ORIGINAL

MASER CONSULTING P.A.

RESPONSE TO REQUEST FOR PROPOSALS

Submitted to:

Department of the Treasury
DPMC Project No.: P1179-00

Dock Replacement

Liberty State Park

Jersey City, Hudson County, NJ

Submitted by:

Maser Consulting P.A.

331 Newman Springs Road, Suite 203

Red Bank, NJ 07701

732.383.1950

November 8, 2018 Proposal No 18007448P

Customer Loyalty *through* Client Satisfaction

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MASER CONSULTING P.A.

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November 8, 2018

Bill Mahan
Department of Treasury
Division of Property Management & Construction
Contracts & Procurement Unit
33 West State Street, 9th Floor, Plan Room
Trenton, NJ 08625

RE: Technical Proposal for
DPMC Project No.: P1179-00, Dock Replacement – Liberty State Park
Jersey City, Hudson County, NJ
MC Proposal No. 18007448P

Dear Mr. Mahan:

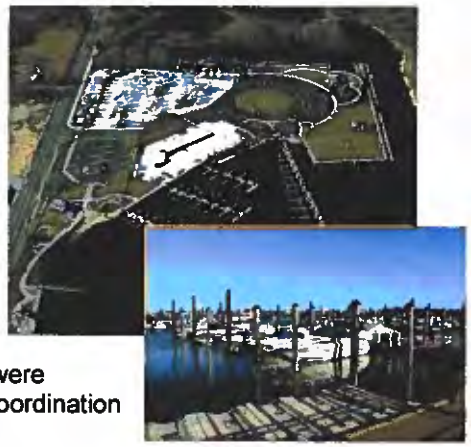
Maser Consulting P.A. appreciates the opportunity to submit our proposal for DPMC Project No. P1179-00, Dock Replacement – Liberty State Park, Jersey City, Hudson County, NJ. As requested in the Request for Proposals, we have included one (1) original and three (3) copies of our Technical Proposal and one (1) original and three (3) copies of our Fee Proposal, in separately sealed envelopes.

Maser Consulting is an award-winning, multi-disciplined firm with a team of experienced professionals who have been providing an extensive array of waterfront services to clients throughout New York and New Jersey since 1984. As you review this proposal, you will see that Maser Consulting and the project team have experience and expertise with rehabilitation of marinas and boat ramps including fixed docks, floating docks, breakwaters, and similar shoreline structures. Furthermore, Maser Consulting - and more specifically the **Project Manager for this project, Richard C. Maloney, PE – has extensive experience working with the Department of Property Management & Construction (DPMC),** making us very familiar with the procedures and requirements of the agency. We have worked as prime consultant and sub-consultant on many DPMC projects over the years, and **Mr. Maloney is currently managing several NJ DPMC projects, including Forked River State Marina and Barnegat Light State Park**.

Maser Consulting employs over 850 experienced and knowledgeable professionals in a wide variety of areas and expertise, and our staff consists of structural engineers, marine engineers, civil engineers, environmental permitting specialists, surveyors, construction administrators/inspectors and many other disciplines that have the experience to provide the design team necessary for the successful completion of this project. Maser Consulting is pre-qualified with the NJ DPMC in the required disciplines: **P012 Marine Engineering and P017 Hydrographic Surveying. Providing these necessary services in-house enables us to control and maintain the critical schedule for this project.**

Outlined below are five projects of similar scope and complexity that the Maser Consulting professionals have successfully worked on over the last several years.

Trader's Cove Marina – Rehabilitation of Docks & Bulkheads
Brick Township, NJ



This project involved the reconstruction of a neglected marina and included new bulkhead, floating docks, breakwaters, boat ramp, and other marina associated improvements. Our personnel performed Marine and Structural Engineering and Construction Administrative services on this project. A portion of the floating dock acts as a breakwater on this project, and extensive structural review and coordination with the floating dock manufacturer was required to ensure proper design to address the large upwind exposure of the marina site and the resulting wave action. Value engineering and design review of all structural elements were performed on this project. Full construction administrative services were provided, including full-time inspection, shop drawing reviews, and coordination and arbitration on the owner's behalf to address issues with material manufacturers. **Mr. Maloney and Mr. Nolan were extensively involved in the day-to-day engineering and management of this project.** Construction Cost: $3,500,000.

Forked River State Marina Bulkhead and Dock Replacement, Forked River, NJ

This project involved the reconstruction of the eastern portion of the marina, which included a total realignment and reconfiguration of the shoreline in this section of the marina. This portion of the marina had fallen into disrepair, and the mudline had shoaled up. This neglected section of the marina was totally reconstructed with all new aligned bulkhead, mooring pilings, utility pedestals, docks, and a boat ramp. The scope included replacements to dock structures, dock amenities, and maintenance dredging. Marine, Structural, Survey, Geotechnical and Permitting engineering services were performed for this project. **This project was administered by the NJDPMC, and Mr. Maloney was the Project Manager.** Construction Cost: $2,000,000.

Keyport Waterfront District Rehabilitation, City of Keyport, NJ

This project involved the revitalization of the historic waterfront district which had experienced extensive wear from frequent northeastern storms over the years. This project included over 1,400 LF of waterfront that was exposed to a large northeastern fetch that had resulted in severe wave action. Maser Consulting professionals not only performed wave analysis for the project but were also involved with extensive coordination with the Army Corps of Engineers regarding the wave studies for the design of the new bulkhead, including splash pad requirements to counter act erosion. The project included new bulkhead, new fixed dock, gangway, and floating dock. New Composite sheeting was used for this project. **Mr. Maloney was the Project Manager for this project** and developed a good working knowledge of the Bureau of Coastal Engineering (BCE) procedures, not only from this project but from several others since its construction. Construction Cost: $3,800,000.

Liberty State Park Ferry Slip Reconstruction, City of Jersey City, NJ
This project has not been constructed yet, but it involved investigation and reconstruction of the ferry slip structures on the east side of Liberty State Park. This project also included gangways and floating docks/barges to be used to for loading and unloading on the ferries. Further, this project is located on the same property and in adjacent waters to the subject project and involved wave analysis and study of the local marine environment. This project experience will provide the Maser Consulting team great knowledge of the design and permitting impacts of the area, which will be a huge asset in the design of similar structures at Liberty State Park. **This project was administered by the NJ DPMC. Mr. Maloney was the Project Manager for this project**. Construction Cost: $23,000,000.

Borough of Belmar Marina and Boat Ramp, Borough of Belmar, NJ
This project has been an on-going project that has included marina upgrades over several years. The marina's entire dockage has been upgraded with new fixed docks, floating docks, gangways, breakwaters, bulkhead repairs, and replacements. One recent project included the reconstruction and widening of the marina's boat ramp, which included an adjacent fixed pier, gangway, and floating dock. Maser Consulting professionals provided all marine engineering, permitting, and construction administration to bring these various projects to completion. **Mr. Maloney was the lead structural engineer on all marina projects over the last 20 years. Mr. Nolan has been the construction manager on these projects for the last 10 years.** Construction Cost: $3,500,000.

On behalf of Maser Consulting, I would like to thank you for the opportunity to submit this proposal. We look forward to continuing our relationship with the DPMC. Should you have any questions or require any additional information, please do not hesitate to contact me by phone at 732-383-1950, extension 3491 or via e-mail at rmaloney@maserconsulting.com.

Very truly yours,

MASER CONSULTING P.A.

Richard C. Maloney, P.E.
Discipline Leader – Bridges and Structures

Maser Consulting P.A.

Waterfront Engineering

Maser Consulting's waterfront engineering professionals provide services to a wide variety of clients that include municipal, state, and federal governmental agencies; commercial and residential. As a regional leader in the design, permitting, and construction administration of waterfront development, we have substantial experience managing large marine construction activities with an emphasis on navigating the complex permitting process associated with the sensitive waterfront environments and specifics of coastal regulatory issues.

One of our biggest advantages is the collective expertise of our multi-disciplined marine team that enables us to provide a continuum of project engineering services in-house, through our waterfront civil and structural engineers, permitting specialists, surveyors, and scientists. Together, we make every effort to ensure that each project and goal is met in the most efficient and cost-effective way possible.

Services

- Structural Evaluation, Analysis & Design
- Structural Rehabilitation Design
- Structural Inspections & Condition Damage Assessment
- Waterfront Infrastructure Design
- Marina & Boat Ramp Design
- Seawall & Bulkhead Design
- Docks, Piers, Platforms & Breakwater Design
- Shoreline Stabilization & Beach Development
- Ferry & Ship Terminals
- FEMA Surveys & Flood Elevation Certification
- Riparian, Lease & License Investigation
- Waterfront Permitting
- Wetlands Delineation, Mapping & Mitigation
- Conceptual Planning
- Marine Engineering
- Wave Analysis
- Storm Damage Assessment & Repair Design
- Grants & Funding
- Contract Administration & Inspection

Maser Consulting P.A.

Structural Engineering

Our structural engineering professionals provide the technical assistance our clients need to evaluate the integrity of their existing inventory of structures and the experience to rehabilitate or design new structures as needed. Maser Consulting's reputation for providing hands-on engineering excellence, while exceeding clients' expectations, has made us a leader in providing creative solutions for multiple project types including buildings, bridges, towers, dams and marine structures constructed of steel, timber, reinforced concrete or masonry.

Streamlined coordination with other in-house services has facilitated an efficient approach and complete engineering package that spans all phases of structural design and construction from feasibility studies, scope and condition assessment, to code compliance review, static/dynamic load analyses and planning of rehabilitation and replacement alternatives.

Services

- Structural Evaluation, Analysis & Design
- Rehabilitation, Repair & Restoration
- Structural Inspection & Condition Assessments
- Code Compliance Review
- Forensic Engineering/Failure Analysis
- Structural Project Planning & Scope Assessment
- Design Review/Value Engineering
- Owner Representation
- 3D Computer Modeling
- Storm Damage Assessment & Repair Design
- Construction Support & Inspection

Maser Consulting P.A.

Regulatory Compliance & Permitting

Maser Consulting P.A. has the expertise to guide its clients through the many regulations pertaining to the development of ecologically constrained sites. We specialize in assisting clients to navigate the complex and ever-changing maze of regulations that exist at both the federal and state levels. Our experienced staff includes individuals with Masters and Doctorate degrees in the ecological fields with certifications as Professional Wetland Scientists, Environmental Specialists, Remediation Specialists, USFWS List of Recognized Qualified Indiana Bat Surveyors, and USFWS List of Recognized Qualified Bog Turtle Surveyors. Our professionals are committed to securing regulatory approvals in a timely and cost effective manner.

Our expertise includes processing permit applications for:

U.S. Army Corps of Engineers (New York, Philadelphia, Norfolk, Pittsburgh, Buffalo, Boston, & Baltimore)

- Section 10 of the Rivers & Harbors Act of 1899
- Section 404 of the Clean Water Act
- NEPA Compliance Documents

New Jersey

- CAFRA
- Flood Hazard
- Stormwater
- Tidelands
- Pinelands
- Highlands
- Wetlands
- Dam Safety

Pennsylvania

- Dam Safety
- Waterway Management

New York

- Freshwater Wetlands
- Tidal Wetlands Protection of Waters
- SEQRA Compliance Documents

Delaware

- Freshwater Wetlands
- Tidal Wetlands

Maryland

- Tidal & Non-Tidal Wetlands

Virginia

- Water Protection

Maser Consulting P.A.

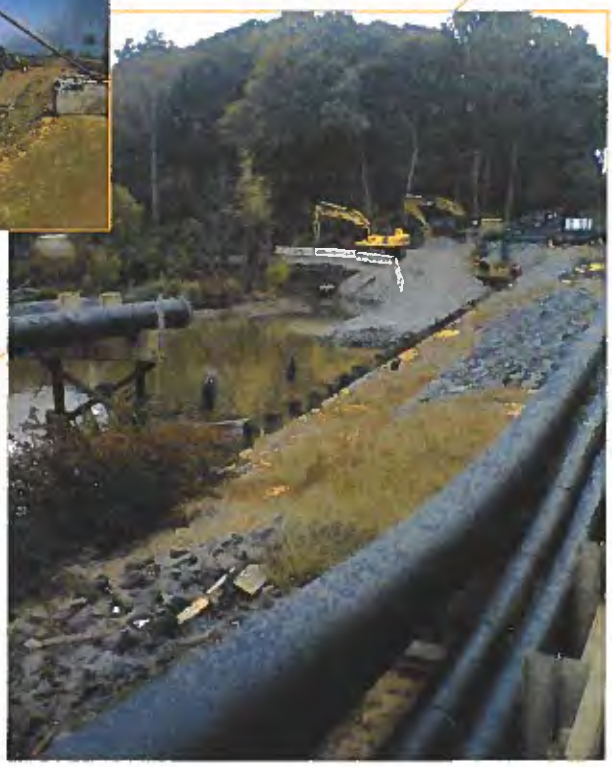
Construction Inspection and Administration

Maser Consulting's professional engineers and technicians successfully oversee project construction from pre-construction through finalization with an outstanding track record for cost and schedule containment. Our ACI, SAT, and NICET certified construction professionals have extensive on-the-job experience in supervision, observation, and inspection with ongoing training that ensures required daily schedules are adhered to and all materials are procured and constructed according to plans and specifications. We work with our clients to achieve the optimum value, schedule, and project quality for heavy highway, single and multi-span bridges, intersection and traffic signal improvements, marine improvements, water/ wastewater transmission, power and gas transmission, park and recreation construction, and condition assessment and asset inventory.

Our construction professionals understand the impact construction projects have on the surrounding communities and foster public relations and communications with the local business owners, residents, and elected officials in the surrounding communities.

Services

- Scoping & Feasibility Studies
- Cost Estimation
- Construction Supervision
- Project Documentation
- Submittal & Design Review
- Critical Path Method (CPM)
- Construction Plan Analysis
- Construction Risk Identification & Avoidance
- Field Inspection
- Utility Relocation Coordination & Support
- Project Scheduling
- Change Order & Field Conflict Resolution
- Quality Control
- Field Material Testing
- Resident Engineering
- Owner's Representation
- Expert Witness Testimony



MASER CONSULTING P.A.

Relevant Project Experience

Liberty State Park Ferry Terminal Reconstruction

City of Jersey City, Hudson County, NJ

Project Highlights

Client:
NJ Department of Treasury
Division of Property Management & Construction
20 West State Street, 3rd Floor
Trenton, NJ 08625

Contact:

Phone:

Construction Cost:
$19,000,000

Completion:
Ongoing

Project Description

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. By the turn of the 20th century, it was used daily by thousands of commuters to reach the island of Manhattan. The ferry terminal sustained significant damage from Superstorm Sandy in 2012 and reconstruction of the facility was a high priority, especially since the Park was designated as one of the sites for emergency evaluation of Manhattan, following September 11, 2001.

Maser Consulting was retained to provide engineering design services for the reconstruction of the ferry terminal and the dredging of the area to provide boat access into and adjacent to the slips and docks. Our scope 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.

Services Provided

- Waterfront Engineering
- Underwater Inspection
- Structural Engineering
- 3D Laser Scanning
- Geotechnical Engineering
- Construction Administration

Trader's Cove Marina

Brick Township, Ocean County, NJ

Project Highlights

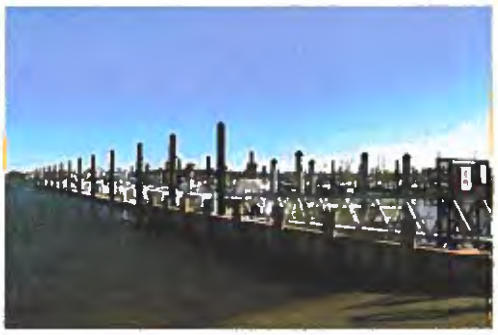
Client:
Brick Township
401 Chambers Bridge Road
Brick, NJ 08723

Contact:

Phone:

Construction Cost:
$4,500,000

Completion:
2016



Project Description

In October 2012, the fixed docks and breakwater in Trader's Cove Marina were significantly damaged by Superstorm Sandy. Immediately following the storm, our engineers quickly completed a design to rebuild a more robust and functional marina. The remnants of the existing fixed timber docks were removed and replaced with concrete floating docks, which are more resilient to flooding.

The project included modifying the layout of the marina in order to increase the number of slips and to facilitate larger vessels. The reconstruction of the marina also included the design of a boat ramp for smaller trailered boats. The design of the docks included full service amenities, such as water and electric service to each slip, and composite decking to match the boardwalk on site. The custom floating breakwater dock, which extends along the perimeter of the marina, dampens waves and protects the interior slips of the marina. The steel pipe guide piles are designed for floods in excess of those experienced during Superstorm Sandy. This project was completed under multiple contracts. Our professionals were responsible for design, public bid assistance, and construction administration of the project.

Services Provided

- Waterfront Engineering
- Structural Engineering
- Construction Administration

Forked River State Marina Rehabilitation

Lacey Township, Ocean County, NJ

Project Highlights

Client:
New Jersey Department of Treasury
Division of Property Management and Construction
20 West State Street, 3rd Floor
Trenton, NJ 08625

Contact:
NJDEP Office of Resource Development

Phone:

Construction Cost:
$2,000,000

Completion:
2012

Project Description

Provided complete design and construction administration services for the rehabilitation of approximately 1,000 LF of bulkhead and associated marina facilities at Forked River State Marina. The project, which was managed by the NJDEP Bureau of Coastal Engineering, involved structural engineering services for the marina, evaluating the dock/mooring layout, upland access configuration, complete steel sheeting bulkhead design, and complete site and support facility improvements.

The marina design included new dock utility stations, a new concrete boat ramp, and upgrades to the marina's utility systems, as well as additional site improvements to tie the proposed bulkhead and marina improvements into the existing landside features. Construction inspection and administration were also provided in accordance with NJDEP and NJDPMC guidelines.

Services Provided

- Structural Engineering
- Waterfront Engineering
- Civil/Site Engineering
- Construction Cost Estimating

Services provided for this project were performed by professionals at Maser Consulting while previously employed by another engineering firm.

