

February 28, 2019

Steven Beauchene - Chairman Pier Committee
Black Point Beach Club
PO Box 715
6 Sunset Ave.
Niantic, CT 06357
slbvmd@gmail.com

Re: Design Build for Groin/Pier Rehabilitation

Dear Mr. Beauchene:

Principals
Charles C. Brown, P.E.
James F. Norden, P.E.

Principal Emeritus
Kenneth Gibble, P.E.

Geotechnical Associate
David L. Freed, P.E.

Structural Associate
Richard A. Centola, P.E.
Amy Jagaczewski, P.E.

In response to the Club's solicitation we are pleased to submit the following to provide permitting, design and construction services for the rehabilitation of the middle groin located at the Association's beach on Niantic Bay. The 77-year old, 250 foot long groin has had serious deterioration of the steel sheet pile containment as well as loss of material within that compromises the structural integrity. The condition and several rehabilitation options were presented in an assessment report prepared for the Beach Club.

We propose to deliver the scope of work with a team comprised of GNCB Consulting Engineers P.C. for design, Docko Incorporated for permitting and civil engineering and Pinder Construction Company, Inc for construction. Our team has extensive experience on the CT shoreline in all manners of waterfront design and construction. Please see attached resumes and project listing for the team's experience.

We have reviewed the assessment report and visited the site for a first-hand evaluation. Our assessment is that the primary issue is loss of material within the groin due to material being washed through the deteriorated sheeting primarily from wave forces from south to north.

To address this, we have generated a preliminary solution which we feel will provide a cost effective and long-term solution to this key piece of infrastructure. This solution involves installing new steel overshooting on the north side along with grouting of the voids within the groin as well as in the adjacent armor stone on the south side and end of the groin. The sheeting will be anchored with penetration into the soils below and with steel rod anchors near the top, encased in concrete and anchored to the dead mass of the groin on the south side. A new reinforced concrete topping slab will add weight and provide a serviceable walking surface. This preliminary design is shown on the attached sketch SK1. While this is a custom solution to this specific condition, it utilizes proven construction materials and techniques for marine environments which will provide a long usable life for the rehabilitated groin.

We believe this construction will be allowed under a Certificate of Permission by the CT DEEP which should require a three-month process for permit. Under this COP the overshooting up to a maximum of 18 inch offset from the existing sheeting face will be allowed as well as a maximum 1 foot raise in elevation for the concrete walkway which will be used to improve the groin walking access in the light of probable sea level rise.

We estimate a construction budget for the work to be in the range of \$475,000 to \$550,000 with design and permitting services to be \$75,000 to \$85,000. The design services include all needed project information such as permitting, survey and soils investigation need's as well as construction phase monitoring, testing and inspections.

Costs are based upon a fall 2019 construction start with an approximate 2-month construction schedule.

We look forward to meeting with the committee to discuss its ideas and expectations and any questions you may have. If selected we can then finalize the design and costs and work to complete the project for the Association's 2019 summer season.

Very truly yours,



Charles C. Brown, P.E.
President
Attachments

DAVID L. FREED, P.E.

Geotechnical Associate



EDUCATION

University of Florida, M. Eng. in
Soil Mechanics

Northeastern University, B.S. Civil
& Environmental Engineering

PROFESSIONAL REGISTRATIONS

Professional Engineer – CT, MA

PROFESSIONAL SOCIETIES

ASFE/The Geoprofessional Business
Association

American Society of Civil Engineers
(ASCE)

The Connecticut Society of Civil
Engineers

Boston Society of Civil Engineers
Section/ASCE

Deep Foundations Institute

CONTACT INFORMATION

Phone: 860-388-1224 Ext. 125

Cell: 860-304-3442

Email: freed@gncbengineers.com

David L. Freed has over 50 years of geotechnical engineering experience involving a wide range of foundation types and subsurface conditions. He has an extensive background in site investigation, foundation analysis, and soil strengthening techniques and was instrumental in integrating GNCB's geotechnical and structural engineering services. His expertise in construction procedures makes him uniquely qualified in resolving challenges encountered in the field during construction.

