

Connecticut Department of Energy and Environmental Protection License*

Structures, Dredging & Fill Permit Section 401 Water Quality Certification

Licensee(s):	Lorraine Harrington, Co-Trustee
Licensee Address(s):	4 Bayside Avenue Waterford, CT 06385
License Number(s):	2019013613-SDF WQC
Municipality:	Town of Waterford
Project Description:	Install a steel sheetpile bulkhead for shoreline flood and erosion control.
Project Address/Location:	4 Bayside Avenue
Waters:	Niantic River
Authorizing CT Statute(s) and/or Federal Law:	CGS Section 22a-359 to 363g; CGS Section 22a-90 to 112; Section 401 CWA (33 USC 1341)
Applicable Regulations of CT State Agencies:	22a-426-1 to 9
Agency Contact:	Land & Water Resources Division, Bureau of Water Protection & Land Reuse, 860-424-3019
License Expiration:	Five (5) years from the date of issuance of this license.
Project Site Plan Set:	One location map and six (6) sheets of plans, Sheet 1 of 4 dated July 16, 2018, revised December 11, 2019, Sheet 2 of 4 dated September 2018, revised November 7, 2019, Sheets 3 and 3A of 4 dated September 2018, revised December 11, 2019, Sheet 4 of 4 dated September 2018, revised December 4, 2019 and Sheet 4A dated September 2018, revised December 13, 2019.
License Enclosures:	LWRD General Conditions, Land Record Filing, Work Commencement Form, Compliance Certification Form, Site Plan Set

*Connecticut's Uniform Administrative Procedure Act defines License to include, "the whole or part of any agency permit, certificate, approval, registration, charter or similar form of permission required by law . . ."

Authorized Activities:

The Licensee is hereby authorized to conduct the following work as described in application # 2019013613-SDF WQC and as depicted on any site plan sheets / sets cited herein:

1. install temporary survey stakes delineating the limits of the bulkhead identified below;
2. remove a portion of previously authorized fixed pier and timber deck;
3. install sedimentation and erosion controls and the top of the slope;
4. using land-based equipment, install approximately 164 linear feet of steel sheetpile bulkhead with wooden cap including two 8' long returns with a top of bulkhead elevation of +10.0' MLW, associated support piles, waler and tie-back anchor system;
5. remove the survey stakes;
6. install geotextile fabric on the landward side of the bulkhead identified above;
7. place approximately 150 cubic yards of clean gravel landward of the bulkhead and approximately 300 cubic yards of blended gravel and topsoil landward of the bulkhead and grade landward;
8. install a safety railing on the landward side of the bulkhead;
9. reinstall the fixed pier and timber deck identified above; and
10. plant native salt-tolerant vegetation on the slope landward of the bulkhead identified above.

Failure to comply with the terms and conditions of this license shall subject the Licensee and / or the Licensee's contractor(s) to enforcement actions and penalties as provided by law.

This license is subject to the following Terms and Conditions:

1. **License Enclosure(s) and Conditions.** The Licensee shall comply with all applicable terms and conditions as may be stipulated within the License Enclosure(s) listed above.
2. All work authorized herein shall be conducted using land-based equipment or hand-held tools.
3. The Licensee shall install and maintain the stakes authorized herein delineating the waterward limit of the bulkhead authorized herein as shown on Sheet 3 of 4 dated September 2018, revised December 11, 2019. Upon installation of the bulkhead, the Licensee shall remove the stakes.
4. The Licensee must conduct a minimum of a 3-year monitoring program which shall include the submission of an annual monitoring report on or before October 30th of each growing season for the Commissioner's review and comment. The initiation of the 3-year monitoring program shall start the first growing season following the planting of the salt-tolerant vegetation located landward of the bulkhead. Such annual report shall contain at a minimum the following information: 1.) remedial actions taken during the monitoring year, such as: slope stabilization, replanting of upland vegetation, and controlling invasive plant species; 2.) visual estimates of percent cover of surviving vegetation; 3.) general health and vigor of the surviving plants; 4.) site photographs; and 5.) remedial measures recommended to achieve or maintain the slope stabilization of the restoration area. The Licensee shall immediately implement any additional remedial recommendations that may be prescribed

by the Commissioner in writing. If the Commissioner determines following the 3-year monitoring program that the approved restoration plan has not been successful, the Licensee shall submit for review and written approval of the Commissioner a revised plan to achieve restoration at this site.

5. All waste material generated by the performance of the work authorized herein shall be disposed of by the Licensee at an upland site approved for the disposal of such waste material, as applicable. The Licensee shall not allow any waste to enter the Niantic River.
6. The issuance of this permit does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, state and local law.
7. The Licensee shall construct the steel sheetpile bulkhead and timber cap with a top of cap elevation of +10.0' MLW.
8. The Licensee shall not remove the existing rocks and cobbles located waterward of the bulkhead authorized herein.

Issued under the authority of the Commissioner of Energy and Environmental Protection on:

