



REQUEST FOR QUALIFICATIONS/PROPOSAL
TASK ORDER CONSULTING ENGINEERING, PERMITTING, & DESIGN SERVICES FOR
WATERFRONT INFRASTRUCTURE
BLACK POINT BEACH CLUB ASSOCIATION
NIANTIC, CT

PART A – INFORMATION TO BIDDERS

The Black Point Beach Club Association (BPBCA-Owner) is a private beach association chartered by the State of Connecticut. The Association owns nearly one-half mile of reserved beach areas along the west side of the Niantic Bay. This includes four groins and one boat ramp extending easterly into Niantic Bay on the east side of Black Point. The BPBCA also owns a 0.17-acre property along the coastline at the west side of Black Point. Refer to **Figure 1** – Site Locus.

Project Description: The BPBCA through its Board of Governors (BOG) desires to enter into a task order contract with a qualified engineering consulting firm to provide assessment, permitting and design work relating to maintenance, repair and new work of Association-owned coastal infrastructures. This award is intended to be a multi-year contractual arrangement based on the numerous desired coastal infrastructure projects. Ideally, the contract may include periodic assistance to the BPBCA of an emergency and/or “on-call” nature. By way of example, but not limited to, requested assistance may include structural repairs to groins, docks, seawalls, bulkheads, revetments and beachfront erosion/sand replenishment. Some of these structures were identified in a condition assessment report, which has been included in this RFQ/P document (**GNCB, 2020**). The task order contract is initially to extend for a period of five (5) years.

The BPBCA has identified two initial projects for the selected consultant.

The first project, for which a detailed proposal is requested, involves conducting Waterside Surveys (i.e. topographic and hydrographic surveys) along the near shore area at the BPBCA-owned property on the eastern side of Black Point. These surveys of groins, piers, boat launch, revetments, etc. are required for eventual structural engineering assessments, designs and associated pre-application consultations with CTDEEP. The bidders’ detailed proposal for costs and scope for the Waterside Survey Project is further described in **PART B**, below.

The second project involves the design and permitting support for a kayak dock access structure at Association property located on the west side of Black Point, off Old Black Point Road. A plan of this property, **Figure 2**, is attached. The components of the dock prospectively include a 4-foot wide, horizontal, wooden walkway, metal gangway, and pile-supported float. The dock is expected to extend at least 120 to 140 feet from the edge of the paved roadway. The bidders’ detailed proposal for costs and scope for the Kayak Dock Project is further described in **PART C**, below.

A non-mandatory, pre-bid meeting and site walk will be held at 11 AM on Wednesday, October 23, 2024, at the large parking lot at 8 Whitecap Road near the intersection of East Shore Drive, BPBCA, Niantic, CT. Additional questions may be directed to:

Peter Baril (peterh.baril@gmail.com); cell: (781) 760-6419

Please copy questions to:

James Schepker (jimschepker@gmail.com)

William Bayne (wbayne@comcast.net)

Qualifications: The consulting firm (*e.g.*, contractor) should have the requisite expertise either in-house or in a teaming arrangement to provide the services requested. This includes experience in marine/wetland science, surveying, permitting, sediment transport modeling, as well as coastal engineering related to structural, hydraulic, civil, and geotechnical engineering. The consulting firm shall have the ability to prepare construction specifications/notes and design drawings to be stamped by a Connecticut Licensed Professional Engineer. With the proposal submission, parties are asked to provide a list of at least three (3) references for similar waterfront/CTDEEP-related projects completed within recent years, including a brief description of the project and contact information for the contracting official/owner and project manager.

Form of the Bid: The proposal for task order services is to include a table of hourly rates for technical and support staff, as well as standard rates for expenses. For the specific Kayak Dock Project and Waterside Surveys highlighted in PART B and PART C, respectfully, the proposals are to include total costs (labor & expenses) itemized for each task. The Black Point Beach Club Association is exempt from payment of the Connecticut Sales Tax.

Criteria for Selection: The Board of Governors will hire the consulting firm based on a review of each consulting firm's qualifications and proposal, including cost and capacity to undertake the work in an expedient timeframe. The Kayak dock project may be considered separately, per discussion between the Board of Governors and selected consulting firm.

Proposal Submission and Award: Written proposals and related costs are due by **4 PM on Wednesday, December 4, 2024**. Proposals may be submitted electronically. Electronic submissions should be sent to Peter Baril (peterh.baril@gmail.com). Bids will be reviewed and a recommendation for award will be made before a Board of Governors meeting to be held within 45 calendar days of proposal submission.

PART B –WATERSIDE SURVEY PROJECT SCOPE OF SERVICES

In anticipation of future engineering design of repair and maintenance of beach front assets, the project involves conducting field observations leading the preparation of topographic and hydrographic mapping. These surveys will ultimately form the basis for application/design drawings submitted to the CTDEEP with associated permit applications.

The consultant is to conduct field observations of various BPBCA waterfront assets along the eastern shore of Black Point (west side of Niantic Bay). These assets (*i.e.* Project Area) include groins, gangway connections to boat floats, boat launch structure at the end of SeaView Avenue, seawalls, scour walls and associated earth support structures (especially at Association-owned beach accessways), beaches and near off-shore areas up to 250-feet off-shore. These assets are generally located from Nehantic Drive to the north and Waterside Avenue to the south, a distance of about 2,600 feet.

This is to be a comprehensive waterside survey but will be limited on the landward side where residentially owned structures may abut.

The survey plan is to depict the location of existing waterside structures, various coastal resources, tidal wetlands, the mean low water line, the mean high-water line, the DEEP coastal jurisdiction line, and elevations throughout the project area. Note: the scope does not include survey of submerged aquatic vegetation.

To complete the topographic and hydrographic surveys, the scope is to include conducting records research and collect necessary field data. Note, some dimensional and topographic surveys have been previously conducted as shown in (GNCB 2020) included with this RFQ/P. Upon completion of the field work, the site conditions are to be produced on 36-inch x 24-inch sized drawings, certified by a Connecticut Licensed Land Surveyor. The consultant is to deliver the drawings in one PDF version and three original hard copies. The scale, contour interval, as well as horizontal and vertical datums will be finalized prior to the field work. Note that an A2 property boundary survey is not part of this scope of work.

