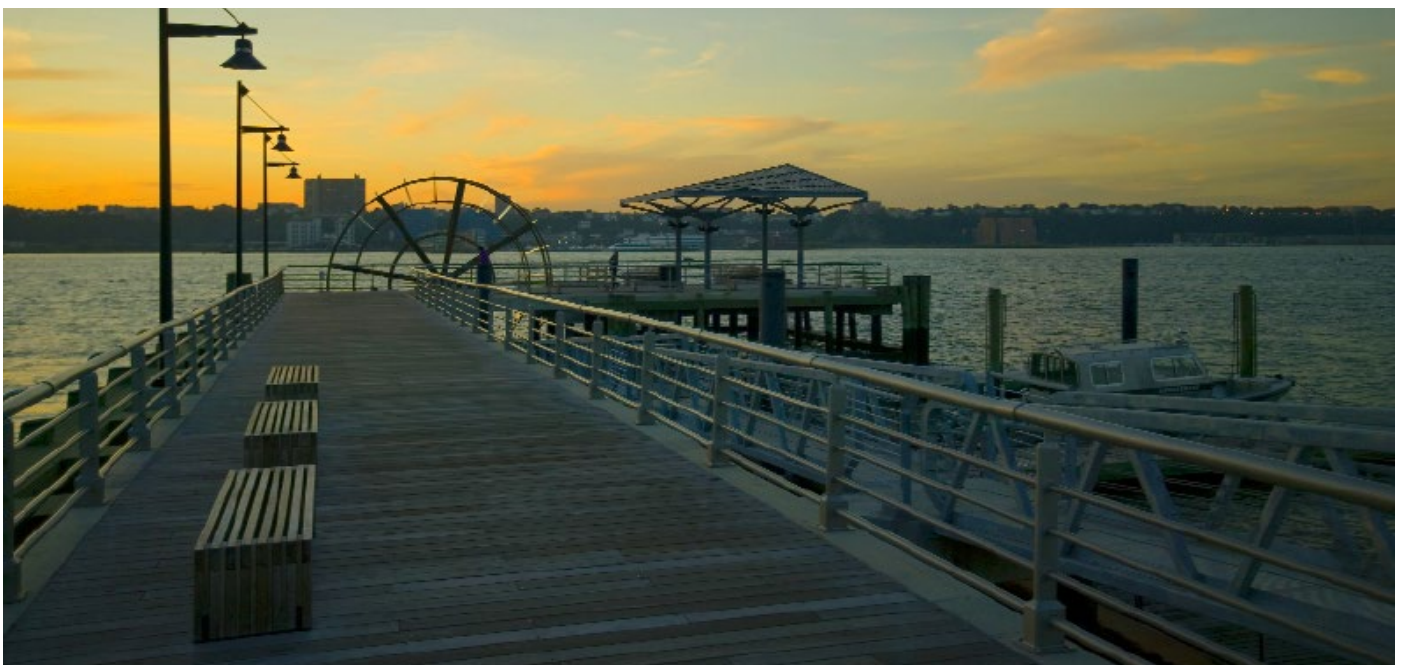
Hudson River Park Trust
Pier 40, 2nd Floor, West St. at
W. Houston St.
New York, NY 10014

CONTACT

Ms. Noreen Doyle
(212) 627-2020

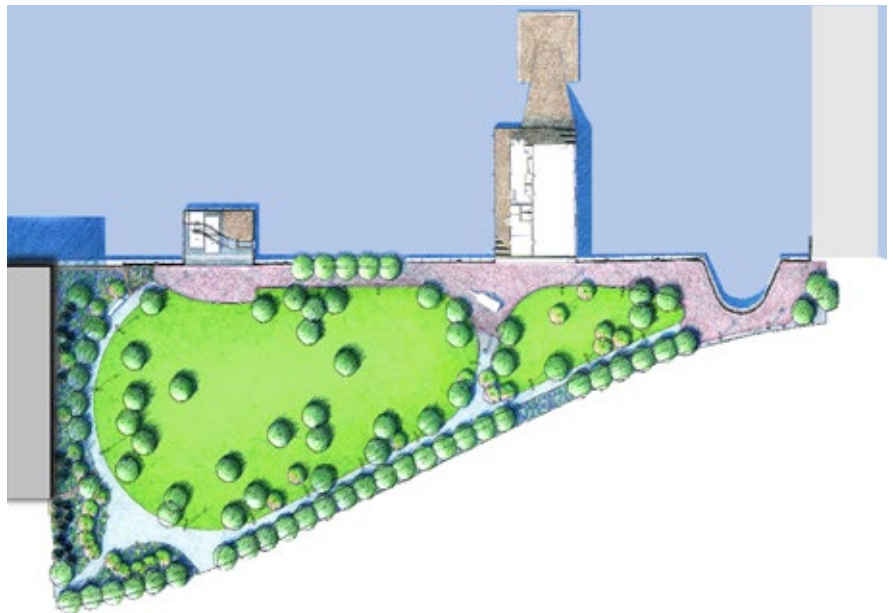
PIER 66 UPLAND - HUDSON RIVER PARK: SEGMENT 6