Liberty State Park Bulkhead Repair

City of Jersey City, Hudson County, NJ

Project Highlights

Client:
NJ Department of Treasury
Division of Property Management & Construction
20 West State Street, 3rd Floor
Trenton, NJ 08625

Contact:
Project Manager

Phone:

Construction Cost:
$3,000,000

Completion:
2010

Project Description

Designed revetment rock slope stabilization and walkway improvements in keeping with the "Hudson River Waterfront Walkway" standards, to replace the failed walkway section. The complete project scope consisted of removing deteriorated bulkhead and 18,000 tons of historic fill and replacement of revetment rock slope; steel bulkhead; concrete cap; railing; paver walkway; lighting; amenities; earthwork; landscaping; and various site improvements.

In addition, structural and civil engineering services were provided for the design of approximately 1,150 LF of waterfront stabilization and walkway. Through wave modeling, revetment rock slope stabilization was designed to provide superior wave energy dissipation that also has minimal impact on the marine environment. The project team obtained the appropriate marine permits through the New Jersey Department of Environmental Protection (NJDEP) and Army Corps of Engineers (ACOE), as required.

Services Provided

- Structural Engineering
- Civil/Site Engineering
- Waterfront Engineering
- Construction Cost Estimating

Services provided for this project were performed by professionals at Maser Consulting while previously employed by another engineering firm.

Sea Isle City Public Marina

Sea Isle City, Cape May County, NJ

Project Highlights

Client:
City of Sea Isle City
233 John F. Kennedy Boulevard
Sea Isle City, NJ 08243

Contact:

Phone:

Construction Cost:
$2,600,000

Completion:
2010

Project Description

This project was a public bid project that was part of the multi-phase redevelopment plans for the municipal public marina in Sea Isle City. Maser Consulting's team of professionals obtained NJDEP and ACOE permits, as well as a Tidelands License. Concept and design plans and specifications were prepared for the construction of a bulkhead, dock expansion, lighting, and new boardwalk that connects pedestrians to the marina's docking area.

A gazebo shelter was tied-in with landscaped plantings and pavers to create a park environment along this waterfront to meet the goal of attracting the public to the City's bay area. The first phase, completed in the summer of 2009, included a new boardwalk along the waterfront, new bulkhead for shoreline stabilization, and the extension of the docks for boat mooring.

2010
NJSME Municipal Project of the Year

Services Provided

- Waterfront Engineering
- Land Survey
- Environmental Engineering
- Planning Services
- Bulkhead Design
- Landscape Architecture

Keyport Yacht Club Emergency Pier Repair

Borough of Keyport, Monmouth County, NJ

During

Project Highlights

Client:
Keyport Yacht Club
115 First Street
Keyport, NJ 07735

Contact:

Phone:

Construction Cost:
$350,000

Completion:
2013

Project Description

Before

The existing timber pier at Keyport Yacht Club (KYC) was severely damaged by Superstorm Sandy in October 2012. The storm damaged not only the existing pier, which extends into the Raritan Bay for 300 feet, but also the adjacent parking lot. It also caused severe ground soil erosion.

Maser Consulting performed emergency engineering, including inspections and subsequent structural design to replace the entire pier. Our services included timber pile evaluation and design, as well as bulkhead analysis. Our professionals performed a land survey to provide an historic record of the pier as required by the New Jersey Department of Environmental Protection. KYC had numerous obligations to several yachting clubs and was required to replace the entire pier and put the new one into service on a highly accelerated design/construction schedule. The pier was replaced and fully operational by the beginning of the boating season in May 2013.

Services Provided

- Structural Engineering
- Waterfront Engineering
- Construction Cost Estimating
- Land Survey
- Regulatory Compliance

Port Liberte' Development

Jersey City, Hudson County, NJ

Project Highlights

Client:
Applied Development Company
5 Marine View Plaza
Hoboken, NJ 07030

Contact:

Phone:

Consulting Value:
$500,000,000

Completion:
2011

Project Description

Provided engineering services for various waterfront elements for the development of this 220-acre contaminated former industrial site located in Jersey City. The project included waterfront steel bulkhead designs, ferry terminal, floating docks, moorings, waterfront walkways, upland support facilities, and site improvements. This project required conformance to the Hudson River Waterfront Walkway Design Guidelines.

Services Provided

- Structural Engineering
- Waterfront Engineering

Services provided for this project were performed by professionals at Maser Consulting while previously employed by another engineering firm.

Bayonne Military Ocean Terminal BRAC Transfer and Redevelopment

City of Bayonne, Hudson County, NJ

Project Highlights

Client:
Bayonne Local Redevelopment Authority
51 Port Terminal Boulevard, Suite 21
Bayonne, NJ 07002

Contact:

Phone:

Construction Cost:
$200,000,000

Completion:
2013

Project Description

Provided comprehensive engineering and construction administration services for various waterfront projects as part of the redevelopment and Defense Base Realignment and Closure (BRAC) transfer of the Bayonne Military Ocean Terminal, a 420-acre military facility. Our professionals provided structural engineering, civil engineering, and construction services for various projects, including:

- Inspection of bulkheads, platforms, pilings, and dry dock
- New bulkhead designs
- New steel pile-supported platforms
- Rehabilitation and repairs to existing platforms
- Pile/caisson repair and jacketing
- New waterfront walkways and parks
- New pile-supported pier
- Maritime infrastructure
- Shoreline stabilization

Services Provided

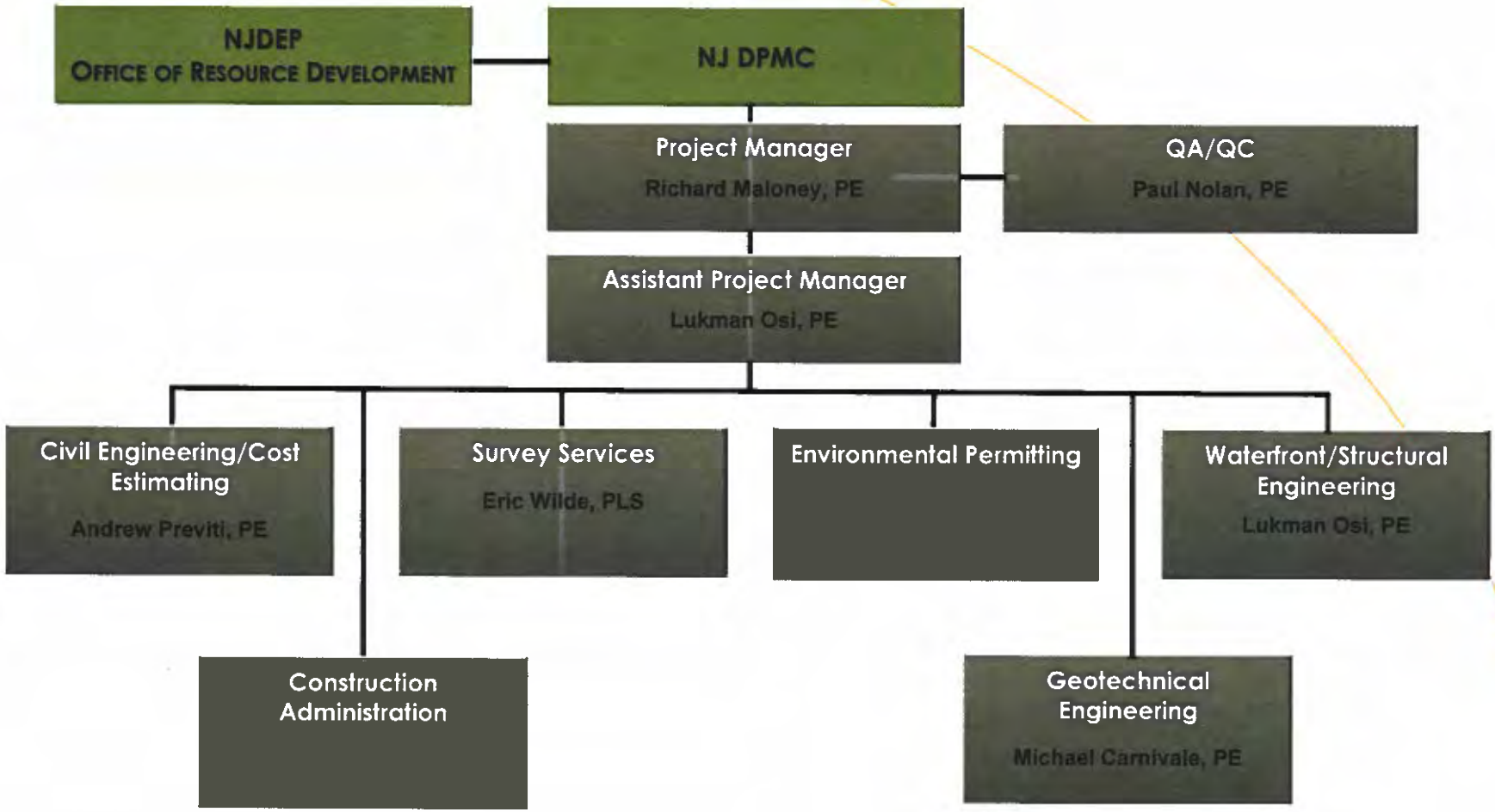
- Waterfront Engineering
- Structural Engineering
- Civil/Site Engineering
- Construction Administration

Services provided for this project were performed by professionals at Maser Consulting while previously employed by another engineering firm.

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

Project No. P1179-00
Dock Replacement - Liberty State Park
Jersey City, Hudson County, NJ

Team Organization



MASER CONSULTING P.A.

RICHARD C. MALONEY, PE

Principal

Project Manager

EDUCATION

- M.S. Civil/Structural Engineering, University of Notre Dame, 1990
- B.S. Civil Engineering, Villanova University, 1988

PROFESSIONAL REGISTRATIONS

- Professional Engineer (PE) New Jersey, New York, Georgia, Pennsylvania, Texas, Maryland, Ohio, Indiana, North Carolina, South Carolina, Missouri
- Building Inspector for Code Compliance No. 7618HHS, New Jersey

PROFESSIONAL CERTIFICATIONS

- Safety Assessment Professional (SAP), American Institute of Architects (AIA) and the National Association of Professional Engineers (NSPE)

PROFESSIONAL AFFILIATIONS

- National Council of Examiners for Engineering & Surveying
- American Society of Civil Engineers
- National Society of Professional Engineers
- International Code Council
- Association of State Dam Safety Officials, New Jersey

EXPERIENCE

Mr. Maloney provides project management and structural engineering services to a wide variety of public and private clients, including government agencies and owners/operators of various facility types. His responsibilities include client relations, project management, and supervision of the preparation of designs and specifications for specialized projects such as waterfront structures, bridges, docks, dams, theme park/water rides, tunnels, wastewater authorities, drainage facilities, and utilities/infrastructure. Additionally, he is responsible for inter-discipline coordination of architectural and mechanical/electrical/plumbing (MEP) aspects of projects. Mr. Maloney also performs field inspections, code compliance reviews, and is the structural inspector and expert witness for various public and private clients throughout New Jersey.

With over 26 years of experience on numerous projects extending across many states, Mr. Maloney has designed and managed various projects incorporating conventional and unique steel, reinforced concrete, masonry, timber structures, and foundations. He has served as the structural inspector and expert witness for various public and private clients throughout New Jersey, including New Jersey Department of Human Services (NJDHS), City of Hoboken, City of Long Branch, City of Asbury Park, Township of Brick, Township of Lakewood, The Applied Companies, and FM Global.

PROJECTS

DPMC Liberty State Park Ferry Terminal Reconstruction
City of Jersey City, Hudson County, NJ
Principal-in-Charge of 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.

DPMC Liberty State Park Shoreline Stabilization
City of Jersey City, Hudson County, NJ
Project Manager for design and construction administration for shoreline stabilization project along the south side of Liberty State Park. Scope included investigation of failing relieving platform, historic fill testing, and waterfront permitting challenges due to platform and replacement option of utilizing a stone revetment shoreline, as well as wave analysis for shoreline design. Improvements also included new waterfront walkway, rails, lights, and landscaping in conformance with Hudson Waterfront Walkway Standards. Project was coordinated with NJDEP Coastal Engineering and NJDPMC.

Leonardo State Marina Improvements
Middletown Township, Monmouth County, NJ
Project Manager for design and construction administration for new bulkhead, dock, and site and drainage improvements for state marina. Design and contract documents to meet NJDPMC standards.

Forked River State Marina
Lacey Township, Ocean County, NJ
Project Manager for design and construction administration for new bulkhead, docks, utilities, boat ramp, dredging, and site and drainage improvements for state marina. Design and contract documents met NJDPMC standards.

Keyport Waterfront Improvements
Borough of Keyport, Monmouth County, NJ
Project Manager for design and construction administration for new bulkhead, fishing pier, waterfront structures, and waterfront walkway site improvements to meet 100-year flood requirements. Project coordination with NJDEP Coastal Engineering.

Rockaway Shoreline Stabilization
Borough of Queens, Queens County, NY
Structural Principal-in-Charge of inspection, alternatives analysis, and design of 1,400 LF of rock revetment and bulkhead shoreline to replace an existing, failed bulkhead along Jamaica Bay in Rockaway, New York City. Work was coordinated with Hudson Meridian Construction Group, a Construction Manager for the New York City Economic Development Corporation.

Belmar Beachfront Pavilions
Borough of Belmar, Monmouth County, NJ
Principal-in-Charge of the design of the two beachfront multi-story pavilions. Responsibilities include management and coordination with all disciplines involved with the project design, including civil, architectural, and mechanical/electrical/plumbing. Also managed and provided structural design for the buildings, one of which is a two-story, steel-framed assembly-use building, and the other a timber-framed lifeguard/Police building that includes a three-story tower. Both buildings are supported on steel pipe piles and are designed to meet FEMA and ASCE flood loads.

Boardwalk Reconstruction
Borough of Belmar, Monmouth County, NJ
Structural Project Manager for the reconstruction of 1.5 miles of boardwalk and multiple pavilions along the Borough's waterfront that was destroyed by Superstorm Sandy.

Post-Sandy Inspections
Township of Brick, Ocean County, NJ
Group Leader for five teams of structural engineers who performed structural inspections for property and dwellings along most of Brick Township's 53 miles of waterfront land, from the many lagoon communities and the bay front, to the barrier island and oceanfront.

Port Liberte Marina and Ferry Terminal
City of Jersey City, Hudson County, NJ
Primary Engineer-in-Charge of all waterfront work, including steel bulkhead designs, ferry terminal and pier, floating docks, waterfront walkways, upland support facilities, and site improvements.

Vopak Terminal Waterfront Improvements
City of Perth Amboy, Middlesex County, NJ
Principal Structural Engineer for the design of waterfront structures at the Vopak storage and transport facility. The project included site design and coordination, mooring analysis, mooring/berthing cell design, pile-supported platform, trestle and catwalk design, fender system design and bulkhead design.

South Brooklyn Marine Terminal Pier 39
Borough of Brooklyn, Kings County, NY
Structural Principal-in-Charge of inspection, alternatives analysis, design, permitting, and construction administration 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.

Peninsula at Bayonne Harbor (MOTBY Pier)
City of Bayonne, Hudson County, NJ
Structural Engineer-of-Record for the design of over 4,000 LF of various bulkheads, platforms, ferry pier, waterfront walk, and shoreline stabilization along the Army Marine Ocean Terminal Pier. Coordinated project activity with the U.S. Army Corps of Engineers.

Pier Village Waterfront Revitalization
City of Long Branch, Monmouth County, NJ
Structural Engineer for waterfront site work for the City's waterfront revitalization project. Work included rehabilitated and new bulkhead installations, new beachfront boardwalk and gazebos, and other upland site improvements.

Marine Terminal Bayonne Platform S-1
City of Bayonne, Hudson County, NJ
Structural Engineer-of-Record for complete rehabilitation of 1000-ft long berthing platform. Rehabilitation included steel-reinforced concrete caisson repair and jacketing, platform concrete spalling and crack repairs, new access bridge design, and platform safety improvements.

Hudson Transmission Project
Various Locations, NY & NJ
Structural Engineer-of-Record for all structural aspects of 660 MW electric transmission link project for Prysmian Power Cable & Systems from the PSE&G Ridgefield Park substation to the submarine cable transition in Edgewater, NJ (+/- 18,150 LF) and from the 49th Street substation in New York City to the submarine cable transition point at the Hudson River (+/- 1,915 LF). The distance beneath the Hudson River is estimated to be 16,200 LF. The project included structural design of duct banks, transition pits, precast vaults, utility support crossings, cable support systems, and structural wall penetrations and reconfigurations.

Bayonne Local Redevelopment Authority, Peninsula at Bayonne Harbor
City of Bayonne, Hudson County, NJ
Project Manager for the structural and civil design of various waterfront improvement structures and shoreline stabilization around the perimeter of an old Army base that was transferred to the city of Bayonne for redevelopment.

Belmar Marina Renovations
Borough of Belmar, Monmouth County, NJ
Structural Engineer for complete marina overhaul, including bulkhead replacement, new fixed and floating docks, waterfront walkway, and site and drainage improvements.

PAUL NOLAN, PE, CPWM

Senior Principal/Department Manager/Construction
QA/QC & Construction Administration

EDUCATION

- M.S. (Coursework) Engineering & Project Management, New Jersey Institute of Technology
- B.S. Civil Engineering, New Jersey Institute of Technology, 1990
- A.S. Drafting & Design, Brookdale Community College, 1986

PROFESSIONAL REGISTRATIONS

- Professional Engineer (PE) New Jersey
- Certified Public Works Manager (CPWM)

PROFESSIONAL CERTIFICATIONS

- FAA Part 107 Small Unmanned Aircraft Systems (Suas) Certified
- New Jersey Traffic Control Coordinator
- New Jersey Society of Asphalt Technologist

EXPERIENCE

Mr. Nolan serves as Department Manager of Construction Administration & Inspection. His in-depth knowledge includes a wide range of technical pursuits, from planning and design through construction completion and occupancy. Some projects include heavy highway design and construction, bridgework, parks and recreation, building/structure rehabilitation, hydraulic water/wastewater systems, design/construction management, and consultation with private as well as public organizations. He also has supervised the evaluation, planning, design, and construction management for numerous public works projects. Mr. Nolan also provides Constructability and QA/QC services on many of the firm's more complex projects.