PART C – KAYAK DOCK PROJECT SCOPE OF SERVICES

The project scope of work shall consist of the following tasks:

1. Conduct **A-2 Boundary and Site Survey** and any/all other required surveys customarily required in accordance with the CT DEEP Project Plan Checklist including topographic, hydrographic and submerged aquatic vegetation surveys. Provide a survey map suitable for filing on the Land Records of the Town of East Lyme. Install permanent property markers as appropriate.
2. Review existing information, including **2008 site drawings** (attached) and other documents supplied by BPBCA and conduct a **Pre-application review with CT DEEP** including completion of the pre-application questionnaire, for the concept design provided by BPBCA. Attached as **Figure 3** is the recent preliminary concept of the configuration of the kayak dock. Copies of site drawings developed in 2008 are provided for bidders' review.
3. Prepare **preliminary engineering design** for kayak dock including drawings, details and engineering notes sufficient for application-level submission to CTDEEP and submit for review and approval by BPBCA Waterfront Task Force for review and approval. Include up to 2 meetings with BPBCA Task Force.
4. Upon approval of preliminary engineering design, prepare and submit **Application to CTDEEP and USACE**, as applicable, including required Pre-Submission Consultations and Notifications. Provide necessary support and coordination throughout the review process including meetings with regulators as needed. Modify drawings as necessary based on review and approval by CTDEEP/USACE.
5. Upon approval of the CTDEEP/USACE Permit, prepare plans suitable for submission of a **Special Permit/CAM Application** to the East Lyme Zoning Commission. Provide certification that the design and methods of construction are in accordance with accepted standards for structures located in a VE Flood Zone. Upon approval of the Special Permit Application, provide a mylar copy of the approved plans suitable for filing on the Land Records.
6. Provide an **Engineer's Cost Estimate for Construction**
7. Prepare **Final Construction Drawings and Specifications** for bid purposes and local Building Permit Application including design calculations. It is assumed that any technical specifications will be included

as notes on the drawings. The final design drawings are to be prepared and stamped by a Connecticut Licensed Professional Engineer.

8. Provide **Engineering Support During Construction** as necessary including at least two inspections. The services under this task may include: review of contractor's shop drawings, change orders, and response to questions.
9. Prepare **As-Built Survey and Certification of Completion of Construction** in accordance with permit requirements.

Thank you for your consideration of supporting the many projects ahead that will be critical to the long-term sustainability of our Black Point community.

Respectfully submitted:

James Schepker, Chairman
Board of Governors, BPBCA

October 4, 2024



FIGURE 1 SITE LOCUS

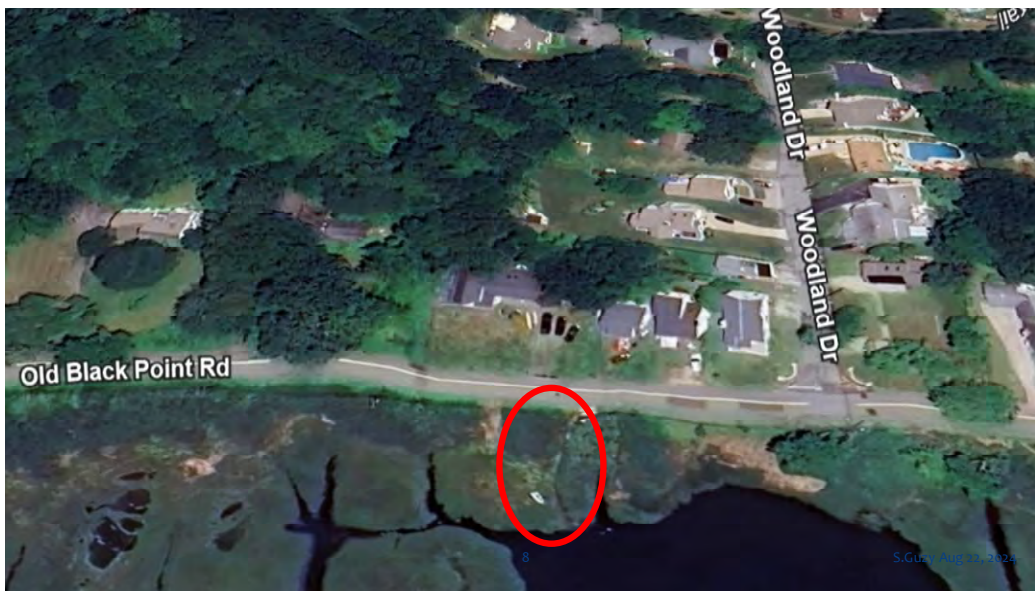
**Waterfront Infrastructure Areas at
Black Point Beach Club Association
NIANTIC, CT**

Location and backwater access



9

S.Guzy Aug 22, 2024



8

S.Guzy Aug 21, 2024

FIGURE 2 PLOT PLAN
Location of Proposed Kayak Dock off
Old Black Point Road
Black Point Beach Club Association - Niantic, CT

