



PUBLIC NOTICE

US Army Corps
of Engineers
New York District
Jacob K. Javits Federal Building
New York, N.Y. 10278-0090
ATTN: Regulatory Branch

In replying refer to:
Public Notice Number: NAN-2012-01198-EBO
Issue Date: November 30, 2012
Expiration Date: December 30, 2012

To Whom It May Concern:

The New York District, Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

APPLICANT: The Borough of Carteret
Memorial Municipal Building
61 Cooke Avenue
Carteret, NJ 07008

ACTIVITY: Proposed construction of a new public marina with 220 boat slips.

WATERWAY: Arthur Kill

LOCATION: Borough of Carteret, Middlesex County, New Jersey.

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity. Comments provided will become a part of the public record for this action.

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by mail is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

CENAN-OP-RE
PUBLIC NOTICE NO. NAN-2012 01198-EBO

Our preliminary determination is that the activity for which authorization is sought herein is not likely to affect any Federally endangered or threatened species or their critical habitat. However, pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed work, fully described in the attached work description, could cause the disruption of habitat for various lifestages of some EFH-designated species as a result of a temporary increase in turbidity during construction. However, the New York District has made the preliminary determination that the site-specific adverse effects are not likely to be substantial because it is expected that fish populations would avoid the small area of disturbance. Further consultation with NOAA/FS regarding EFH impacts and conservation recommendations being conducted and will be concluded prior to the final decision.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occurs. For activities within the coastal zone of New Jersey State, the applicant's certification and accompanying information is available from the New Jersey Department of Environmental Protection, Coastal Management Program, P.O. Box 418, 401 E. State Street, Trenton, NJ, 08625, Telephone (609) 633-2201. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

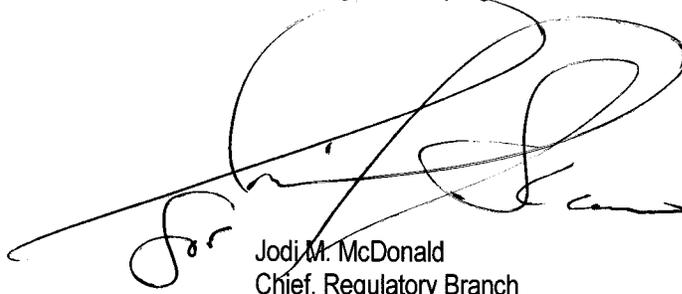
- New Jersey Department of Environmental Protection

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact this office at (917)790-8516 and ask for Leslie Bowles-Early.

In order for us to better serve you, please complete our Customer Service Survey located at <http://per2.nwp.usace.army.mil/survey.html>

CENAN-OP-RE
PUBLIC NOTICE NO. NAN-2012 01198-EBO

For more information on New York District Corps of Engineers programs, visit our website at
<http://www.nan.usace.army.mil>

A handwritten signature in black ink, appearing to read 'Jodi M. McDonald', is written over a large, faint circular stamp or watermark.

Jodi M. McDonald
Chief, Regulatory Branch

Enclosures

WORK DESCRIPTION

The applicant, the Borough of Carteret, has requested Department of the Army authorization for the proposed construction of a new public 220 boat slip marina in the Borough of Carteret, Middlesex County, New Jersey.

The proposed work would involve: The Carteret marina project involves the conversion of a man-made cove in the Arthur Kill into a municipal recreational marina. The Borough of Carteret has received funding from the State of New Jersey under the Brownfield Development Agency (BDA) which will allow site investigative and remediation activities across the entire project area. The cove sediments, adjoining wetlands and uplands are contaminated with a variety of metals and base-neutral compounds from past uses of the property. The proposed improvements include the installation of approximately 220 boat slips and 8 connected floating docks, water and electric services for the boat slips, new parking areas, a Port Authority building with a bait and tackle shop and restrooms, a restroom/vending machine building, boat sewage pump out facilities and fueling facilities. A portion of the marina will also be the new location of the New Jersey State Police, Marine Bureau.

In total, 80,000 cubic yards of material are to be dredged from the cove to a depth of 8-ft below MLW (includes 1-ft of overdepth) on which 16,000 cubic yards of clean cap fill will be placed on the post-dredging surface. An environmental clamshell dredge will be used to minimize turbidity. The dredged material will be amended with Portland cement and disposed of at the Middlesex County Utilities Landfill located in East Brunswick, New Jersey and be used as daily cover.

The proposed waterward improvements include 1,300 linear feet of a tie back/cantilever design bulkhead, the installation of eight interconnected 8-foot wide floating docks, totaling approximately 3,075 linear feet, accessible via a proposed 6-foot wide wooden access boardwalk and walkway, a 6-foot wide stationary gangway located to the south and one to the north. Access will be provided to 220 boat slips that will accommodate boats ranging in size from 20-feet to about 30-feet in length. The bulkhead will serve as a containment barrier preventing continued erosion of impacted sediment from the Emergent Wetland/Intertidal zone into the dredged and capped cove.

The marina construction will also include a steel sheet pile wave screen that will be attached to the existing pier extension, and a perimeter bulkhead, out-shore of the high tide line that will serve to stabilize the post dredging slope

It is estimated that approximately 6.84 acres of Federal and State regulated intertidal/mudflat, subtidal shallows and wetlands could potentially be impacted. The applicant will accomplish compensation through an enhancement to loss ratio of 2:1 at an offsite location. The proposed offsite properties are owned by the Borough of Carteret and Rahway Arch, LLC. Specific properties, based on mitigation feasibility and ownership were selected to achieve the total required mitigation acreage (13.68 acres, plus a required transition area of 50') to ensure that adequate hydrologic flow is provided to the proposed mitigation site.

The Carteret marina will provide relief for present demand for boat slips, and the presence of the New Jersey State Police and Port Authority will help secure the waterfront area, service the community and recreational boaters that navigate through the Arthur Kill and adjacent waters.

BOROUGH OF CARTERET, MIDDLESEX COUNTY, NEW JERSEY

= CONTRACT DRAWINGS = **WATERFRONT MARINA**

MARCH 2012

Contract No. H-CA-00501-10

DANIEL REIMAN, MAYOR

BOROUGH COUNCIL

JORGE DIAZ
VINCENT BELLINO
DENNIS DIMASCIO
RANDY KRUM
SUSAN NAPLES
JOSEPH SITARZ

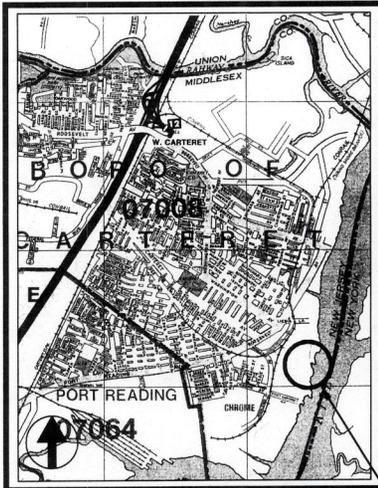
COUNCIL PRESIDENT
COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER

KATHLEEN M. BARNEY
JOHN DUPONT, PE, CME
ROBERT BERGEN, ESO

MUNICIPAL CLERK
DIRECTOR OF ENGINEERING
BOROUGH ATTORNEY

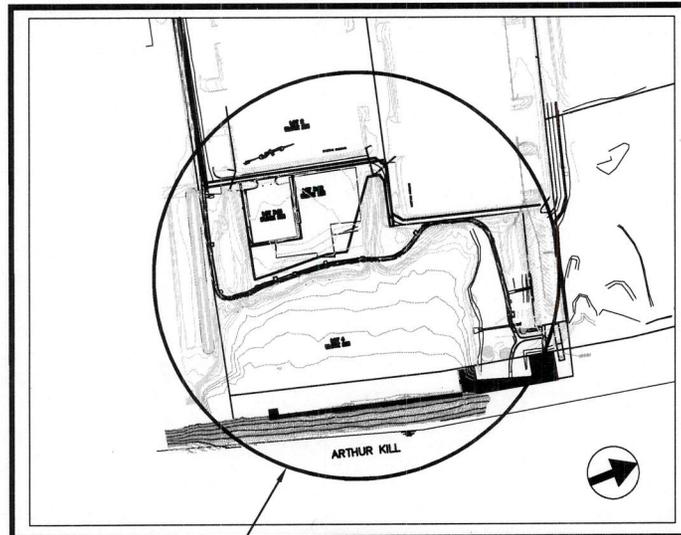
INDEX OF DRAWINGS

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3.	ENVIRONMENTAL CONSTRAINTS MAP
4.	SITE LAYOUT & DIMENSIONING PLAN
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7.	BULKHEAD PLAN AND PROFILE 3 OF 5
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11.	DREDGE PLAN
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13.	WAVE SCREEN DETAILS
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15.	WETLAND/AQUATIC HABITAT CROSS SECTIONS
16.	WETLAND/AQUATIC HABITAT CROSS SECTIONS
17.	ECOLOGICAL SEEDING & PLANTING SCHEDULE
18.	COMPENSATORY MITIGATION PLAN



LOCATION MAP

SCALE: 1" = 2000'



LOCATION MAP

SCALE: 1" = 200'