PROJECTS

Liberty State Park
City of Jersey City, Hudson County, NJ
Construction Manager for shoreline stabilization project along the south side of Liberty State Park. Scope included investigation of failing relieving platform, historic fill testing, and waterfront permitting challenges due to platform and replacement option of utilizing a stone revetment shoreline, as well as wave analysis for shoreline design. Improvements also included new waterfront walkway, rails, lights, and landscaping in conformance with Hudson Waterfront Walkway Standards. Project was coordinated with NJDEP Coastal Engineering and NJDPMC.

Bayshore Waterfront Park Dune Stabilization
Monmouth County Parks System
Middletown Township, Monmouth County, NJ
Project Manager for the Stevens Institute's Coastal Protection Technical Assistance Service approved revetment system, which consists of bi-directionally cabled, interlocked articulated concrete mats placed along previously eroded banks of the Raritan River. This work included compliance with CAFRA permit conditions prior to April 15, 2012. The coastal dune at the property was severely damaged during a 2003 storm, exposing construction and demolition (C&D) debris placed by the previous property owner. During a routine beach inspection, NJDEP Enforcement noted the debris and cited the County for operating an unpermitted solid waste facility. This work was completed on time and on budget.

Trader's Cove Marina
Brick Township, Ocean County, NJ
Construction Manager for repairs to Trader's Cove Marina after it suffered damage in October 2012 from Superstorm Sandy. Immediately following the storm, designs were quickly completed to

rebuild a more robust and functional marina. The remnants of the existing destroyed fixed timber docks were removed and replaced with concrete floating docks, which are more resilient to flooding. The project included modifying the layout of the marina in order to increase the number of slips and to facilitate larger vessels. The reconstruction of the marina also included the design of a boat ramp for smaller trailered boats. The design of the docks included full service amenities, such as water and electric service to each slip, and composite decking to match the boardwalk on site. The custom floating breakwater dock, which extends along the perimeter of the marina, dampens waves and protects the interior slips of the marina. The steel pipe guide piles are designed for floods in excess of those experienced during Superstorm Sandy.

Stabilization of the West Branch of Shabakunk Creek
Township of Ewing, Mercer County, NJ
Project Manager for the Township of Ewing to provide construction management services for the preliminary/final design/construction specifications and the construction inspection for the distilling and stabilization of the West Branch of the Shabakunk Creek. This work included the preparation of a hydraulic model which enabled prioritizing of the areas experiencing the most severe erosion. Once identified, the most appropriate method of stabilization was for approximately 12,000 LF of stream banks. This work included interlocking concrete block as the most prominent stabilization measure, but vegetative measures such as "biologs" were utilized where velocities and flow conditions were appropriate. Three water quality control basins were also constructed to provide storage and reduce the velocities experienced during 1, 2 and 10 year storm events which have had significant impact for property owners along the West Branch.

Improvements to Cooper River Park
Cooper River Lake, Camden County, NJ
Construction Task Manager for removal of approximately 65,000 cubic yards of sediment from the Cooper River Lake, site clearing, soil erosion and sediment control, mobilization and site construction of a rapid dewatering facility, separation of sand and course material, dewatering of the sediment, trucking of the dewatered dredge material to s suitable disposal location, sediment testing as required by the disposal facility, as-built hydrographic survey, and site restoration. The project also included the reconstruction or rehabilitation of approximately 39 outfall structures. Outfalls were replaced, restored and/or stabilized as part of this project. The intent of the dredging operation was to establish a uniform course depth for completion rowing events.

Donaldson County Park Improvements
Borough of Highland Park, Middlesex County, NJ
Project Manager for the proposed construction of a boat ramp and waterfront park improvements to a 90-acre recreation facility along the Raritan River. The improvements consisted of both aesthetic and structural alterations to facilities and included complete reconstruction of the boat ramp, docks and bank stabilization; design of traffic calming methods to control vehicular traffic at the site and to provide aesthetic improvements to roadways and parking areas; and redesign of a paved pedestrian path system to connect surrounding uses. Scope of work included improving the waterfront walkway promenade and making it compliant with the latest accessibility requirements. Improvements also included a small waterfront boardwalk and gazebo, active recreation area improvements such as ball fields and playgrounds, and the addition of native plant materials.

Beaver Dam Creek Dredging
Borough of Point Pleasant, Ocean County, NJ
Project Manager who provided design and construction inspection and administration services for the dredging of approximately 5,000 cubic yards of two lagoons and the disposal of the dredge spoils to a local landfill. The dredging material was dewatered using a decant method and using siltation balloons to reduce the content of water from the spoils. This work included the coordination efforts of a local homeowners association, permitting and ultimate disposal procedures to complete this project.

Bayside Park
Jersey City, Hudson County, NJ
Construction Task Manager for the renovation of the major renovations to the park. Bayside Park is a 100 year old facility in the Greenville Section of Jersey City on 8.5 acres of land. As part of the project, the park received an overall renovation that included the rehabilitation of existing retaining walls, construction of new retaining walls,

renovation to the observation area, repair of the seating areas at baseball grandstands, new playground areas, a water spray park, reconstruction of the basketball courts, a new multipurpose area, improved pedestrian and vehicular circulation, and better parking facilities.

5th Street Boat Ramp
City of North Wildwood, Cape May County, NJ
Project Manager who provided construction administration for the new boat ramp in a densely populated area. Work included tide gates for severe weather related events. This work also required advanced scheduling due to permit limitations. The work was completed on time and on budget.

Bayonne Park Redevelopment Master Plan
City of Bayonne, Hudson County, NJ
Construction Task Manager who provided construction administration and inspections services for Bayonne Park, a 75-acre park comprised of various recreational amenities and situated on Newark Bay. The park was designed at the turn of the century. Part of the site maintains mature forested conditions.

Fireman's Park
Borough of Keyport, Monmouth County, NJ
Construction Manager for the rehabilitation of an existing bulkhead and municipal parking lot. This project included slope stabilization through sheeting and gabion walls.

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

Newton Lake Park
Mount Emphraim Borough, Camden County, NJ
Project Manager who provided construction management assistance and geotechnical consultation during construction for the lake. The project involved the dredging and disposal of approximately 21,000 cy of silt from the lake, restoration of the lake slopes, and installation of new retaining walls and plantings. This work involved the analysis of a pre-existing survey and the hydraulic dredging of this material. The dredged material was ultimately disposed of at the Route 73, Fillit Recycling Center.

Sewaren Boat Launch
Woodbridge Township, Middlesex County, NJ
Construction Task Manager who provided construction management services for the design of a new boat launch facility that included the design of a waterfront park. Improvements included the design of a concrete boat ramp, bulk heading, sitting areas, picnic areas, site landscaping and lighting, and concrete walkways.

Smithville Park Floating Walkway
Eastampton Township, Burlington County, NJ
Provided construction administration, landscape architectural and structural design plans and details for the construction of a floating walkway and trail over and adjacent to a lake within Historic Smithville Park. The floating walkway is constructed entirely out of recycled plastic lumber and includes observation decks with sitting areas and interpretive signage which educate users on the history of the park and how to identify native flora and fauna that can be observed at the site. Trails were also designed to connect existing park users around the lake

LUKMAN OSI, PE

Assistant Project Manager & Waterfront/Structural Engineering

EDUCATION

- M.E. Environmental Engineering, The Cooper Union for the Advancement of Science and Art, 2011
- B.E. Civil Engineering, The Cooper Union for the Advancement of Science and Art, 2010
- A.S. Engineering Science, Queensborough Community College, 2006

PROFESSIONAL REGISTRATIONS

- Professional Engineer (PE) New York, New Jersey, Pennsylvania

PROFESSIONAL CERTIFICATIONS

- International Code Council (ICC) Structural Welding Special Inspector
- International Code Council (ICC) Structural Steel and Bolting Special Inspector
- OSHA 10 Hour General Construction Safety Course

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- New York Water Environmental Association (NYWEA)
- National Society of Black Engineers (NSBE)

EXPERIENCE

Mr. Osi is an experienced structural engineer with expertise in the design and permitting of various facilities and structures. In particular, Mr. Osi's experience includes design of various waterfront structures, including bulkheads, marinas, piers, docks, yacht clubs, sea walls, and anchor piles. His responsibilities include performing site inspections; conducting engineering assessments; performing structural calculations; drafting structural reports; and providing permit, design, and construction drawings.

PROJECTS

NYCEDC On-Call Marine Engineering Contract
Five Boroughs, New York City, NY
Assistant Project Manager for one of the NYCEDC's four On-Call Marine Engineering Contracts. Work includes all types of waterfront and marine engineering services required by the agency that manages all of New York City's waterfront. Projects range from the annual Waterfront Inspection Program which includes underwater and topside inspections and condition reports for various City-owned waterfront properties throughout the five boroughs; engineering investigations, designs and preparation of construction documents for repairs and rehabilitations projects; and providing special inspection services as required on various marine projects.

Forked River State Marina
Lacey Township, Ocean County, NJ
Assistant Project Manager/Structural Engineer for design and construction administration for new bulkhead, docks, utilities, boat ramp, dredging, and site and drainage improvements for state marina. Design and contract documents met NJDPMC standards.

Brooklyn Cruise Terminal
Brooklyn Borough, New York City, NY
Project Manager for the Rehabilitation of Pier 12 at the Brooklyn Cruise Terminal. The project included underwater inspections of the pier's timber piling support system, prioritization of repairs, design of piling and substructure repair details and preparation of contract drawings and specifications for permitting and construction. Also acted a lead on environmental permitting for the project which included NYSDEC, ACOE, NYCSBS, NYSDOS.

JFK Airport Accessory Pier
Jamaica, Queens Borough, New York City, NY
Provided plan details and construction administration for the construction of a 4'X369' catwalk pier with a 6'X9' platform; including pier accessories such as an anti-bird perching system, electrical conduits and lightening protection support outrigger. Performed

structural calculations and provided design details for the lightening protection support outrigger. Reviewed submittals, responded to RFI's, provided construction administration services and prepared as-built drawings.

Village of Nyack, Rockland County, NY

- **Village of Nyack, Marina Repairs – Shoreline Storms**
  Provided permit, design and construction drawings for the replacement of approximately 389 feet of deteriorated timber bulkhead with vinyl sheet piles. Designed steel pipe piles to provide anchorage for three separate groups of floating docks (2,322 SF total). Provided the following services in support of this project: inspection and assessment report for damaged marine structures and accessories due to the effects of Superstorm Sandy; prepared engineer's Opinion of Probable Cost (OPC) for the recommended repairs; prepared the necessary environmental permit drawings and permit application packages for the NYSDEC, NYSDOS and USACE; reviewed and responded to shop drawings, RFI's and submittals; provided grant administration for SEMO/FEMA emergency funding; performed site inspections and provided inspection reports.
- **Village of Nyack, Marina Repairs - Dredging**
  Performed calculations for silt deposit after Superstorm Sandy. Provided drawings for marina dredging. Compiled administrative documents necessary for FEMA funding. Performed site inspections and provided inspection reports.
- **Village of Nyack, Marina Repairs - North Bulkhead Repair**
  Performed site inspections and provided inspection reports. Provided updates for design drawings. Compiled administrative documents necessary for FEMA funding.
- **Village of Nyack Memorial Park Fishing Pier**
  Performed site visits and provided engineering assessment of site conditions during construction of a 78'X30' timber fishing pier and public access observation deck at Nyack Memorial Park. Verified tip elevations and monitored blow counts required for the installations of 36 timber piles. Assisted the EOR to modify construction at specific locations where filed conditions prevented the installation as shown on plans. Provided field reports.
- **Village of Nyack Marina Studies**
  Conducted a wave screen feasibility study. Provided preliminary drawings for wave screen location and size.

Duracell Battery Plant Remediation
Sleepy Hollow Village, Westchester County, NY
Inspection of structures located on properties that are a part of the remediation activities associated with the Duracell Inc. Site (located at 60 Elm Street in Sleepy Hollow, NY). A structural inventory inspection was performed at adjacent properties, as an independent 3rd party, to observed structural deficiencies of each structure on each property (houses, garages, sheds, retaining walls). Performed structural inspection at 35 properties and prepared structural reports for each inspection. Provided photographic and written documentation of structural deficiencies of each structure on the properties.

FDNY Marine 1 (Pier 53) – Storm Damage Assessment, Manhattan, NY
FDNY Marine 6 (Brooklyn Navy Yard) – Storm Damage Assessment, Brooklyn, NY
Performed above-water and underwater inspections of storm-damaged structures including piers, docks, wave screens and seawalls. Reviewed background documents; supervised a dive team to inspect submerged structures; analyzed damaged structures, specifically identifying likely storm-related damage; and recommended repairs to return the facility to pre-storm conditions.

College Point Yacht Club
College Point, Queens Borough, New York City, NY
Prepared schematic plans of proposed dredging for use in environmental permit applications. Coordinated design, surveying, sediment sampling and permitting. Performed calculations for dredge volume and prepare environmental permit application packages for submission. Performed site inspections and provide inspection reports.

782 Piermont Waterfront
Piermont Village, Rockland County, NY
Provided permit and design drawings for the reconstruction of a 144 SF pier and repair of an 80' deteriorated concrete seawall. Performed calculations for a pile supported pier and prepared permit application packages for the following agencies: NYSDEC, NYSDOS and USACE. Respond to RFI's and perform inspections during construction.

23 N Shore Road Pier
Edgewater Borough, Bergen County, NJ
Designed a pier replacement for a damaged 563 SF concrete pier over stone cribbing. The designed pier includes a 672 SF pile supported pier with timber wavescreen. Provided permit drawings and design drawings sufficient for bid and construction. Prepared permit application packages for the following agencies: NJDEP and USACE.

Piermont FD Dock
Piermont Village, Rockland County, NY
Performed calculations for dock anchors piles providing support for a 1,080 SF L-shaped wave attenuating floating dock, serving the Piermont Fire Department boat rescue team. The floating dock is designed to operate year-round, including during ice and storm conditions. Prepared plans for the dive team to inspect the existing concrete pier supported by timber piles.

Pier A Seastreak
City of New York, NY
Performed calculations for the berthing and temporary mooring of two vessels (a 141-Foot-Catamaran with 365 passenger capacity and a 65-Foot-Catamaran with 149 passenger capacity) separately, using the existing fender rack on the southern side of Pier A for bow loading. Designed a foam filled fender capable of berthing both vessels at the southwestern side of the pier, based on side loadings.

US Coast Guard Sector Fort Macon
Town of Atlantic Beach, Carteret County, NC
Performed calculations for bollards (20-ton capacity) along the existing wharf structure as a consultant to the prime design-build contractor, Haskell.

Cornwall Yacht Club Sea Wall Repair
Cornwall on Hudson, Orange County, NY
This project included the planning and design of concept alternatives for shoreline stabilization at the Cornwall Yacht Club. Provided preliminary designs for a steel sheet pile bulkhead.

Paragon Citistructure Waterfront
Long Island City, Queens Borough, New York City, NY
This project includes the replacement of 117' bulkhead within Anable Basin, adjacent to the East River, East Channel. Reviewed survey drawings for the proposed development. Provided preliminary designs and calculations for the reconstruction of the bulkhead structure.

Battery Maritime Building Hotel and Conference Center
Manhattan Borough, New York City, NY
Provided Flood Zone Compliance design to meet NYC DOB permit requirements for this $150M hotel and conference center addition to the historic 1909 Beaux Arts style Battery Maritime Building. Reviewed Flood Zone Compliance regulations, provided recommendations for Flood Zone Compliance, provided flood compliance drawings and repair details for the existing structures to meet the flood zone design requirements. Performed flood load calculations for the anchorage of dry floodproofed area (782 SF) and designed flood vents for wet floodproofed area. Performed site inspections to verify construction was in accordance with design.

ANDREW A. PREVITI, PE

Senior Principal/Municipal

Civil Engineering/Cost Estimating

EDUCATION

- B.S. Biology, St. Joseph's University
- B.S. Civil Engineering, Drexel University

PROFESSIONAL REGISTRATIONS

- Professional Engineer (PE) New Jersey

PROFESSIONAL AFFILIATIONS

- New Jersey Association of Environmental Consultants
- American Society of Civil Engineers
- New Jersey Society of Municipal Engineers
- Technical Advisory Committee of the South Jersey Transportation Planning Organization

CURRENT APPOINTMENTS

- Sea Isle City, Engineer, Planning Board Engineer, Zoning Board Engineer, Board of Assessment Engineer
- City of Absecon, Planning Board Engineer

EXPERIENCE

Mr. Previti has been providing municipal and civil engineering services for over 40 years in 13 municipalities. His longevity in many of the municipalities that he represents is a testament to his dedication to understanding the client's needs. His municipal engineering experience includes utility construction and reconstruction; roadway construction; drainage design; beach replenishment; erosion control protective structures; oceanfront bulkheads; revetments; jetties; low-profile timber; stone groins; floating dock systems; and fixed piers. Mr. Previti is also skilled in streetscape/park improvements; and project permitting. He is accountable for the management of municipal projects from concept design through construction administration and the review of project development plans and applications for the Planning and Zoning Boards that he represents. His extensive experience with the application, coordination, and submission of permits expedites the projects through various agency approvals.

PROJECTS

Sea Isle City, Cape May County, NJ

Mr. Previti has been serving the City of Sea Isle City since 1973. His projects there include the following:

- **Hurricane Sandy Reconstruction**
  Citywide reconstruction included asphalt beachfront promenade reconstruction; beach replenishment projects; sand dune, fence, and dune grass installation; retaining wall reconstruction; streetscape repairs; ADA access ramp reconstruction; bulkhead repair; and hydraulic lagoon and inlet dredging. Worked with City toward the successful attainment of FEMA CRS rating designation.
- **Beach Replenishment & Erosion Protective Structures**
  Services included planning, design, securing of all permits from the NJDEP and ACOE; and construction administration for $20 million of beach replenishment and $5 million of erosion control protective structure projects constructed in Sea Isle City under a partnership with the NJDEP. Structures designed included oceanfront bulkheads and revetments, jetties, and low profile timber and stone groins. Beach replenishment projects involved the placement of sand pumped from coastal inlet areas onto the City beaches primarily by hydraulic placement methods.
- **JFK Veterans Boulevard Streetscape Improvements**
  Provided the design for all streetscape amenities for this County roadway reconstruction project, including decorative lighting to match decorative traffic signals; benches; landscaping; paver sidewalks; and ADA compliant crosswalks and ramps.