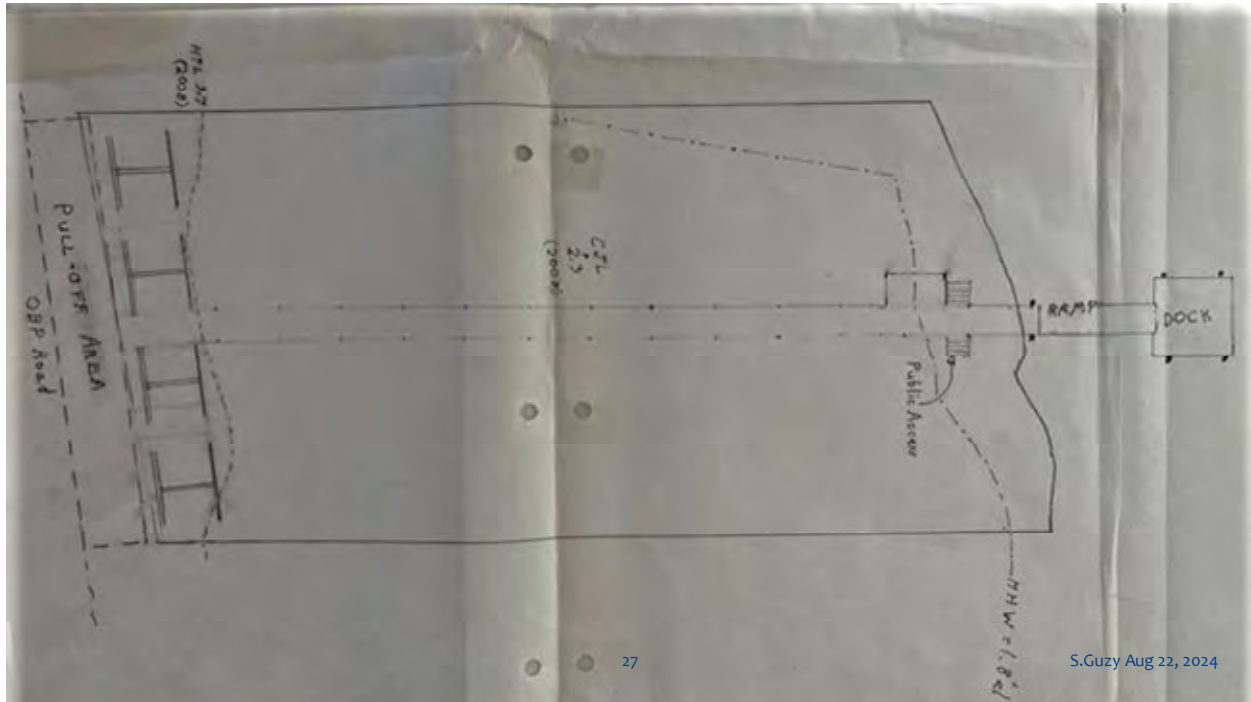


FIGURE 3

**Design Concept Sketch of Proposed Kayak Dock
Black Point Beach Club Association - NIANTIC, CT**

Black Point Beach Association Report Pier/Groin Structures October 2020

The Black Point Beach Association (BPtBA) maintains four erosion/beach control structures at their beach areas fronting the west side of Niantic Bay on Long Island Sound along with a drainage pipe outlet.

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

Principal Emeritus
Kenneth Gibble, P.E.

Geotechnical Associate
David L. Freed, P.E.

Structural Associate
Richard A. Centola, P.E.

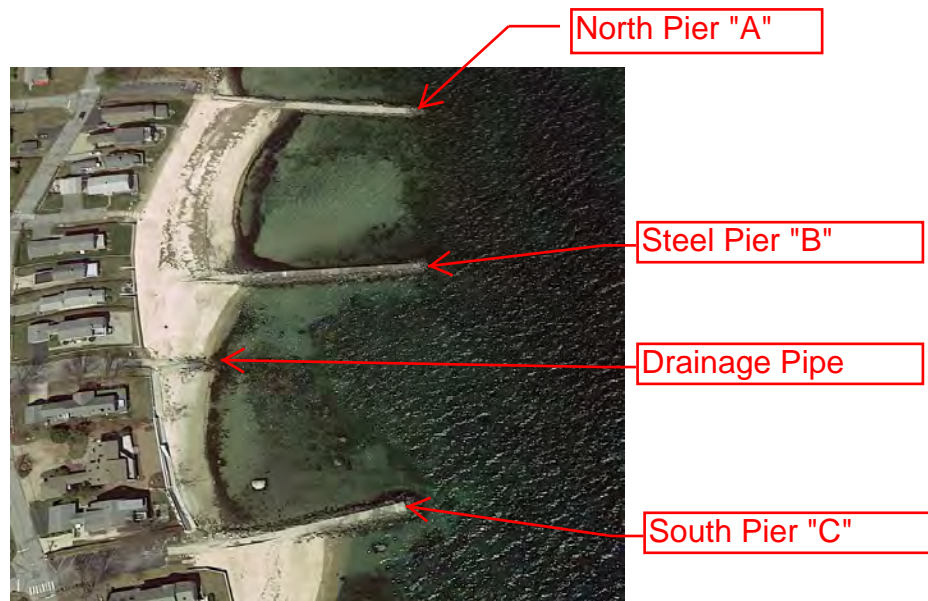


Figure 1 BptBA Nehantic, Steel Pier, Sea Breeze Pier/Groins



Figure 2 BPtBA - Osprey Pier/Groin

This report is intended as a point in time evaluation of the following existing structures:

1. North Pier "A" off extension of Nehantic Drive approximately 281 feet into Niantic Bay.
2. Steel Pier "B" between Indianola and White Cap roads of approximately 260 feet into Niantic Bay.
3. South Pier "C" off Sea Breeze Avenue approximately 220 feet into Niantic Bay
4. Southern-most Pier "D" off Osprey approximately 200 feet into Niantic Bay.
5. Concrete Covered Drainage Culvert off extension of White Cap Road 60 feet into Niantic Bay.

The intermediate steel faced pier between Indianola Road and White Cap Road has been recently rehabilitated and is in new condition. Refer to attached sketches SK1-SK4 for plan information of the other structures showing current conditions.

General Pier Assessment

The north and south groins are similarly constructed with an interior cut stone pier structure capped by a concrete paving slab. The sides and leading end are further protected by armor stone revetments that extend out from the top edge of the pier sloping down to the sand bottom.

The effectiveness of this type of revetment structure to wave action is determined by the use of appropriate size stone and maintaining a uniformly consistent plan profile with irregular surface towards the wave direction. When waves are sufficient to displace the exposed stone the created gaps along the revetment can exacerbate additional displacements and lead to deterioration of the protection. Additionally, deterioration of the concrete paving and or integrity of the cut stone pier walls can lead to breakdown of the pier with loss of core materials within.

For Piers A,C and D there are areas where the armor stone has gaps which need to be filled to provide an effective profile. This should be done with appropriate size stone and we recommend pieces weighing at least 2400 lbs. minimum with angular proportions. Stone should be placed to provide interlock with adjacent stones and placed to provide an approximate 2 to 1 horizontal to vertical slope. Approximate areas of this work are shown on the attached plan layouts of the piers. Stone replacement and void infills should be accomplished with new stone, not reclaimed stones from the front of the revetment as this could destabilize the structure and this work should be undertaken in a timely fashion such as in the next 5 years.