Date

Graham J. Stevens
Bureau Chief
Bureau of Water Protection & Land Reuse

General Conditions for Land & Water Resources Division Licenses

- 1. Land Record Filing (for Structures Dredging & Fill, Tidal Wetlands, Certificate of Permission, and Long Island Sound General Permit Licenses only).** The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to the Commissioner no later than sixty (60) days after license issuance. If a Land Record Filing form is not enclosed and the work site is not associated with an upland property, no filing is required.
- 2. Contractor Notification.** The Licensee shall give a copy of the license and its attachments to the contractor(s) who will be carrying out the authorized activities prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The Licensee's contractor(s) shall conduct all operations at the site in full compliance with the license and, to the extent provided by law, may be held liable for any violation of the terms and conditions of the license. At the work site, the contractor(s) shall, whenever work is being performed, have on site and make available for inspection a copy of the license and the authorized plans.
- 3. Work Commencement¹.** Not later than two (2) weeks prior to the commencement of any work authorized herein, the Licensee shall submit to the Commissioner, on the Work Commencement Form attached hereto, the name(s) and address(es) of all contractor(s) employed to conduct such work and the expected date for commencement and completion of such work, if any.
 - For water diversion activities authorized pursuant to 22a-377(c)-1 of the Regulations of Connecticut State Agencies, the Licensee shall also notify the Commissioner in writing two weeks prior to initiating the authorized diversion.
 - For emergency activities authorized pursuant Connecticut General Statutes Section 22a-6k, the Licensee shall notify the Commissioner, in writing, of activity commencement at least one (1) day prior to construction and of activity completion no later than five (5) days after conclusion.
- 4. For Coastal Licenses Only - License Notice.** The Licensee shall post the first page of the License in a conspicuous place at the work area while the work authorized therein is undertaken.
- 5. Unauthorized Activities.** Except as specifically authorized, no equipment or material, including but not limited to, fill, construction materials, excavated material or debris, shall be

¹ The Work Commencement condition and the need for a Work Commencement Form is not applicable to Flood Management Certification approvals.

deposited, placed or stored in any wetland or watercourse on or off-site. The Licensee may not conduct work within wetlands or watercourses other than as specifically authorized, unless otherwise authorized in writing by the Commissioner. Tidal wetlands means “wetland” as defined by section 22a-29 and “freshwater wetlands and watercourses” means “wetlands” and “watercourses” as defined by section 22a-38.

6. **Unconfined Instream Work.** Unless otherwise noted in a condition of the license, the following conditions apply to projects in non-coastal waters:
 - Unconfined instream work is limited to the period June 1 through September 30.
 - Confinement of a work area by cofferdam techniques using sand bag placement, sheet pile installation (vibratory method only), portadam, or similar confinement devices is allowed any time of the year. The removal of such confinement devices is allowed any time of the year.
 - Once a work area has been confined, in-water work within the confined area is allowed any time of the year.
 - The confinement technique used shall completely isolate and protect the confined area from all flowing water. The use of silt boom/curtain or similar technique as a means for confinement is prohibited.
7. **For State Actions Only - Material or Equipment Storage in the Floodplain.** Unless approved by a Flood Management Exemption, the storage of any materials at the site which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or which could in the event of a flood be injurious to human, animal or plant life, below the elevation of the five-hundred (500) year flood is prohibited. Any other material or equipment stored at the site below said elevation by the Licensee or the Licensee's contractor must be firmly anchored, restrained or enclosed to prevent flotation. The quantity of fuel stored below such elevation for equipment used at the site shall not exceed the quantity of fuel that is expected to be used by such equipment in one day. In accordance with the licensee's Flood Contingency Plan, the Licensee shall remove equipment and materials from the floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the Licensee's responsibility to obtain such warnings when flooding is anticipated.
8. **Temporary Hydraulic Facilities for Water Handling.** If not reviewed and approved as a part of the license application, temporary hydraulic facilities shall be designed by a qualified professional and in accordance with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, the *2004 Connecticut Stormwater Quality Manual*, or the *Department of Transportation's ConnDOT Drainage Manual*, as applicable. Temporary hydraulic facilities may include channels, culverts or bridges which are required for haul roads, channel relocations, culvert installations, bridge construction, temporary roads, or detours.
9. **Excavated Materials.** Unless otherwise authorized, all excavated material shall be staged and managed in a manner which prevents additional impacts to wetlands and watercourses.
10. **Best Management Practices.** The Licensee shall not cause or allow pollution of any wetlands or watercourses, including pollution resulting from sedimentation and erosion. In constructing

or maintaining any authorized structure or facility or conducting any authorized activity, or in removing any such structure or facility, the Licensee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. For purposes of the license, “pollution” means “pollution” as that term is defined by CGS section 22a-423. Best Management Practices include, but are not limited, to practices identified in the *Connecticut Guidelines for Soil Erosion and Sediment Control* as revised, *2004 Connecticut Stormwater Quality Manual*, Department of Transportation’s *ConnDOT Drainage Manual* as revised, and the Department of Transportation Standard Specifications as revised.

11. Work Site Restoration. Upon completion of any authorized work, the Licensee shall restore all areas impacted by construction, or used as a staging area or accessway in connection with such work, to their condition prior to the commencement of such work.

12. Inspection. The Licensee shall allow any representative of the Commissioner to inspect the project location at reasonable times to ensure that work is being or has been conducted in accordance with the terms and conditions of this license.

13. Change of Use. (Applies only if a use is specified within the License “Project Description”)

- a. The work specified in the license is authorized solely for the purpose set forth in the license. No change in purpose or use of the authorized work or facilities as set forth in the license may occur without the prior written approval of the Commissioner. The Licensee shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this license, request permission from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.
- b. A change in the form of ownership of any structure authorized herein from a rental/lease commercial marina to a wholly-owned common interest community or dockominium may constitute a change in purpose as specified in paragraph (a) above.

14. De Minimis Alteration. The Licensee shall not deviate from the authorized activity without prior written approval from the Commissioner. The Licensee may request a de minimis change to any authorized structure, facility, or activity. A de minimis alteration means a change in the authorized design, construction or operation that individually and cumulatively has minimal additional environmental impact and does not substantively alter the project as authorized.

- For diversion activities authorized pursuant to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, a de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.

15. Extension Request. The Licensee may request an extension of the license expiration date. Such request shall be in writing and shall be submitted to the Commissioner at least thirty (30) days prior to the license expiration. Such request shall describe the work done to date, what work still needs to be completed, and the reason for such extension. It shall be the Commissioner’s sole discretion to grant or deny such request.