- **ACOE Beach Replenishment Project**
  Assisted the City in easement acquisition with NJDEP, Bureau of Coastal Engineering, for an ACOE federally-funded replenishment project.
- **Dealy Field Skate Park**
  Designed a new 5,315 SF skate facility located within the Dealy Field Recreation Complex on the site of an existing skate park that had been closed due to disrepair and concern for user safety. *NJSME 2nd Place Award Winner for Municipal Park/Recreation Projects.*
- **Street-End Bulkheads**
  Provided design, permitting, and construction administration services for the reconstruction of over 2,400 LF of street-end bulkheads.
- **Bulkhead and Boardwalk**
  Preparation of engineering conceptual planning, design development, and construction documents for the construction of 1,000 LF of new boardwalk along the Sea Isle City bay front and for the construction and reconstruction of over 600 LF of waterfront bulkheads. This project also includes a floating dock system, fixed piers, and gangways from the fixed piers to the floating docks. All materials specified are non-polluting and conform to all environmental regulations. Permits for this project were secured from the NJDEP and ACOE.
- **Sea Isle City Marina**
  Preparation of engineering conceptual planning, design development, and construction documents for the establishment and expansion of a public-private venture amusement park; streetscape/park improvements; roadway realignment and reconstruction; creation of new parking areas for multiple users; reconstruction of a boat trailer parking area; street and boardwalk decorative lighting; landscape improvements; and the construction of a Marina Service Building which includes office, repair and storage areas, and public restrooms facilities including shower rooms.
- **Hydraulic Dredging of the City's Lagoon System**
  Provided planning, design, construction administration, and securing of all necessary permits from NJDEP and ACOE for the oversight of multiple projects. This lagoon system requires dredging once every 10 years on average and the permit process is complex and requires special expertise.
- **Annual Roadway Reconstruction Program – Ongoing**
  Preparation of engineering conceptual planning, design, and development of plans and specifications; contract administration; and inspection of roadway reconstruction program involving 110 streets throughout the City.
- **Townsends Inlet Waterfront Park**
  Preparation of engineering conceptual planning; Green Acres Application; design development of plans and specifications; and contract administration and inspection of a waterfront park facility that converted a deteriorated site into a major park facility within the community that includes an observation deck and covered pavilion; established sand dune system including primary and secondary dunes with native vegetation; educational walkways and signage through the dune system, vehicular and bicycle parking areas, comfort station with storage area; and access roadway with control signage.
- **Water Supply Facility Replacement Projects**
  Preparation of engineering conceptual planning; design development of plans and specifications; permitting; and contract administration and inspection of projects involving the complete replacement and new pumping, treatment, and control facilities of the old 40th Street Water Supply Facility with new Well No. 7; the old 55th Street Water Supply Facility, with new Well No. 8; and the old 50th Street Water Supply Facility, with new Well No. 9. Well No. 9 included preliminary funding application to USDA.
- **Landis Avenue Utility Reconstruction**
  Preparation of engineering conceptual planning, design, development of plans and specifications, and contract administration and inspection for the reconstruction and expansion of sanitary sewer and water distribution system facilities along a 32-block section of Landis Avenue in anticipation of a roadway reconstruction project by Cape May County.
- **Utility Capital Improvement Projects**
  Preparation of design engineering plans; development of plans and specifications; permitting; and contract administration and inspection of projects for the improvement utilities on 100 streets throughout the City. Also included a sewerage pump station to service the entire northern section of the City and

associated trunk sewer construction from 36th Street to 49th Street, 3,840 LF on a pile supported foundation.

Ocean City, Cape May County, NJ
Mr. Previti previously served Ocean City as the Planning Board Engineer from 2008-2014. His projects there included the following:

- **Master Drainage Plan**
  Prepared and developed recommendations for a long-range drainage improvements. Long-range program which includes preparation of plans and specifications, and construction administration for recommended projects as funds become available. Responsibilities include investigation for sources of funding and grant programs.
- **Site Improvements for New Ocean City High School**
  Preparation of engineering planning, design, plans and specifications for a new site improvements at the new Ocean City High School. Worked along with project architect to develop the overall plan.
- **Construction of Boardwalk**
  Analysis of existing timber pile supported boardwalk and the preparation of plans and specifications to replace the timber pile supported boardwalk.

OTHER EXPERIENCE

Township of Dennis, Cape May County, NJ
Mr. Previti previously served as the Consolidated Land Use Board Engineer in Dennis Township.

- **Chestnut Street Park**
  Principal Engineer for two-phase project that included vehicular and pedestrian access improvements to control access at this active recreation facility, including the provision of ADA access and facility improvements.
- **Municipal Recreation Park**
  Principal Engineer for the design and preparation of plans and specifications for multiple improvements for the Township's main recreation complex including a jogging/walking path, new tennis court, new in-line hockey rink, maintenance service building and parking improvements.
- **Roadway Reconstruction Program**
  Principal Engineer for multiple roadway reconstruction projects which involve conceptual planning, design, development of plans and specifications, contract administration and inspection of roadway reconstruction program involving 50 roadways throughout the Township.

City of Atlantic City, Atlantic County, NJ

- **Construction of Bulkhead at Absecon Inlet & New Hampshire Avenue**
  Preparation of engineering conceptual planning, permitting, design, plans and specifications, contract documents involving the construction of a steel sheet bulkhead system at Absecon Inlet drainage.

RAYMOND WALKER, PHD, PWS

Senior Principal/Division Director/Ecological
Environmental Permitting

EDUCATION

- Ph.D. Ecology (Wetland Ecology), Rutgers University, 1981
- B.S. Environmental Biology, Manhattan College, 1974

PROFESSIONAL REGISTRATIONS

- Professional Wetland Scientist
- Provisionally Certified Wetland Delineator – U.S. Army Corps of Engineers

PROFESSIONAL AFFILIATIONS

- Society of Wetland Scientists

HONORS SOCIETY/AWARDS

- Sigma Xi
- Department of the Army Official Commendation, Customer Care Award, 1986
- Department of the Army Official Commendation, Special Act Award, 1987
- Department of the Army Official Commendation, Special Act Award, 1987

PUBLIC SERVICE

- Member of the U.S. National Park Service Task Force – Plan for the Pineland National Preserve 1978-1979
- Member of Freehold Township Open Space Committee –
- 1997-2000
- Member of Freehold Township Board of Adjustment– 1998-2007
- College of Mt. St. Vincent Science Advisory Committee 2009-Present

EXPERIENCE

Dr. Walker has been a proven leader and effective project manager in the field of ecological services since 1980. Dr. Walker brings a creative approach to securing regulatory approvals for a broad range of private, municipal, and public development projects that involve complex and challenging ecological issues. Having worked in academia, for regulatory agencies, and as a private consultant, Dr. Walker has developed a unique understanding and perspective on what it takes to secure regulatory approvals.

Dr. Walker's scientific background coupled with his regulatory experience, open mindedness, and temperate manner has made him very effective at mediating resolutions to wetland enforcement actions. Dr. Walker has been certified as an expert in the field of ecological sciences and regulatory issues in a variety of legal venues including Federal District Court, Local Courts, Office of Administrative Law, and numerous Planning and Zoning Boards.

The staff that Dr. Walker supervises is composed of degreed experts in a variety of fields associated with ecological services. These include expertise in due diligence investigations, wetland delineations, threatened and endangered species studies, preparation of Environmental Impact Statements, preparation of NEPA and SEQRA compliance documents, development and implementation of wetland mitigation projects, submerged aquatic vegetation studies, flora and fauna inventories, rare plant studies, lake restoration and management, essential fish habitat studies, nitrate dilution modeling, carbon foot printing, greenhouse gas analyses, environmental resource inventories, resource management, and regulatory issues.

PROJECTS

Bulkhead Construction
Borough of Sea Bright, County of Monmouth, NJ
Provided environmental regulatory permitting services (NJDEP waterfront development and Army Corps Nationwide General) associated with the civil and structural engineering services for the construction of bulkhead between the south side of Southway and the north sideline of Via Ripa.

Twin Lights Marina
Highlands Borough, County of Monmouth, NJ
Provided environmental regulatory permitting services (NJDEP waterfront development, CAFRA, tidelands conveyance, and US Army Corps -Section 10) associated with the site design and civil engineering services for a proposed 24-boat slip marina with a public fueling dock and a bait shack.

Meridia Water's Edge at Rahway
City of Rahway, Union County, NJ
Provided wetland delineation and permitting for Meridia Water's Edge at Rahway, a 109-unit apartment building located on a one acre lot within the waterfront area of the City of Rahway and within New Jersey's coastal zone. Scope of work included delineating wetlands for the project site; preparing applications for Freshwater Wetlands, Waterfront Development, and Flood Hazard Area Control Act permits for the project (which were successfully secured) from the NJDEP; and conducting site investigations to demonstrate compliance with State and Federal Historic Preservation Regulations.

Riverview at Wallington
Borough of Wallington, Bergen County, NJ
This project consisted of an age-restricted residential development with 39 one-bedroom units and five townhouse buildings with 35 two-bedroom units in the Borough of Wallington. The site is located within 500 ft of the mean high water line of the Passaic River and within New Jersey's Coastal Zone. Scope of work involved successfully preparing and securing Freshwater Wetland, Waterfront Development, and Flood Hazard Area Control Act approvals from the NJDEP, as well as a Tidelands Conveyance from the State Bureau of Tidelands and a Section 404/10 permit from the U.S. Army Corps of Engineers.

Browns Point Marina
Borough of Keyport, Monmouth County, NJ
Browns Point Marina is an existing marina in need of rehabilitation. The marina is located within New Jersey's Coastal Zone and is subject to the regulatory authority of the Coastal Area Facility Review Act Rules (CAFRA), Waterfront Development Rules, Tidelands Rules, and Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Scope of work included designing a rehabilitation plan for the marina and securing the necessary Federal and State approvals for these improvements. Survey and development plans were prepared for the reconstruction and replacement of 488 LF of the existing timber bulkhead with vinyl bulkhead, the construction of a new floating dock, the installation of nine new slips, reconstruction of a boat ramp, and the dredging of 2,156 cubic yards of sediment from Matawan Creek. Also delineated wetlands on the property and secured a Waterfront Development Permit from the NJDEP, a Tidelands Conveyance from the State Bureau of Tidelands, and a Section 404/10 permit from the U.S. Army Corps of Engineers for these improvements.

Vinyl Bulkhead Installation
Middletown Township, Monmouth County, NJ
A residential home located along the Navesink River shoreline in Middletown was constructed over a geologic formation known as a slump block. The very steep shoreline was "sliding" as a result of the slump block formation threatening the residential home. The property was also located within the State's coastal zone. Scope of work included designing a vinyl bulkhead for installation along the shoreline to stabilize the slump block. As the professional in charge of environmental permitting, Dr. Walker oversaw efforts associated with securing a Waterfront Development and CAFRA permit from the NJDEP, a Tidelands conveyance from the State Bureau of Tidelands, and a Section 404/Section 10 permit from the U.S. Army Corps of Engineers for the installation of the bulkhead.

Seabright Avenue Shoreline Stabilization
Berkeley Township, Ocean County, NJ
The shoreline near Seabright Avenue in Berkeley Township, Ocean County, is subjected to high energy wave action during north eastern storms which severely erode the shoreline. Scope of work involved designing a shoreline stabilization plan consisting of cabled concrete matting with plantings and a groin to stabilize the shoreline at this location. Prepared applications and secured approvals from the New Jersey Department of Environmental Protection (NJDEP) and the U.S. Army Corps of Engineers (USACE) for the installation of shoreline stabilization measures at this location.

MICHAEL CARNIVALE, III, PE

Senior Project Manager/Geotechnical Services

Geotechnical Engineering

EDUCATION

- M.S. Civil Engineering, University of Rhode Island, 2001
- B.S. Civil Engineering, Drexel University, 1993

PROFESSIONAL REGISTRATIONS

- Professional Engineer (PE) New Jersey, Pennsylvania, Illinois

PROFESSIONAL CERTIFICATIONS

- Certificate Program in Geotechnical Engineering – University of Delaware Engineering Outreach
- Specialized Courses in: Ground Improvement Technologies Systems, Earth Retaining Structures, Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, and Deep Foundations

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE), Member
- ASCE Geo-Institute, Member
- Delaware Valley Geo-Institute
- Chi Epsilon National Civil Engineering Honor Society
- ASCE Committee on National Concrete Canoe Competitions, Corresponding Member
- Practitioner Advisor, Drexel University ASCE Student Chapter
- Pennsylvania ASCE Infrastructure Report Card (Navigable Waterways), Team Member

EXPERIENCE

Mr. Carnivale is a Senior Project Manager in the Geotechnical Department, responsible for providing geotechnical engineering and construction materials testing services for a variety of clients. He previously served as a geotechnical engineer with the US Army Corps of Engineers (USACE), Philadelphia District. Mr. Carnivale specializes in foundations, retaining walls, slope stability, geosynthetics, construction on soft soils, and dredging operations. While with the USACE, he managed several large Federal Indefinite Delivery Contracts and prepared scopes of work for AE firms and service contractors to perform a variety of tasks including, but not limited to, subsurface and vibrocore investigations, laboratory testing, HTRW evaluations, surveying, and design projects of a geotechnical nature.

PROJECTS

Leonardo State Marina Improvements
Middletown Township, Monmouth County, NJ
Geotechnical Manager for new bulkhead, dock, and site and drainage improvements for state marina. Design and contract documents to meet NJDPMC standards.

Forked River State Marina Bulkhead Replacement
Lacey Township, Ocean County, NJ
Geotechnical Manager for design and construction administration for new bulkhead, docks, utilities, boat ramp, dredging, and site and drainage improvements for state marina. Design and contract documents met NJDPMC standards.

New Marina Office, Leonardo State Marina
Middletown Township, Monmouth County, NJ
Project Manager for the evaluation of subsurface conditions at existing Leonardo State Marina for the proposed construction of a two-story masonry building to serve as a new marina office supported on shallow foundations. Responsibilities included the coordination of drilling contractor, providing geotechnical recommendations for design, and preparing a subsurface evaluation report.

Repair of Boat Slip Bulkheads, Point Pleasant Canal
Borough of Point Pleasant, Ocean County, NJ
Project Geotechnical Engineer responsible for the evaluation of previously collected subsurface data and the determination of the length of embedment and structural analysis (shear and bending moments) of both composite and steel sheet piles used in the rehabilitation of eight boat slips located along the Point Pleasant Canal. Assisted in the preparation of the plans and specifications for the project, coordination with the sheet pile contractor, inspection of

materials delivered to the site, and field observation during installation.

Paulsboro Marine Terminal Bridge and Access Roadway
Borough of Paulsboro, Gloucester County, NJ
Lead Geotechnical Engineer for the proposed 3,400-ft roadway and 490-ft long vehicular bridge to access the Paulsboro Marine Terminal. Responsible for the oversight of subsurface exploration that included a review of previously obtained borings in the Mantua Creek, installation of 17 SPT and 17 CPT borings along the proposed alignment, laboratory testing, and preparation of an engineering report. Currently working on a pilot surcharge program (including the construction of a surcharge embankment and installation of vibrating wire piezometers, extensometers, and inclinometers) to determine the amount and rate of settlement anticipated in the underlying organic clayey silt.

Willow Grove Dam
City of Vineland, Cumberland County, NJ
Lead Geotechnical Engineer responsible for the subsurface exploration, laboratory testing, and engineering analysis of the existing Willow Grove Dam in Vineland, NJ. Services included conducting a dam stability analysis, seepage analysis, and issuing a report to the NJDEP Dam Safety office regarding the current condition of the structure.

Irene Habernickel Family Park Dam
Village of Ridgewood, Bergen County, NJ
Lead Geotechnical Engineer responsible for the subsurface exploration, laboratory testing, and engineering analysis of the existing dam structure. Services included conducting a dam stability analysis, seepage analysis and preparing report on option for the dam rehabilitation or replacement and for the option of removing the dam and restoring the stream corridor.

Various Bridge Replacements
Cecil County, MD
Project Geotechnical Engineer responsible for directing the subsurface explorations for the replacement of the various bridges in Cecil County, MD including Barksdale Road, Rowland Road, Old Elk Neck Road, Knights Corner Road and Lombard Road bridges. Responsible for overseeing subgrade inspections and backfilling observations during the replacement of the Blue Ball Road and Stevenson Road bridges.

"Sinking Homes" of the Logan and Feltonville Sections
City of Philadelphia, Philadelphia County, PA
Project Geotechnical Engineer responsible for conducting subsurface investigation and sampling of ash and cinder fill as part of the Pennsylvania Supplemental Site Characterization. The purpose of the investigations were to determine the extent and chemical properties of the fill used to reclaim the valley of the former Wingohocking Creek which resulted in the subsidence of the row-houses constructed over the valley. Oversaw drilling operations, sampling and classification of soils/fill material in the field, and prepared report of findings. Provided the City of Philadelphia's Planning Commission with recommendations on ground modifications techniques for the potential redevelopment of the area for various commercial, residential, and school scenarios.

Beach Replenishment Projects
Various Locations, NJ and DE
Managed several extensive vibrocore contracts for various beach-fill projects located along the Atlantic Coast of New Jersey and Delaware as well as the Delaware Bay. Contracts ranged from $75,000 to $350,000 and included the collection of cores for both geotechnical and environmental testing. Responsible for conducting the beach-fill suitability analysis and the determination of re-nourishment factors for the 50-year projects. Representative projects include Fenwick Island, DE; Bethany/South Bethany, DE; Dewey/Rehoboth, DE; and Ocean City, NJ.