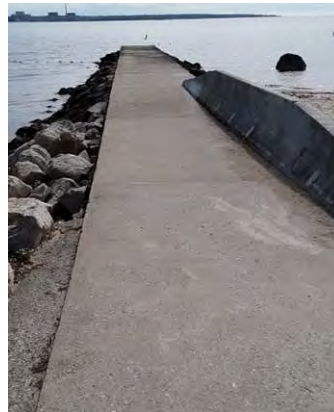


Gap in Armor Stone Revetment Requiring New Stone Infill

The concrete paving appears to be of different ages and is worn but serviceable. Maintenance should be considered in areas where joints are opening and or where vegetation is growing. This will slow down further deterioration and avoid tripping hazards on the deck.



North Groin Paving



South Groin Paving



Paving Deterioration

Paving Pothole

Repair for these deteriorated conditions would include removal of any loose cracked/crumbling concrete with new patching placed with depth and bonding to adhere to the substrate concrete. We would also recommend removal of any vegetation growing within joints in the paving as this will speed up deterioration at these joints. This type of work should be considered yearly maintenance provided on an as needed basis.

All piers have undergone some degree of settlement. The most crucial settlement condition exists on the northern side of the South Pier "C" where the revetment appears to be up to 2 feet lower than the concrete paving. We attribute this to storm waves overtopping the groin from the south predominate wave fetch direction with the subsequent removal of the sands beneath the northern revetment. Continued wave action will jeopardize the stability of the groin and we would recommend restoring the height of this with armor stone as of size and conditions noted previously. This work should be undertaken with the next 5 years to safeguard this pier.

Drainage Facility Assessment

The concrete cap structure is intended to provide protection of an approximate 30 inch diameter precast concrete pipe that drains street runoff into the bay. It has a cast-in-place concrete covering over the top and sides from some distance landward out to the discharge end which is partially surrounded by stone to prevent clogging from sand and small stones. The last 21 feet of the enclosure and pipe have broken and settled away from the landside section with a break and separation at the last section. This has allowed the discharge end to shift (rotate counterclockwise 20 degrees or so) and thus compromised the pipe and its hydraulic cross-section limiting its function. Further deterioration will eventually cause the drainage to become clogged.



Drainage Pipe Concrete Encasement



Broken Last Section of Pipe

We would recommend that the end section of this pipe be replaced with new concrete encasement established back to the break (approximately 21 feet) as soon as possible.

Regulatory Concerns

All four of the piers owned by the Black Point Beach Club Association have a long permit history. Any modifications to the structures, whether for maintenance or improvement, will have permitting required from both the US Army Corps of Engineers and the Connecticut DEP. Maintenance of the structures in substantial in the same location configuration, height, length, width, and armor stone for scour protection will be eligible for the US. Army Corps of Engineers General Permit. All of this work would also be eligible for the Connecticut DEP Certificate of Permission unless the finished elevation of the concrete cap on the groin is raised or if the footprint of the armor stone is increased laterally from the sides of the groin.

With regard to the drainage pipe it would be advisable to apply for a Certificate of Permission immediately in order to preserve the right to maintain the pipe as needed. The pipe is in a delicate situation because the end section, a length of approximately 8 feet, has already become disjointed and has rotated, in position, approximately 30° counterclockwise. The system is still functional and therefore would be eligible for this maintenance work under the COP.

For long term performance and proper protection all of the piers will need to be increased in height at least 1 foot within the next 20 or so years. Additionally, the South Pier is recommended to have enhancement of over 10% volume to bring the northern side armor stone revetment back up to its original level. These larger projects will require new Structures and Dredging permits with currently run for 5 years with the possibility of extensions beyond.

Future Capital Expenditures

As requested based upon the current conditions of the structures, anticipated deterioration and future sea level rise, we have tabulated and estimated the potential capital costs to maintain the Association's beach structures and allow for their continued performance in the attached schedule.

ANTICIPATED CAPITAL EXPENDITURE SCHEDULE (30 YEARS OUT)

ASSET (LOCATION)	1-5 YR. 2020-2025	5-10 YR. 2025-2035	10-20 YR. 2035-2045	20-30 YR. 2045-2055
NORTH PIER A (NEHANTIC)	Repair Armor Stone Maintenance Sched 2 \$30,000,\$1000/yr	Maintenance Sched 2 \$1000/yr	Raise Pier 1 Ft. Maintenance Sched 3 \$350,000,\$4000/2yr	Repair Armor Stone Maintenance Sched 3 \$30,000,\$4500/2yr
MIDDLE PIER B (STEEL)	Maintenance Sched 1 \$5000/2yr	Maintenance Sched 1 \$5000/2yr	Maintenance Sched 1 \$5000/2yr	Raise Pier 1 Ft. Maintenance Sched 1 \$200,000,\$7000/2yr
South PIER C (SEA BREEZE)	Repair Armor Stone Enhance Armor Stone Maintenance Sched 2 \$30,000,\$80,000,\$1000/yr	Maintenance Sched 2 \$1000/yr	Raise Pier 1 Ft Maintenance Sched 3 \$350,000,\$4000/2yr	Repair Armor Stone Maintenance Sched 3 \$30,000,\$4500/2yr
PIER D (OSPREY)	Repair Armor Stone Maintenance Sched 2 \$30,000,\$1000/yr	Raise Pier 1 Ft. Maintenance Sched 3 \$350,000,\$4000/2yr	Maintenance Sched 3 \$4000/2yr	Repair Armor Stone Maintenance Sched 3 \$30,000,\$4500/2yr
DRAIN PIPE (WHITE CAP)	Pipe Repair \$80,000	\$0	\$0	\$0
Total Costs	\$277,500	\$382,500	\$785,000	\$392,500

Repair/Upgrade Legend:

Maintenance Sched 1: For Steel Pier includes Bi-yearly sealing of concrete and patching of any breaks in the epoxy coating on steel sheeting.

Maintenance Sched 2: For Piers A,C and D, Patch Repair of Concrete, clean joints

Maintenance Sched 3: For New Raised Concrete Piers Bi-yearly Concrete Sealing

Repair Armor Stone: Repair Pockets of Missing Stone as shown on SK sheets for current repair and anticipate 20 tons for future repairs.