- 16. Compliance Certification.** Not later than 90 days after completion of the authorized work, the Licensee shall prepare and submit to the Commissioner the attached Compliance Certification Form. Such Compliance Certification shall be completed, signed, and sealed by the Licensee and a Connecticut Licensed Design Professional. If non-compliance is indicated on the form, or the Commissioner has reason to believe the activities and/or structures were conducted in non-compliance with the license, the Commissioner may require the Licensee to submit as-built plans as a condition of this license.
- 17. Maintenance.** The Licensee shall maintain all authorized structures or work in optimal condition or shall remove such structures or facility and restore the affected waters to their pre-work condition. Any such maintenance or removal activity shall be conducted in accordance with applicable law and any additional approvals required by law.
- 18. No Work After License Expiration.** Work conducted after the license expiration date is a violation of the license and may subject the licensee to enforcement action, including penalties, as provided by law.
- 19. License Transfer.** The license is not transferable without prior written authorization of the Commissioner. A request to transfer a license shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Licensee's obligations under the license shall not be affected by the passage of title to the license site to any other person or municipality until such time as a transfer is approved by the Commissioner.
- 20. Document Submission.** Any document required to be submitted to the Commissioner under the license or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:
- Regulatory Section
Land & Water Resources Division
Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127
860-424-3019
- 21. Date of Document Submission.** The date of submission to the Commissioner of any document required by the license shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under the license, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in the license, the word "day" as used in the license means calendar day. Any document or action which is required by the license to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or a Connecticut or federal holiday.
- 22. Certification of Documents.** Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under the license shall be signed by the Licensee and by the individual or individuals responsible for actually preparing such

document, each of whom shall certify in writing as follows: “I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense.”

23. Accuracy of Documentation. In evaluating the application for the license, the Commissioner has relied on information and data provided by the Licensee and on the Licensee’s representations concerning site conditions, design specifications and the proposed work, including but not limited to representations concerning the commercial, public or private nature of the work or structures, the water-dependency of said work or structures, its availability for access by the general public, and the ownership of regulated structures or filled areas. If such information proves to be false, deceptive, incomplete or inaccurate, the license may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.

24. Limits of Liability. In granting the license, the Commissioner has relied on all representations of the Licensee, including information and data provided in support of the Licensee’s application. Neither the Licensee’s representations nor the issuance of the license shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.

25. Reporting of Violations. In the event that the Licensee becomes aware that they did not or may not comply, or did not or may not comply on time, with any provision of this license or of any document incorporated into the license, the Licensee shall immediately notify the agency contact specified within the license and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the agency contact, the Licensee shall provide, for the agency’s review and written approval, a report including the following information:

- a. the provision(s) of the license that has been violated;
- b. the date and time the violation(s) was first observed and by whom;
- c. the cause of the violation(s), if known;
- d. if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;
- e. if the violation(s) has not ceased, the anticipated date when it will be corrected;
- f. steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented; and
- g. the signatures of the Licensee and of the individual(s) responsible for actually preparing such report.

If the violation occurs outside of normal business hours, the Licensee shall contact the Department of Energy and Environmental Protection Emergency Dispatch at 860-424-3333. The Licensee shall comply with any dates which may be approved in writing by the

Commissioner.

- 26. Revocation/Suspension/Modification.** The license may be revoked, suspended, or modified in accordance with applicable law.
- 27. Other Required Approvals.** License issuance does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, state and local law.
- 28. Rights.** The license is subject to and does not derogate any present or future property rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the property or activity affected hereby.
- 29. Condition Conflicts.** In the case where a project specific special condition listed on the license differs from, or conflicts with, one of the general conditions listed herein, the project specific special condition language shall prevail. It is the licensee's responsibility to contact the agency contact person listed on the license for clarification if needed prior to conducting any further regulated activities.

Land Record Filing*

To: Town of Waterford Clerk

Signature and

Date:

Subject: 4 Bayside Avenue, Waterford
License #201913613-SDFWQC

Pursuant to Section 22a-363g of the Connecticut General Statutes, the Commissioner of Energy and Environmental Protection gives notice that a license has been issued to Lorraine Harrington, Co-Trustee, 4 Bayside Avenue, Waterford, CT 06385 to:

1. install temporary survey stakes delineating the limits of the bulkhead identified below;
2. remove a portion of previously authorized fixed pier and timber deck;
3. install sedimentation and erosion controls and the top of the slope;
4. using land-based equipment, install approximately 164 linear feet of steel sheetpile bulkhead with wooden cap including two 8' long returns with a top of bulkhead elevation of +10.0' MLW, associated support piles, waler and tie-back anchor system;
5. remove the survey stakes;
6. install geotextile fabric on the landward side of the bulkhead identified above;
7. place approximately 150 cubic yards of clean gravel landward of the bulkhead and approximately 300 cubic yards of blended gravel and topsoil landward of the bulkhead and grade landward;
8. install a safety railing on the landward side of the bulkhead;
9. reinstall the fixed pier and timber deck identified above; and
10. plant native salt-tolerant vegetation on the slope landward of the bulkhead identified above.

If you have any questions pertaining to this matter, please contact the Land & Water Resources Division at 860-424-3019.

Return to:

Land & Water Resources Division
State of Connecticut
Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

*The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to the Commissioner no later than sixty (60) days after license issuance.