PROJECT LOCATION

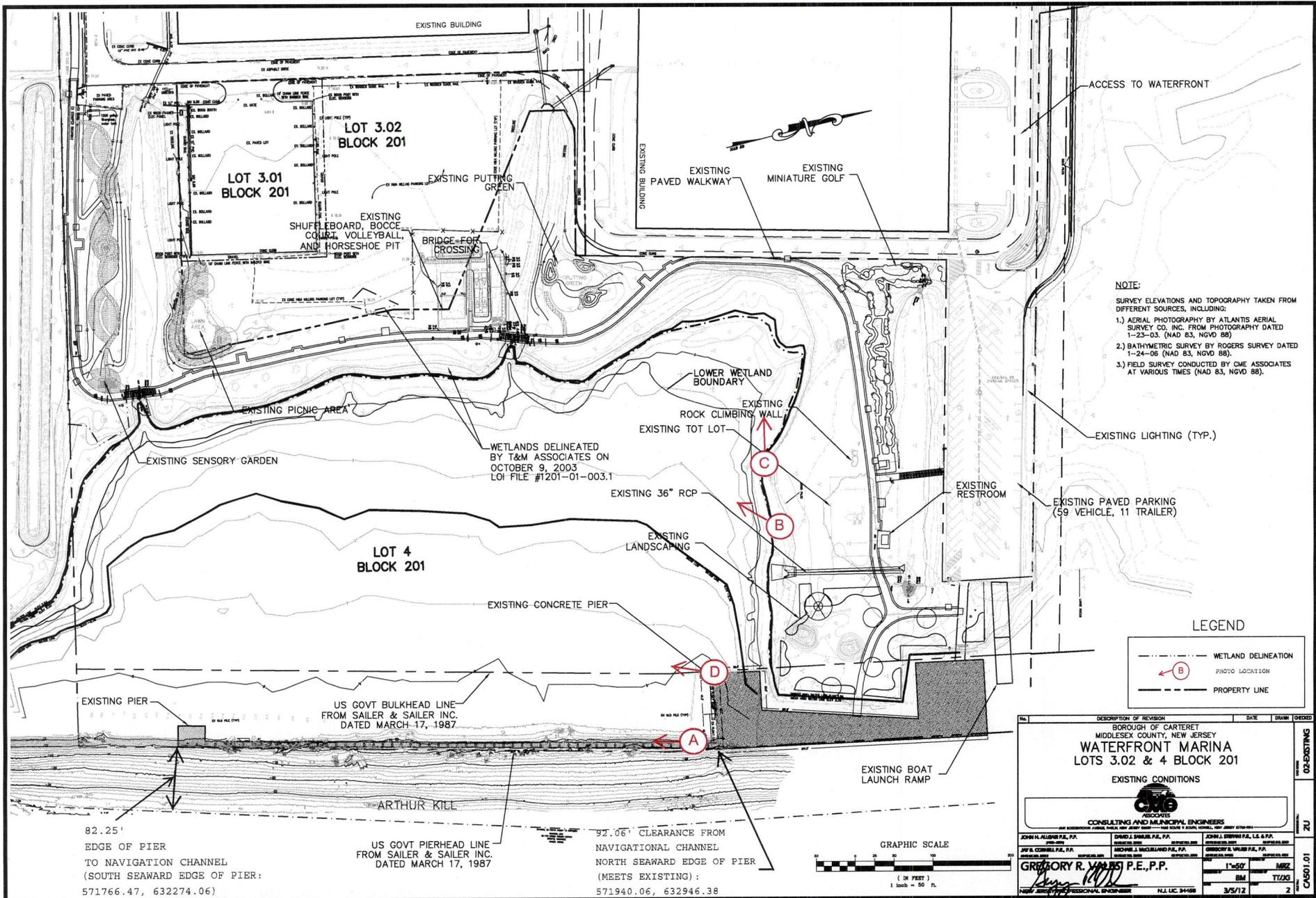
FOR USACO E SUBMISSION ONLY

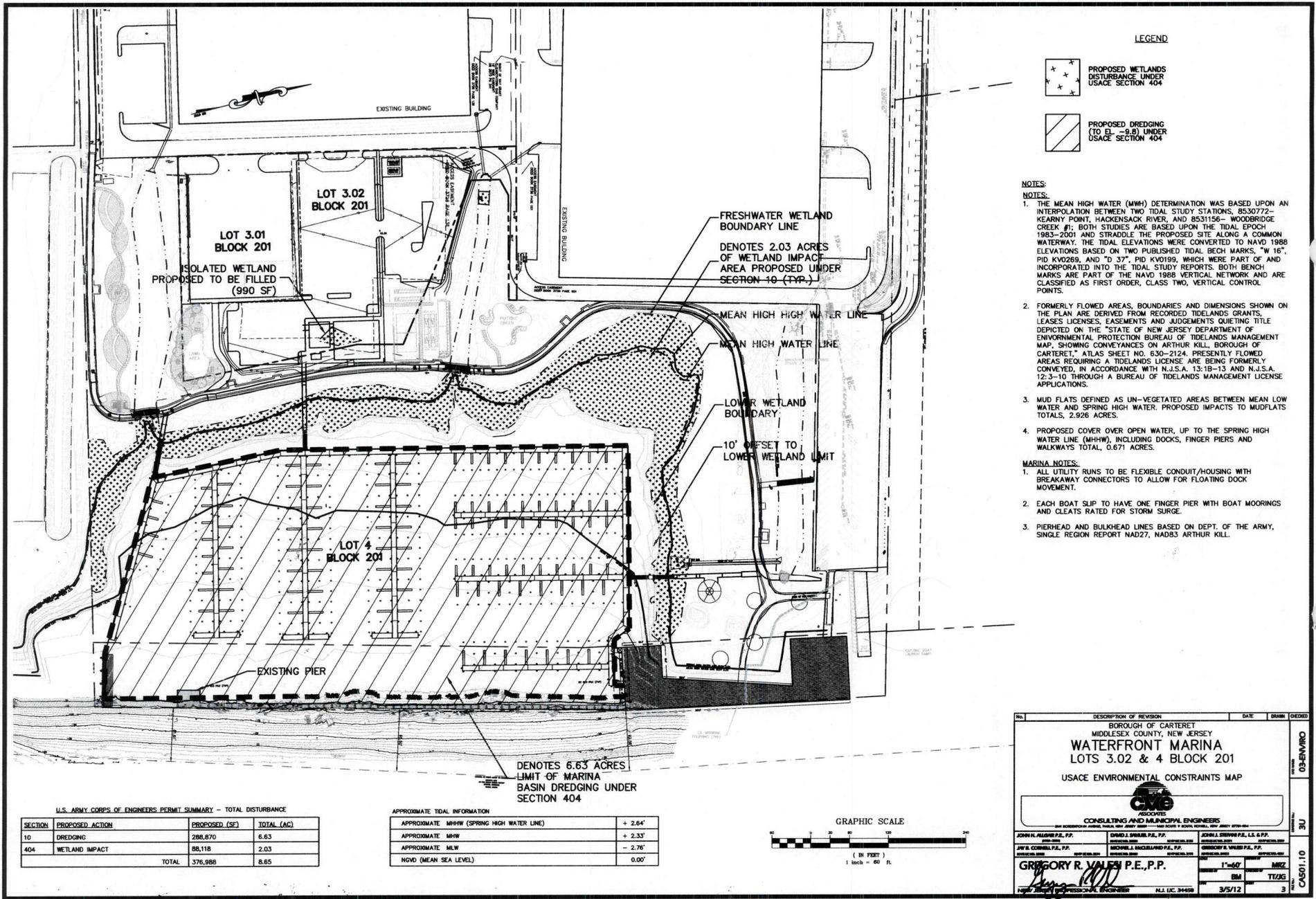
UTILITY CONTACT LIST:

WATER COMPANY MIDDLESEX COUNTY WATER COMPANY 1500 RONSON ROAD ISELTON, NJ 08830 GREG RISOLE (732) 634-1500 x284	TELEPHONE COMPANY VERIZON 445 GEORGES ROAD, FLOOR 2 NORTH BRUNSWICK, NJ 08902 DENNIS RIDGEWAY (732) 846-9942	CABLE TELEVISION COMCAST CABLE 600 RAHWAY AVENUE UNION, NJ 07083 RICH GUGLIUSI (908) 801-8887
SANITARY SEWER COMPANY BOROUGH OF CARTERET SEWERAGE DEPARTMENT 20 COOKE AVENUE CARTERET, NJ 07008 MICHAEL CARNEVALE (732) 541-3878	POWER COMPANY PSE&G 4140 QUAKER BRIDGE ROAD LAWRENCEVILLE, NJ 08648 KEVIN BEARA (908) 581-7092	GAS COMPANY ELIZABETHTOWN GAS 1005 MORRIS AVENUE P.O. BOX 3175 UNION, NJ 07083 EDWARD MELLAGE (908) 288-5000 x8100

1	REVISED PER A.C.O.E. INITIAL REVIEW LETTER DATED 8/14/12	8/28/12	MRZ	JAG
NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 COVER AND INDEX SHEET				
CONSULTING AND MUNICIPAL ENGINEERS <small>INCORPORATED</small> 200 BROADWAY AVENUE, SUITE 2000 NEW YORK, NY 10008-1001				
JOHN J. ALBINO, P.E., P.P.	DONALD J. SHUKLE, P.E., P.P.	OWEN J. STRYKER, L.S., L.P.P.		
JAY E. CORRELL, P.E., P.P.	MICHAEL J. BRIDGMAN, P.E., P.P.	ROBERT J. WARD, P.E., P.P.		
GREGORY R. VANESI, P.E., P.P. 			AS SHOWN	MRZ
			EM	TYAS
			3/5/12	1

APPLICATION # NAN-2012-01198-EBO





LEGEND

-  PROPOSED WETLANDS DISTURBANCE UNDER SPACE SECTION 404
-  PROPOSED DREDGING (TO EL. -9.8) UNDER SPACE SECTION 404

NOTES:

- NOTES:
- THE MEAN HIGH WATER (MHW) DETERMINATION WAS BASED UPON AN INTERPOLATION BETWEEN TWO TIDAL STUDY STATIONS, 8530772-KEARNY POINT, HACKENSACK RIVER, AND 8531156- WOODBRIDGE CREEK #1; BOTH STUDIES ARE BASED UPON THE TIDAL EPOCH 1983-2001 AND STRADDLE THE PROPOSED SITE ALONG A COMMON WATERWAY. THE TIDAL ELEVATIONS WERE CONVERTED TO NAVD 1988 ELEVATIONS BASED ON TWO PUBLISHED TIDAL BENCH MARKS, "M 10", PID KV0269, AND "D 37", PID KV0199, WHICH WERE PART OF AND INCORPORATED INTO THE TIDAL STUDY REPORTS. BOTH BENCH MARKS ARE PART OF THE NAVD 1988 VERTICAL NETWORK AND ARE CLASSIFIED AS FIRST ORDER, CLASS TWO, VERTICAL CONTROL POINTS.
 - FORMERLY FLOWED AREAS, BOUNDARIES AND DIMENSIONS SHOWN ON THE PLAN ARE DERIVED FROM RECORDED TIDELANDS GRANTS, LEASES LICENSES, EASEMENTS AND JUDGMENTS QUIETING TITLE DEPICTED ON THE "STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF TIDELANDS MANAGEMENT MAP, SHOWING CONVEYANCES ON ARTHUR KILL, BOROUGH OF CARTERET," ATLAS SHEET NO. 630-2124. PRESENTLY FLOWED AREAS REQUIRING A TIDELANDS LICENSE ARE BEING FORMERLY CONVEYED, IN ACCORDANCE WITH N.J.S.A. 13:1B-13 AND N.J.S.A. 12:3-10 THROUGH A BUREAU OF TIDELANDS MANAGEMENT LICENSE APPLICATIONS.
 - MUD FLATS DEFINED AS UN-VEGETATED AREAS BETWEEN MEAN LOW WATER AND SPRING HIGH WATER. PROPOSED IMPACTS TO MUDFLATS TOTALS, 2.926 ACRES.
 - PROPOSED COVER OVER OPEN WATER, UP TO THE SPRING HIGH WATER LINE (MHHW), INCLUDING DOCKS, FINGER PIERS AND WALKWAYS TOTAL, 0.671 ACRES.
- MARINA NOTES:
- ALL UTILITY RUNS TO BE FLEXIBLE CONDUIT/HOUSING WITH BREAKAWAY CONNECTORS TO ALLOW FOR FLOATING DOCK MOVEMENT.
 - EACH BOAT SLIP TO HAVE ONE FINGER PIER WITH BOAT MOORINGS AND CLEATS RATED FOR STORM SURGE.
 - PIERHEAD AND BULKHEAD LINES BASED ON DEPT. OF THE ARMY, SINGLE REGION REPORT NAD27, NAD83 ARTHUR KILL.

LOT 3.01
BLOCK 201

ISOLATED WETLAND
PROPOSED TO BE FILLED
(990 SF)

LOT 3.02
BLOCK 201

FRESHWATER WETLAND
BOUNDARY LINE
DENOTES 2.03 ACRES
OF WETLAND IMPACT
AREA PROPOSED UNDER
SECTION 10 (TYP.)

MEAN HIGH WATER LINE
MEAN HIGH WATER LINE

LOWER WETLAND
BOUNDARY
10' OFFSET TO
LOWER WETLAND LIMIT

LOT 4
BLOCK 201

EXISTING PIER

DENOTES 6.63 ACRES
LIMIT OF MARINA
BASIN DREDGING UNDER
SECTION 404

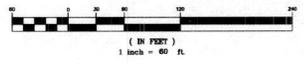
U.S. ARMY CORPS OF ENGINEERS PERMIT SUMMARY - TOTAL DISTURBANCE

SECTION	PROPOSED ACTION	PROPOSED (SF)	TOTAL (AC)
10	DREDGING	288,870	6.63
404	WETLAND IMPACT	88,118	2.03
TOTAL		376,988	8.65

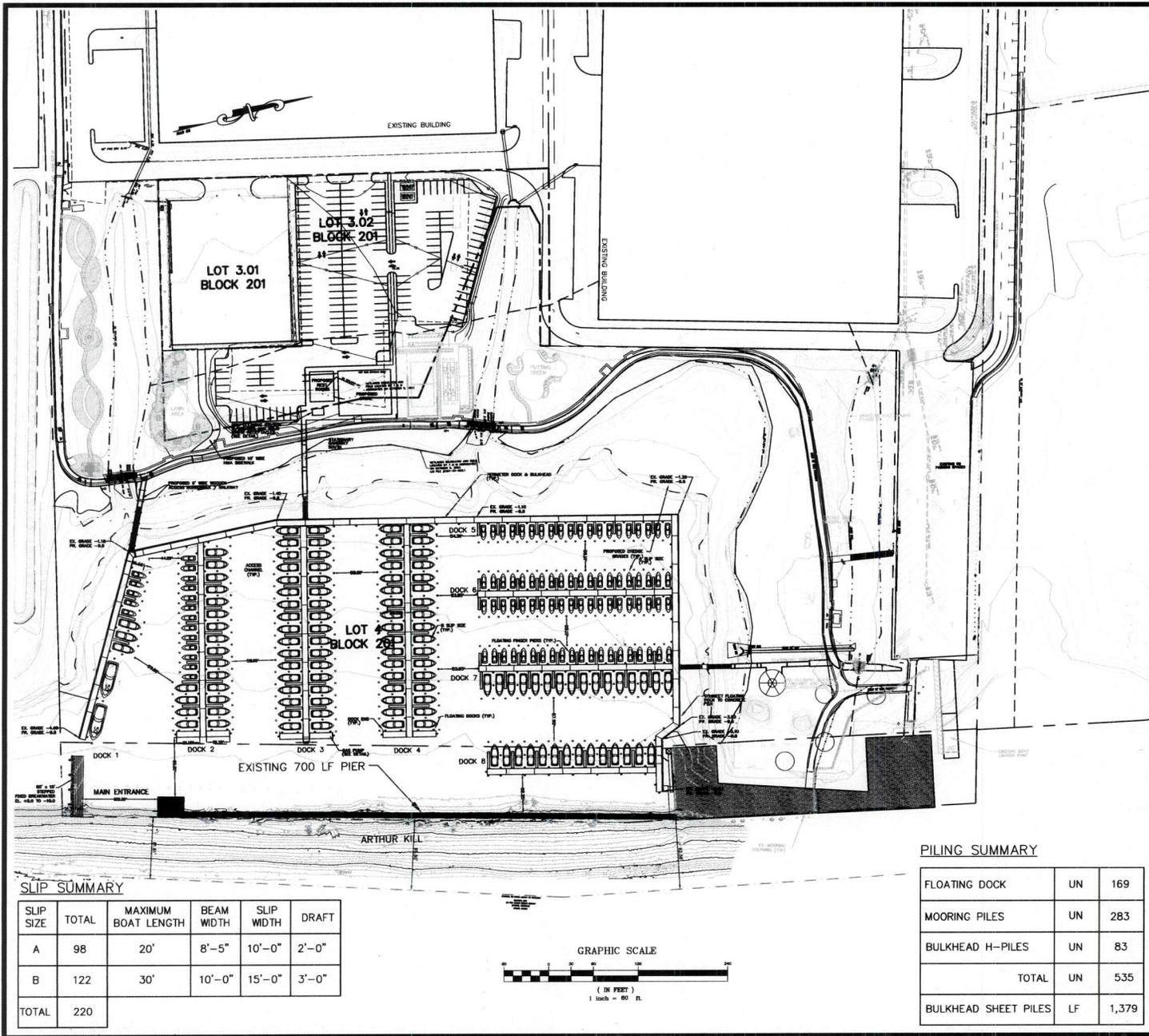
APPROXIMATE TIDAL INFORMATION

APPROXIMATE MHHW (SPRING HIGH WATER LINE)	+ 2.64'
APPROXIMATE MHW	+ 2.33'
APPROXIMATE MLW	- 2.76'
NGVD (MEAN SEA LEVEL)	0.00'