New York, NY



CLINTON COVE PARK - HUDSON RIVER PARK: SEGMENT 7

54th Street to 57th Street, New York, NY



Clinton Cove Park, a 2.6 acre parcel located west of the West Side Highway between 54th and 57th Streets, represents the first phase of Hudson River Park Segment 7 and the northern terminus of the overall park.

The “cove” provides fairly calm water, so the incorporation of a public boathouse and launching ramp was ideally sited at the former Pier 96 location. The large lawn bowl was created by raising a planted berm along West Side Highway, shielding the park from the sights and sounds of the road and orienting the view towards the Hudson. Historic granite bulkhead coping stones salvaged from other areas of the park provide informal seating elements within the lawn. Broad sweeping steps connect the raised berm pathway to the esplanade, and the Pier 96 Boathouse Plaza, the setting for the Public Art sculpture developed for this park. Canopy trees provide shade and ornamental trees provide seasonal color and scale. Mounds of ornamental grasses retain steeper portions of the berm and add movement to the park experience as breezes blow along the Hudson.

DESIGN

Feb. 2001 - Sept. 2004
Joint Venture Partner -
Dattner Architects

CONSTRUCTION

May 2005

COST

Approximately \$12.5 million

CLIENT

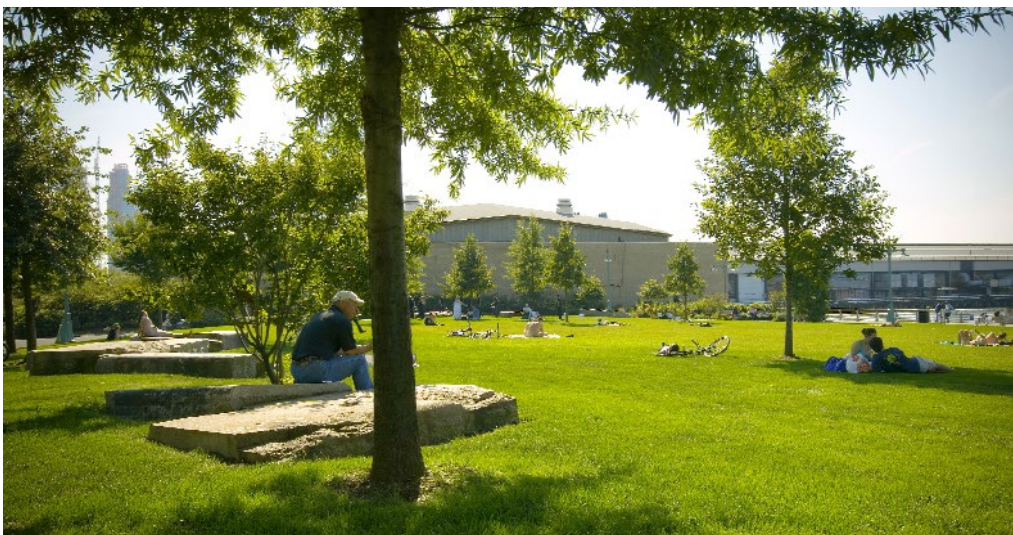
Hudson River Park Trust
Pier 40, 2nd Floor, West St. at
W. Houston St.
New York, NY 10014

CONTACT

Ms. Noreen Doyle
(212) 627-2020

CLINTON COVE PARK - HUDSON RIVER PARK: SEGMENT 7

54th Street to 57th Street, New York, NY



PIER 84 UPLAND - HUDSON RIVER PARK: SEGMENT 6

43rd Street to 46th Street, New York, NY



Pier 84 Upland Park, a 4.3 acre parcel located west of the West Side Highway between 43rd and 46th Streets, represents the first phase of Hudson River Park Segment 6. The Intrepid aircraft carrier occurs to the immediate north and the Circle Line tour boat operator occurs to the south.