PROJECT EXPERIENCE

WETHERSFIELD HIGH SCHOOL, Wethersfield, CT - Services engaged by the Town of Wethersfield to develop and monitor a subsurface exploration program for planned building additions of about 30,000 sq. ft. Analyzed test boring information; prepared recommendations for building foundation design; developed geotechnical recommendations for site grading, retaining walls, pavement design, and site drainage; and prepared a geotechnical engineering report that summarizes the field work and recommendations.

GEOTECHNICAL ENGINEERING INVESTIGATION FOR NEW BUILDINGS AT AMHERST COLLEGE, Amherst, Massachusetts (Geology Building, James/Stearns/Pratt Dorms, Renovations to Williston Hall)

LEDYARD POLICE STATION, Ledyard, CT – Geotechnical engineering services for a 20,000 sq. ft. two-story police station. Work included test borings and engineering studies for shallow foundation footings and foundation drainage.

ARMY RESERVE CENTERS IN CT, Middletown, Danbury and Branford, CT - Full scope geotechnical engineering investigations including test borings, test pits, laboratory testing, CBR testing, foundation analysis, pavement design, and selection of retaining walls.

ST. THOMAS MORE CATHOLIC STUDENT CENTER, YALE UNIVERSITY, New Haven, CT - Geotechnical engineering services included test borings and design of shallow footing foundations for a 2-story structure plus basement. GNCB geotechnical work included preparation of demolition plans and specs for site clearing and monitoring of foundation related activities.

CHARLES C. BROWN, P.E.

President, Firm Principal



EDUCATION

Cornell University, M. Eng.
(Structures)

Cornell University, B.S. Civil &
Environmental Engineering

PROFESSIONAL REGISTRATIONS

Professional Engineer – CT, MA, NY,
NH, RI

PROFESSIONAL SOCIETIES

Member: American Concrete
Institute

Prior:

Board of Directors: Structural
Engineers Coalition (SEC)

Associate Member: BOCA
Professional Chapter of
Connecticut, Inc.

CONTACT INFORMATION

Phone: 860-388-1224 Ext. 123
Email: brown@gncbengineers.com

Charles C. Brown has over 35 years of experience as a structural engineer. His career includes design and oversight of a multitude of projects including educational facilities, hospitals, shopping centers, and museums. Mr. Brown is involved in mentoring the next generation of AEC professionals and has served as an adjunct professor and lecturer on structures and construction engineering at institutions including the University of Hartford, Yale University, and Rensselaer Polytechnic Institute.

PROJECT EXPERIENCE

UCONN CHEMISTRY COMPLEX, Storrs, CT: The Chemistry Building at the University of Connecticut, Storrs Campus, was one of the first projects of the UCONN 2000 program. The Building is a \$47 million-dollar project that provides cutting edge research facilities for the university students and professors.

COOPERATIVE ARTS & HUMANITIES HIGH SCHOOL, New Haven, CT: Full structural engineering services for 150,000 sq. ft. high school with Gym and Full Theater, Scene Shop, Studios for Movements Arts, Music and Art Labs, Classrooms, Performance Areas, Administrative Offices, Cafeteria and Gymnasium.

COLD SPRING HARBOR LABORATORIES, Cold Spring Harbor, NY: Upper Campus Phase of the Hillside Research Campus at Cold Spring Harbor Laboratory. Major expansion of facilities on 110-acre site. Six new buildings adding approximately 100,000 square feet of research space. Construction budget of \$200,000,000 including bridge and infrastructure upgrade. Full structural and geotechnical engineering services plus construction administration and special inspection services for a major quadrangle campus, including eight buildings, below grade parking structure, a cooling tower, a 75 ft. long bridge, and access roads/paved areas.

ROWE STREET HOUSING, New Haven, CT: Mixed-use with 104, one- and two-bedroom housing units in 9-story steel-framed construction in urban area. Project funded by HUD/CHFA.

WEST HAVEN VA HOSPITAL Veterans Administration Medical Center, West Haven, CT: Two major multi-story wing additions.