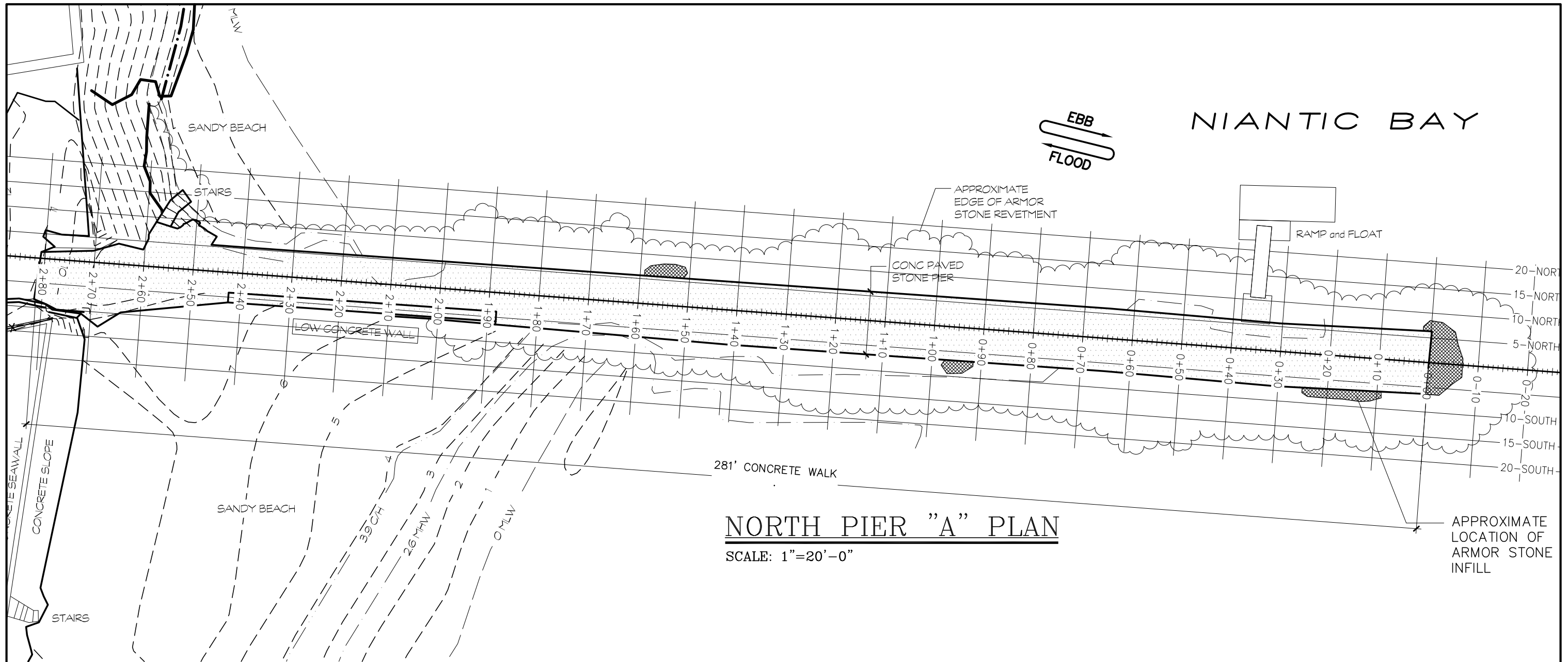
Enhance Armor Stone: For Pier C only - Full permit and raise stone on North Side of South Pier per SK2

Raise Pier 1 Ft.: Full permit and 1 foot concrete paving w/ improvement of revetments.

Pipe Repair: For Drain Pipe only - COP permit and replace last 21 feet of pipe and encasement.

Notes:

1. All estimated costs are in 2020 dollars.
2. It is anticipated that due to sea level rise all piers will need to be elevated approximately 1 foot achieved by pouring on top of old concrete cap spread out in time as shown This would be necessary to maintain the erosion control function of the piers.



NORTH PIER "A" PLAN

SCALE: 1"=20'-0"