GRAPHIC SCALE

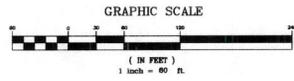


No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 USACE ENVIRONMENTAL CONSTRAINTS MAP				
 CONSULTING AND MUNICIPAL ENGINEERS <small>INCORPORATED IN NEW JERSEY</small>				
JOHN F. ALGERI, P.E., P.P.	JOHN J. SMITH, P.E., P.P.	JOHN J. SMITH, P.E., P.P.	JOHN J. SMITH, P.E., P.P.	JOHN J. SMITH, P.E., P.P.
JAY B. CORRELL, P.E., P.P.	MICHAEL J. HEDGECOCK, P.E., P.P.	MICHAEL J. HEDGECOCK, P.E., P.P.	MICHAEL J. HEDGECOCK, P.E., P.P.	MICHAEL J. HEDGECOCK, P.E., P.P.
GRIGORY R. VALEN P.E., P.P.			1"=60' BM TTJKG	MSZ 3/5/12 3
<small>NEW JERSEY PROFESSIONAL ENGINEERING BOARD REG. NO. 24465</small>			<small>N.J. LIC. 24465</small>	



SLIP SUMMARY

SLIP SIZE	TOTAL	MAXIMUM BOAT LENGTH	BEAM WIDTH	SLIP WIDTH	DRAFT
A	98	20'	8'-5"	10'-0"	2'-0"
B	122	30'	10'-0"	15'-0"	3'-0"
TOTAL	220				



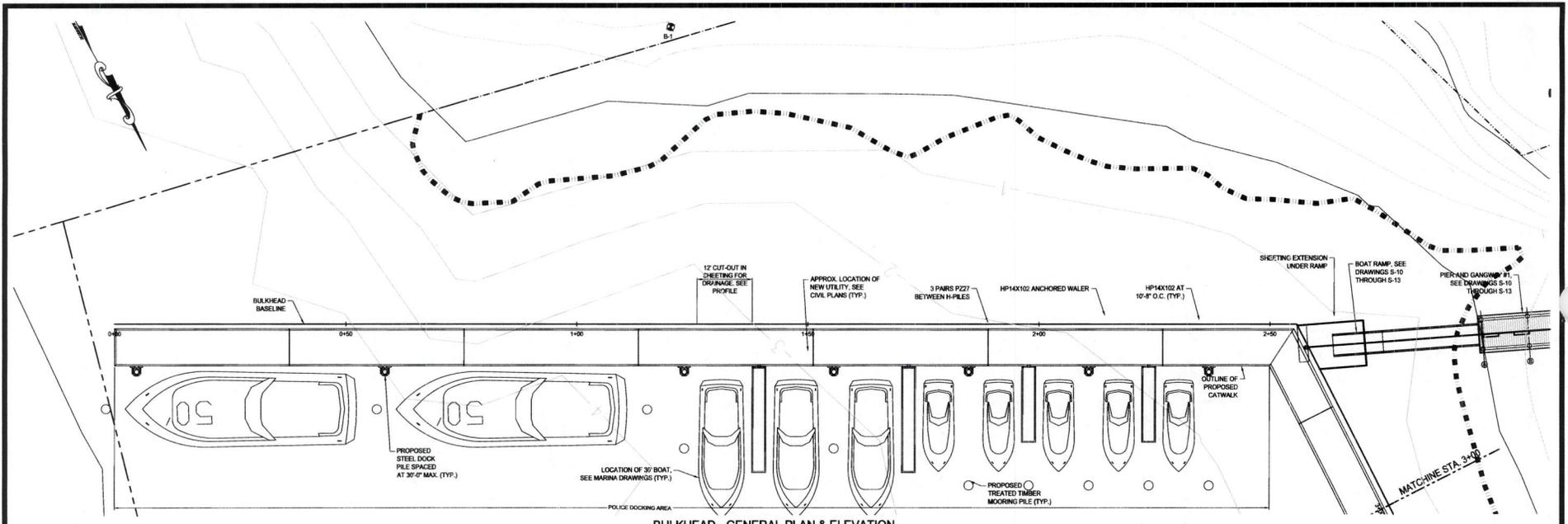
PILING SUMMARY

FLOATING DOCK	UN	169
MOORING PILES	UN	283
BULKHEAD H-PILES	UN	83
TOTAL	UN	535
BULKHEAD SHEET PILES	LF	1,379

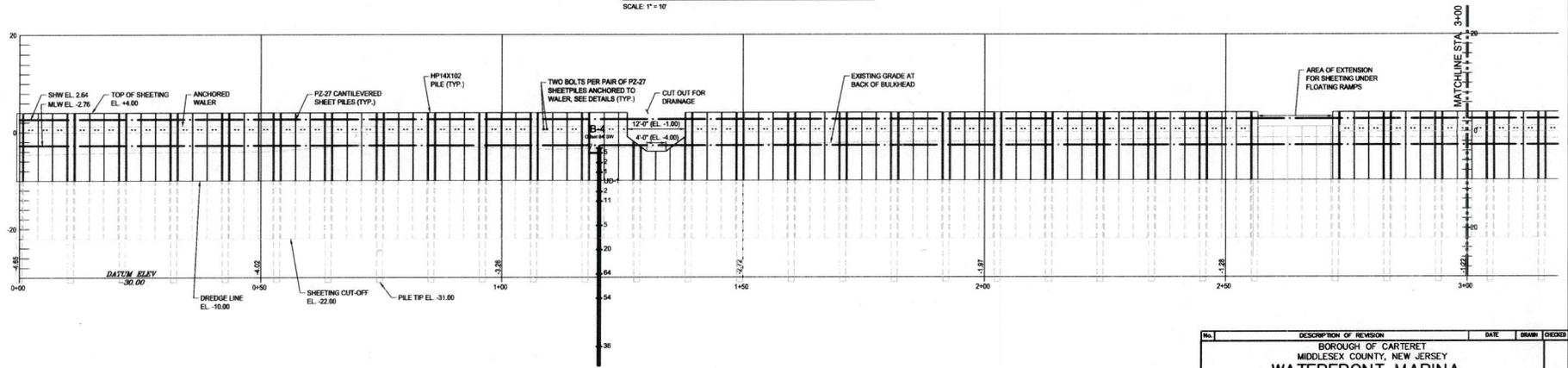
- MARINA COMPLIANCE NOTES:**
- 1.) IN NO INSTANCE IS A PARKING SPACE 180 METERS (600') FROM A SLIP. AT THE REQUEST OF THE MAJEP, ASSIGNED PARKING COULD BE PROVIDED. IN ADDITION, IT IS ANTICIPATED THAT MARINA USERS WILL USE THE FRONT DRIVEWAY AS A "DROP OFF".
 - 2.) THE USABLE WIDTH OF THE ENTRANCE CHANNEL IS 100' (+10 M).
 - 3.) A FRED PUMP OUT STATION IS PROPOSED ON DOCK 3.
 - 4.) TRASH RECEPTACLES AND FISH CLEANING STATIONS WITH ORGANIC REFUSE ARE PROPOSED.
 - 5.) PARKING FACILITIES ARE PROPOSED AS FOLLOWS:
- | REQUIREMENT | REQUIREMENT SOURCE | REQUIREMENT | REQUIRED |
|-------------------|-------------------------------|-------------------|------------|
| MARINA | N.J.A.C. 7C-7.3A.10 | 0.6 SPACES/SLIP | 133 |
| PARK | N.J.A.C. 17E. PAR. GEN. EA. 3 | 15 SPACES/ACRE | 49 |
| BUILDING - OFFICE | N.J.A.C. 17E. PAR. GEN. EA. 3 | 5 SPACES/1,000 SF | 8 |
| BUILDING - SHOP | N.J.A.C. 17E. PAR. GEN. EA. 3 | 5 SPACES/1,000 SF | 4 |
| BUILDING - DINING | N.J.A.C. 17E. PAR. GEN. EA. 3 | 5 SPACES/1,000 SF | 4 PROVIDED |
| TOTAL | | | 198 |
| | | | 233 |
- 6.) NO MAINTENANCE AREA IS PROPOSED AS PART OF THE SITE PLAN. IT IS ANTICIPATED THAT MAINTENANCE WILL OCCUR OFF-SITE.
 - 7.) 3,000 GALLON GAS AND DIESEL TANKS ARE PROPOSED (4 X LARGEST EXPECTED BOAT FUEL TANK=250 GAL).
 - 8.) (A) THE TURNING AREAS OF THE BASIN ARE PROPOSED 50' (2.25 X 20' = 45')
 - 8.) (B) THE TURNING AREAS OF THE BASIN ARE PROPOSED 70' (2.25 X 30' = 67.5')
 - 8.) (C) THE TURNING AREAS OF THE BASIN ARE PROPOSED 90' (2.25 X 40' = 90')
 - 9.) RESTROOM FACILITIES AS PROPOSED AS FOLLOWS:
- | REQUIREMENT | REQUIRED | PROVIDED | PORT AUTH. BLDG. | RESTROOM NORTH | RESTROOM SOUTH |
|------------------|----------|----------|------------------|----------------|----------------|
| TOILET STALL (M) | 5 | 4* | 2 | 1 | 1 |
| TOILET STALL (W) | 9 | 9 | 5 | 1 | 3 |
| URINAL (M) | 8 | 7* | 4 | 1 | 2 |
| WASH BASIN (M) | 8 | 7* | 4 | 1 | 2 |
| WASH BASIN (W) | 8 | 7* | 4 | 1 | 2 |
| SHOWER (M) | 5 | 5 | 3 | 0 | 2 |
| SHOWER (W) | 5 | 5 | 3 | 0 | 2 |
- * ANTICIPATE ADEQUATE FACILITIES HAVE BEEN PROVIDED.
- 10.) BOAT STORAGE AND SECURITY SHALL BE PROVIDED IN SOUTHERN PARKING AREA DURING OFF-SEASON.
 - 11.) ALL UTILITY RUNS TO BE FLEXIBLE CONDUIT/HOZING WITH BREAKAWAY CONNECTORS TO ALLOW FOR FLOATING DOCK MOVEMENT.
 - 12.) EACH BOAT SLIP TO HAVE ONE FINGER PIER WITH BOAT MOORINGS AND CLEATS RATED FOR STORM SURGE.
 - 13.) PERHEAD AND BULKHEAD LINES BASED ON DEPT. OF THE ARMY, SINGLE REGION REPORT MA027, NA033 ARTHUR KILL.

- GENERAL CONSTRUCTION NOTES:**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION APPROVALS FROM THE BOROUGH OF CARTERET AND THE STATE OF NEW JERSEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION APPROVALS FROM THE BOROUGH OF CARTERET AND THE STATE OF NEW JERSEY.
 2. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL OBTAIN ALL NECESSARY PERMITS AND CONSTRUCTION APPROVALS FROM THE BOROUGH OF CARTERET AND THE STATE OF NEW JERSEY.
 3. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE.
 4. ALL EXISTING AREAS AT THE SITE WHICH ARE NOT IDENTIFIED AS POWER LINES, TELEPHONE LINES, OR GAS LINES SHALL BE REMOVED AND DELETED FROM THE RECORDS OF THE BOROUGH OF CARTERET AND THE STATE OF NEW JERSEY.
 5. ALL EXISTING AREAS SHALL BE PROTECTED FROM DAMAGE AND SHALL REMAIN IN GOOD CONDITION.
 6. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE.
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 17. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE.
 18. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE.
 19. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE.
 20. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE. THE CONTRACTOR SHALL MAINTAIN THE FLOOR OF ALL EXISTING AREAS, EXCEPT WHERE SHOWN OTHERWISE.

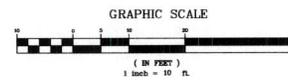
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	BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 SITE LAYOUT AND DIMENSIONING PLAN			
CONSULTING AND MUNICIPAL ENGINEERS <small>INCORPORATED</small> <small>1000 WEST 10TH AVENUE, SUITE 200, NEW YORK, NY 10018</small>				
JOHN J. ALLEN, P.E., P.P.	JOHN J. ALLEN, P.E., P.P.	JOHN J. ALLEN, P.E., P.P.	JOHN J. ALLEN, P.E., P.P.	JOHN J. ALLEN, P.E., P.P.
JAY E. CORRELL, P.E., P.P.	MICHAEL J. HEDDERLEY, P.E., P.P.	MICHAEL J. HEDDERLEY, P.E., P.P.	MICHAEL J. HEDDERLEY, P.E., P.P.	MICHAEL J. HEDDERLEY, P.E., P.P.
GRIGORY R. VALEN P.E., P.P. <small>1000 WEST 10TH AVENUE, SUITE 200, NEW YORK, NY 10018</small>				
			1"=60'	MBZ
			BM	TYJK
			3/5/12	4



BULKHEAD - GENERAL PLAN & ELEVATION
SCALE: 1" = 10'