ERIC V. WILDE, PLS

Principal Associate/Senior Project Manager/Survey
Survey Services

EDUCATION

- B.S. Engineering Technology, Surveying Technology, New Jersey Institute of Technology, 2007
- B.S. Economics, James Madison University, 1987

PROFESSIONAL REGISTRATIONS

- Professional Land Surveyor (PLS) New Jersey

PROFESSIONAL AFFILIATIONS

- New Jersey Society of Professional Land Surveyors

COMPUTER SKILLS

- AutoCAD (2D)
- Land Development Desktop (Terrain Modeling and Civil and Survey Design)

EXPERIENCE

Mr. Wilde has over 20 years of experience in surveying in the civil engineering and site development field. He is a Senior Project Manager in our Red Bank office, supervising construction projects, land surveying projects, and coordinating our Municipal Land Surveying operations. Mr. Wilde's project management skills help him stay highly organized and help his projects run more efficiently, due his detailed administrative nature. This administrative nature helps him manage a project with an emphasis on scheduling, financial budgets, project deliverables, and project execution. He has excellent administration skills, and excels at both verbal and written communication. His daily duties included the development of daily work schedules, weekly reports, correspondence on project schedules, and the tracking of the status of projects. He attends weekly meetings and develops reports on projects, billings and workload. During these meetings he updates other managers on the status of work and makes commitments to meet critical deadlines. He completes daily timesheets and prepares monthly reports on billings; he attends biweekly meetings regarding both his billings and collections.

He has progressive experience from instrument-man, party chief, survey technician, through to senior project manager. His experience includes boundary surveys, topographic surveys, major and minor subdivisions, boundary line adjustments, as-built plans, route surveys, ALTA/NSPS surveys, flood elevation certificates and NJDOT general property parcel plans, including deed research, calculations, boundary analysis, writing descriptions and AutoCAD drafting. Additional experience includes road and easement calculations, road plans and profiles, stormwater management plans, grading plans, soil erosion plans and farmland preservation surveys. Mr. Wilde has been admitted as an expert witness in Middlesex County Superior Court.

PROJECTS

Leonardo State Marina Improvements
Middletown Township, Monmouth County, NJ
Survey Manager for new bulkhead, dock, and site and drainage improvements for state marina. Design and contract documents to meet NJDPMC standards.

Forked River State Marina Rehabilitation
Lacey Township, Ocean County, NJ
Survey Manager for new bulkhead, docks, utilities, boat ramp, dredging, and site and drainage improvements for state marina. Design and contract documents met NJDPMC standards.

New Jersey Reconstruction, Rehabilitation, Elevation, and Mitigation (RREM) Program
Atlantic, Monmouth, and Ocean Counties, NJ
As the Project Manager, he was responsible for the preparation of boundary and topographic surveys, and FEMA flood elevation certificates for roughly 150 properties located within designated flood hazard areas. He coordinated with the project engineer of record, and instructed Maser Consulting field and office personnel for the collection and processing of all field survey data. He reviewed and analyzed the record property documents against field evidence to develop the components for each individual survey plan. Mr. Wilde was also responsible for implementing Quality Assurance and Quality Control standards to ensure compliance with the project agreement.

Port Authority of New York & New Jersey Goethals Bridge
City of Elizabeth, Union County, NJ to Staten Island, NY
As the Project Manager, he was responsible for the preparation of 36 ALTA /ASCM Land Title Surveys on parcels along the route of the proposed new bridge alignment. The project required pre-planning work to coordinate with PYNJ Central Survey Group, and security personnel. Mr. Wilde reviewed the filed record data, the public data and the evidence to develop the components of the boundary survey plan. He also implemented Quality Assurance and Quality Control standards to ensure project compliance. The field work was collected according to the PANYNJ field requirements. Maser Consulting prepared a CAD drawing according to PANYNJ standards.

Bloomfield Avenue
Montville Township, Morris County, NJ
As the Project Manager, he was responsible for the preparation of the development of New Jersey Department of Transportation (NJDOT) documentation. This included plans and descriptions to convey lands and rights in and around Bloomfield Avenue from the NJDOT to adjoining private property owners in the Township of Montville, Morris County. He was also responsible for the coordination of all sub-consultants, as well as Maser Consulting field and office personnel for the collection and analysis of the survey data. This project involved researching and acquiring historic documentation including deeds, road returns, road vacations, highway plans and topographic mapping to analyze existing private property rights, public rights, easements and ownership boundaries. Mr. Wilde met with NJDOT staff on behalf of the client and implemented Quality Assurance and Quality Control standards to ensure project compliance.

Telecommunication Cell Tower Sites (Diamond Communications, LLC)
Various Locations, NJ
As the Project Manager, he was responsible for the preparation of multiple boundary, topographic, and GPS surveys for various Telecommunication Sites in New Jersey. This work also included construction stakeout of lease areas, access roads and new towers as well as preparation of FAA 1A and 2C letters. He was also responsible for the coordination with sub-consultants, and Maser Consulting field and office personnel for the collection and analysis of the survey data. He reviewed the filed record data, the public data and the evidence to develop the components of the boundary survey plan. Mr. Wilde implemented Quality Assurance and Quality Control standards to ensure the project compliance. This work involved the coordination of multiple projects that were on an accelerated time sensitive schedules.

James Toyota
Raritan Township, Hunterdon County, NJ
As the Project Manager, he was responsible for the preparation of boundary, topographic survey, construction layout and as-built survey plans for the site development of a 30,000 SF Auto Dealership on five acres. This included a car wash, extensive parking areas, drainage as well as an underground detention system. He was also responsible for the coordination with sub-consultants, and Maser Consulting field and office personnel for the collection and analysis of the survey data. Mr. Wilde reviewed the filed record data, the public data and the evidence to develop the components of the boundary survey plan. He also implemented Quality Assurance and Quality Control standards to ensure project compliance.

KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Richard Maloney, PE

TITLE Project Manager

FIRM Maser Consulting P.A.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Marina Reconstruction and Expansion Belmar, NJ $3,500,000	Maser Consulting P.A./Birdsall Engineering Inc.	Marine/Structural Engineering, Civil Engineering, Permitting, Dredging, Construction Management	Structural/Marine Engineer	120	5%	5/2005-6/2016	Borough of Belmar
Trader's Cove Marina Docks/Bulkheads Rehab Brick, NJ Construction Cost: $4,500,000	Maser Consulting P.A	Investigations, Structural Engineering, Construction Administration	Structural Engineer	12	30%	3/2015-11/2016	Brick Township Township Administrator
Forked River State Marina Bulkhead Replacement Forked River, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	Investigations and Studies, Preliminary and Final Engineering, Permitting	Project Manager/ Structural Engineer of Record	6	30%	3/2018-Present	New Jersey Department of Treasury
Barnegat Lighthouse State Park Bulkhead Replacement Barnegat Light, NJ Construction Cost: $1,000,000	Maser Consulting P.A.	Investigations and Studies, Preliminary and Final Engineering, Permitting	Project Manager/ Structural Engineer of Record	4	40%	6/2018-Present	New Jersey Department of Treasury
Liberty State Park Ferry Slip Renovation Jersey City, NJ Construction Cost: $23,000,000	Maser Consulting P.A.	Preliminary and Final Engineering, Dredging Services, Environmental Permitting, Construction Administration,	Principal-in-Charge/ Structural Engineer of Record	5	40%	4/2015-Present	New Jersey Department of Treasury
Liberty State Park Shoreline Stabilization & Bulkhead Repair Jersey City, NJ Construction Cost: $2,500,000	Birdsall Services Group	Investigations and Studies, Preliminary and Final Engineering, Permitting	Project Manager/ Structural Engineer of Record	7	40%	9/2008-1/2011	New Jersey Department of Treasury

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Paul Nolan, PE

TITLE QA/QC & Construction Administration

FIRM Maser Consulting P.A.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Leonardo State Marina Bulkhead Replacement Leonardo, NJ Construction Cost: $1,000,000	Maser Consulting P.A.	QA/QC, Construction Inspection and Administration	QA/QC Manager, Director of Construction Administration	2	25%	8/2017-Present	New Jersey Department of Treasury
Leonardo State Marina East Jetty/Bulkhead Replacement Leonardo, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	QA/QC, Construction Cost Estimating	QA/QC Manager	4	20%	8/2016-2/2018	New Jersey Department of Treasury
Liberty State Park Ferry Slip Renovation Jersey City, NJ Construction Cost: $23,000,000	Maser Consulting P.A.	Design QA/QC Management, Construction Administration, Construction Cost Estimating	QA/QC Manager, Director of Construction Administration	12	20%	4/2015-Present	New Jersey Department of Treasury
Trader's Cove Marina Rehabilitation of Docks & Bulkheads Brick, NJ Construction Cost: $4,500,000	Maser Consulting P.A.	Construction Inspection and Administration	Construction Manager, Contract Administrator	12	30%	3/2015-11/2016	Brick Township Township Administrator
Liberty State Park Shoreline Stabilization & Bulkhead Repair Jersey City, NJ Construction Cost: $2,500,000	Birdsall Services Group	Design QA/QC Management, Construction Administration	QA/QC Manager, Director of Construction Administration	24	40%	9/2008-1/2011	New Jersey Department of Treasury

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Lukman Osi, PE

TITLE Assistant Project Manager & Waterfront/Structural Engineering

FIRM Maser Consulting P.A.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Forked River State Marina Bulkhead Replacement Forked River, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	Investigations and Studies, Preliminary and Final Engineering, Permitting	Assistant Project Manager & Structural Engineer	6	30%	3/2018-Present	New Jersey Department of Treasury
Leonardo State Marina Bulkhead Replacement Leonardo, NJ Construction Cost: $1,000,000	Maser Consulting P.A	Design Calculations, Project Coordination	Assistant Project Manager & Structural Engineer	9	25%	8/2017-Present	New Jersey Department of Treasury
Barnegat Lighthouse State Park Bulkhead Replacement Barnegat Light, NJ Construction Cost: $1,000,000	Maser Consulting P.A.	Design Calculations, Project Coordination	Assistant Project Manager & Structural Engineer	4	25%	6/2018-Present	New Jersey Department of Treasury
Nyack Marina Shoreline Storm Repairs Nyack, NY Construction Cost: $2,500,000	BlueShore Engineering LLC	Design Calculations, Environmental Permitting, Project Coordination, Construction Administration	Project Manager	48	25%	6/2013-7/2017	Village of Nyack
Paragon Citistructure Bulkhead, Dock Repairs Queens, NY Construction Cost: $48,000	BlueShore Engineering LLC	Preliminary Design, Project Coordination	Assistant Project Manager	7	20%	12/2014-7/2015	Citistructure
Consolidated Edison Bulkhead Repairs Queens, NY Construction Cost: $12,000	Reichgott Engineering	On-Site Inspection, Construction Administration	Construction Superintendent	1.5	80%	3/2013-4/2013	Reichgott Engineering

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Andrew Previti, PE

TITLE Civil Engineering/Cost Estimating

FIRM Maser Consulting P.A.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Proposed Bulkhead at 90th & 91st Streets Sea Isle City, NJ Construction Cost: $192,000	Maser Consulting P.A.	Study, Design, Construction Administration	Project Engineer	12	30%	3/2016 -2/2017	City of Sea Isle City Business Administrator
Construction of 43rd Place Bulkhead Sea Isle City, NJ Construction Cost: $235,000	Maser Consulting P.A.	Study, Design, Construction Administration	Project Engineer	12	30%	1/2013 -4/2014	City of Sea Isle City Business Administrator
47th Place Bulkhead Reconstruction Sea Isle City, NJ Construction Cost: $134,000	Maser Consulting P.A.	Study, Design, Construction Administration	Project Engineer	12	30%	1/2011-9/2011	City of Sea Isle City Business Administrator
Sea Isle City Public Marina Reconstruction Sea Isle City, NJ Construction Cost: $2,600,000	Maser Consulting P.A.	Study, Design, Construction Administration	Project Manager	18	30%	12/2009 -5/2012	City of Sea Isle City
Townsend's Inlet Bulkhead & Terminal Groin Sea Isle City, NJ Construction Cost: $1,267,000	Maser Consulting P.A.	Study, Design, Construction Administration	Project Engineer	24	20%	7/1998 - 5/2000	City of Sea Isle City

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Raymond Walker, PhD, PWS

TITLE Environmental Permitting

FIRM Maser Consulting P.A.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	* CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Forked River State Marina Bulkhead Replacement Forked River, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	Ecological Services/Environmental Permitting	Waterfront Permitting	3	25%	3/2018-Present	New Jersey Department of Treasury [redacted]
Leonardo State Marina Bulkhead Replacement Leonardo, NJ Construction Cost: $1,000,000	Maser Consulting P.A.	Ecological Services/Environmental Permitting	Waterfront Permitting	6	25%	8/2017-2/2018	New Jersey Department of Treasury [redacted]
Leonardo State Marina East Jetty/Bulkhead Replacement Leonardo, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	CAFRA, Waterfront Development, and Wetlands Permits for Bulkhead Installation	Waterfront Permitting	8	20%	8/2016-4/2017	New Jersey Department of Treasury [redacted]
Borough of Sea Bright Bulkhead Replacement Sea Bright, NJ Construction Cost: $1,000,000	Maser Consulting P.A.	CAFRA, Waterfront Development, and Wetlands Permits for Bulkhead Installation	Waterfront Permitting	12	20%	5/2012-2/2013	Borough of Sea Bright [redacted] Borough Administrator [redacted]
Middletown Bulkhead Installation Middletown, NJ Construction Cost: $250,000	Maser Consulting P.A.	CAFRA, Waterfront Development, and Wetlands Permits for Bulkhead Installation	Waterfront Permitting	6	20%	12/2010-4/2017	[redacted]
Oceanport Boat Ramp Rehabilitation Oceanport, NJ Construction Cost: $317,000	Maser Consulting P.A.	CAFRA, Waterfront Development, and Wetlands Permits for Bulkhead Installation	Waterfront Permitting	6	20%	8/2014-6/2015	Borough of Oceanport [redacted] Borough Clerk [redacted]

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Michael Carnivale, PE

TITLE Geotechnical Engineering

FIRM Maser Consulting P.A.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Forked River State Marina Bulkhead Replacement Forked River, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	Geotechnical Engineering	Geotechnical Engineer	2	20%	3/2018-Present	New Jersey Department of Treasury
Leonardo State Marina Bulkhead Replacement Leonardo, NJ Construction Cost: $1,000,000	Maser Consulting P.A.	Geotechnical Engineering	Geotechnical Engineer	2	20%	8/2017-Present	New Jersey Department of Treasury
New Marina Office, Leonardo State Marina Leonardo, NJ Construction Cost: $100,000	Maser Consulting P.A.	Geotechnical Engineering	Geotechnical Engineer	1	30%	7/2015	New Jersey Department of Treasury
Repair of Boat Slip Bulkheads, Point Pleasant Canal, Point Pleasant, NJ Construction Cost: $1,000,000	US Army Corps of Engineers, Philadelphia District	Geotechnical Engineering	Geotechnical Engineer	7	35%	10/2004-5/2005	US Army Corps of Engineers, Philadelphia District 215.656.6500

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KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

NAME Eric Wilde, PLS

TITLE Survey Services

FIRM Maser Consulting P.A.

PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE	A/E OF RECORD FOR THIS REFERENCED PROJECT	SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONSTRUCTION ADMINISTRATION)	TEAM MEMBERS SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT	DURATION OF TEAM MEMBER'S INVOLVEMENT OF THE REFERENCED PROJECT (IN MONTHS)	% OF TIME DURING DURATION BASED UPON A 40 HOUR WEEK	DATES OF THE TEAM MEMBER'S INVOLVEMENT IN THE REFERENCED PROJECT	CLIENT NAME CONTRACT PERSON AND PHONE NUMBER
Leonardo State Marina Bulkhead Replacement Leonardo, NJ Construction Cost: $1,000,000	Maser Consulting P.A.	Land Survey	Survey Manager	1	20%	9/2017 - 10/2017	New Jersey Department of Treasury
Leonardo State Marina East Jetty/Bulkhead Replacement Leonardo, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	Land Survey	Survey Manager	1	20%	9/2017 - 10/2017	New Jersey Department of Treasury
Forked River State Marina Bulkhead Replacement Forked River, NJ Construction Cost: $1,500,000	Maser Consulting P.A.	Land Survey	Survey Manager	1	25%	3/2018-4/2018	New Jersey Department of Treasury
Long Branch Yacht Club Long Branch, NJ Consulting Value: $11,400	Maser Consulting P.A.	Land Survey	Survey Manager	1	20%	11/2017-12/2017	Long Branch Ice Boat and Yacht Club
Park Avenue Waterfront Property Survey Island Heights Borough, NJ Consulting Value: $4,000	Maser Consulting P.A.	Land Survey	Survey Manager	1	30%	11/2017-12/2017	Borough of Island Heights

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FIRM NAME	KEY PERSONNEL & TITLE	PERCENTAGE OF TIME ASSIGNED TO PROJECT						
		DESIGN DEVELOPMENT PHASE	FINAL DESIGN PHASE	PERMIT APPLICATION PHASE	BIDDING AND CONTRACT AWARD	CONSTRUCTION PHASE	PROJECT CLOSE-OUT PHASE	HOURLY WAGE LEVEL 1-7
Maser Consulting P.A.	Richard Maloney, PE, Project Manager	40	40	30	30	30	30	7
Maser Consulting P.A.	Paul Nolan, PE, QA/QC and Construction Administration	25	25	20	20	40	40	6
Maser Consulting P.A.	Lukman Osi, PE, Assistant Project Manager & Waterfront/Structural Engineering	40	40	30	30	30	30	5
Maser Consulting P.A.	Andrew Previti, PE, Civil Engineering/Cost Estimating	30	30	20	20	25	20	5
Maser Consulting P.A.	Raymond Walker, PhD, PWS, Environmental Permitting	25	15	25	0	5	0	5
Maser Consulting P.A.	Michael Carnivale, PE, Geotechnical Engineering	40	0	0	0	0	0	5
Maser Consulting P.A.	Eric Wilde, PLS, Survey Services	40	0	0	0	0	0	5

INSERT THE WAGE LEVEL FROM 1 TO 7 OF EACH KEY PERSON. **DO NOT INSERT ANY HOURLY RATE**

Team Background

Maser Consulting is a multi-disciplined firm with a team of experienced professionals who have been providing an extensive array of waterfront services to clients throughout New York and New Jersey since 1984. The project team has experience and expertise with rehabilitation of marinas, boat ramps, fixed docks, floating docks, gangways, breakwaters and design of similar shoreline structures. Furthermore, Maser Consulting - and more specifically the **Project Manager for this project, Richard C. Maloney, PE – has extensive experience working on Department of Property Management & Construction (DPMC) projects for over 17 years,** making us very familiar with the procedures and requirements of the agency. We have worked as prime consultant and sub-consultant on many DPMC projects over the years, including marine projects at **Leonardo State Marina, Liberty State Park, and Forked River State Marina. Mr. Maloney is currently the project manager and Engineer of Record for the projects at Leonardo State Marina, Forked River State Marina and the Barnegat Lighthouse State Park.** Some of these projects are outlined in our cover letter at the beginning of the proposal.