SAINT KATHERINE DREXEL CHAPEL AT XAVIER UNIVERSITY, New Orleans, LA: New design of 11,000 sq. ft. chapel and support space structure and stand-alone bell tower. Structural work included the front terrace entry with connection to the building.

WATERFRONT

Firm Profile

BUILDINGS

Avery Point Lighthouse Restoration
 Duck Island Yacht Club
 Fish Packing Plant and Pier
 Fishers Island Ferry Terminal
 Hammonasset State Park
 Holdredge Garage
 Marine Studies Consortium
 Mystic Seaport
 Norwich Marina Restaurant
 Orient Point Ferry
 Oyster Point Marina
 Pilots Point Marina Store and Office
 Rocky Neck State Park
 Senaca Lake Gazebo
 Thames River Marina Boat House
 Watch Hill Yacht Club & Cabanas
 Waters Edge Villas
 West Haven Marina Office
 Various Residences

PIERS/BULKHEAD

Daniels Residence Dock
 Fishers Island Ferry District Landings
 Goodspeed Pier Investigation
 Great Gull Island Pier, NY
 Harbour House Bulkhead
 Koch Residence Bulkhead Inv.
 Old Saybrook Town Dock*
 Oyster Point Condominiums Bulkhead
 & Docks
 Plum Island Harbor Bulkhead
 Saybrook Point Marina Pier Inv.
 Steamboat Dock Dredging & Pier
 Stonington Seafood Pier
 Stonington Town Pier Evaluation
 Submarine Pier Fendering System
 U.S. Coast Guard Academy Pier,
 Bulkhead, Bridge Inspection

SEA WALLS

Chalker Beach Residence
 Conard Seawall
 Fenwick Residence
 Moriarty Residence
 Orr Property, Fishers Island, NY
 Shell Beach Sea Wall
 St. Edmunds Retreat

AWARD PRESENTERS*

Connecticut Society of Civil Engineers
 Geotechnical, Structural and
 Sustainability ACE Awards

GNCB Consulting Engineers, P.C. provides structural, geotechnical engineering, and historic preservation services for waterfront projects throughout Connecticut. Waterfront projects have challenging loading requirements due to hurricane, flood or wave action exposure and also require special attention to constructability issues in their unique environments. Our experience with these projects includes new construction, condition assessment, adaptive reuse, renovation and Special Inspection.



Fishing Pier, Boardwalk and DEEP Marine Fisheries Headquarters and Boating Division, Ferry Road, Old Lyme, CT



Fisher's Island Ferry District Landings, Fisher's Island, NY & New London, CT



Wharf Stabilization, Old Saybrook Town Dock, CT



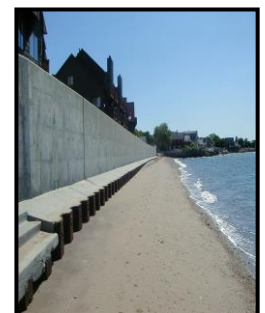
Cini Park Fishing Pier, Niantic, CT



NLDC Bulkhead Replacement, New London, CT



Senaca Lake Gazebo, NY



Shell Beach Condominiums Seawall, East Haven, CT

RESUME SUMMARY OF TEAM MEMBERS
PROJECT MANAGER
KEITH B. NEILSON, P.E., DOCKO INC.

Mr. Neilson graduated from Rensselaer Polytechnic Institute in 1973 with a bachelor's degree in Civil Engineering and as a member of Chi Epsilon, the Honorary Civil Engineering Fraternity. His Civil Engineering experience covers three prominent and diverse aspects of transportation and infrastructure design.

For eight years Mr. Neilson was an airport designer for the Federal Aviation Administration working in New York City and Oklahoma City culminating in a four-year assignment as Airport Safety Inspector, licensing, air carrier airports under Federal Aviation Regulations, Part 139.

After departing the FAA in 1982 Mr. Neilson spent three years designing water treatment plant facilities in and around the Oklahoma City area including plant retrofits and upgrades in Oklahoma City's Lake Heffner and Lake Overholtzer treatment facilities, the Dell City Filtration Plant and a \$7M upgrade tripling the capacity of the water treatment plant at Midwest City.