NORTH PIER "A"
(NEHANTIC)
CONDITION
ASSESSMENT

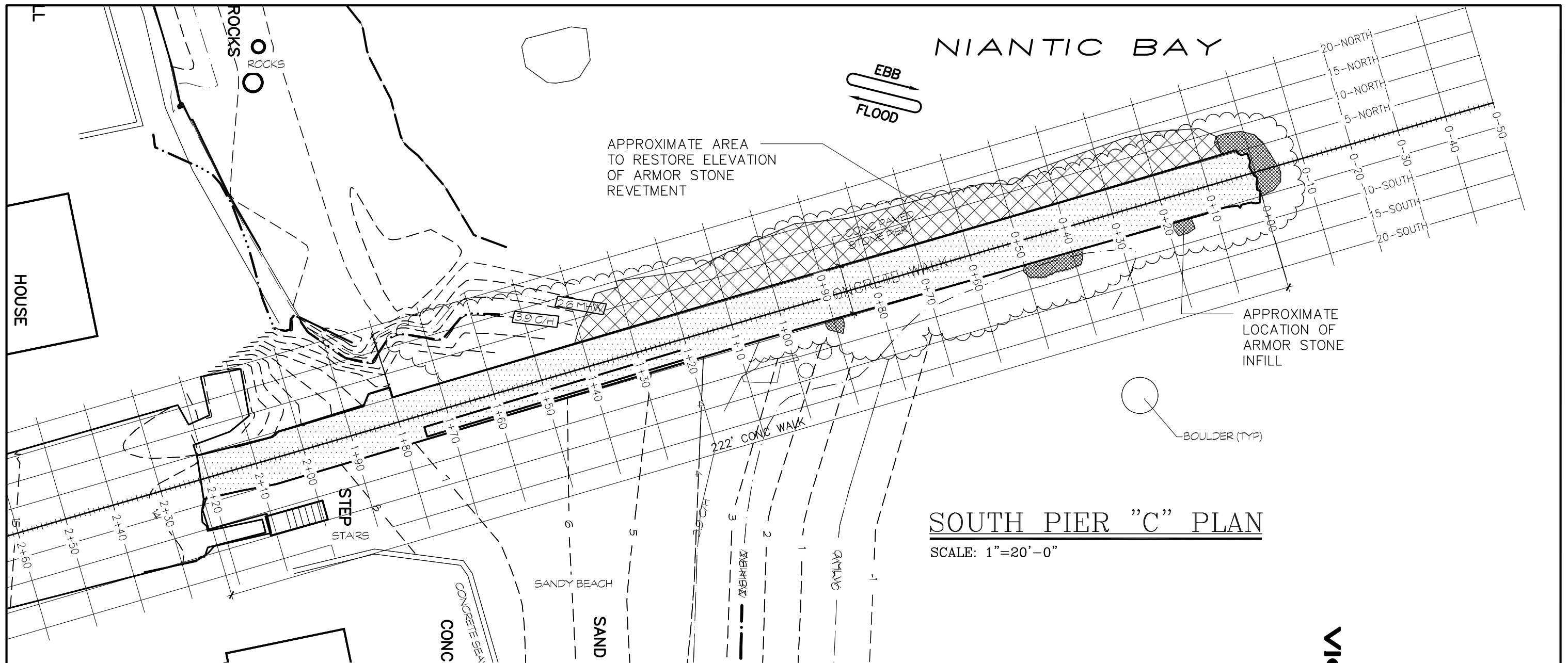
BLACK POINT
BEACH ASSOC.
NIANTIC, CT

DATE: 12AUG20
PROJECT: #20113
SCALE: AS SHOWN
DRAWN BY: CCB
CHECKED BY:

DWG. NO.
SK1



1358 BOSTON POST ROAD
POST OFFICE BOX 802
OLD SAYBROOK
CONNECTICUT 06475
PHONE: 860 388 1224
GNCBENGINEERS.COM



SOUTH PIER "C" PLAN
 SCALE: 1"=20'-0"

SOUTH PIER "C" (SEA BREEZE) CONDITION ASSESSMENT	
BLACK POINT BEACH ASSOC. NIANTIC, CT	
DATE: 12AUG20	DWG. NO.
PROJECT: #20113	SK2
SCALE: AS SHOWN	
DRAWN BY: CCB	
CHECKED BY:	



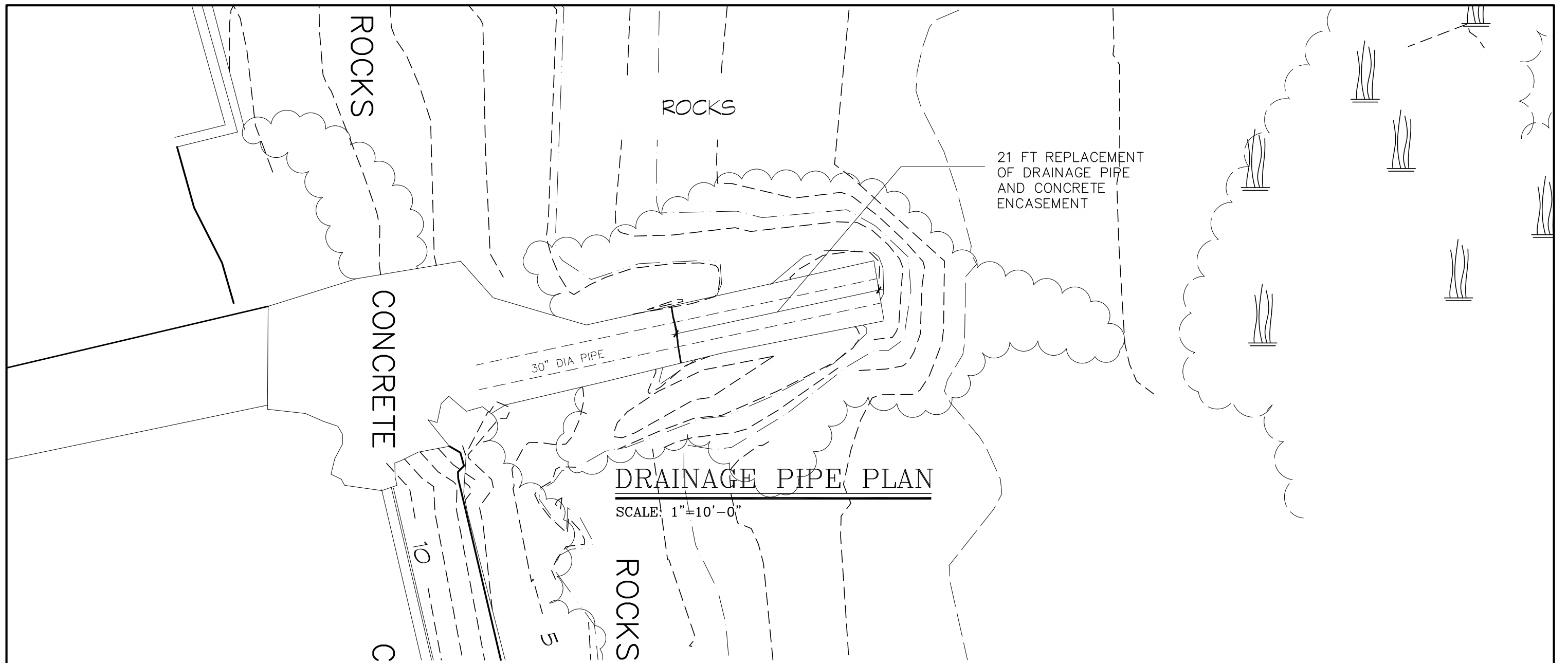
CONC PAVED
STONE PIER

APPROXIMATE
LOCATION OF
ARMOR STONE
INFILL

PIER "D" PLAN

SCALE: 1"=20'-0"

PIER "D" (OSPREY) CONDITION ASSESSMENT	
BLACK POINT BEACH ASSOC. Niantic, CT	
DATE: 12AUG20	DWG. NO.
PROJECT: #20113	SK3
SCALE: AS SHOWN	
DRAWN BY: CCB	
CHECKED BY:	