Having worked on numerous projects with the DPMC, our team is very familiar with the various project phases, consultant design and construction responsibilities, contract deliverables, plan review comments, designated forms, and other project requirements that are outlined in the Scope of Work. We have successfully followed these procedures to bring all of our DPMC projects to a satisfactory completion and are confident we can provide those services on this project.

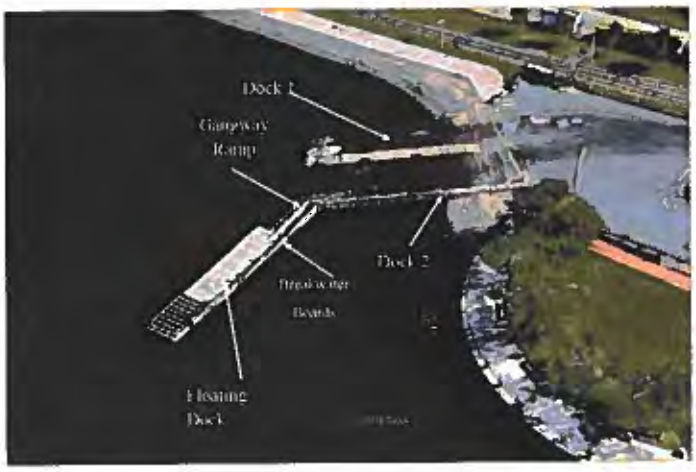
Maser Consulting's staff consists of structural engineers, marine engineers, civil engineers, environmental permitting specialists, surveyors, construction administrators/inspectors, and many other professionals that have the experience to provide the design services necessary for the successful completion of this project. Maser Consulting is pre-qualified with the NJ DPMC in the required disciplines: P2P Marine Engineering and P017 Hydrographic Surveying. **For this project, all of the services will be performed by in-house staff. Having all services in-house will provide us with full control and a better ability to maintain the critical schedule for this project.**

Our core waterfront team has worked together for many years and has worked together on many of the aforementioned projects. Reference the included resumes (Section 2) and Key Team Member Project Experience Data Sheets (Section 3) for additional information on each team member. Also, reference the included Project Sheets (Section 1) for some of our firm's related waterfront experience.

Project Understanding/Approach

Maser Consulting has thoroughly reviewed the RFP's Scope of Work, performed a site visit, and attended the pre-bid meeting for this project, and we have a full understanding of the requirements and expectations for this project. We understand the history of the boat ramp and its use by many critical local, state and federal agencies.

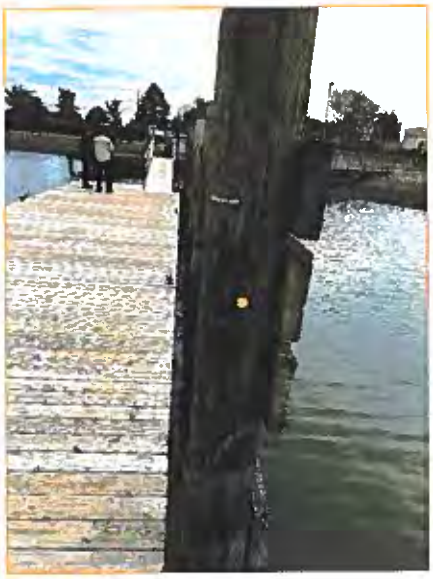
It is our understanding that the objective of this project is to replace in-kind the existing gangway, floating dock, deteriorated breakwater; and to provide recommendations to repair or replace fixed dock #2. Fixed dock #1 and the actual boat ramp are not included as part of this project. Further, it is required that the entire dock system be "Barrier Free" compliant upon completion of this contract. This project is a straight forward project. **We have outlined the anticipated scope on the attached Concept Plan (Figure 1),** and discuss each element below.



Floating Dock

The existing floating dock is approximately 8' x 60' and the intention is to replace with a new floating dock of similar size. We will layout the project after completing the as-built and topographic survey and work with the State to determine the actual final dock dimensions.

The existing floating dock appears to be a timber-framed floating dock built over pontoons. The existing floating dock contains a timber deck (good for non-skid surface) and cleats along its edges. **The existing floating dock is not very well secured and appears to simply be chained to the deteriorated breakwater pilings. This is a poor arrangement as the slack required on the chain to address tides allows the dock to float away from the breakwater when the tide is low**; and the full extent of the chain slack might not be enough for storm surge tides.



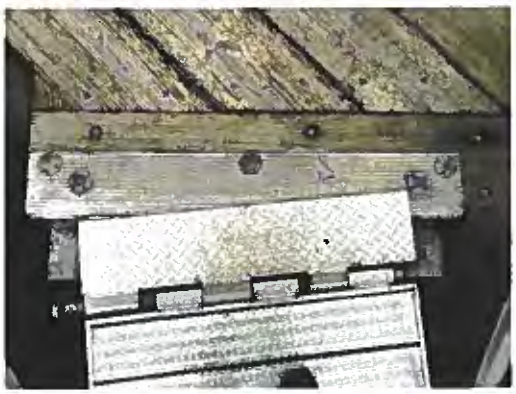
For this project, we will specify a new floating dock that contains a non-skid surface, contains cleats and contains a structure that can provide a stable installation for its intended purpose. Floating docks can be framed from various options (wood, aluminum, concrete). We will work with the State to review the pros and cons of each option, so the final specified product meets the needs of the client and can provide long-term and stable performance at its current location. Some important things to consider are the stability of the dock, and its non-skid surface. We are hesitant to recommend composite decking on floating docks due to the fact that they usually contain a wet surface and people typically use this surface as platform to load/unload to the boat, which many times includes lateral and jumping movements. We typically recommend a concrete or grit type surface, and will review these features during the design process.

The second item that we would suggest for the floating dock is adding true 'guide' piles that allow the dock's position to be maintained but allows the dock to glide up and down the guide pilings with rollers that secure the dock to the pilings. This arrangement is pretty much the standard for floating docks and will remove the issue that exists today with the dock being able to float in all directions because it is only chained with a fair amount of slack in the chain. **When berthing a boat against the floating dock, if there is no 'structure' (guide piles) to resist the berthing load, the existing floating dock will just move from the berth load of the boat until the chain pulls taunt and then jerks the dock.** This also plays havoc with the gangway that is only resting on the floating dock. Its movement compromises the gangway support. The only issue with this proposed suggestion is the fact they we would need to add approximately three pilings to act as guide pilings. We do not believe this would be a permitting issue and will work with the NJDEP and USACE as required to accommodate this highly recommended improvement. With regards to the guide pilings, standard for this area is composite pilings that provide a smooth, perfectly uniform round shape and long-term life with no exposure to marine borers and limited effects to the dock rollers. As such, we would suggest composite pilings for the guide pilings.

Gangway

The **existing gangway is aluminum, currently too short to meet Barrier-Free requirements** and contains a very concerning connection at its top termination to the fixed dock. These conditions can all be addressed as the gangway is slated to be replaced.

Aluminum is the standard for gangways, providing long-term performance with minimal corrosive elements. As such we will recommend specifying aluminum for the new gangway. The biggest issue with the existing gangway is that it is only 25-feet long and does not contain the ability to provide Barrier-Free compliance under the full normal tide range. The only method to addressing the large tide swings in providing access to a floating dock is to provide a longer gangway. This becomes very impractical where there are large tide swings. The tide swing at this location is almost five feet. The federal Access Board (who covers federal ADA standards) and the NJUCC (Barrier-Free subcode) state that if Barrier-Free access cannot be fully provided due to the tide swing without an extremely long gangway, then providing a 30-foot long gangway will meet the requirements of each code. As such, **we would provide a 30-foot long gangway to maintain compliance with Barrier-Free requirements.**



Finally, we would insure that the connection of the new gangway will have a structurally sound and performance-lasting connection to the fixed dock.

Fixed Dock #2

The fixed dock #2 is in fair condition. The framing is okay, but the decking and timber pilings are in poor condition, not to mention the railing could use some improvements. We will study the fixed pier in more detail if we are awarded the project to flesh out a complete recommendation, but our first impression is the following. **The timber pilings contain a large**

amount of marine borer damage in the tidal zone, and it may be beneficial to replace these pilings (and in turn the fixed dock) while a pile driver is mobilized to the site for the pilings required for the breakwater and floating dock. This would be our recommendation and something we can discuss during the design phase of the project. Replacing the fixed dock would also address the timber decking and allow for installation of a new railing. As far as pilings for the fixed dock, we would recommend greenheart timber pilings for the longest lasting option for a timber deck structure. Composite pilings do not work well with a fixed dock due to the challenges with cutting and notching the pilings for the deck framing. Greenheart pilings have a proven track record in this area with regards to resisting marine borer activity and providing a long-lasting lifespan.

As part of the fixed dock work, we will also address any upland connection to the existing sidewalk, etc. to provide a smooth, and Barrier-Free transition from the upland facilities to the fixed dock, and in turn all the way out to the floating dock. We will also update, provide or replace any signage as required or recommended.

Breakwater

The breakwater is in poor condition with marine borer activity observed in the pilings and extensive deterioration and missing timber boards across the breakwater. The proposal requests for replacement in kind of the breakwater. We agree with this action. One thing we see with this breakwater, which is consistent with all other breakwaters is that the timber boards have an accelerated deterioration rate and fail pre-maturely. We would suggest replacing the breakwater in its exact location and to its same dimensions, but we would **highly suggest the pilings and most notably the boards consist of a non-corrosive composite material along with stainless steel hardware. This is the only construction approach we have seen that provides a long-lasting performance in a breakwater.** This should not be an issue from a permitting perspective as we are removing any potential wood treatments and replacing with a more ecological friendly product.

We would also improve upon the connection and splicing configuration that exists on the present breakwater, as this configuration contributed to the premature loss of boards. Our office has designed several projects in this area, including two on Liberty State Park and are familiar with the wave forces in this area. Our design of the new breakwater will consider the exposure to these wave forces, including the design of the pilings.

The contract specs will require the contractor to maintain construction operations such that the use of the existing boat ramp cam be maintained throughout construction. We understand the extent of agencies using this ramp for critical activities and will insure that the use of the ramps will not be limited by the dock replacement construction.

Permitting

This project requires a NJDEP Waterfront Development Permit for all of the items outline above. All items are in waters and below the Mean High Water line. All items are existing and we assume that all items are legally permitted. The State of NJ controls all property below the Mean High Water line, and it is assumed that a Tidelands conveyance is granted for the existing structures. Our office will research the tideland conveyance as required.

As far as the Army Corps of Engineers (ACOE) Permit, the project should comply with the requirements of a SPGP (State Programmatic General Permit) or require a Nationwide Permit. As part of our scope we will cover either type of ACOE permit.

The environmental permitting may very well include some in-water work scheduling restrictions. Our office has designed and permitted several projects in the area adjacent to this project, including two projects right at Liberty State Park. These other projects have all included, as conditions of the permit, in-water sediment disturbance and pile-driving restrictions. There have been several reasons for the restrictions that include the presence of the Atlantic and short-nose sturgeon, the spawning of anadromous species (river herring, shat, striped bass) and the presence of winter flounder. The restriction periods have run from March 1 thru June 30, March 15 thru June 30, and January 1 thru May 31 respectively. We do not know if such restrictions will be placed on this project, but the possibility definitely runs high. Essentially the restrictions can cover from January 1 thru June 30. We have addressed these potential limitations in our Project Schedule narrative in the next section of the proposal.

The new docks, gangway, breakwater, etc. are in a FEMA flood zone. However, given the nature of what they are, there is no real restriction to the proposed construction other than the proposed elements need to be able to address the flood and wind forces, and that the floating dock and gangway are designed to remain secure during a storm event. Our design will consider all of these requirements. Further, since this property is State-owned property, the project will require plan approval from the NJDEP Bureau of Flood Control due to its location in a FEMA food zone. We will communicate with Flood Control, make the required submittal and obtain the requisite plan approval.

Permit Fees are outlined in the Fee Proposal. The NJUCC and NJDEP permit fees are waived. The only potential permit fee is the ACOE permit.

Schedule

As you can see in the Project Schedule section of our proposal, we have developed a schedule consistent with the schedule estimated in the RFP, with some improvements made. Further **we outline a schedule that allows the project construction to occur in the fall, right after the peak season ends on October 1.** We have developed a game plan to ensure we stay on track with this schedule and the Contractor is positioned to have approvals in hand and the ability to order long lead items far before the actual date of the start of field construction. Please see the next section of this proposal for a detailed narrative on the project schedule.

Cost Estimate

We understand that the RFP includes an initial Construction Cost Estimate (CCE) of $370,000. As part of our due diligence for this proposal, we have prepared a preliminary cost estimate (see attached). Our estimate is very close to the proposal's CCE. Our estimate is $384,200. Please see attached cost estimate at the end of this section for a breakout of our items and estimated costs. These are based on bids our office has seen on waterfront projects over the years, including other State funded projects. We anticipate this to be a straight forward dock replacement project – the only variables that may impact the cost estimate is the size of the project. It is a relatively small project, and some (maybe many) contractor's may throw on a 'small job' charge to make it worth their while. We will see. They will get competitive prices from the floating dock and gangway suppliers, but the project has to be managed by a General Contractor qualified with the DPMC, and after these two items and material costs, there isn't a large labor effort on their part.

Scope of Work

Maser Consulting takes no exceptions to the DPMC's Scope of Work for this project. Below, we outline and supplement the Scope of Work as we believe necessary to provide proper knowledge and design to be able to provide a successful and on-budget project.

A. Kickoff Meeting

At the start of the project, Maser Consulting will hold a kick-off meeting with all team members, including the DPMC, DEP, and other interested parties. The purpose of this meeting is to meet all personnel involved with the project and to determine the final product desired. At this meeting, Maser Consulting, along with the DPMC and DEP, will develop a project vision. This vision will help guide the project to a successful completion. Project risk factors will be identified, as will a preferred communications method between the DPMC, DEP, and Maser Consulting. All these items will help to bring the DPMC, DEP, Maser Consulting, and the other interested groups together to keep the project on schedule, within budget, and in accordance with the Vision. As part of this meeting, we will submit an updated Design Schedule.

B. Surveys

1. Site Investigation

After the kickoff meeting, Maser Consulting will perform a more in-depth investigation before starting the design on this project. Primary components of the site investigation include:

- A full-length structure inventory and condition assessment. (We do not see the requirement for any underwater diving for this project);
- Hydrographic survey;
- Topographic survey;
- Meteorological conditions (flood elevations, wind/wave conditions, tidal datums, etc.);
- Property ownership considerations (riparian rights, tidelands, etc.); and,
- Review of any existing studies, plans, and reports that may exist of the project site.

2. *Site Hydrographic & Topographic Survey*

Upland Topographic Survey – Maser Consulting will prepare a topographic survey of the docks and breakwater and immediate surrounding area. The survey data (point cloud) will be registered and geo-referenced to New Jersey State Plane coordinates (NAD '83 and NAVD '88). We will provide Raw XYZ survey data, edited XYZ survey data, and an AutoCAD file in ".dwg" format. Our survey will meet DPMC and DEP standards for Survey Data. We will provide Tidal Data with adjustments between MLLW, NGVD '29 and NAVD '88. All survey data will be referenced to National Geodetic Survey monumentation.

Hydrographic Survey – Maser Consulting will perform a hydrographic survey of the area in front of the project limits to address existing conditions surrounding the existing dock structures and as required for permitting.

All of the hydrographic and topographic survey information referenced above will be collected and mapped under the direction of a NJ Licensed Professional Land Surveyor and will meet National Map Accuracy Standards for topographic surveys.

C. Geotechnical Investigation

Considering the extent of this project and are knowledge of the wave and other load forces on the subject structures and our knowledge of the soils in the area, we do not see the need for a geotechnical investigation.

The vertical load requirements on the pilings for this project are very minimal and can be addressed by even the poorest soils. The large loads on the pilings are the lateral (horizontal) loads. The variability of the soil in the project area will not have a major impact on our design of the pilings for lateral loadings. Even with conservative assumptions for soil conditions, the impact on our final design will be minimal.

D. Environmental Permitting

Permits required for the proposed work include the following:

Bulkhead Replacement

- NJDEP Waterfront Development Permit
- US Army Corps of Engineers, SPGP (State Programmatic General Permit) or a Nationwide Permit.
- NJDEP Bureau of Flood Prevention Plan Approval since project is in e FEMA flood zone.
- NJ Building Subcode Permit (most likely for Barrier Free elements)
- No Soil Conservation District permit is required for this project.

Maser Consulting will prepare the survey, research, and engineering necessary for the permit applications. We will prepare the permit application packages for the NJDEP and ACOE permits. The application will include dock replacement engineering plans. Maser Consulting does not anticipate any particularly controversial components of the application, given the fact that it is essentially an in-kind replacement of an existing structure. The caveat is that the existing structures are legally permitted.

We recommend and have included a Pre-Application meeting with the NJDEP to discuss the project prior to a formal submittal. We have found that a Pre-App meeting provide information to all parties prior to the submittal process and ultimately leads to a smother permitting process. Even if the NJDEP doesn't feel the need for an on-site Pre-App meeting, the email dialogue and exchange of project information serves its intended purpose.

We assume that barrier-free access requirements to the floating dock will trigger a NJ Building permit. We have included the preparation and submission of one. Maser Consulting will prepare the application and provide to the DPMC for submission to NJDCA Plan Review.