Work Commencement Form

To: Regulatory Section
Department of Energy and Environmental Protection
Land & Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

Licensee Name: _____
Licensee Address: _____

License No(s): _____

CONTRACTOR(s):

1 Name: _____
Address: _____
Telephone: _____
E-mail: _____

2 Name: _____
Address: _____
Telephone: _____
E-mail: _____

3 Name: _____
Address: _____
Telephone: _____
E-mail: _____

Date Contractor(s) received a copy
of the license and approved plans: _____

EXPECTED DATE OF COMMENCEMENT OF WORK: _____

EXPECTED DATE OF COMPLETION OF WORK: _____

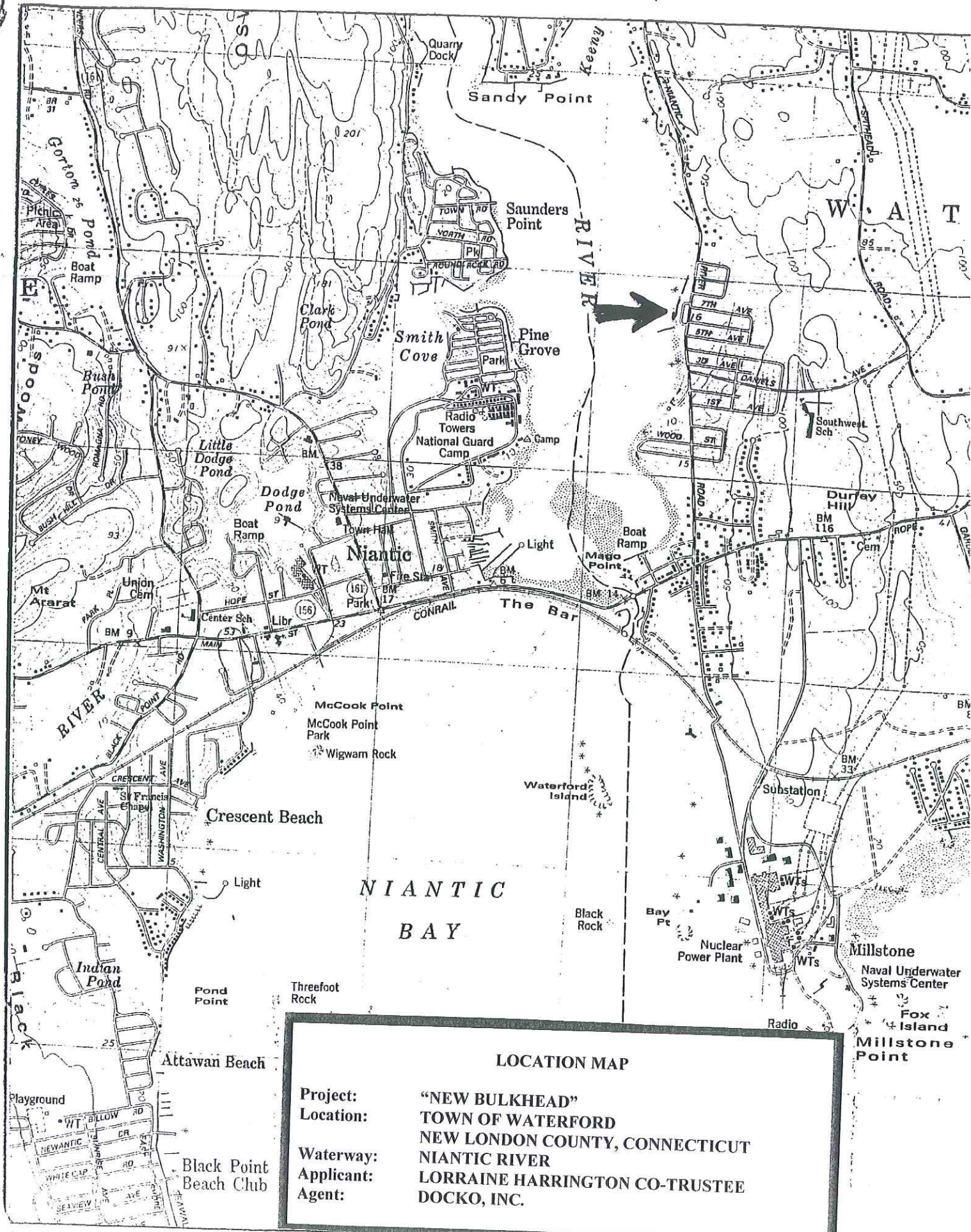
LICENSEE: _____
(Signature) (Date)



Compliance Certification Form

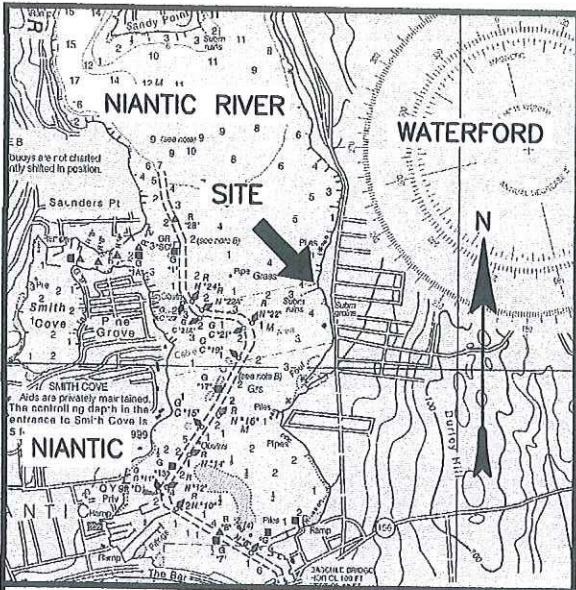
The following certification must be signed by the licensee working in consultation with a Connecticut-licensed design professional and must be submitted to the address indicated at the end of this form within ninety (90) days of completion of the authorized work.