In 1985 Mr. Neilson moved his family back to Connecticut to take a job as a marine waterfront design specialist at the DiCesare Bentley Engineers in Groton before starting his own practice for Docko, Inc. in Mystic, in 1988. Between 1990 and 2007, Mr. Neilson developed Docko, Inc. into the company that it is today with the assistance of his partner Mr. Thomas Law and has continued the operation since Mr. Law's retirement.

Docko, Inc. specializes in Waterfront Civil Engineering and permitting for residential, commercial, municipal, industrial and military facilities including piers, wharves, bulkheads, special docking facilities, dredging and navigation projects through permitting as well as riparian rights and littoral development rights determinations planning, design and construction aspects of the work. Mr. Neilson has considerable experience presenting and obtaining approvals of projects through Zoning, Planning, Harbor Management, Shellfish, Wetlands and Conservations Commissions as well as Federal and State permitting agencies and is licensed or registered as a Professional Engineer in New York, Connecticut and Rhode Island, among others.

Docko, Inc. has completed more than 2,500 projects during the past 30 years. Mr. Neilson will be the key contact person and the Project Manager for Docko, Inc. The team other members could be sub-contractors to Docko, Inc. and have been selected because of their excellent reputations and longstanding experience with similar projects throughout this region.

- Dr. Frank Bohlen, Physical Oceanographer, Professor at UConn Avery Point Marine Science Center, who will review various hurricanes and nor'easters which impacted the area.
- Mr. Fred Guenther, Professional Land Surveyor for Resource Management and Mapping, who will prepare base survey mapping for the project.
- Ms. Nancy Byrne, Hydro Data, Inc.
Hydro Data, Inc is a professional hydrographic survey company which will work in conjunction with Mr. Guenther to provide a detailed bottom contour map with delineation of stone limits and underwater physical features. Hydro Data is a State registered Women's Business Enterprise (WBE) and represents 10% of the workforce on this project.
- Mr. Richard Snarski, Professional Wetlands Scientist #1391, Certified Soil Scientist #1975, Certified Sediment & Erosion Control Specialist #200.
Mr. Snarski will provide environmental resource elevations for Tidal Wetlands and submerged aquatic vegetation for permitting purposes.

Detailed Resumes for each individual are in the Resume section.

**STATEMENT OF QUALIFICATIONS
STEEL PIER/BREAKWATER RESTORATION
WATERFRONT PLANNING DESIGN AND CONSTRUCTION
BLACK POINT BEACH CLUB**

VISIT OUR WEB SITE AT www.docko.com

**DOCKO, INC.
MYSTIC, CT 06355**

Docko, Inc. was formed in 1987 as a marina and waterfront development firm. We are located on the Mystic River at 14 Holmes Street in Mystic, Connecticut and dedicate virtually all of our engineering and permitting efforts to waterfront projects in Connecticut, New York and Rhode Island. Because of our size and experience, encompassing 60 years of boating and engineering, Docko, Inc. is exceptionally well qualified to provide all aspects of services for a waterfront development projects. Docko, Inc, has completed approximately 2,500 projects in the past 30 years, hundreds of projects right in the vicinity of Niantic and dozens on Black Point.

It is acknowledged that the goal of this project is to restore the longstanding “steel pier” to continue its beach protection role and serve as a public access focal point as well as its storm wave attenuation characteristics. Docko, Inc. prides itself with being a company devoted to achieving a reasonable balance of economy, shoreline protection and access needs of the waterfront, with an eye for historical aesthetic perspective, environmental concerns, practical construction methodology, use of compatible and appropriate materials and operating within current regulatory programs. We feel that we are the ideal company to provide the Black Point Beach Club with the best results for this project. Docko Inc. is a locally based company with professional experience in the Niantic and, in particular, the Black Point area, and throughout the immediate region, and with projects requiring approval by the relevant state and federal agencies (such as the Connecticut Department of Energy and Environmental Protection and the United States Army Corps of Engineers). Our services in broad terms for this project will include:

- Develop a Planning and Feasibility Study
- Provide Topographic and Bathymetric Surveys
- Develop a Condition Assessment Study
- Review Wave and Climate information pertinent to the project
- Frame a plan of restoration for the “steel pier” in Niantic Bay so that it will obtain a Certificate of Permission from the DEEP and a Category 1 Permission from the Army Corps of Engineers.
- Develop Permit Application Documents: Federal, State (and Local, if necessary)
- Report directly to the Associations project management group.