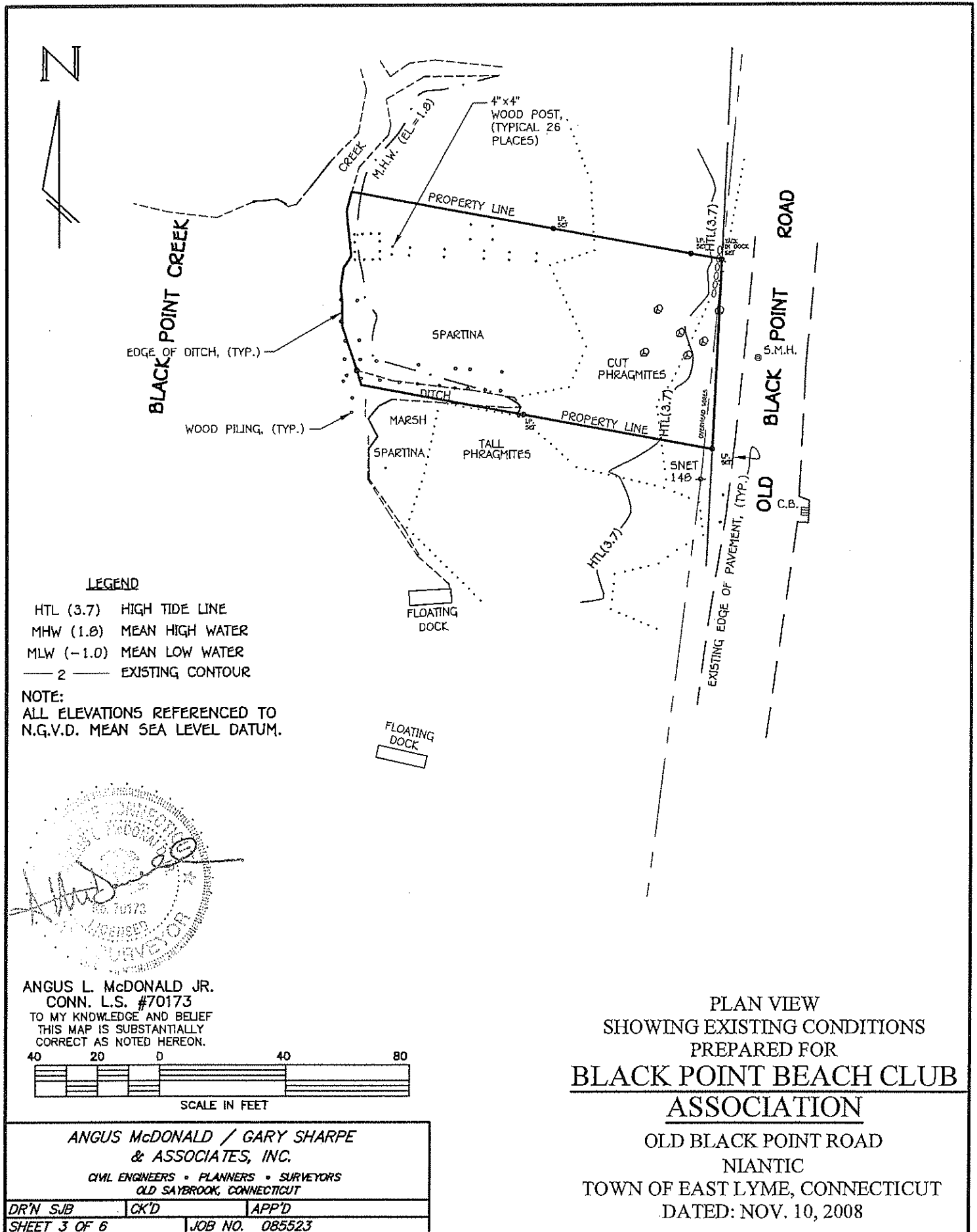


**DRAINAGE PIPE
CONDITION
ASSESSMENT**

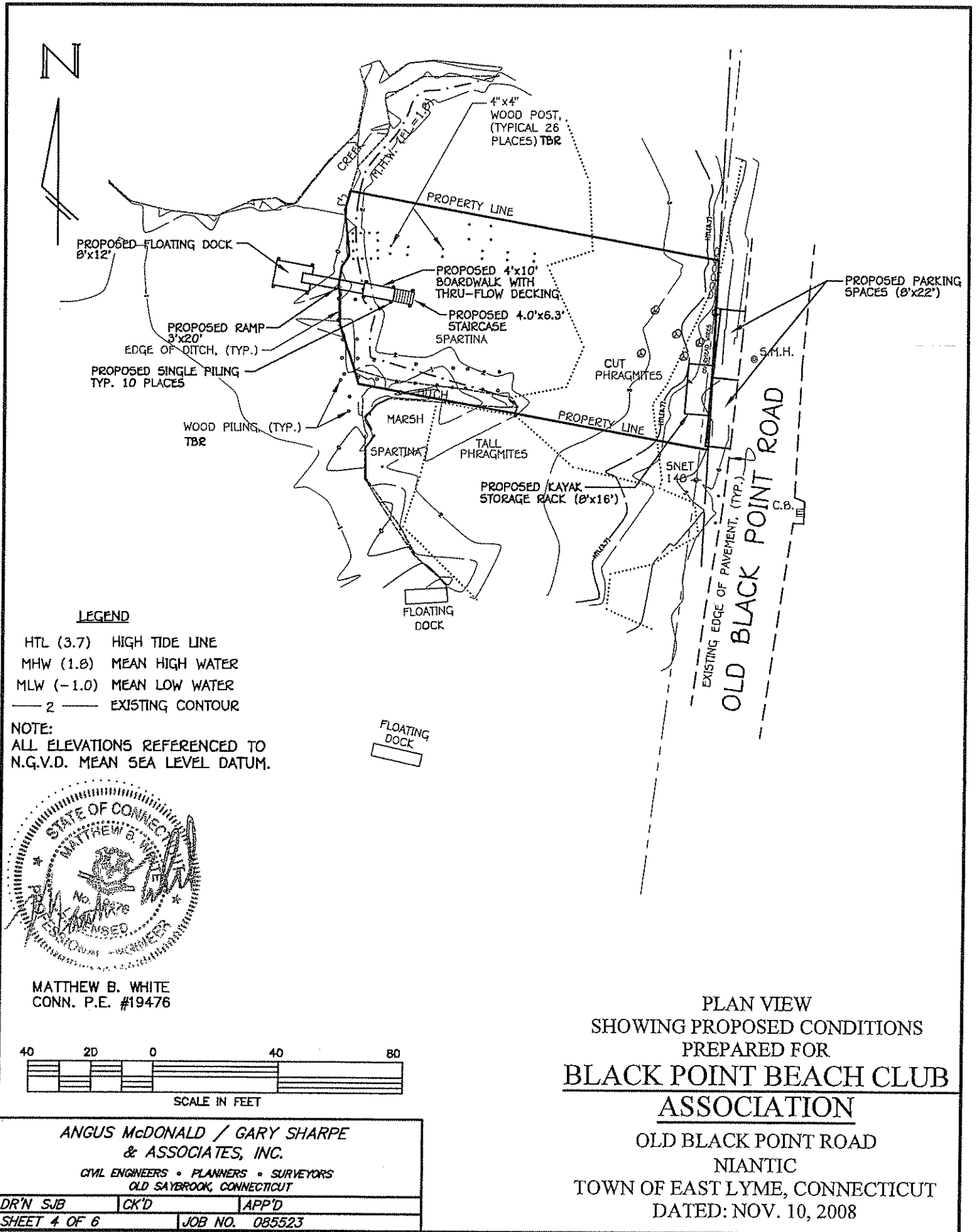
**BLACK POINT
BEACH ASSOC.
NIANTIC, CT**