The project does not require a Soil Erosion and Sediment Control (SESC) Plan Certification as almost all work is in the water and covered under the NJDEP and ACOE permits. The upland work is very limited and far below the disturbance limit of 5,000 SF.

We have included a permit allowance in the Fee Proposal to cover the ACOE Permit. The NJDEP and NJUCC permits will not require a permit fee, as the applicant is the State of New Jersey.

E. Engineering

We will perform engineering design as required for all elements of the project. Many engineering aspects of the project have been discussed above. We will prepare engineering drawings to cover all of the project elements, including an overall site plan and all structural and civil items. We will prepare Permit Drawings to support the permit packages. We will provide Project Specifications in Masterspec format. We will work with the DPMC/DEP to incorporate their General Conditions. We will provide Cost Estimate (including Form 38) at each phase of the project.

We will discuss with DPMC/DEP all material selections, design details, decking type, railing type, etc. Further, we will discuss any upland improvement options. These will be completed as required and requested by the DPMC to provide a finished improvement. We will provide full signed and sealed calculations of all of our structural designs.

We will review our findings and design decisions with the DPMC and DEP as we progress though design to ensure we are on the same page. We understand the experience in coastal structures that both agencies (DPMC and DEP) bring to the table and would like to include that knowledge into our design during the preliminary phases of the project. This will include any information that Park personnel have regarding the use of the ramp and dock system by themselves and the other using agencies.

F. Design Submissions

Design submissions will be in full conformance with the Project's Scope of Work and the DPMC's Procedures for Architects and Engineers Manual. Reference our Project Schedule discussion (next Section) for a thorough outline of the project phases.

The first submission will be the Design Development Submission as outlined in the RFP, which includes all of the surveying data and maps, site investigation, Preliminary Design

Drawings, and Construction Cost Estimate. This submission, as well as all others, will include meeting and presenting the plans for review and discussion. Upon review and receiving comments back regarding our Design Development Submission, we will immediately initiate the development of Final Design Plans and submit NJDEP/ACOE permit plans. As discussed above, we will include all required permitting data and information required by the DEP. We will also provide the required number and size of electronic and hard copy deliverables required for permitting submissions. We will make any revisions and address any comments required to address the permitting agencies during this period. We will submit Final Design to the DPMC, including deliverables of Drawings, specifications, cost estimate, code review comments, etc. Upon receiving plan review comments for Final #1 submittal, we will address all comments and immediately submit again (Final #2) to complete Final Design Phase (minus 'prior approvals' – the NJDEP permits which usually come in shortly after the Final #2 phase.)

After receiving all NJDEP permit approvals, we will proceed to the NJUCC Permit Phase followed by Bid and Award Phases.

G. Construction Administration Approach

Maser Consulting will provide construction inspection and administration services in full conformance with the Project's Scope of Work and the State's Procedures for Architects and Engineers Manual. We will observe any critical construction activities and will monitor the work progress by the contractor.

Maser Consulting has extensive experience managing construction projects such as this, and we have managed numerous waterfront projects throughout the state of New Jersey. Maser Consulting has extensive experience in bringing construction jobs to a successful completion, on-time and on budget. The construction management team will include a construction manager, a field inspector, and a contracts manager

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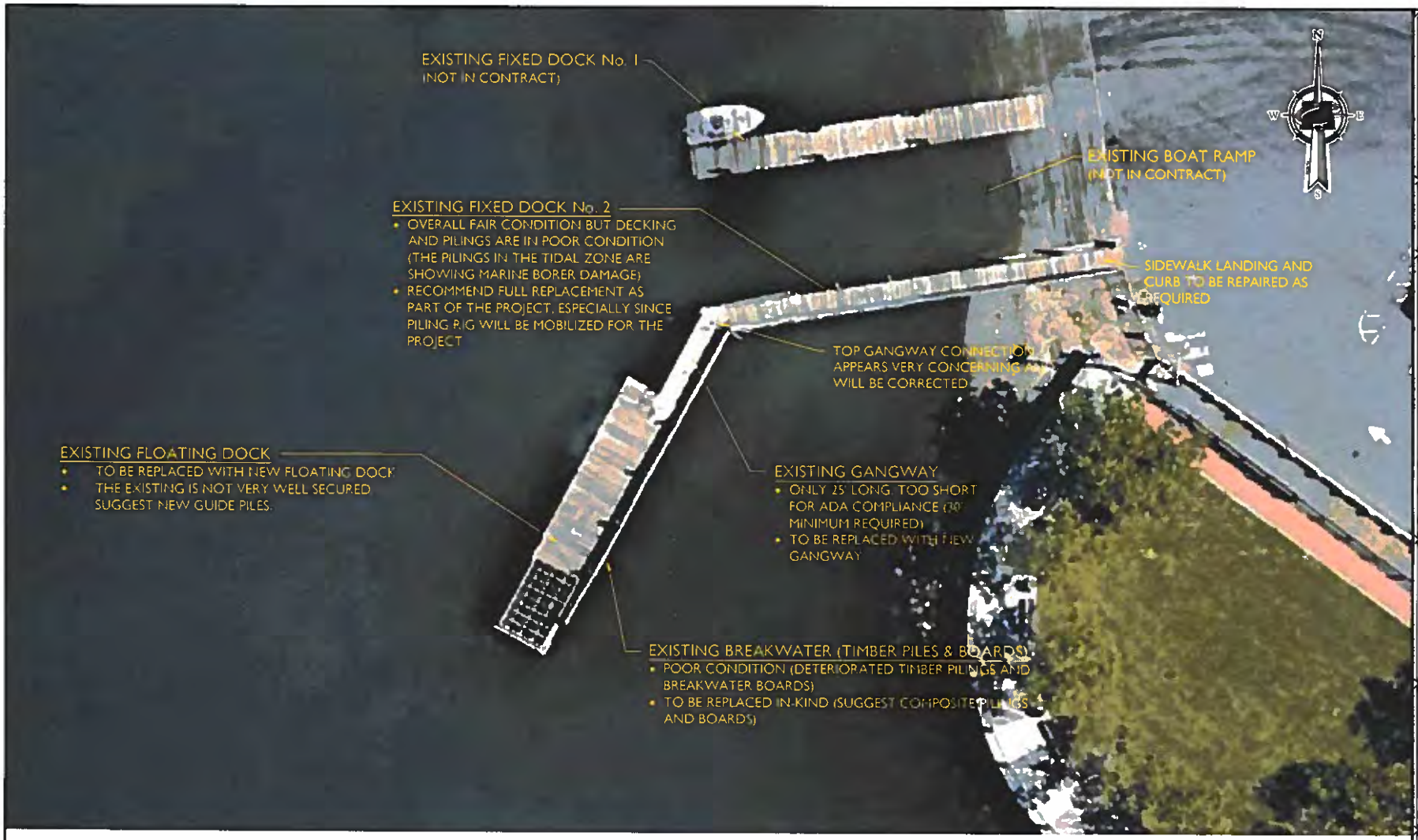
In summary, Maser Consulting has the experience, the technical knowledge, the resources, and the understanding to fully design and prepare excellent Project Plans and Specifications for this project. We feel we have a strong rapport with the DPMC from past projects and a full understanding of the DPMC's logistics and goals. We hope that we have gained the DPMC's trust over the years from these projects and it is our goal to continue to provide top-notch services to the DPMC.



DOCK REPLACEMENT - LIBERTY STATE PARK

PROJECT No. P1179-00

20 16 12 8 4 0 10 20 40

SCALE : 1" = 20'

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FOR
LIBERTY STATE PARK

P1179-00
JERSEY CITY
HUDSON COUNTY
NEW JERSEY

RED BANK OFFICE
Corporate Headquarters
321 Newman Springs Road
Suite 200
Red Bank, NJ 07701

Phone: 732.383.1950
Fax: 732.383.1984

SCALE	DATE	DRAWN BY	CHECKED BY
AS SHOWN	11/08/10	ABD	RCH

PROJECT NUMBER: 11080-MBA
DRAWING NAME: 11-MBA-HCR2

PLAN TITLE: OVERALL PLAN

PLAN NUMBER: FIGURE 1

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DOCK REPLACEMENT
LIBERTY STATE PARK
JERSEY CITY, HUDSON COUNTY, NJ
PRELIMINARY BUDGET ESTIMATE
NOVEMBER 8, 2018

ITEM	DESCRIPTION	UNIT	TOTAL QTY	UNIT PRICE	ITEM TOTAL
1	MOBILIZATION	LS	1	$50,000.00	$50,000.00
2	GENERAL WORK (misc. upland, cleats, signage, etc.)	LS	1	$40,000.00	$40,000.00
3	SITE DEMO/ EXIST DOCK DEMO	LS	1	$50,000.00	$50,000.00
4	NEW DOCK REPLACEMENT	SF	450	$200.00	$90,000.00
4a	RAILING ON FIXED DOCK	LF	90	$80.00	$7,200.00
5	INSTALL GANGWAY	LS	1	$23,000.00	$23,000.00
6	INSTALL NEW FLOATING DOCK	LS	480	$75.00	$36,000.00
7	INSTALL NEW GUIDE PILES	LS	3	$6,000.00	$18,000.00
8	INSTALL NEW BREAKWATER	LF	70	$1,000.00	$70,000.00
			SUBTOTAL		$384,200.00

Maser Consulting has reviewed the 'Project Schedule' in the RFP. Further, we understand the importance of construction of this project in the off-peak season of the boat ramp.

This project is a pretty straight forward project from a construction standpoint. **It does contain some environmental permitting that may very well include some in-water work scheduling restrictions.** Our office has designed and permitted several projects in the area adjacent to this project, including two projects right at Liberty State Park. These other projects have all included, as conditions of the permit, in-water sediment disturbance and pile-driving restrictions. There have been several reasons for the restrictions that include the presence of the atlantic and short-nose sturgeon, the spawning of anadromous species (river herring, shat, stripped bass) and the presence of winter flounder. The restriction periods have run from March 1 thru June 30, March 15 thru June 30, and January 1 thru May 31 respectively. We do not know if such restrictions will be placed on this project, but the possibility definitely runs high. Essentially the restrictions can cover from January 1 thru June 30.

With a peak boat ramp season of May 1 though October 1, the only window left for construction is the fall season from October thru December. Our schedule below, with a little luck from the timing of this RFP, allows this preferred construction period to work out.

We agree with most of the estimated phase durations in the project's RFP. Some of the time frames are tight, but with proper priorities we can achieve these times.

Our schedule assumes a contract award on December 10, 2118, approximately 4 weeks after the proposal due date. We agree with the 2 weeks for Site Access Approvals and Kick-off meeting. As experience has shown from the NTP, it takes approximately this amount of time to schedule the kick-off meeting based on the availability of all parties.

As discussed previously, since we are performing all aspects of the survey and design work of this project in-house, we are confident that we can control our schedule and perform our designs in or under the designated time frames. Further, with our extensive experience working on DPMC projects for over the last 17 years, we fully understand the procedures and requirements for these projects. We are fully versed in the submittals requirements and the format required on all documents. We have weathered the DPMC Plan Review Group many times and fully understand what is required to obtain on-time approvals.

The biggest challenge and potentially time-consuming aspect of the design phases is getting the survey, both topographic and hydrographic, crews scheduled and mobilized and obtaining completed survey plans that can be used for design. Knowing the tight time frame of the Design Development Phase and the importance of maintaining that time frame, we would immediately schedule our survey crews as soon as we were given un-official word that the project was awarded to Maser Consulting. This would simply involve getting our crews to commit to this project on their schedules and allow through careful coordination with these crews to have them mobilize and start actual work almost immediately after we obtain our official Notice to Proceed. This approach would eliminate the usual lead time required for these crews. **We are confident with proper planning we can meet the Design Development Phase estimated duration of 42 calendar days – a task we have successfully completed on all recent DPMC projects.** We understand that there is no Schematic Phase for this project and agree that we can go from kick-off to 50% submittal, as almost the entire project vision has been determined. There is some field investigative work required to complete our design recommendations, including whether to rehab or replace the fixed dock (Dock No. 2), but we are confident that we can complete this task within the allotted schedule. We will be available immediately to attend any review meetings and provide an oral presentation on our design.

Upon receiving reviewed Design Development Phase review documents and comments, we will immediately start the next phase of the project – Final Design Phase (100%). As with each phase, we will address the comments provided by all agencies on our previous Phase documents. It would also be our intention at this point to prepare and submit NJDEP/ACOE permit submittals immediately upon DPMC review approval, submitting the documents from this phase for the required permitting (NJDEP, ACOE).

Submitting at this stage would allow the project to maintain the estimated schedule included in the RFP as the NJDEP permitting usually becomes the critical path for these types of projects.

We have included a 90-day estimated duration to obtain the required permits by the NJDEP/ACOE. We understand and will be immediately responsive to any requests for information during this period, as well as performing the Scope of our Final Design Phase. Our schedule assumes we will perform Final Design Phase work while we are waiting on permit approvals in order to accelerate the project timeline. We will have DPMC plan review comments and any comments from the respective DPMC and DEP representatives and will prepare Final Design Phase (100%) documents while awaiting the permit approvals. **We plan on submitting our Final Design Phase #1 in 28 calendar days, 14 days less than the RFP listed 42 days.** We believe our previous phase will be way past 50%, plus based on our experience, we have great efficiencies that will allow us to meet this shortened schedule.

Based on our experience with the DPMC Plan Review, and as suggested by DPMC representatives, we have included a Final Design Phase #2, which we anticipate will be needed to address a few outstanding comments in the plan review process. We believe we can turn this Phase around in 7 calendar days, as the comments should be limited. With all comments addressed at this point, the only thing left will be NJDEP/ACOE permit approvals. These should be received within weeks, if not sooner, of us finishing the plan review portion of the submittals. Immediately upon receiving the NJDEP/ACOE permits, we will submit the NJUCC permits and signed plans for the Permit Application Phase. We will have the NJUCC permits completed and ready to go, so once the NJDEP permits are received we can immediately deliver the complete package to the DPMC.

We will then support the DPMC on the Bid Phase and Award Phase. The time frames for these phases are based on historic experience and the State's procurement process. We take no exception to the Award Phase of 28 calendar days and are good with the 42 days for the Bid Phase.

Finally, the Construction Phase! The RFP estimates a Construction Phase duration of 120 days (4 months). We calculated an independent schedule and came up with the same duration, see below for our outline and reasoning for this phase. As discussed above, the preference for this project is to perform the construction outside the peak season (May 1 to October 1). Further, there may very well be in-water work restrictions that could run from January through June. This essentially leaves a construction window from October to December.

In following the schedule we have outlined, we are able to start awarding the contract in early July, with anticipated Notice to Proceed in early August. We believe the actual in-water demo and construction for this project should only take about 6 weeks once all items are on site. This project contains two items, the gangway and floating dock, that will require some lead time for approvals and delivery. As such, **we believe specifying the below schedule in the project contract will allow the construction of this project to occur at the perfect time of the year.**

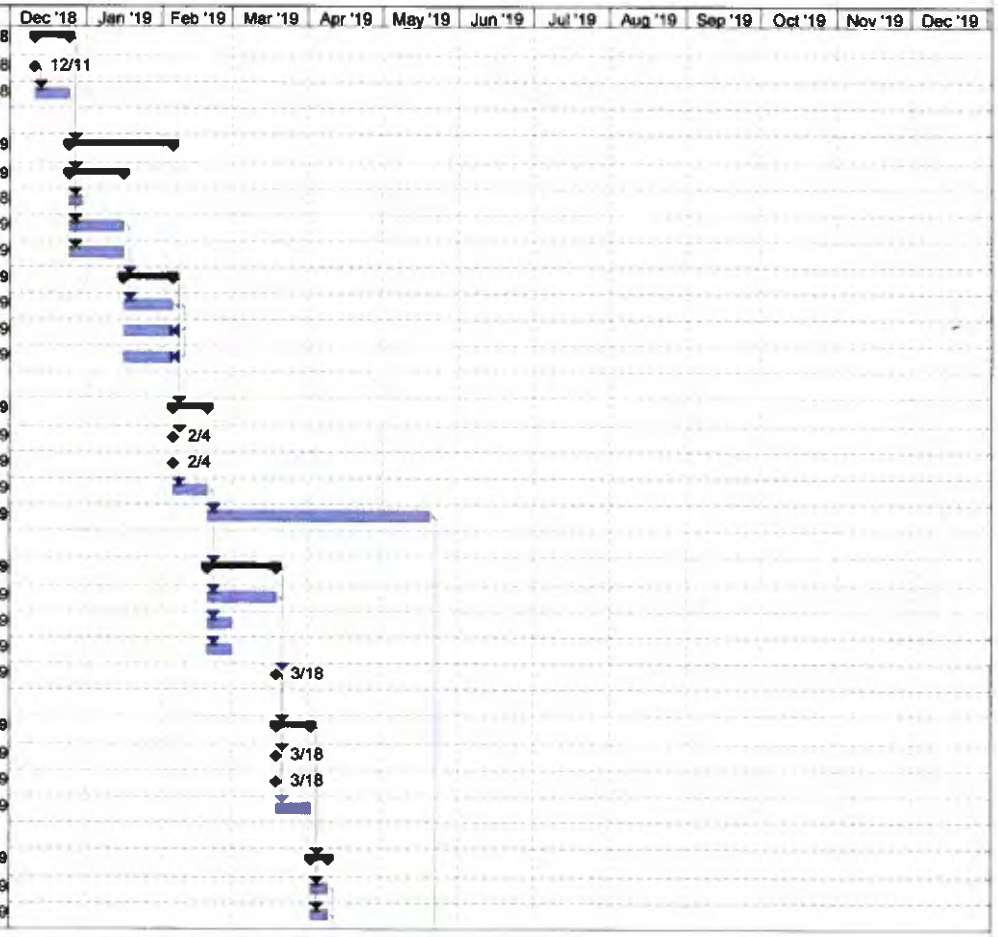
Notice to Proceed:	Early August
Submittals:	(24 days) August 5 to August 28, 2018
Order Long Lead Items:	(45 days) August 29 to October 12, 2018
Actual Field Construction:	(45 days) October 4 to November 17, 2018

We award the contract at the beginning of August, allowing the contractor over 3 weeks to get his submittals reviewed and approved. This will give him about 6 weeks to order his long lead items. We will dictate that field work cannot start until October 4th. This will push actual field work past the peak season and allow the long lead items time to be on site near the start of construction.