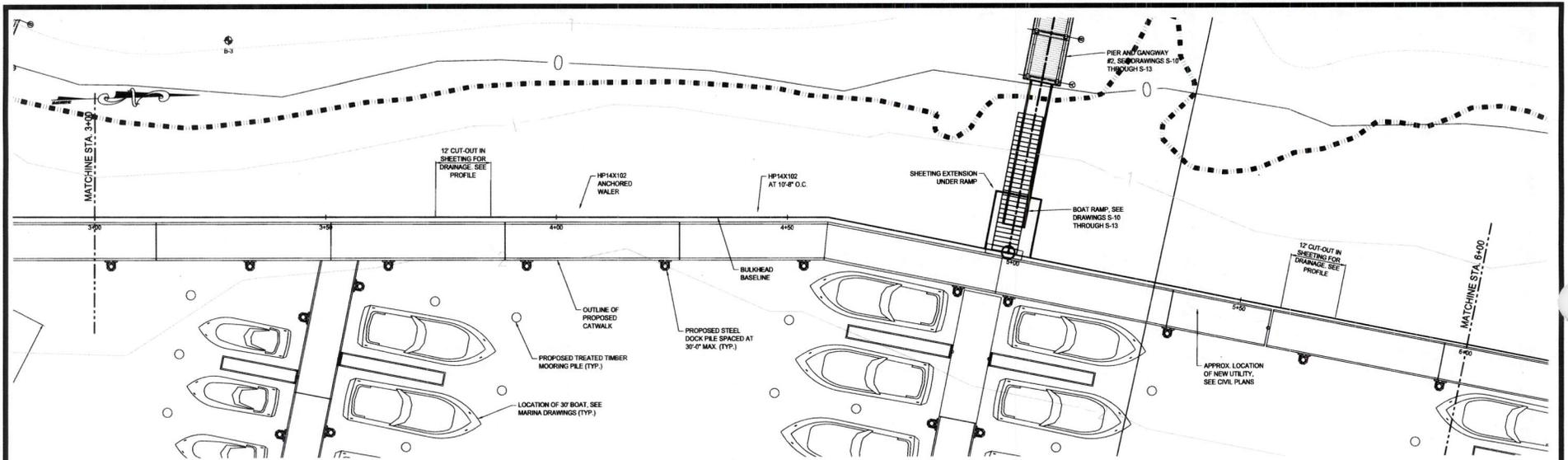


BULKHEAD PROFILE
SCALE: 1" = 10'



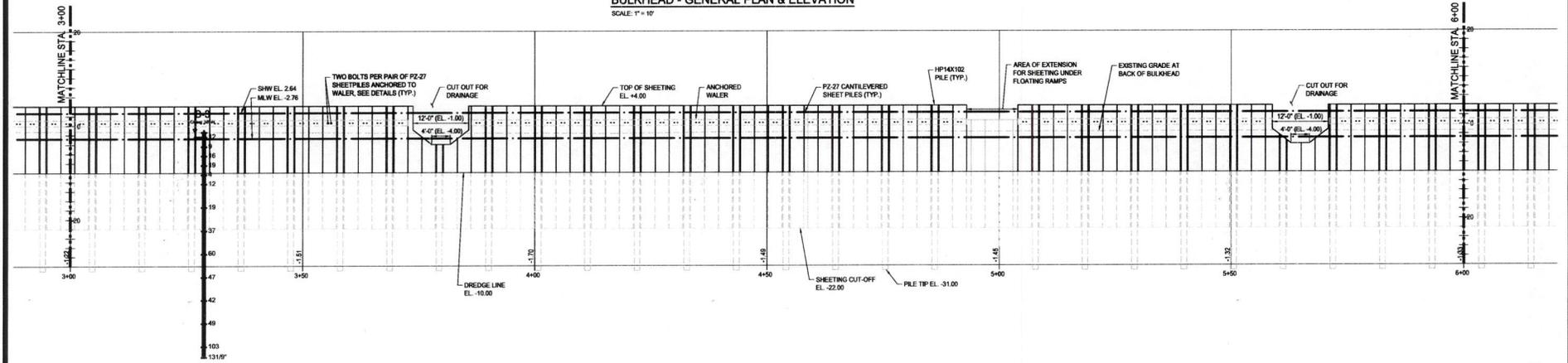
No.	DESCRIPTION OF REVISION	DATE	BY	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 101 BULKHEAD PLAN & PROFILE STA. 0+00 TO 3+00				
CONSULTING AND MUNICIPAL ENGINEERS <small>200 WASHINGTON AVENUE, SUITE 200, NEW BRUNSWICK, NEW JERSEY 08901-1000</small>				
JOHN H. ALBERT, P.E., P.P.	DREW J. SHINE, P.E., P.P.	JOHN J. SHERRY, P.E., L.S. & P.P.		
JAY A. CORRELL, P.E., P.P.	BROWNE J. INGALLSAND, P.E., P.P.	ANDREW A. VALDES, P.E., P.P.		
GREGORY R. VALES, P.E., P.P.			AS SHOWN	DHL
			DHL	TT
<small>NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 34468</small>			3/5/12	5

APPLICATION # NAN-2012-01198-EBO



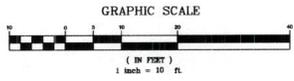
BULKHEAD - GENERAL PLAN & ELEVATION

SCALE: 1" = 10'

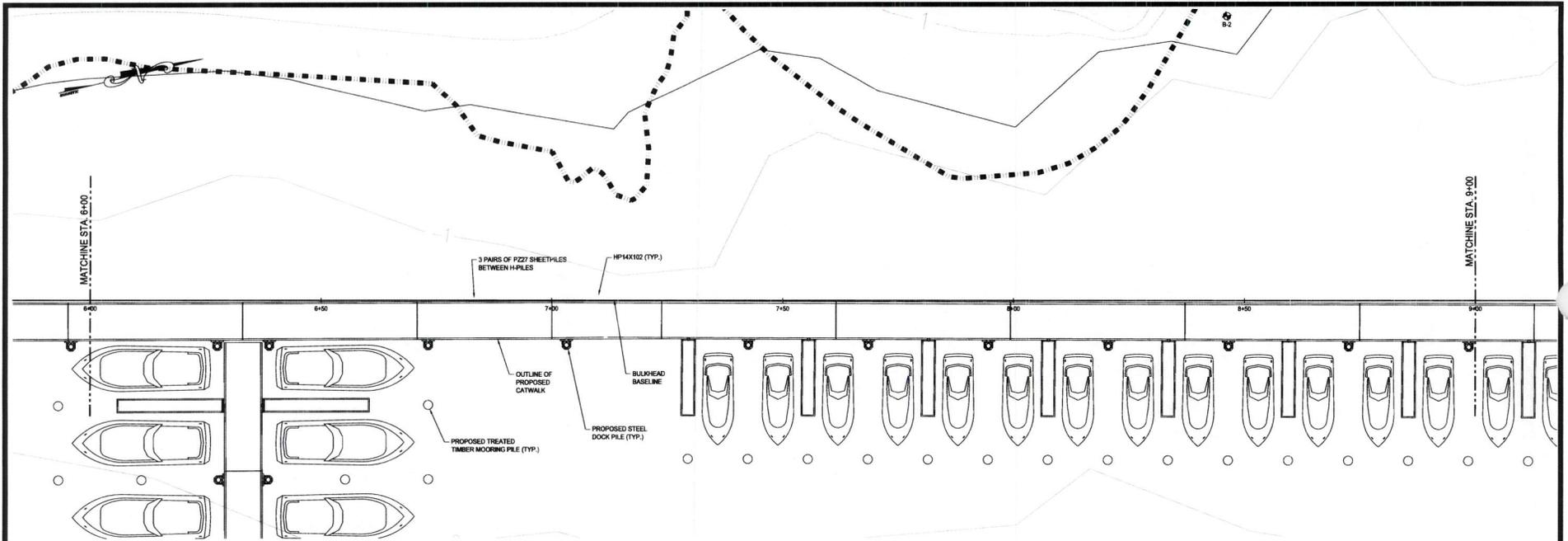


BULKHEAD PROFILE

SCALE: 1" = 10'

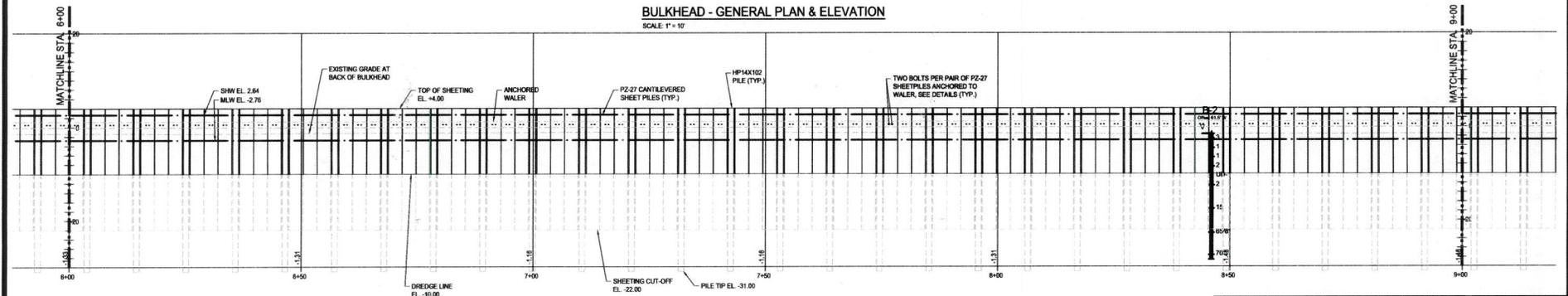


No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 BULKHEAD PLAN & PROFILE STA. 3+00 TO 6+00				
 CONSULTING AND MUNICIPAL ENGINEERS <small>201 GREENWICH AVENUE, SUITE 200, NEW YORK, NY 10036 • 212-692-1000 • FAX: 212-692-1001</small>				
JOHN H. HARRIS, P.E., P.P.	SPENCER L. SWANER, P.E., P.P.	CHARLES J. SHANNON, P.E., L.S. & P.P.		
JAY S. CORRELL, P.E., P.P.	MICHAEL J. MACMILLAN, P.E., P.P.	DEBORAH E. VAUGHN, P.E., P.P.		
GRIFORY R. VALES, P.E., P.P.			AS SHOWN	DHL
			DHL	TT
				6
			3/5/12	



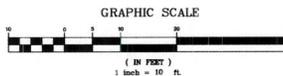
BULKHEAD - GENERAL PLAN & ELEVATION

SCALE: 1" = 10'

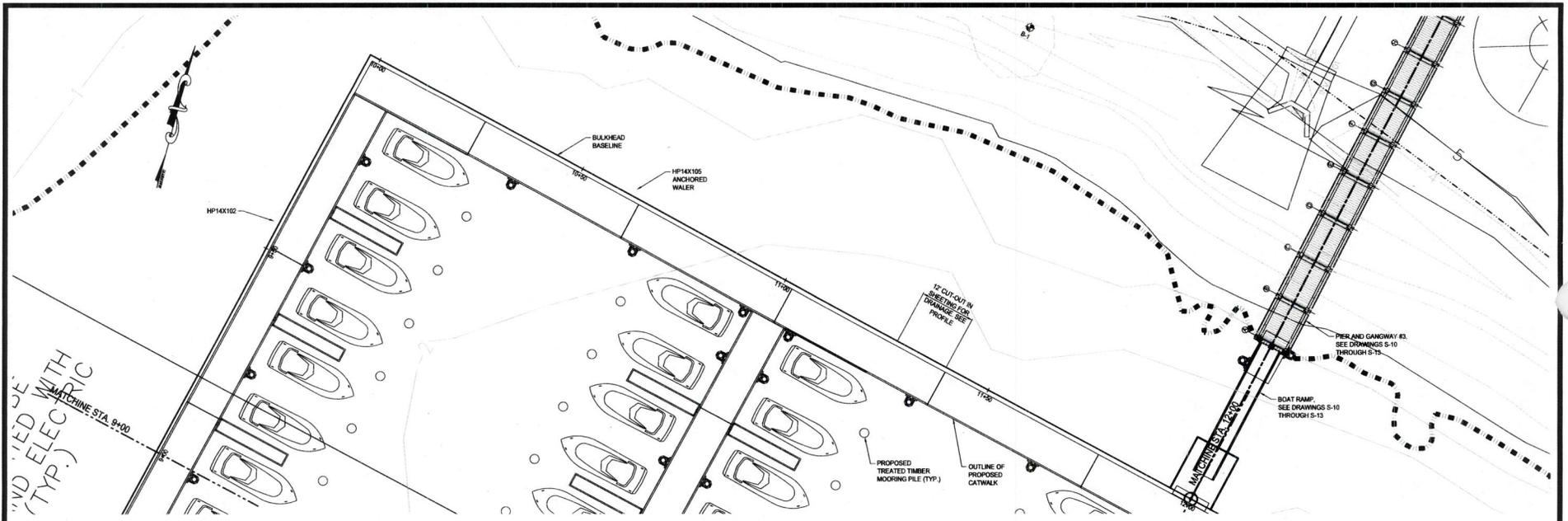


BULKHEAD PROFILE

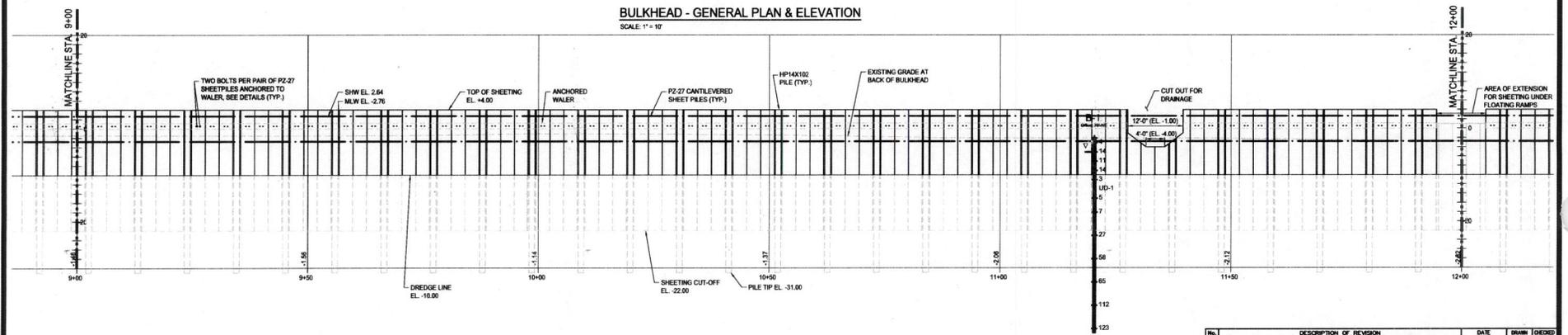
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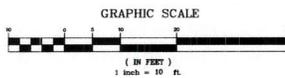
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BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 BULKHEAD PLAN & PROFILE STA. 6+00 TO 9+00				
 CONSULTING AND MUNICIPAL ENGINEERS <small>300 BROADWAY AVENUE, PHOENIX, ARIZONA 85004 TEL: 602.944.1100 FAX: 602.944.1101</small>				
ADRIAN R. ALLENBY P.E., P.P.	CHRISTOPHER J. SHANKS P.E., P.P.	DOUGLAS S. SHAW P.E., L.E. & P.P.		
JAY B. CORNELL P.E., P.P.	MICHAEL J. BUCKLEWORTH P.E., P.P.	CHRISTOPHER A. WARD P.E., P.P.		
GREGORY R. WATSON P.E., P.P.			AS SHOWN	DHL
			DHL	TT
			3/5/12	7