1. Licensee Name: _____ License Number(s): _____ Site Address: _____	
2. Check one: (a) <input type="checkbox"/> "I certify that the final site conditions and / or structures are in general conformance with the approved site plans". Identify and describe any deviations and attach to this form. (b) <input type="checkbox"/> "The final site conditions and / or structures are not in general conformance with the approved site plans. The enclosed "as-built" plans note the modifications".	
3. "I understand that any false statement in this certification is punishable as a criminal offence under section 53a-157b of the General Statutes and under any other applicable law."	
_____ Signature of Licensee	_____ Date
_____ Name of Licensee (print or type)	
_____ Signature of CT-Licensed Design Professional	_____ Date
_____ Name of CT-Licensed Design Professional (print or type)	
_____ Professional License Number (if applicable)	Affix Stamp Here
<ul style="list-style-type: none"> As-built plans shall include: elevations or tidal datums, as applicable, and structures, including any proposed elevation views and cross sections included in the approved license plans. Such as-built plans shall be the original ones and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut. The Licensee will be notified by staff of the Land and Water Resources Division (LWRD) if further compliance review is necessary. Lack of response by LWRD staff does not imply compliance. 	
Submit this completed form to : Regulatory Section Department of Energy and Environmental Protection Land & Water Resources Division 79 Elm Street Hartford, CT 06106-5127	



LOCATION MAP

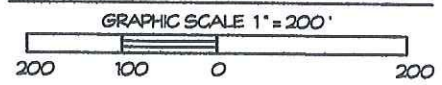
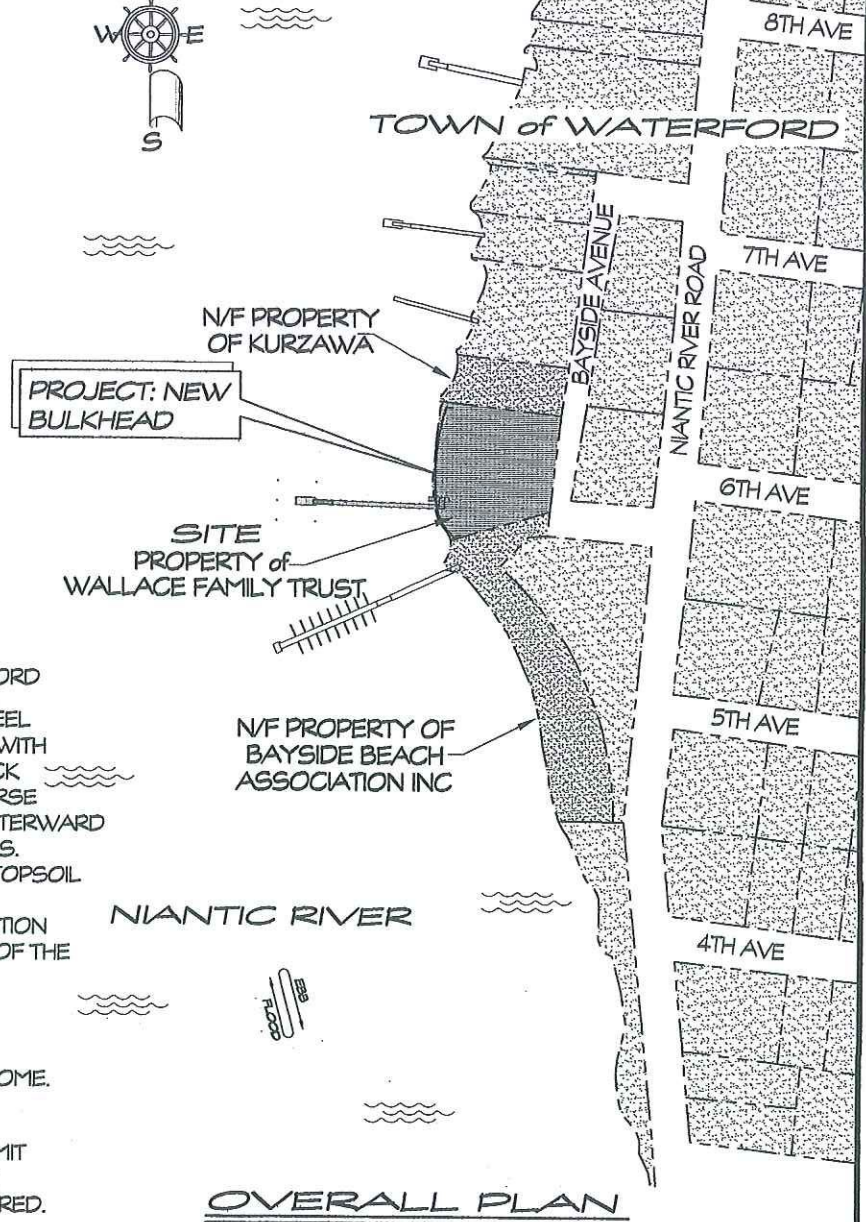
Project: "NEW BULKHEAD"
Location: TOWN OF WATERFORD
 NEW LONDON COUNTY, CONNECTICUT
Waterway: NIAN TIC RIVER
Applicant: LORRAINE HARRINGTON CO-TRUSTEE
Agent: DOCKO, INC.



- NOTES:**
- ELEVATION DATUM IS MEAN LOW WATER (MLW).
 - TIDE DATA IS TAKEN FROM 2018 NOAA TIDE TABLES REFERENCE : NEW LONDON. C.J.L IS TAKEN FROM THE COASTAL JURISDICTIONAL LINE FACT SHEET : WATERFORD
 - PROJECT DESCRIPTION: INSTALL 164±LF OF NEW STEEL SHEETPILE BULKHEAD INCLUDING TWO 8±LF RETURNS WITH ASSOCIATED SUPPORT PILES, WALES, A STEEL TIE BACK ANCHOR SYSTEM, FENCE AND 150±CY OF CLEAN COARSE GRAVEL AND TOPSOIL FILL OVER 500±SF, AT AND WATERWARD OF THE HIGH TIDE AND CT COASTAL JURISDICTION LINES. ADDITIONAL COARSE BLENDED STONE, GRAVEL AND TOPSOIL BACKFILL, 300±CY OVER 2,000±SF WILL BE PLACED LANDWARD OF THE HIGH TIDE AND COASTAL JURISDICTION LINES WHERE A NEW VEGETATED SLOPE LANDWARD OF THE NEW BULKHEAD WILL BE CREATED.
 - PROJECT PURPOSE: THIS PROJECT WILL PROVIDE ESSENTIAL, URGENTLY NEEDED PROTECTION AND STABILIZATION OF PRIVATE PROPERTY AND PRE 1995 HOME.
 - THESE APPLICATION DRAWINGS REPRESENT A COMPILATION OF SURVEYS FOR ENVIRONMENTAL PERMIT PURPOSES. THEY ARE NOT CONSTRUCTION CONTRACT DOCUMENTS. A TOWN BUILDING PERMIT MAY BE REQUIRED.
 - ADJOINING PROPERTY OWNERS:
 NORTH: ROBERT A & CYNTHIA ANN KURZAWA
 6 BAYSIDE AVENUE
 WATERFORD, CT 6385
 SOUTH: BAYSIDE BEACH ASSOCIATION, INC
 2 BAYSIDE AVENUE
 WATERFORD, CT 06385