Docko, Inc. is recognized as a source of expertise in all aspects of recreational and commercial marine design and construction. Docko’s success and experience have been developed into a unique capability to provide complete and comprehensive services ranging from residential dock installation and reconstruction, to large-scale commercial and industrial site construction or expansion, including planning, design, engineering and construction.

We are pleased to provide a list of references to attest to our professional capabilities and

ethical standards.

WATERFRONT DEVELOPMENT:

Master Planning
Facility Size Capacity and Usage
Environment Factors
Access Options
Planning/Zoning Requirements
Financing Options
Market Potential
Navigation Issues
Integration with other Uses & Facilities
Aesthetics
Handicapped Access

PRIVATE FACILITIES:

Realistic Water Access
Environmental Factors
Size and Stability
Permitting Standards
Permit Viability
Cost
Littoral/Riparian Rights
Neighborhood Compatibility
Shorefront Protection
Handicapped Access Dock Facilities
Special Needs

Docko, Inc. provides a broad spectrum of consulting services, addressing appropriate element of the pre-development phase in accordance with your needs. Our full-time licensed professional engineer has more than 35 years of pertinent waterfront engineering experience, including experience in commercial, industrial and recreational marine construction and related fields. We utilize a modern in-house design facility, incorporating extensive use of computer technology.

Design, engineering and permitting services relevant to this project:

Coastal Engineering, including erosion control, bank and beach protection, waterfront structures, dredging, navigational aids, channel alignment, docks, bulkheads, marinas, ports and terminals, climate and tidal studies, underwater investigations, bathymetric surveys, resource surveys and structural evaluations.

Site Engineering, including grading, drainage, utilities, landscaping, traffic access, circulation and parking, and support facilities.

Permitting, including the following Federal State and regional agencies:

- US Army Corps of Engineers
- U.S. Coast Guard (Channels, Navigation Aids)
- Connecticut DEEP- OLIS, Boating, Fisheries
- Connecticut Department of Agriculture, Bureau of Aquaculture
- New York DEC and DOS
- New York City Ports and Trade, DEP
- Rhode Island DEM and CRMC
- Local Towns and Municipalities, Special Commissions
- Coastal Zone Consistency Determinations, NYS DOS
- Connecticut River Gateway Commission
- East Lyme Harbor Management and Shellfish Commissions

DOCKO INC.
Black Point Beach Club Association
Similar Projects

Chalker Beach Association

Survey, permitting and construction advisory services for the repair of two wood groins involving driving sheets with clamping and bracing, with cap framing for stability and longevity.

Crescent Beach Association Bluff Path Restoration

This project consisted of armoring an eroding coastal bluff. The bluff project is approximately 1,000 feet long and the work consisted of placing armor stone and structural restraints in a geometrically stable and wave dissipating revetment slope to protect the bluff from erosion caused by breaking storm induced ocean waves from an almost unencumbered southeasterly fetch from the Atlantic Ocean and Block Island Sound. In areas of exposed ledge, the stone work is secured with cast in place concrete retention walls pinned and anchored with ledge set epoxy grout set reinforcing bars.

Fishers Island Ferry District- Fishers Island

Ongoing projects have included the replacement, repair and restoration of terminal facilities at the main ramp utilized by the Fishers Island Ferry in Silver Eel Cove on Fishers Island. The scope of work included replacement of the ramp, pile dolphins and now dredging leading to the creation of a living shoreline.

Fishers Island Ferry District -New London

Past work on this project included the construction of a new, replacement terminal including steel sheet pile with armor stone scour protection, special maintenance berthing facilities including the replacement of damaged sections of the wood pile dolphins and fendering facilities which define and separate the two ferry terminal slips at this site. These structures were built 17 years ago under direct supervision of Docko, Inc. when the ferry terminal expansion project was undertaken in downtown New London. The scope of work included treated 750(+/-)LF of steel sheet piling and specialty concrete work in open marine exposures.