BULKHEAD - GENERAL PLAN & ELEVATION
SCALE: 1" = 10'

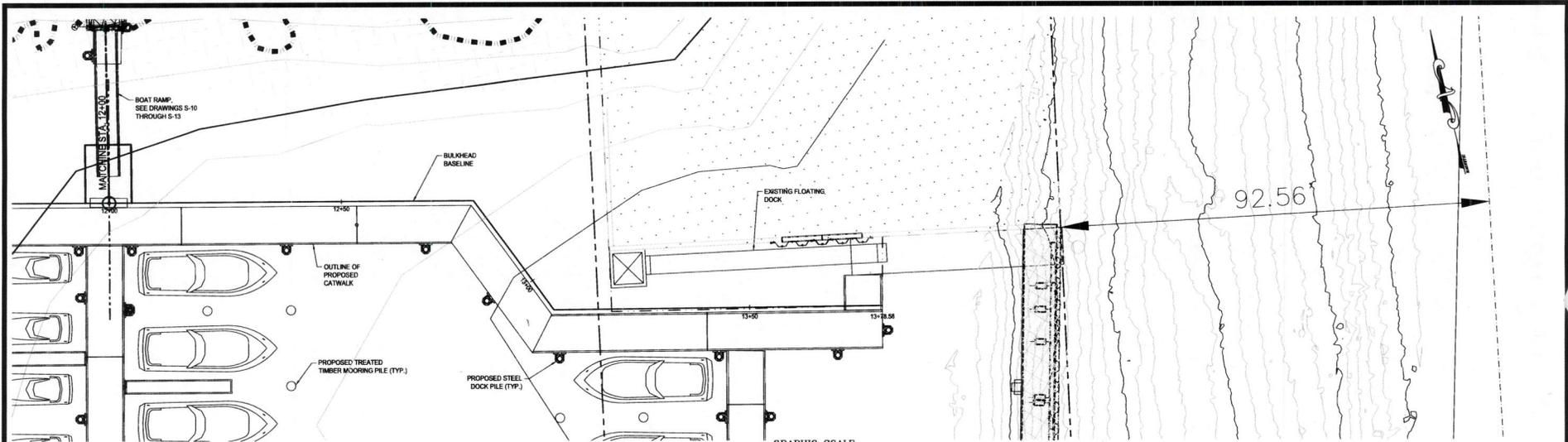


BULKHEAD PROFILE
SCALE: 1" = 10'



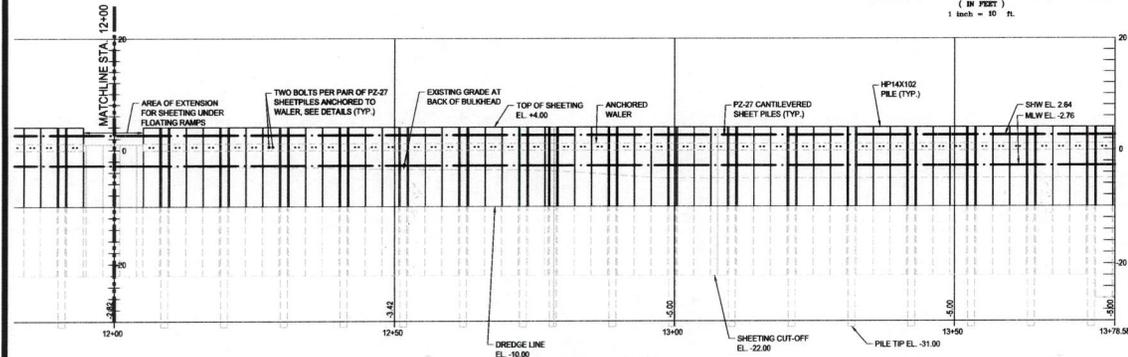
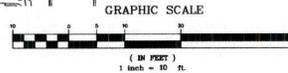
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BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 BULKHEAD PLAN & PROFILE STA. 9+00 TO 12+00				
 CONSULTING AND MUNICIPAL ENGINEERS				
JOHN H. ALDRIDGE, P.E., P.P.	DAVID J. SPINALE, P.E., P.P.		DAVID J. SPINALE, P.E., L.S. & P.P.	
JAY R. CORNELL, P.E., P.P.	HOWELL J. BRIDGEMAN, P.E., P.P.		ANDREW K. VANDER PYLE, P.P.	
GREGORY R. VANCE, P.E., P.P.			AS SHOWN	DHL
			DHL	TT
			3/5/12	B

APPLICATION # NAN-2012-01198-EBO



BULKHEAD - GENERAL PLAN & ELEVATION

SCALE: 1" = 10'



BULKHEAD PROFILE

SCALE: 1" = 10'

FLOATING DOCK SYSTEM

- FLOATING DOCK SYSTEM SHALL BE AS MANUFACTURED BY BELLINGHAM MARINE INC.
- DOCK SYSTEM SHALL HAVE A MINIMUM LIVE LOAD CAPACITY OF 40 PSF WITH DESIGN FREQUENCY OF 18 INCHES UNDER DEAD LOAD AND MINIMUM FREEBOARD OF 10 INCHES UNDER FULL DEAD AND LIVE LOAD.
- MOORING HARDWARE SHALL BE DESIGNED FOR MINIMUM PROJECT DESIGN LOADS.

GENERAL NOTES

- THESE DRAWINGS PRESENT THE PROPOSED WATERFRONT STRUCTURES LAYOUT PLAN AND CROSS SECTIONS FOR THE PROPOSED WATERFRONT MARINA, IN THE BOROUGH OF CARTERET, MIDDLESEX COUNTY, NEW JERSEY.
- THE LAYOUT OF WATERFRONT STRUCTURES IS BASED ON THE SITE PLAN FOR THE CARTERET WATERFRONT MARINA AS PREPARED BY CME ASSOCIATES.
- TOPOGRAPHY AND RIVER SOUNDING DATA ARE BASED ON THE PROJECT SURVEY PERFORMED BY CME IN 2011 AND SHOWN ON THE GRADING AND DRAINAGE PLAN.
- THE VERTICAL DATUM FOR THESE DRAWINGS IS THE DATUM OF THE PROJECT SURVEY WHICH IS THE NATIONAL GEODETIC VERTICAL DATUM REFERENCED HEREON AS NVD.

SUBSURFACE CONDITIONS

- SUBSURFACE CONDITIONS HAVE BEEN INFERRED FROM TEST BORING DATA OBTAINED BY CME ASSOCIATES VIA STANDARD PENETRATION TESTS PERFORMED IN 2011 AND LOGGED BY CME GEOTECHNICAL STAFF.
- CONDITIONS BETWEEN BORINGS MAY VARY FROM THE INFERRED CONDITIONS.

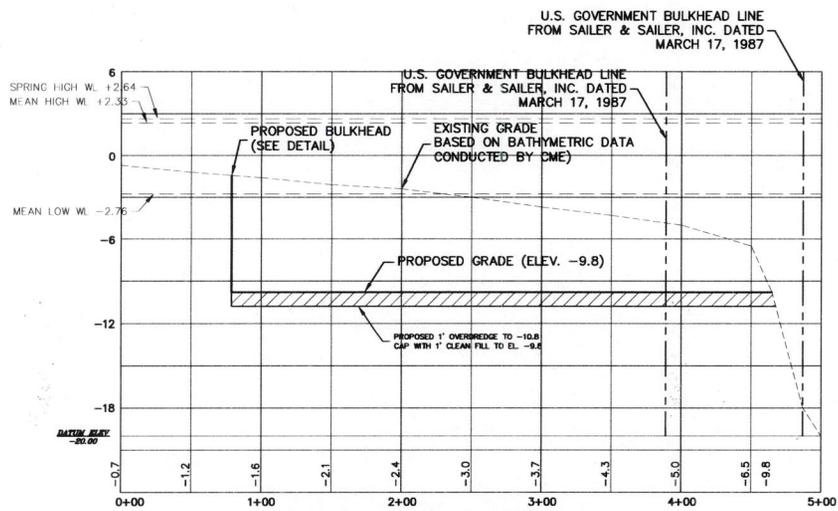
DESIGN NOTES

- THE STRUCTURAL DESIGN STANDARDS FOR THE WATERFRONT STRUCTURES HAVE BEEN ADOPTED FROM:
 - AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES
 - BOCA NATIONAL BUILDING CODE AND REFERENCE STANDARDS
 - ASCE MANUALS AND REPORTS ON ENGINEERING PRACTICE-NO. 50 FOR SMALL CRAFT HARBORS
 - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
- CONSTRUCTION SPECIFICATION SHALL BE THE PROJECT SPECIFICATION MANUAL SUPPLEMENTED BY THE NDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION. REQUIREMENTS OF ALL PROJECT PERMITS SHALL BE INCLUDED IN THE SPECIFICATION.
- DESIGN LOADS
 - WHARF AND PIER DESIGN LIVE LOAD - 100 PSF
 - WHARF AND PIER DEAD LOAD + 25 PSF FOR SNOW LOADING
 - BASIC WIND GUST VELOCITY OF 110 MPH
 - RIVER CURRENT VELOCITY OF 4 FEET PER SECOND (2.4 KNOTS) AT FLOOD STAGE
 - WAVE HEIGHT OF 3 FEET WITH 3.5 SECOND PERIOD
 - ICE LOADING - 100 PSF BASED ON THICKNESS OF 6 INCHES
 - VESSEL - COLLISION IMPACT BASED ON KINETIC ENERGY OF 20 INCH-HIPS
 - BULKHEAD LOADINGS INCLUDE ACTIVE EARTH PRESSURE-LATERAL PRESSURE RESULTING FROM 300 PSF SURFACE LIVE LOAD + WHARF DECK REACTIONS.
 - SEISMIC LOADINGS PER BOCA 16.
- TIMBER FRAMING MATERIAL DESIGN CRITERIA
 - TIMBER BEARING PILES, FENDER PILES, MOORING AND GUIDE PILES SHALL BE TREATED SOUTHERN YELLOW PINE OR DOUGLAS FIR SPECIES CONFORMING TO ASTM D25, TABLE II END BEARING, WITH MINIMUM ALLOWABLE COMPRESSIVE STRENGTH OF 1200 PSI PARALLEL TO GRAIN AND BENDING STRENGTH OF 2400 PSI. MINIMUM PILE DIAMETER SHALL BE 12 INCHES.
 - HEAVY LUMBER FRAMING MEMBERS SHALL BE TREATED-MANUFACTURED PARALLEL STRAND LUMBER - PARALLEL PSI. TIMBERS AS MANUFACTURED BY TRUSS-JOIST MACMILLAN OR APPROVED EQUAL WITH MINIMUM ALLOWABLE BENDING STRENGTH OF 2400 PSI. HORIZONTAL SHEAR STRENGTH OF 240 PSI AND COMPRESSION PERPENDICULAR TO GRAIN OF 700 PSI.
 - TIMBER FRAMING SHALL CONSIST OF TREATED SOUTHERN PINE OR DOUGLAS FIR GRADE NO. 2 DENSE OR BETTER.
 - TREATMENT SHALL BE PERFORMED IN ACCORDANCE WITH AMPA STANDARDS C1 FOR MARINE PILING AND C2 FOR MARINE TREATMENT OF LUMBER. MINE TIES AND TIMBERS GENERALLY AS FOLLOWS:

WHARF SUPPORT PILING:	CCA RETENTION 2.5 PCF
ALL OTHER PILING:	CCA RETENTION 2.5 PCF MIN.
PSL LUMBER (ABOVE +6):	CCA RETENTION 2.5 PCF MIN.
FRAMING LUMBER (ABOVE +6):	CCA RETENTION 6 PCF MIN.
ALL LUMBER BELOW +6:	CCA RETENTION 2.5 PCF MIN.
COMPOSITE DECKING:	UNTREATED