NOTE: THE SHORELINE SHOWN ON THIS DRAWING IS BASED ON TOWN GIS PLANIMETRIC INFORMATION AND MAY NOT REFLECT THE CURRENT TIDE LINE LOCATIONS.



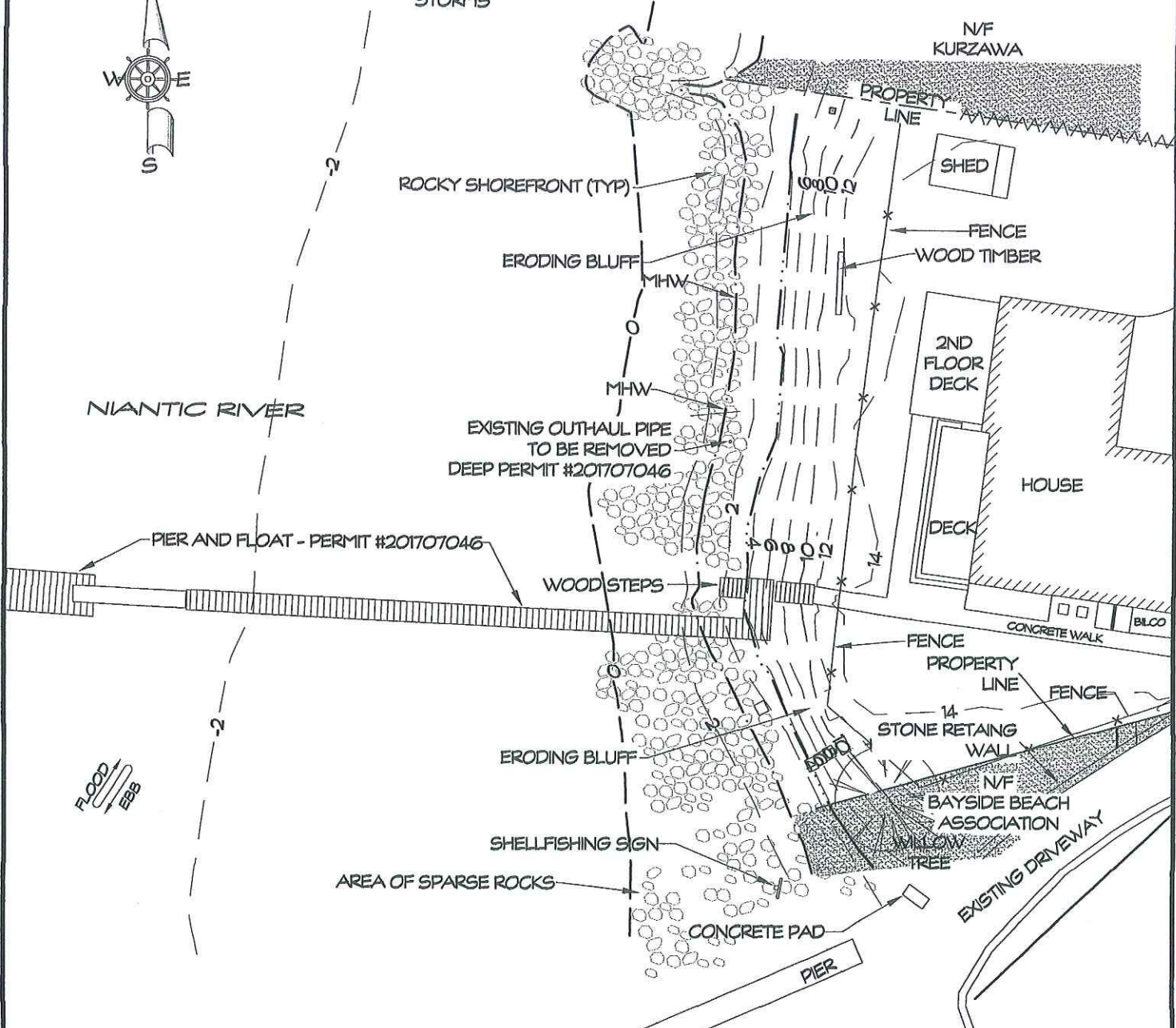
REVISED 11-8-19 DEEP PROJECT DESCRIPTION
 REVISED 12-11-19 DEEP PROJECT DESCRIPTION

PROJECT: NEW BULKHEAD
 LOCATION: TOWN of WATERFORD
 NEW LONDON COUNTY, CONNECTICUT
 WATERWAY: NIAN TIC RIVER
 DATE: JULY 16, 2018
 APPLICANT: LORRAINE HARRINGTON
 CO-TRUSTEE
 AGENT: SHEET 1 OF 4
DOCKO, INC.
 Keith B. Nellson, PE
 Mystic, CT 06355
 860 572 8939 FAX 860 572 7569
 EMAIL: office@docko.com