The park design is derived mainly from its context, that of a pedestrian-oriented, tourist-saturated urban open space. This urban orientation incorporates paved spaces of various scales, given detail by a hierarchy of pavement patterns and materials. Pedestrians are accommodated through the space as they visit adjacent attractions but are also invited to enter the park itself and explore the features therein. A new Park Building at 44th Street provides office, rest room and food service facilities. The form of this building is that of an arc, the better to define the great gathering space of the Fountain Plaza. Here, a “dry-deck” fountain is the focus to engage passers-by and park visitors alike. The fountain jets are arranged in a spiral, echoing the labyrinth paving pattern executed in granite. The jets are programmed to perform various choreographed displays ranging from low-level heights to allow visitor interaction to heights of 20’ for special or celebratory displays. This Plaza is entered from the east through a gateway of cable-suspended light fixtures and poles and is further defined to its north by a radial expanse of granite steps which allow Pier 84 and its boathouse to be elevated above the 100-year flood level. Two other park spaces that occur on terra firma are the dog run and community garden. Located at the northeast corner of the park, these features were borne of the extensive community interaction that occurred during the design process.

DESIGN

Feb. 2001 - Dec. 2004
Joint Venture Partner -
Dattner Architects

CONSTRUCTION

Completed December 2006

COST

Approximately \$37 million

CLIENT

Hudson River Park Trust
Pier 40, 2nd Floor, West St. at
W. Houston St.
New York, NY 10014

CONTACT

Ms. Noreen Doyle
(212) 627-2020

PIER 84 UPLAND - HUDSON RIVER PARK: SEGMENT 6

43rd Street to 46th Street, New York, NY

(continued)

Moving onto the pier via a slight ramp, the play area is glimpsed to the north. This space has been designed to reflect the urban bulkhead or waterfront which is a defining element of the entirety of Hudson River Park. Arcs of cut granite resemble bulkhead coping stones and embrace a play area defined by numerous water features and water play elements. At its high points, spray nozzles set into the pavement cool the play area's participants, after which the water continues downhill, channeled within a waterway. Child-scaled wooden piers and pile fields support water pumps that further fill the waterway and turn whirligigs and fill dams. The beauty and action of the Hudson River is recalled in this non-traditional, engaging play space.

The majority of the pier is given over to expanses of paved areas in support of the client's program of accommodating large groups of park visitors for special events. These areas achieve some level of detail and are made pedestrian-friendly by paving patterns and varying pavement materials such as precast concrete pavers and wood decking. An expansive lawn area separates the paved spaces and, being gently sloped to the south and west, allows park users to relax and sun themselves on a field of softscape. At its westernmost location, a boardwalk "hook" has been provided, recalling the historic element added to the previous pier to allow large passenger ships to turn and tie up to it. This element allows park visitors to travel even further out into the River and includes seating and telescopes for distance viewing up and down the River.



PIER 84 UPLAND - HUDSON RIVER PARK: SEGMENT 6

43rd Street to 46th Street, New York, NY



EAST RIVER PARK

New York, New York



East River Park, a 57-acre parcel situated along the East River between Montgomery and 12th Streets, is one of the most significant open green spaces in lower Manhattan. A comprehensive planning effort with NYC Department of Parks and Recreation involved reconstruction of all major park and promenade areas as well as continuous connections to the existing bikeway to the south and the Stuyvesant Cove Esplanade to the north. The improvements unify a large portion of the NYC Comprehensive Waterfront Plan circuit from South Street to Midtown. The overall design intent was to restore the park's historic integrity, maximize green space, create separation between passive and active use areas and reconstruct the promenade to enhance the waterfront experience for every user. The improvements were organized into phases, all of which are now completed.

Phase One, an eight-acre portion of the park just south of the Williamsburg Bridge, included new athletic fields, basketball courts, a water play area and passive gardens. Phase Two involved the complete redesign of 1-1/4 miles of the promenade, including reconstruction of the bulkhead and relieving platform and establishing a new design vocabulary for the waterfront including railings, pavements, furnishings and lighting.

DESIGN

2000 - 2004

Lead Designer:
Allen Juba

CONSTRUCTION

2012

COST

\$74 million overall

CLIENT

New York City Department of Parks and
Recreation
Lawrence Mauro (718) 760-6598

AWARDS

NJASLA 2009, Honor Award





EXISTING CONDITIONS