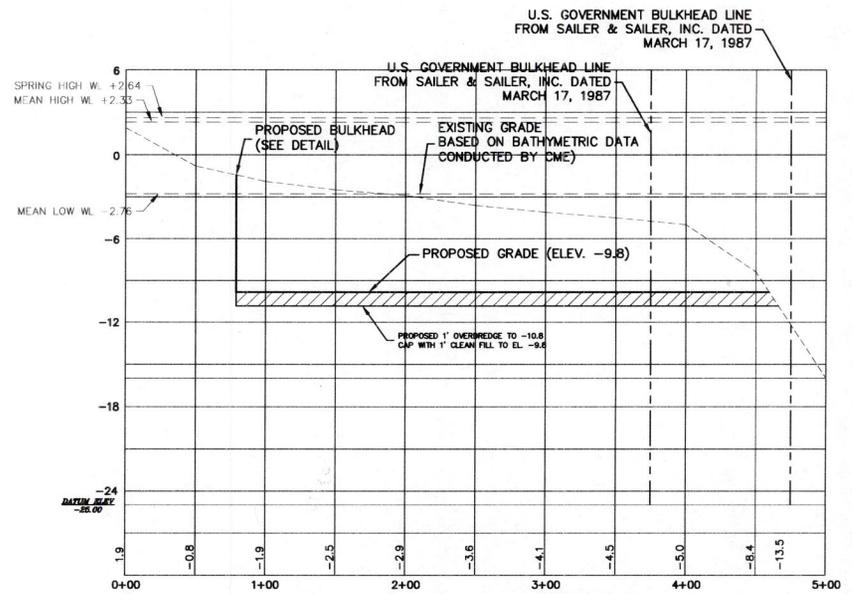
- STEEL SHEET PILE BULKHEAD
 - STEEL SHEET PILING SHALL CONFORM TO ASTM A328 WITH MINIMUM YIELD STRENGTH OF 38,000 PSI
 - SHEET PILE SECTION SHALL BE THE SKYLINE STEEL PZ27 SHEET PILE SECTION OR EQUAL, INTERLOCKING STEEL SHEET PILE WITH MINIMUM STEEL THICKNESS OF 3/8 INCH AND SECTION MODULUS OF 30.2 INCHES CUBED PER FOOT OF WALL.
 - EXPOSED SURFACES SHALL BE COATED WITH MINIMUM 16 MIL DRY FILM THICKNESS OF KOPPERS COAL TAR EPOXY OR EQUIVALENT.
 - CONCEALED WALLERS SHALL CONFORM TO ASTM A6 AND SHALL BE FABRICATED FROM STEEL CONFORMING TO ASTM A36 STEEL.
 - THE ROSS SHALL BE FABRICATED FROM ASTM A36 STEEL AND SHALL BE FIELD COATED WITH A COAL TAR EPOXY COATING.
 - STEEL HARDWARE SHALL BE FABRICATED FROM ASTM A36 STEEL AND SHALL BE FIELD COATED WITH COAL TAR EPOXY COATING.
 - BOLTS SHALL CONFORM TO ASTM A307 AND SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 BULKHEAD PLAN & PROFILE STA. 12+00 TO 13+78.58				
CONSULTING AND MUNICIPAL ENGINEERS <small>INCORPORATED</small> <small>2000 W. 10TH STREET, SUITE 200, NEW BRUNSWICK, NJ 08901</small>				
EDWIN ALVAREZ, P.E., P.P.	DAVID J. SHANLEY, P.E., P.P.	JOHN J. STROTT, P.E., L.S. & P.P.		
JAY B. CORRIE, P.E., P.P.	MICHELLE A. BUCKLAND, P.E., P.P.	CHRISTOPHER A. WILSON, P.E., P.P.		
GREGORY R. VALESI, P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER</small>			AS SHOWN	DHL
			DHL	TT
			3/5/12	9
			N.J. LIC. 34468	CAS0110



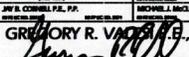
DREDGING PROFILE: SECTION A-A

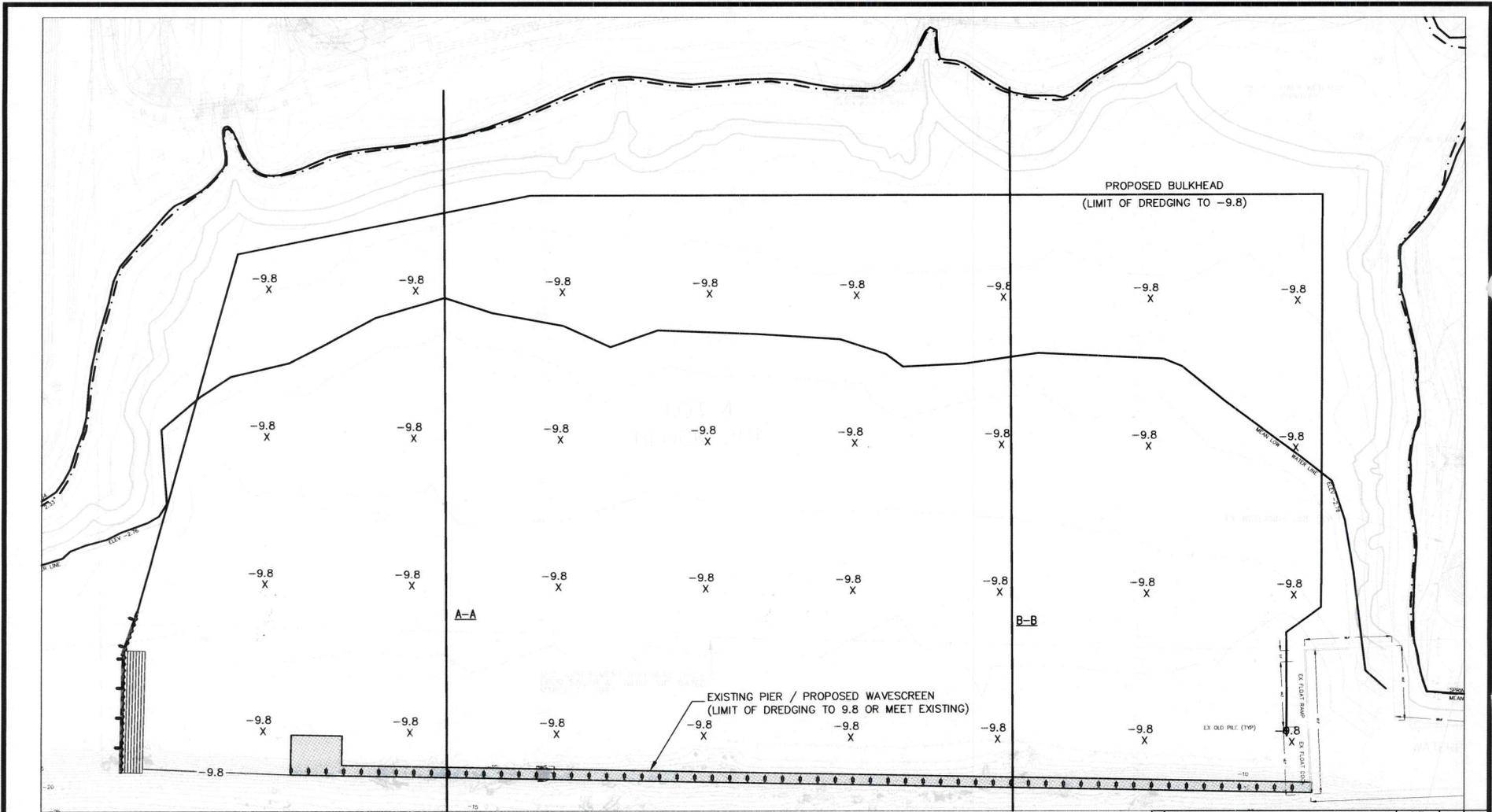
SCALE: H = 1" = 40.0'
SCALE: V = 1" = 4.0'



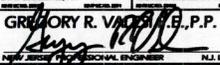
DREDGING PROFILE: SECTION B-B

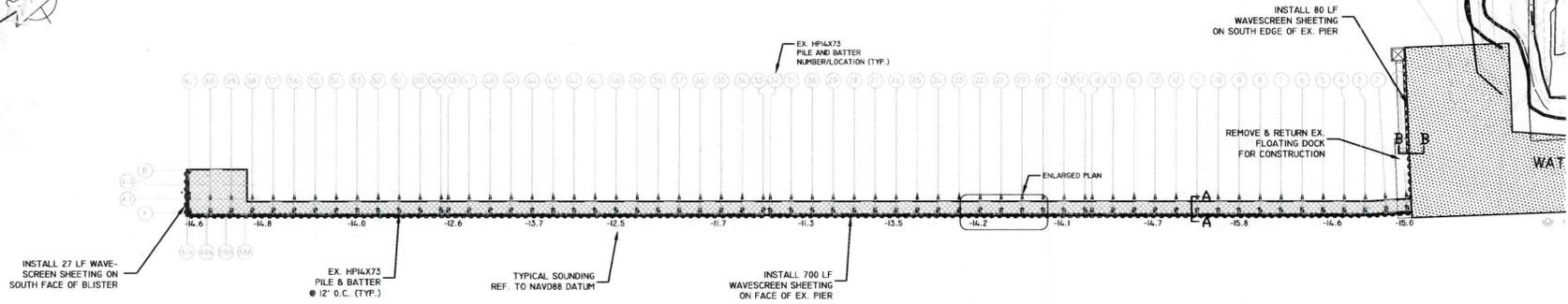
SCALE: H = 1" = 40.0'
SCALE: V = 1" = 4.0'

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 DREDGE CROSS SECTIONS				
 CME ASSOCIATES CONSULTING AND MUNICIPAL ENGINEERS				
JOHN F. PALOMO, P.E., P.P.	CHRIS J. SPINALE, P.E., P.P.	JOHN J. CROTTY, P.E., L.L. & P.P.		
JAY B. CORNELL, P.E., P.P.	MICHAEL J. MCGILLIWRAY, P.E., P.P.	GREGORY E. VANDERKAM, P.E., P.P.		
GREGORY R. VANDERKAM, P.P. 			AS SHOWN	MRZ
			BM	TT/GE
			3/5/12	10



DREDGING CROSS-SECTION PLAN VIEW
SCALE 1"=30'

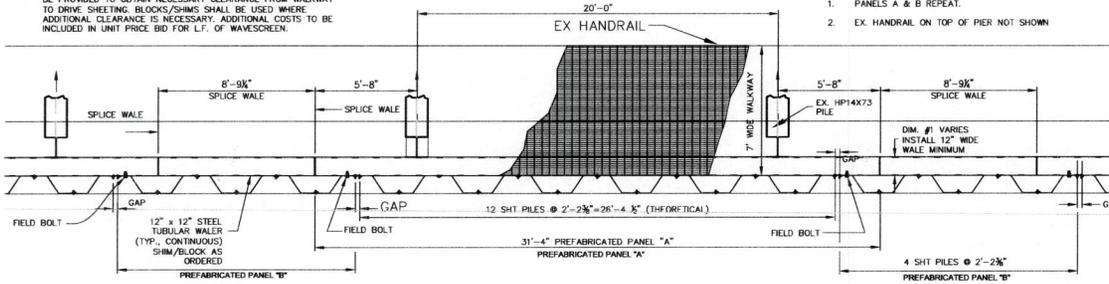
No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
	BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 DREDGE PLAN			
 CME CONSULTING AND MUNICIPAL ENGINEERS				
JOHN H. ALDRIDGE, P.E., P.P.	DAVID S. SHERIDAN, P.E., P.P.	JOHN A. DEWITT, P.E., LL. & P.P.		
JAY B. CORRELL, P.E., P.P.	MICHAEL A. HANCOCK, P.E., P.P.	CHRISTOPHER E. VALLI, P.E., P.P.		
GREGORY R. VACCARO, P.E., P.P. 			AS SHOWN	MMZ
			BM	TTZ/G
			3/5/12	11



PLAN VIEW OF PIER EXTENSION
SCALE: 1"=30'