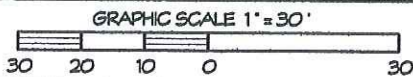


DWG 18-09-2977

THE SURVEY DOES NOT SHOW THE EROSION DAMAGE WHICH OCCURED ON OCTOBER 31, 2019
 THE SURVEY DOES SHOW BLUFF EROSION DAMAGE FROM MARCH/APRIL 2018 COASTAL STORMS



EXISTING CONDITIONS



SURVEY by JAMES BERNARDO LAND SURVEYING LLC
 ELEVATIONS ARE BASED ON MEAN LOW WATER (MLW)

REVISED 11-7-19 D.I.
 MLW DATUM



PROJECT: **NEW BULKHEAD**

LOCATION: TOWN of WATERFORD
 NEW LONDON COUNTY, CONNECTICUT

WATERWAY: NIAN TIC RIVER
 DATE: SEPTEMBER, 2018
 APPLICANT: LORRAINE HARRINGTON
 CO-TRUSTEE

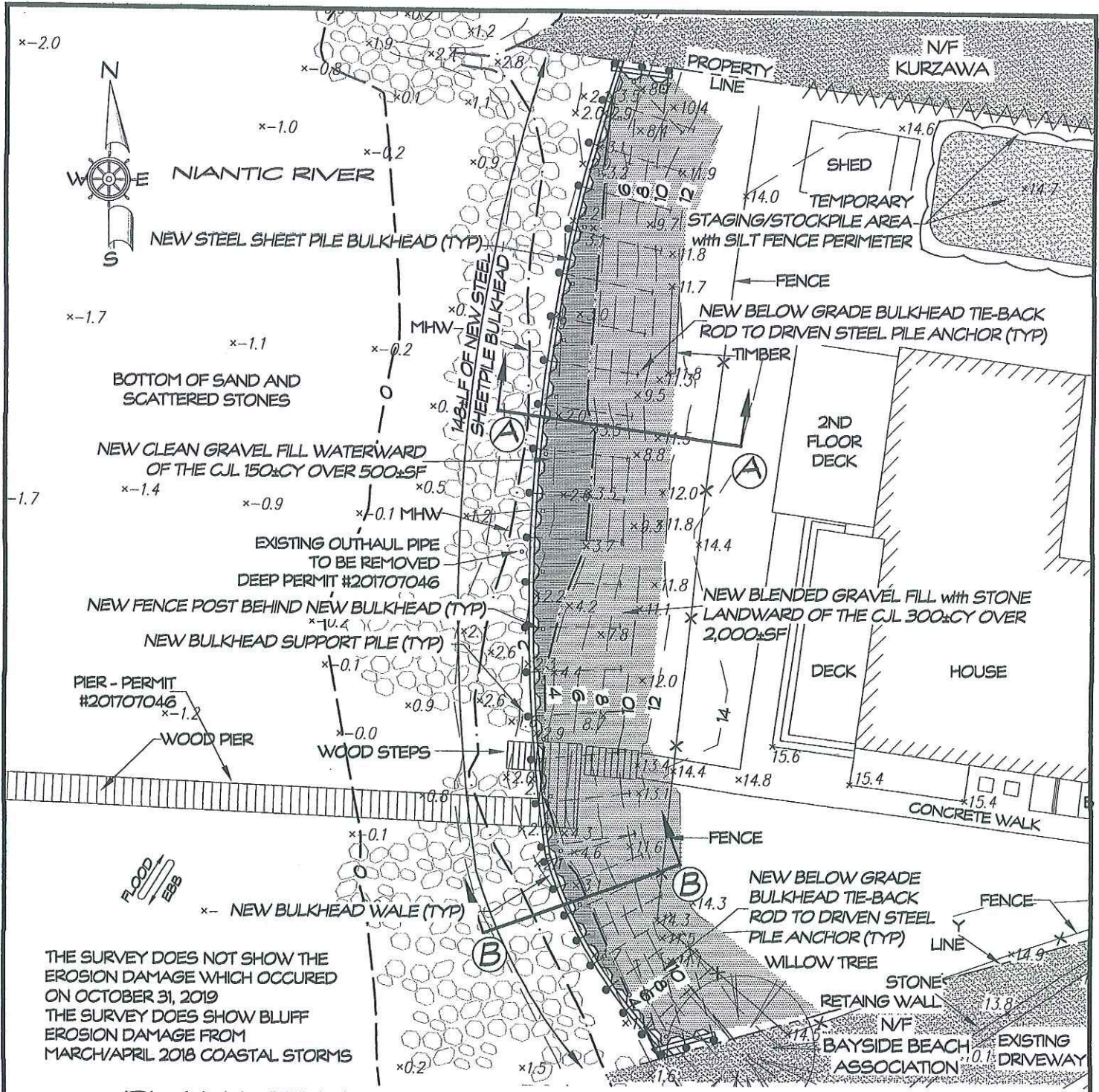
AGENT: SHEET 2 OF 4

DOCKO, INC.

Keith B. Nelson, PE
 Mystic, CT 06355
 860 572 8939 FAX 860 572 7569
 EMAIL: office@docko.com



DWG 18-09-2977

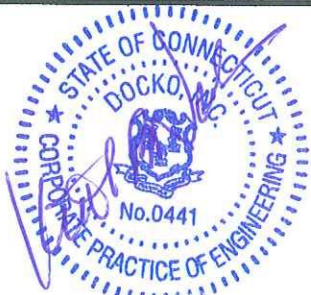


PLAN VIEW

GRAPHIC SCALE 1" = 20'



SURVEY by JAMES BERNARDO LAND SURVEYING LLC
ELEVATIONS ARE BASED ON MEAN LOW WATER (MLW)