Hawks Nest Beach Association

This project was to rebuild and extend the groins and place stone scour protection along the existing groins. The groins were restored to provide better wave protection and sand retention characteristics, which, since completion, have accreted several thousand cubic yards of sand.

Niantic Bay Yacht Club

The project was to install supplemental armor stone in designated areas and to repair and chink excessive voids on the concrete surface of the 600-foot armor stone breakwater less than a mile from the Black Point Beach Club community and subject to the identical exposure.

Old Black Point Seawalls and Armor Restoration

Fifteen projects, almost two thousand linear feet of concrete seawall and armor stone restoration and enhancement along Niantic Bay and Long Island Sound requiring structural enhancement of existing seawalls involving mortared stone work, cast concrete, large armor stone replacement and fitting.

DOCKO INC.
Black Point Beach Club Association
Similar Projects

Shennecossett Beach Club

This project consisted of resetting dislodged and displaced stone and placing supplemental stone waterward of the high tide line and CT coastal jurisdiction line. The purpose of this project was to repair and restore the groin that was damaged during Hurricane “Sandy” and the subsequent nor’easter.

Spicer’s Breakwater and Revetment Restoration Projects

Winds of Tropical Storm “Irene” and Hurricane “Sandy” directed powerful waves at West Harbor in Noank. These storms damaged the existing breakwater, built by Spicer’s Marinas in the late 1980’s and flooded the yard revealing deficiencies in the shoreline protection facilities. These two projects were both covered under CT DEEP Certificates of Permission and USACOE Programmatic General Permits. The breakwater project was built by Mohawk Northeast of Groton.

Pinder Construction Company, Inc

20 Highland Drive
Clinton, CT 06413
Phone: 203-996-4492
thepindercompany@yahoo.com

Charles C. Brown, P.E.
GNCB Consulting Engineers, P.C.
1358 Boston Post Rd. 2nd Floor
Old Saybrook, CT 06475

Dear Mr. Brown,

As requested, I would like to present an overall history of our company as well as a list of recently completed projects for you to consider along with our recent proposal in connection with Blank Point Beach. Pinder Construction Company, Inc., is a family owned business with over 35 years of experience focusing on water related projects with a special dedication to environmental concerns. Our inland projects include lake dredging, fish way ladders, river restoration, erosion protection, dam and bridge construction and repair, and soil retention.

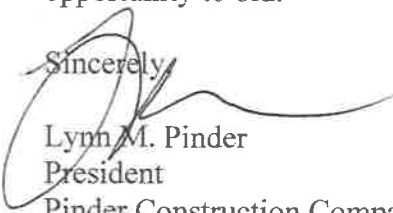
We operate on the Connecticut shoreline completing marina and shipyard bulkhead construction, driving steel, timber, and concrete piles. We also specialize in driving helical and Hercules piles in any conditions, and installing, repairing and maintaining sea walls, jetties, and docks. Crane and rigging on land and sea provided by a State and Federally licensed crane operator. We are fully licensed and insured.

As stated above, here is a list of recently completed projects:

1. Town of Clinton Volunteer Fire Department Bulkhead (acted as subcontractor). Scope of work performed: sheet pile installation, obstruction removal, whaler and tie back fabrication. Completed in 2018.
2. Deep foundation pile system project over the Mystic River performed for Historic Mystic, LLC in 2016. This job entailed the building of a trestle to perform pile driving activities over water in a confined environmentally sensitive work area within a compressed time frame. Total contract in excess of 1.4 million dollars.
3. Installation of steel sheet piling in connection with seawall construction on Loop Road in the Town of Clinton spanning three properties. The project was performed landward and seaward in compliance with DEEP standards and regulations. Total contract in excess of \$500,000.

References and/or further information is available upon request. Thank you for the opportunity to bid.

Sincerely,



Lynn M. Pinder
President

Pinder Construction Company, Inc.