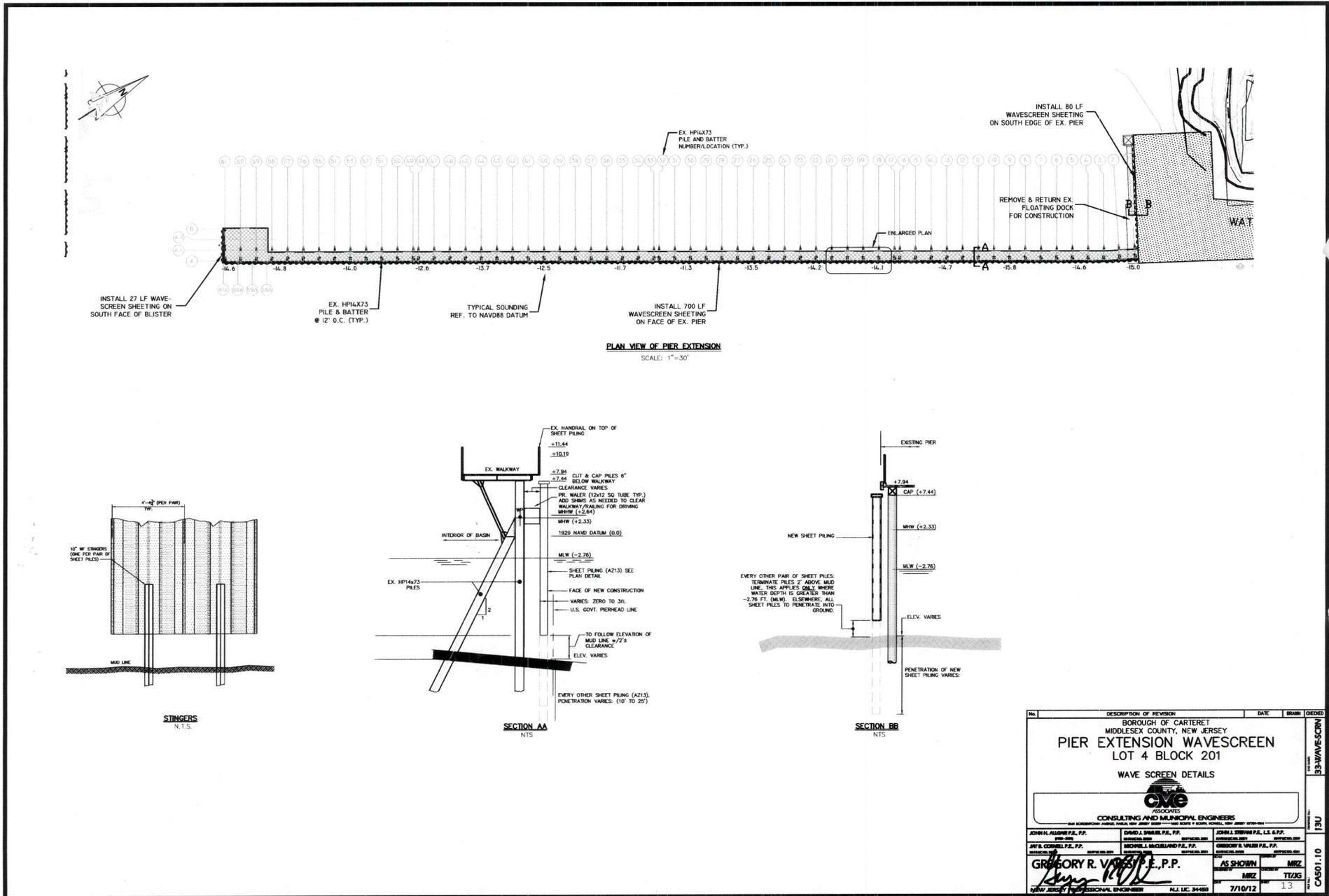
- NOTES**
1. FACE OF WAVESCREEN SHALL BE WITHOUT GAPS BETWEEN SHEETING.
 2. ENTIRE LENGTH OF WAVESCREEN SHALL PROVIDE 2' CLEARANCE ABOVE MUD LINE AS SHOWN IN SINGER DETAIL.
 3. FOR CLARITY, WALKWAY ONLY PARTLY SHOWN.
 4. DIMENSION 1 VARIES. MINIMUM CONTINUOUS 12"x12" WALKER SHALL BE PROVIDED TO OBTAIN NECESSARY CLEARANCE FROM WALKWAY TO DRIVE SHEETING. BLOCKS/SHIMS SHALL BE USED WHERE ADDITIONAL CLEARANCE IS NECESSARY. ADDITIONAL COSTS TO BE INCLUDED IN UNIT PRICE BID FOR LF OF WAVESCREEN.

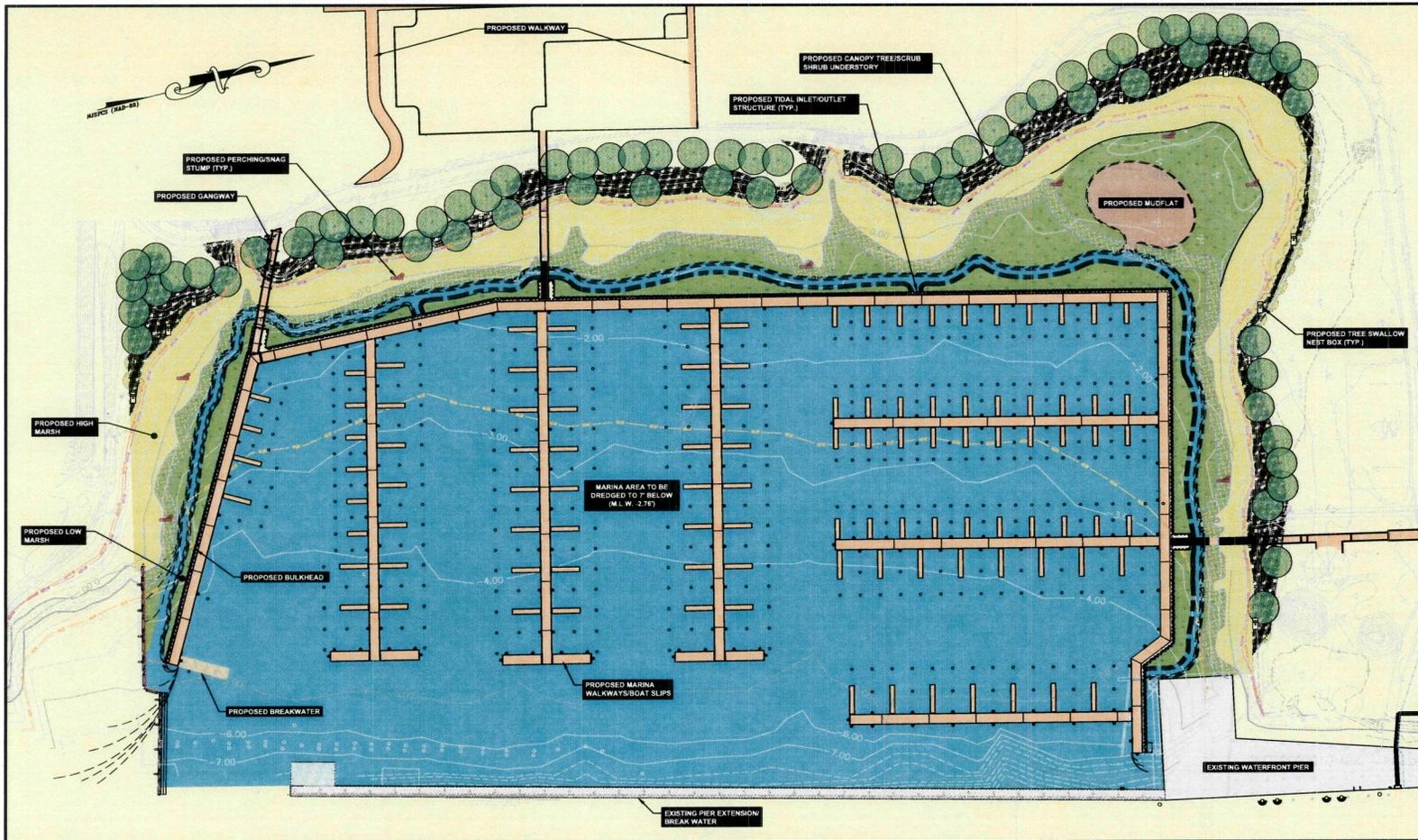
- NOTES**
1. PANELS A & B REPEAT.
 2. EX. HANDRAIL ON TOP OF PIER NOT SHOWN



PLAN VIEW OF RECREATION PIER WAVE SCREEN DETAIL
NOTES

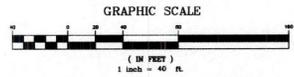
NO.	DESCRIPTION OF REVISION	DATE	BY	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY PIER EXTENSION WAVESCREEN LOT 4 BLOCK 201 WAVE SCREEN PLAN				
 CME ASSOCIATES CONSULTING AND MUNICIPAL ENGINEERS				
JOHN H. ALVARO, P.E., P.P.	DAVID J. SHARPE, P.E., P.P.	JOHN L. STEPHAN, P.E., L.S. & P.P.		
JAY B. CORRELL, P.E., P.P.	ROBERT J. INGOLDING, P.E., P.P.	CHRISTOPHER A. VIGORE, P.E., P.P.		
GREGORY R. VANDERKAM, P.E., P.P. 			AS SHOWN	MRZ
			MRZ	TTJ/G
			7/10/12	12
N.J. LIC. 34468				





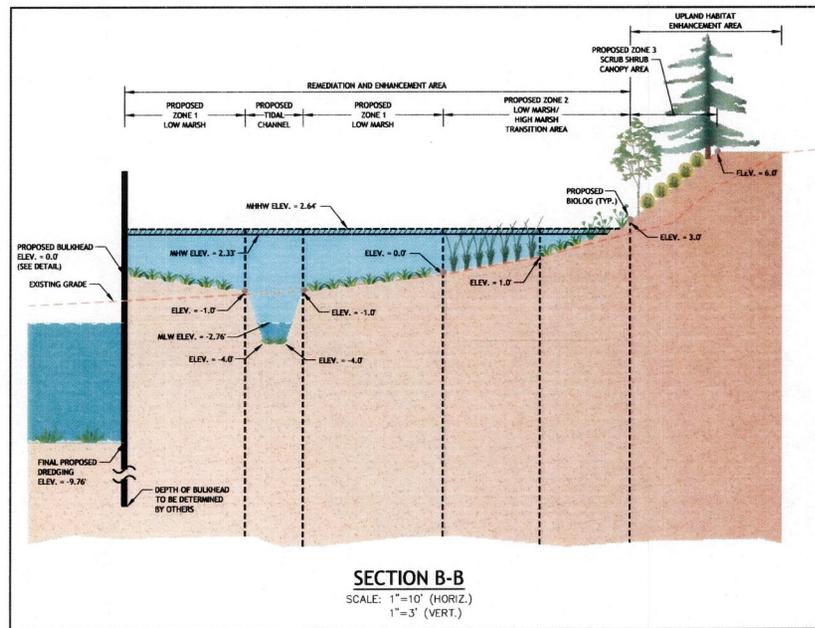
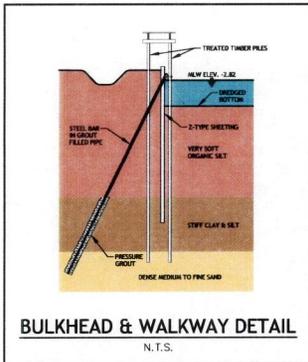
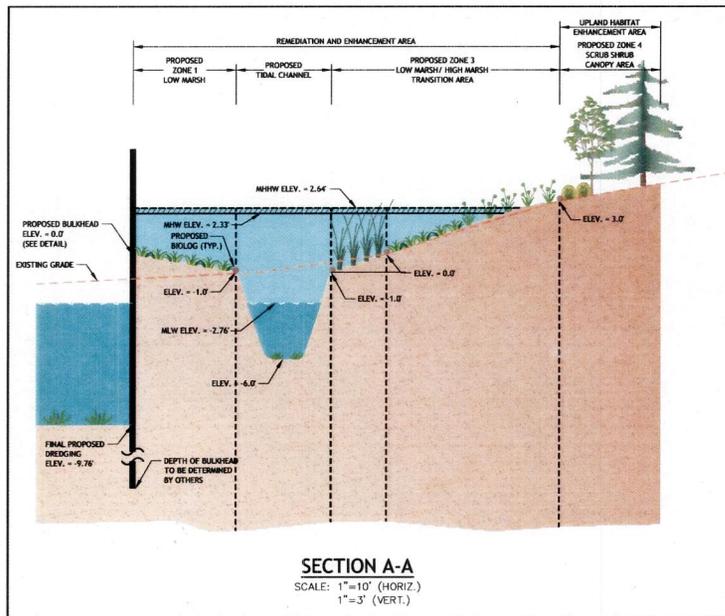
LEGEND	
	M.L.W. - ELEV. -2.76
	M.H.W. - ELEV. 2.33
	M.H.W. (SPRING HIGH TIDE) - ELEV. 2.64
	PROPOSED BULKHEAD
	PROPOSED TIDAL CHANNEL - 14,405 S.F.± / 0.331 Ac.±
	PROPOSED MUDFLAT AREA - 4,563 S.F.± / 0.105 Ac.±
	LOW MARSH AREA - 44,286 S.F.± / 1.016 Ac.±
	HIGH MARSH AREA - 48,874 S.F.± / 1.122 Ac.±
	CANOPY TREE/SCRUB SHRUB UNDERSTORY - 30,703 S.F.± / 0.705 Ac.±
	CANOPY TREES
	UNDERSTORY TREES
	PROPOSED TREE SWALLOW NEST BOXES (10)
	PROPOSED PERCHING/SNAG STUMP

- NOTES:
1. THE MEAN HIGH WATER (MHW) DETERMINATION WAS BASED UPON AN INTERPOLATION BETWEEN TWO TIDAL STUDY STATIONS, BS30772--HEARBY POINT, HACKENSACK RIVER, AND BS31156--WOODBRIDGE CREEK (#); BOTH STUDIES ARE BASED UPON THE TIDAL EPOCH 1983-2001 AND STRADDLE THE PROPOSED SITE ALONG A COMMON WATERWAY. THE TIDAL ELEVATIONS WERE CONVERTED TO NAVD 1988 ELEVATIONS BASED ON TWO PUBLISHED TIDAL BENCH MARKS, "M 16", PID KVO289, AND "D 37", PID KVO199, WHICH WERE PART OF AND INCORPORATED INTO THE TIDAL STUDY REPORTS. BOTH BENCH MARKS ARE PART OF THE NAVD 1988 VERTICAL NETWORK AND ARE CLASSIFIED AS FIRST ORDER, CLASS TWO, VERTICAL CONTROL POINTS.
 2. REMEDIATED WETLAND/AQUATIC HABITAT TO BE PROVIDED A 6" LAYER OF CLEAN SUBSTRATE.
 3. INVASIVE TREATMENT TO BE PROVIDED ALONG UPLAND/WETLAND FRINGE PRIOR TO GRADING ACTIVITIES.