The actual project is small, and should be able to be completed in 6 weeks if he has all materials at hand. Assume 1 week for demo, 1 week for pile driving (only about 20 piles or so), 1 week for dock reconstruction, 1 week for breakwater construction, a week to set the gangway and floating dock and a week for final touches and clean up. These time frames are conservative. The contractor just has to

Dock Replacement
Liberty State Park
Jersey City, Hudson County, New Jersey

ID	Task Name	Duration	Start	Finish
1	**Phase I - Contract Awarded**	**14 days**	**Tue 12/11/18**	**Mon 12/24/18**
2	DPMC Awards Contract	0 days	Tue 12/11/18	Tue 12/11/18
3	Pre-Design Meeting (Kickoff Meeting)	14 days	Tue 12/11/18	Mon 12/24/18
4				
5	**Phase II - Design Development Phase (50%)**	**42 days**	**Tue 12/25/18**	**Mon 2/4/19**
6	**Schematic Investigations**	**22 days**	**Tue 12/25/18**	**Tue 1/15/19**
7	Site Visit/Field Inspection	5 days	Tue 12/25/18	Sat 12/29/18
8	Survey (Topographic)	22 days	Tue 12/25/18	Tue 1/15/19
9	Survey (Hydrographic)	22 days	Tue 12/25/18	Tue 1/15/19
10	**Design Development Construction Documents**	**20 days**	**Wed 1/16/19**	**Mon 2/4/19**
11	Design Development Plan	20 days	Wed 1/16/19	Mon 2/4/19
12	Prepare Design Development Specifications	20 days	Wed 1/16/19	Mon 2/4/19
13	Prepare Design Development Cost Estimate	20 days	Wed 1/16/19	Mon 2/4/19
14				
15	**Phase II - Document Review**	**14 days**	**Mon 2/4/19**	**Mon 2/18/19**
16	Submit Package to DPMC	0 days	Mon 2/4/19	Mon 2/4/19
17	Review Meeting with DPMC/DEP	0 days	Mon 2/4/19	Mon 2/4/19
18	DPMC Document Review	14 days	Tue 2/5/19	Mon 2/18/19
19	**Submit NJDEP/ACOE Permit**	**90 days**	**Tue 2/19/19**	**Sun 5/19/19**
20				
21	**Phase III - Final Design Phase #1**	**28 days**	**Tue 2/19/19**	**Mon 3/18/19**
22	Final Design Plan (Address DPMC Comments)	28 days	Tue 2/19/19	Mon 3/18/19
23	Prepare Final Specifications	10 days	Tue 2/19/19	Thu 2/28/19
24	Prepare Final Cost Estimate	10 days	Tue 2/19/19	Thu 2/28/19
25	Submit Final Design Package	0 days	Mon 3/18/19	Mon 3/18/19
26				
27	**Phase III - Document Review**	**14 days**	**Mon 3/18/19**	**Mon 4/1/19**
28	Submit Package to DPMC	0 days	Mon 3/18/19	Mon 3/18/19
29	Review Meeting with DPMC/DEP	0 days	Mon 3/18/19	Mon 3/18/19
30	DPMC Document Review	14 days	Tue 3/19/19	Mon 4/1/19
31				
32	**Phase IV - Final Design Phase #2**	**7 days**	**Tue 4/2/19**	**Mon 4/8/19**
33	Final Design Plan (Address Final #1 DPMC Comments)	7 days	Tue 4/2/19	Mon 4/8/19
34	Prepare Final Specifications	7 days	Tue 4/2/19	Mon 4/8/19

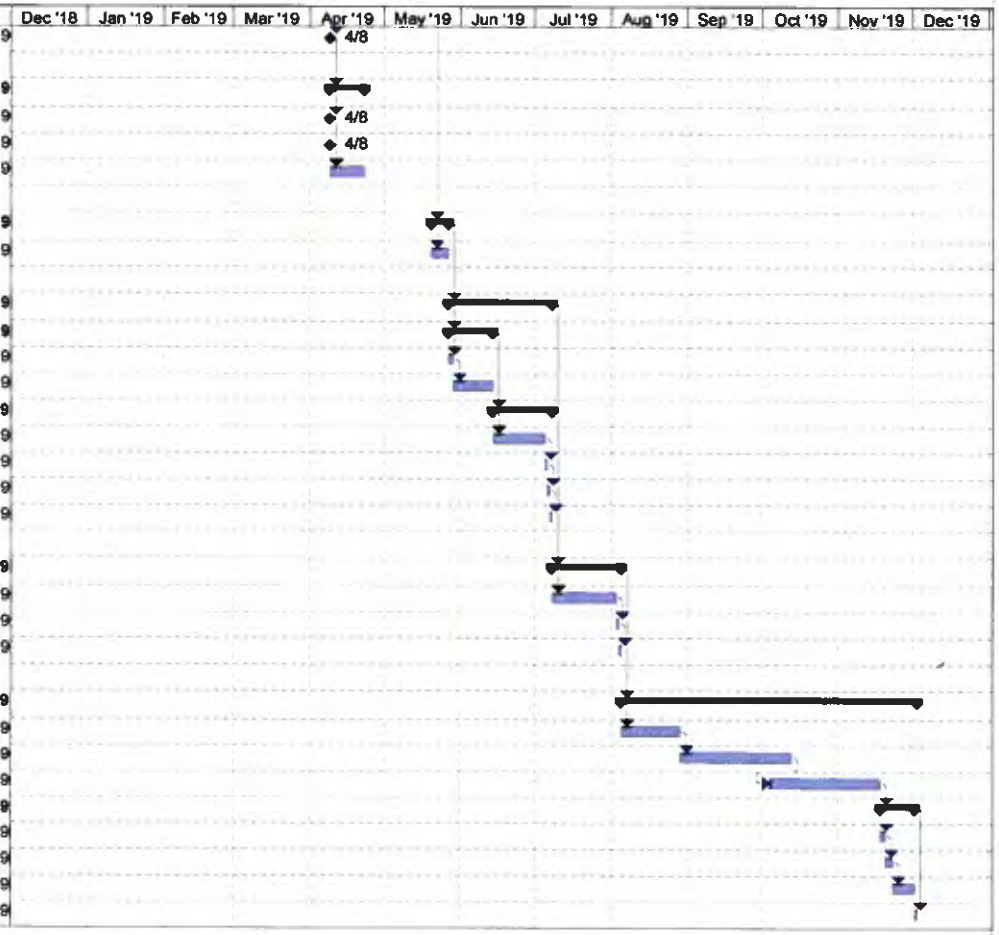


Project: Liberty State Park Dock Replacement
Project #1179-00

Task	External Tasks	Inactive Summary	Start-only
Split	External Milestone	Manual Task	Finish-only
Milestone	Inactive Task	Duration-only	Progress
Summary	Inactive Task	Manual Summary Rollup	Deadline
Project Summary	Inactive Milestone	Manual Summary	

Dock Replacement
Liberty State Park
Jersey City, Hudson County, New Jersey

ID	Task Name	Duration	Start	Finish
35	Submit Final Design Package	0 days	Mon 4/8/19	Mon 4/8/19
36				
37	**Phase IV - Document Review**	**14 days**	**Mon 4/8/19**	**Mon 4/22/19**
38	Submit Package to DPMC	0 days	Mon 4/8/19	Mon 4/8/19
39	Review Meeting with DPMC/DEP (If Required)	0 days	Mon 4/8/19	Mon 4/8/19
40	DPMC Document Review	14 days	Tue 4/9/19	Mon 4/22/19
41				
42	**Phase V - Permit Application Phase**	**7 days**	**Mon 5/20/19**	**Sun 5/26/19**
43	Submit NJUCC Permit Applications	7 days	Mon 5/20/19	Sun 5/26/19
44				
45	**Phase VI - Bid Phase**	**42 days**	**Mon 5/27/19**	**Sun 7/7/19**
46	**Bid Documents**	**18 days**	**Mon 5/27/19**	**Thu 6/13/19**
47	Deliver Bid Documents to DPMC	2 days	Mon 5/27/19	Tue 5/28/19
48	State Scheduled Bid	16 days	Wed 5/29/19	Thu 6/13/19
49	**Public Bid**	**24 days**	**Fri 6/14/19**	**Sun 7/7/19**
50	Bidding Period	21 days	Fri 6/14/19	Thu 7/4/19
51	Pre-Bid Conference/Site Walk	1 day	Fri 7/5/19	Fri 7/5/19
52	Bid Opening	1 day	Sat 7/6/19	Sat 7/6/19
53	Bid Review/Recommendation	1 day	Sun 7/7/19	Sun 7/7/19
54				
55	**Phase VII - Award Phase**	**28 days**	**Mon 7/8/19**	**Sun 8/4/19**
56	**Bid Award Contract Period**	26 days	Mon 7/8/19	Fri 8/2/19
57	**Preconstruction Meeting**	1 day	Sat 8/3/19	Sat 8/3/19
58	**Submission Checklist**	1 day	Sun 8/4/19	Sun 8/4/19
59				
60	**Phase VIII - Construction Phase**	**120 days**	**Mon 8/5/19**	**Mon 12/2/19**
61	**Review Submittals**	24 days	Mon 8/5/19	Wed 8/28/19
62	**Order Long Lead Items**	45 days	Thu 8/29/19	Sat 10/12/19
63	**Actual Field Construction**	45 days	Fri 10/4/19	Sun 11/17/19
64	**Project Close Out**	**14 days**	**Mon 11/18/19**	**Sun 12/1/19**
65	Develop Punch List	2 days	Mon 11/18/19	Tue 11/19/19
66	Final Inspection	3 days	Wed 11/20/19	Fri 11/22/19
67	Project Close-Out	9 days	Sat 11/23/19	Sun 12/1/19
68	**Project Complete**	1 day	Mon 12/2/19	Mon 12/2/19



Project: Liberty State Park Dock Replacement
Project #1179-00

Task		External Tasks		Inactive Summary		Start-only	
Split		External Milestone		Manual Task		Finish-only	
Milestone		Inactive Task		Duration-only		Progress	
Summary		Inactive Task		Manual Summary Rollup		Deadline	
Project Summary		Inactive Milestone		Manual Summary			

CORPORATE HEADQUARTERS

331 Newman Springs Road, Suite 203
Red Bank, NJ 07701

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PROFESSIONAL SERVICES FEE PROPOSAL
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION

THIS FEE PROPOSAL TO BE RETURNED
IN A SEPARATELY SEALED ENVELOPE TO:

DATE: **November 28, 2018 Rev #1**
PROJECT NO.: **P1179-00**

Division of Property Management & Construction
33 WEST STATE ST 9TH FLOOR, PLAN ROOM
P.O. Box 034
Trenton, NJ 08625-0034
Attention: BILL MAHAN

THIS PROPOSAL DUE DATE, NO LATER THAN 2:00 PM, THURSDAY, NOVEMBER 8, 2018

FIRM NAME **MASER CONSULTING, PA**

THE UNDERSIGNED PROPOSES TO PROVIDE ALL PROFESSIONAL SERVICES AS STATED
IN THE REQUEST FOR PROPOSAL AND SCOPE OF WORK

CONSULTANT DESIGN	$	**$69,700.00**
SUB CONSULTANT DESIGN	$	**N/A**
CONSULTANT CONSTRUCTION ADMINISTRATION	$	**$34,870.00**
SUB CONSULTANT CONSTRUCTION ADMINISTRATION	$	**N/A**
TOTAL LUMP SUM FEE FOR PROFESSIONAL SERVICES	$	**$104,570.00**
PERMIT FEE ALLOWANCE (* see note below)	$	**$100.00**
ALLOWANCE FOR WORK SPECIFIED BY THE DPMC	$	**$0.00**
ALLOWANCE FOR WORK SPECIFIED BY THE CONSULTANT	$	**$0.00**
TOTAL CONTRACT AMOUNT	$	**$104,670.00**

PROPOSAL TO HOLD GOOD FOR 60 DAYS AFTER THE DUE DATE.

Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:
Signature of the consultant below attests that the Consultant has read, understands and agrees to all terms, conditions and specifications set forth in the Request for Proposal (RFP) and Consultant Proposal Package.

Signature: _____ **Print Name:** _____**Richard Maloney, PE**

Title: ____**Principal**_____ **Date:** _____ **28-Nov-18 , Rev. #1**

Witness Signature: **Print Name:** _____Lukman Osi, Asst. Project Manager

ATTACH PROOF OF REQUIRED INSURANCE COVERAGE
See attached requirements per "General Conditions to Consultant Agreement" Section 27, pp. 18-19
PROFESSIONAL LIABILITY INSURANCE
($100,000 MIN LIMIT/$25,000 MAX DEDUCTIBLE)

* INCLUDES PERMIT FEES AS FOLLOWS:

SOIL EROSION PERMIT	Not Rqd	
ACOE PERMIT	$100	(if Individual Permit Rqd)
NJDEP PERMIT	$0	(fee waived)
NJUCC PERMIT	$0	(fee waived)
PERMIT FEE ALLOWANCE:	**$100**	

CONSULTANT TASK/LABOR/FEE SHEET

A/E: MASER CONSULTING

Project #: P1179-00 **Rev. #1**

Project Name: Dock Replacement

Project Location: Liberty State Park, Jersey City, Hudson County

PROJECT PHASE OR TASK		CONSULTANTS LEVEL OF EFFORT IN HOURS/FEE							REPROD. COST PER PHASE INCLUD. SUB CONSULTANT DOCUMENTS	TOTALS PER TASK HOURS / $ AMOUNT
	LEVEL	7	6	5	4	3	2	1		
	*HOURLY RATE	**$190.00**	**$180.00**	**$155.00**	**$130.00**	**$120.00**	**$110.00**	**$90.00**		
DESIGN DEVELOPMENT PHASE	HOURS	40	48	56	88	76	76	36		420
	AMOUNT	$7,600.00	$8,640.00	$8,680.00	$11,440.00	$9,120.00	$8,360.00	$3,240.00	$ 600.00	$ 57,680.00
FINAL DESIGN PHASE	HOURS	10	10	8	16	4	0	4		52
	AMOUNT	$1,900.00	$1,800.00	$1,240.00	$2,080.00	$480.00	$0.00	$360.00	$ 600.00	$ 8,460.00
PERMIT APPLICATION PHASE	HOURS	4	0	4	8	4	0	4		24
	AMOUNT	$760.00	$0.00	$620.00	$1,040.00	$480.00	$0.00	$360.00	$ 300.00	$ 3,560.00
DESIGN SUB-TOTALS	HOURS	**54**	**58**	**68**	**112**	**84**	**76**	**44**		496
	AMOUNT	**$10,260.00**	**$10,440.00**	**$10,540.00**	**$14,560.00**	**$10,080.00**	**$8,360.00**	**$3,960.00**	**$1,500.00**	$ 69,700.00
BIDDING AND CONTRACT AWARD PHASE	HOURS	8	4	4	2	0	0	2		20
	AMOUNT	$1,520.00	$720.00	$620.00	$260.00	$0.00	$0.00	$180.00	$ 400.00	$ 3,700.00
CONSTRUCTION PHASE	HOURS	30	36	24	64	8	0	16		178
	AMOUNT	$5,700.00	$6,480.00	$3,720.00	$8,320.00	$960.00	$0.00	$1,440.00	$ 400.00	$ 27,020.00
CLOSE OUT PHASE	HOURS	8	8	0	4	2	0	2		24
	AMOUNT	$1,520.00	$1,440.00	$0.00	$520.00	$240.00	$0.00	$180.00	$ 250.00	$ 4,150.00
CONSTRUCTION ADMIN SUB-TOTALS	HOURS	**46**	**48**	**28**	**70**	**10**	**0**	**20**		222
	AMOUNT	**$8,740.00**	**$8,640.00**	**$4,340.00**	**$9,100.00**	**$1,200.00**	**$0.00**	**$1,800.00**	**$1,050.00**	$ 34,870.00
TOTAL	HOURS	100	106	96	182	94	76	64		718
	AMOUNT	$19,000.00	$19,080.00	$14,880.00	$23,660.00	$11,280.00	$8,360.00	$5,760.00	$2,550.00	$104,570.00
								PROFESSIONAL SERVICES	HOURS	718
								GRAND TOTALS	AMOUNT	$104,570.00

SUB-CONSULTANT TASK/LABOR/FEE SHEET

A/E: Maser Consulting

Project #: P1179-00

Project Name: Dock Replacement

Project Location: Liberty State Park, Jersey City, Hudson County

PROJECT PHASE OR TASK	SUB CONSULTANTS LEVEL OF EFFORT IN HOURS/FEE					TOTALS PER TASK
	FIRM NAME ⇨	NOT APPLICABLE				
DESIGN DEVELOPMENT PHASE	HOURS ⇨					0
	AMOUNT		$	$	$	$ -
FINAL DESIGN PHASE	HOURS ⇨					0
	AMOUNT		$	$	$	$ -
PERMIT APPLICATION PHASE	HOURS ⇨					0
	AMOUNT		$	$	$	$ -
DESIGN SUB-TOTALS	HOURS ⇨	0				0
	AMOUNT		$	$	$	$ -
BIDDING AND CONTRACT AWARD	HOURS ⇨					0
	AMOUNT		$	$	$	$ -
CONSTRUCTION PHASE	HOURS ⇨					0
	AMOUNT		$	$	$	$ -
PROJECT CLOSE-OUT PHASE	HOURS ⇨					0
	AMOUNT		$	$	$	$ -
CONSTRUCTION ADMIN SUB-TOTALS	HOURS	0				0
	AMOUNT	$ -	$	$	$	$ -
TOTALS	HOURS	0				0
	AMOUNT	$ -	$	$	$	$ -
					TOTAL	**$0.00**

* PROVIDE FIRM NAME(S) AT TOP OF COLUMN(S). MAKE COPY OF THIS SHEET IF MORE SPACE IS NEEDED.
PLEASE ATTACH PROOF OF SUBCONSULTANT PREQUALIFICATION (48A) WITH DPMC

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