DATE: 12AUG20	DWG. NO.
PROJECT: #20113	SK4
SCALE: AS SHOWN	
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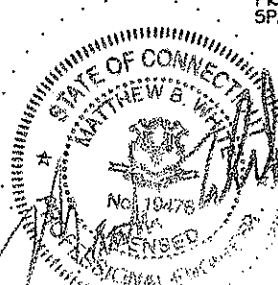
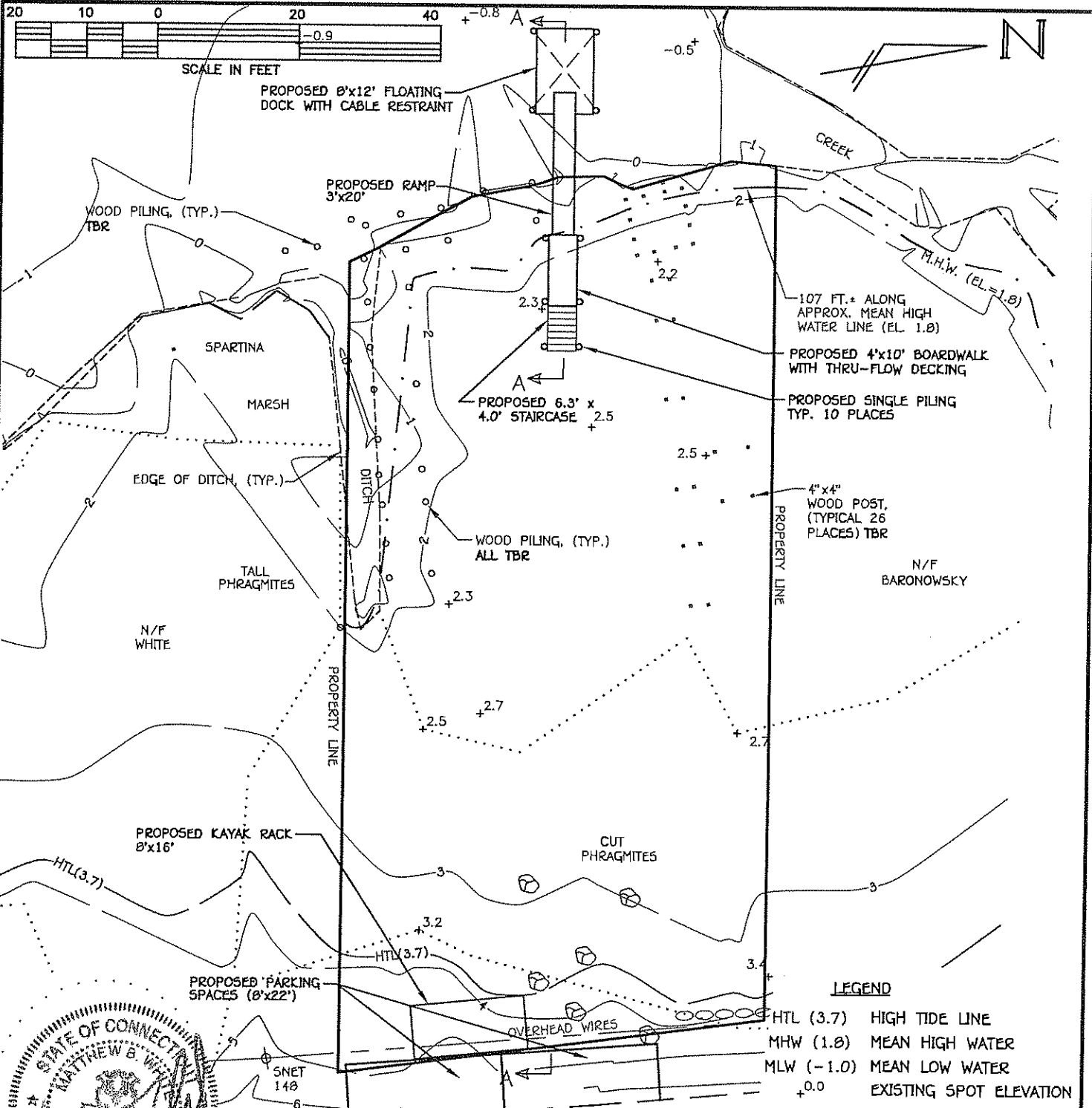
2008 Plan of Parcel Proposed Kayak Access



2008 Plan of Parcel Proposed Kayak Access



2008 Plan of Parcel Proposed Kayak Access



MATTHEW B. WHITE
CONN. P.E. #19478

NOTE:
ALL ELEVATIONS REFERENCED TO
N.G.V.D. MEAN SEA LEVEL DATUM.

DETAIL PLAN VIEW
SHOWING PROPOSED CONDITIONS
PREPARED FOR
**BLACK POINT BEACH CLUB
ASSOCIATION**

OLD BLACK POINT ROAD
NANTIC
TOWN OF EAST LYME, CONNECTICUT
DATED: NOV. 10, 2008

ANGUS McDONALD / GARY SHARPE & ASSOCIATES, INC. CIVIL ENGINEERS • PLANNERS • SURVEYORS OLD SAYBROOK, CONNECTICUT		
DR'N SJB	CK'D	APP'D
SHEET 5 OF 6	JOB NO. 085523	