NO.		DESCRIPTION OF REVISION		DATE	BY	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 WETLAND/AQUATIC HABITAT ENHANCEMENT PLAN						
CONSULTING AND MUNICIPAL ENGINEERS <small>NEW JERSEY PROFESSIONAL ENGINEERS, P.L.L.C. 34458</small>						
JOHN H. ALGAR P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>	DAVID J. SAMUEL P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>	JOHN J. STEFANI P.E., L.S. & P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>	GREGORY R. VALESI P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>			
JAY B. CONNELL P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>	MICHAEL J. HAZELLAND P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>	GREGORY R. VALESI P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>	GREGORY R. VALESI P.E., P.P. <small>NEW JERSEY PROFESSIONAL ENGINEER, P.L.L.C. 34458</small>			
DRAWN BY: <i>AG</i> CHECKED BY: <i>HO</i> DATE: 3/5/12			SCALE: 1" = 40' SHEET: 1.4 TOTAL SHEETS: 1.4			

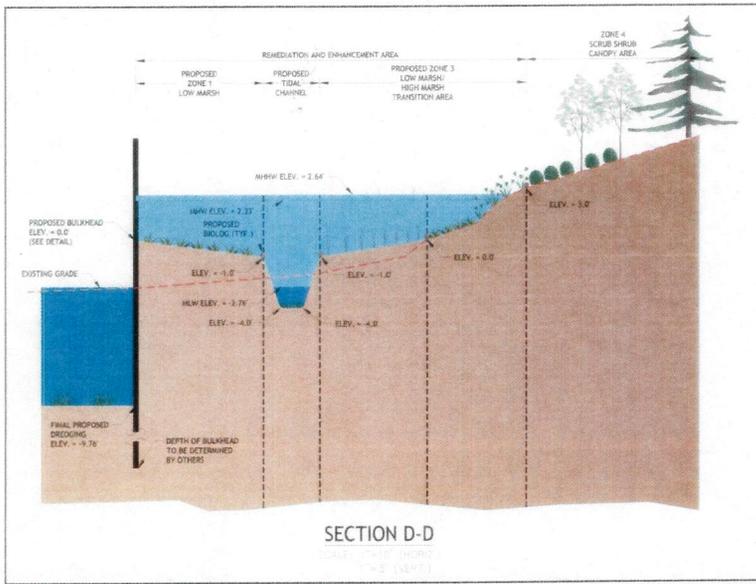
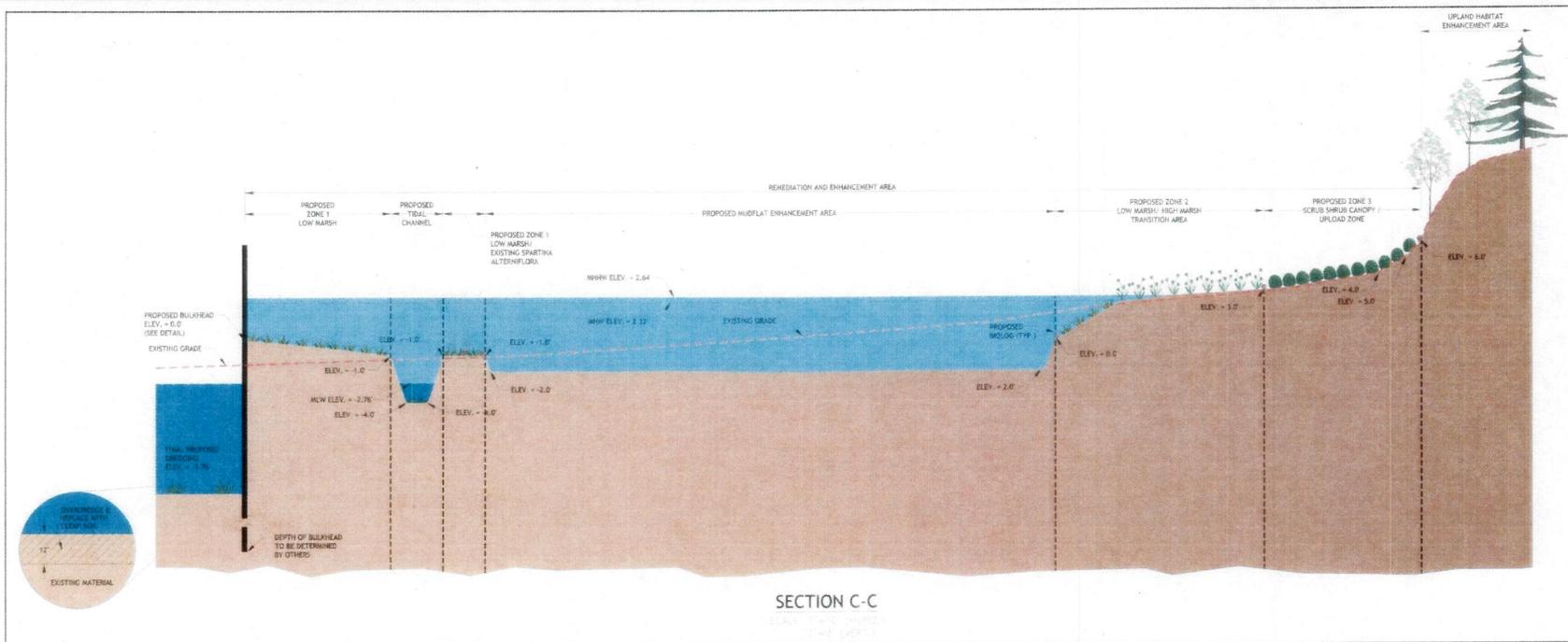
APPLICATION # NAN-2012-01198-EBO



LEGEND

	MLW - ELEV. -2.76
	MHW - ELEV. 2.33
	MHHW (SPRING HIGH TIDE) - ELEV. 2.64
	EXISTING GRADE LINE

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
BOROUGH OF CARTERET MIDDLESEX COUNTY, NEW JERSEY WATERFRONT MARINA LOTS 3.02 & 4 BLOCK 201 WETLAND/AQUATIC HABITAT CROSS SECTIONS				
 CONSULTING AND MUNICIPAL ENGINEERS <small>1000 NORTH AVENUE, SUITE 200, NEW BRUNSWICK, NJ 08901</small>				
JOHN H. ALGARRE P.E., P.P.	DAVID J. SAMUEL P.E., P.P.	JOHN J. STEWART P.E., LL & P.P.		
JAY B. CORNELL P.E., P.P.	MICHAEL L. MACCELLANO P.E., P.P.	GREGORY R. VALEY P.E., P.P.		
GREGORY R. VALEY P.E., P.P. <small>NEW BRUNSWICK, NJ</small>			AS SHOWN	AG
			HO	BT/HO
			MAR. 2012	15



SECTION OF THE CITY OF PORTLAND
MULTNOMAH COUNTY MARINA
WATERFRONT MARINA
LOTS 3, 02 & 4 BLOCK 201
WETLAND/AQUATIC HABITAT CROSS SECTIONS

CME
CONSULTING AND MUNICIPAL ENGINEERS

JOHN H. ALGAR P.E., P.P.	DAVID J. SAMUELS P.E., P.P.	JOHN J. DEWANI P.E., L.L. & P.P.
JAMES CONNELL P.P.	MICHAEL J. MACCOLLANGE P.P.	GREGORY R. VALES P.E., P.P.

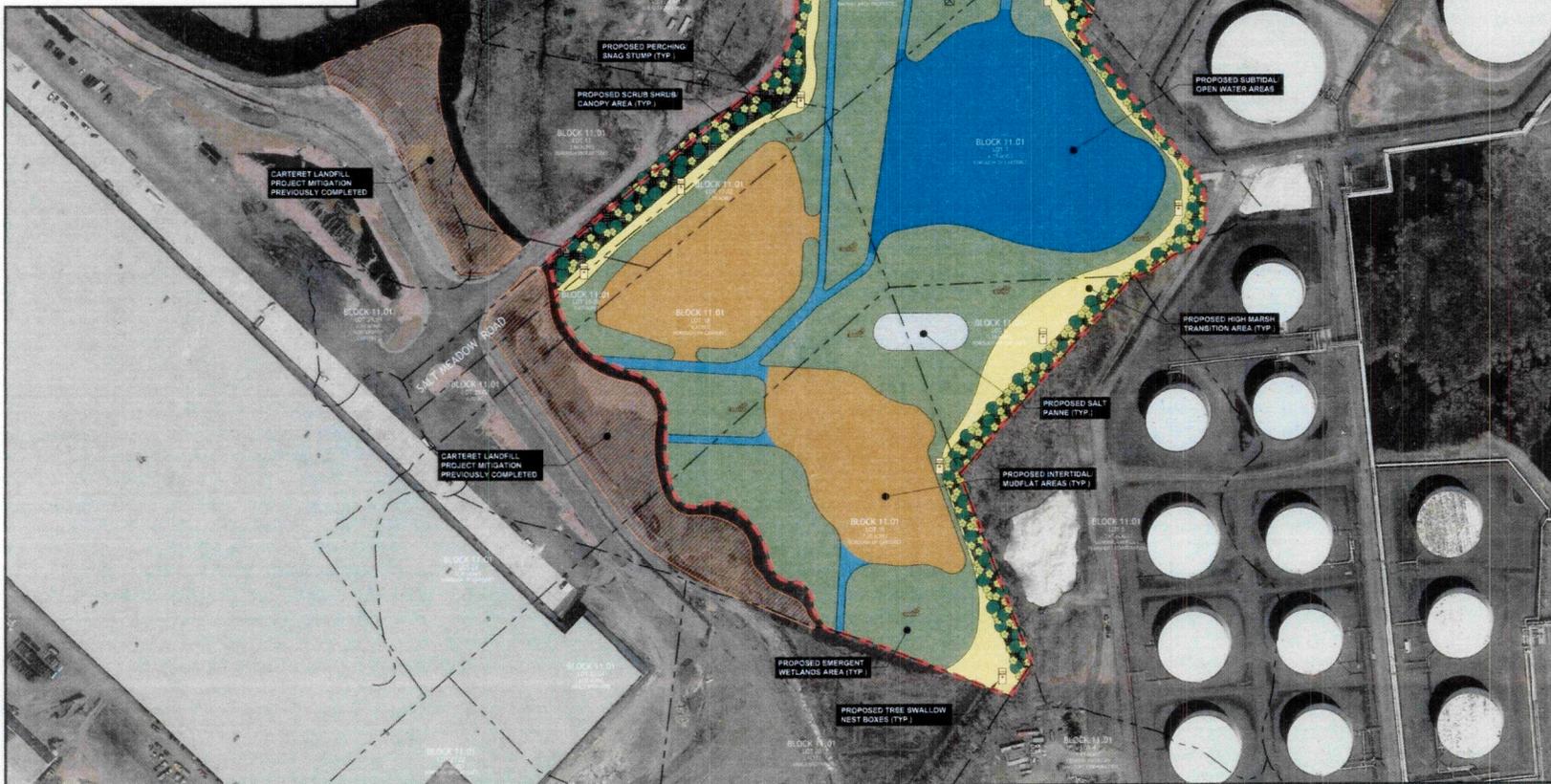
AS SHOWN
BT/HO
16

MAR. 2012

NEW JERSEY PROFESSIONAL ENGINEERS



LOCATION MAP
SCALE: 1"=3,000'



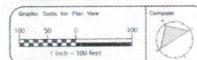
General Notes and Legend

- NOTE:
BASIC MAP INFORMATION OBTAINED FROM THE FOLLOWING SOURCES:
1. ALTA/ACORN LAND SURVEY BLOCK 9.00 LOT 21, BLOCK 9.01 LOTS 8, 9, 10 AND BLOCK 11.01 LOTS 14-15, 17 & 18, BOROUGH OF CARTERET, MIDDLESEX COUNTY, NEW JERSEY, PREPARED BY KELLEY B. KOPPATZKA, CONSULTING ENGINEER AND LAND SURVEYOR, DATED 05/20/06.
2. CREST ENGINEERING, INC. PLAN ENTITLED WETLAND LOCATION MAP, DATED 6/7/97.
3. WETLANDS DELINEATION IS BASED ON MAP PREPARED BY BLANKEN BODKOR AND ASSOCIATES, INC., DATED APRIL 6, 2003.
4. COMPENSATORY MITIGATION WILL BE PROVIDED ON PROPERTIES WITHIN THE SAME HUC-020303040506 AS THE CARTERET MARINA IMPACTS. TOTAL COMPENSATORY MITIGATION ACREAGE CREATION/RESTORATION/ENHANCEMENT WILL BE PROVIDED IN THE FINAL MITIGATION DESIGN TO THE NEAREST TENTH (0.1) ACRE. ESTIMATED COMPENSATION AT 2:1 RATIO = 20.33 AC.

LEGEND

- PROPERTY LINE
- - - APPROXIMATE CONCEPT MITIGATION FOOTPRINT OR 65' AS 1:1 LOTS 121 S.F. 1
- PROPOSED TIDAL CHANNEL
- PROPOSED EMERGENT WETLANDS AREA
- PROPOSED HIGH MARSH TRANSITION AREA
- PROPOSED SCRUB SHRUB CANOPY AREA
- PROPOSED SALT PANNE
- PROPOSED SUBTIDAL MUDFLAT AREAS
- PROPOSED SUBTIDAL OPEN WATER AREAS
- CANOPY TREES
- UNDERSTORY TREES
- PROPOSED OSPREY PLATFORM
- PROPOSED PERCHING/SNAG STUMP
- PROPOSED TREE SWALLOW NEST BOXES

Revision/Issue Date



CONCEPT
CARTERET WATERFRONT
COMPENSATORY MITIGATION
BOROUGH OF CARTERET
MIDDLESEX COUNTY, NJ

CME Associates
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Carteret, NJ 07008
Phone: (732) 727-8800 Fax: (732) 727-9999
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Behram Turan
Behram Turan, P.E., L.S.R.P.
New Jersey License No. 2462379-1000

Project	Name
Carteret	Carteret Offshore Mitigation
3/2012	Job Number
Designed by HO	Approved by BT
Drawn by AG	Checked by HO
Plot Date Scale 1" = 100'	Sheet 1.8