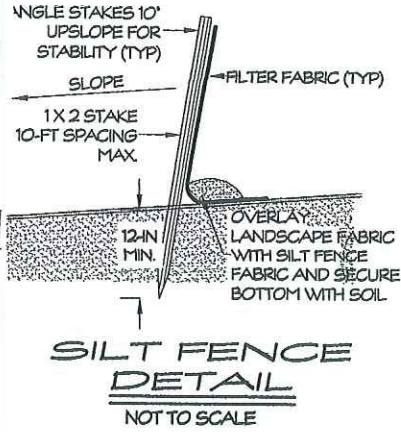
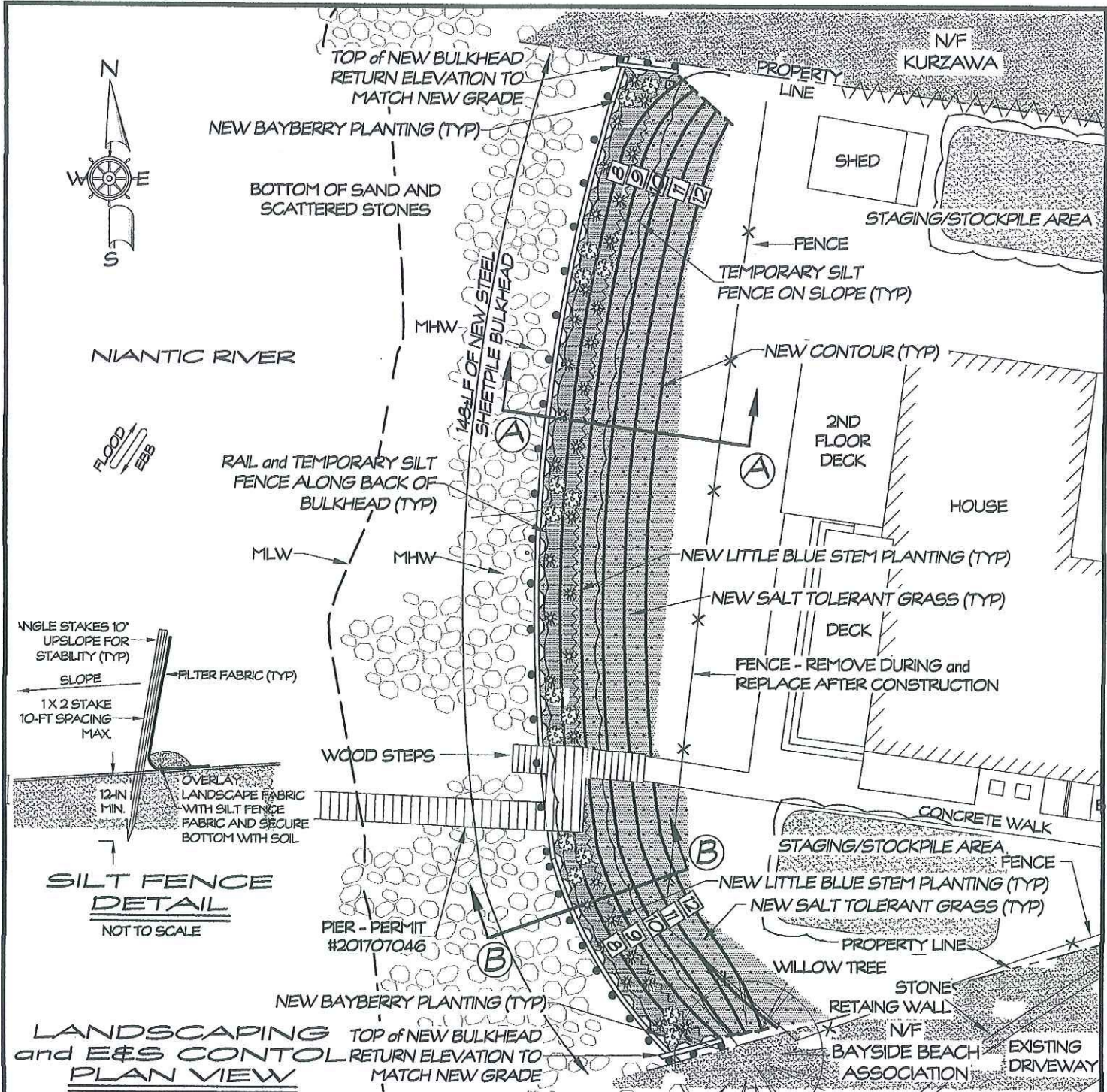


REVISED 11-7-19 D.I.
MLW DATUM
REVISED 12-4-19 DEEP
STAGING/STOCKPILE
AREA
REVISED 12-11-19 DEEP
FENCE

PROJECT: NEW BULKHEAD
LOCATION: TOWN of WATERFORD
NEW LONDON COUNTY, CONNECTICUT
WATERWAY: NIAN TIC RIVER
DATE: SEPTEMBER, 2018
APPLICANT: LORRAINE HARRINGTON
CO-TRUSTEE
AGENT: SHEET 3 OF 4
DOCKO, INC.
Keith B. Nelson, PE
Mystic, CT 06355
860 572 8939 FAX 860 572 7569
EMAIL: office@docko.com



DWG 18-09-2977



LANDSCAPING and E&S CONTROL PLAN VIEW

GRAPHIC SCALE 1" = 20'

20 10 0 20

SURVEY by JAMES BERNARDO LAND SURVEYING LLC
 ELEVATIONS ARE BASED ON MEAN LOW WATER (MLW)



REVISED 11-7-19 D.I.
 MLW DATUM

REVISED 12-4-19 DEEP
 STAGING/STOCKPILE
 AREA

REVISED 12-11-19 DEEP
 ADDITIONAL SHEET

PROJECT: **NEW BULKHEAD**

LOCATION: TOWN of WATERFORD
 NEW LONDON COUNTY, CONNECTICUT

WATERWAY: NIAN TIC RIVER

DATE: SEPTEMBER, 2018

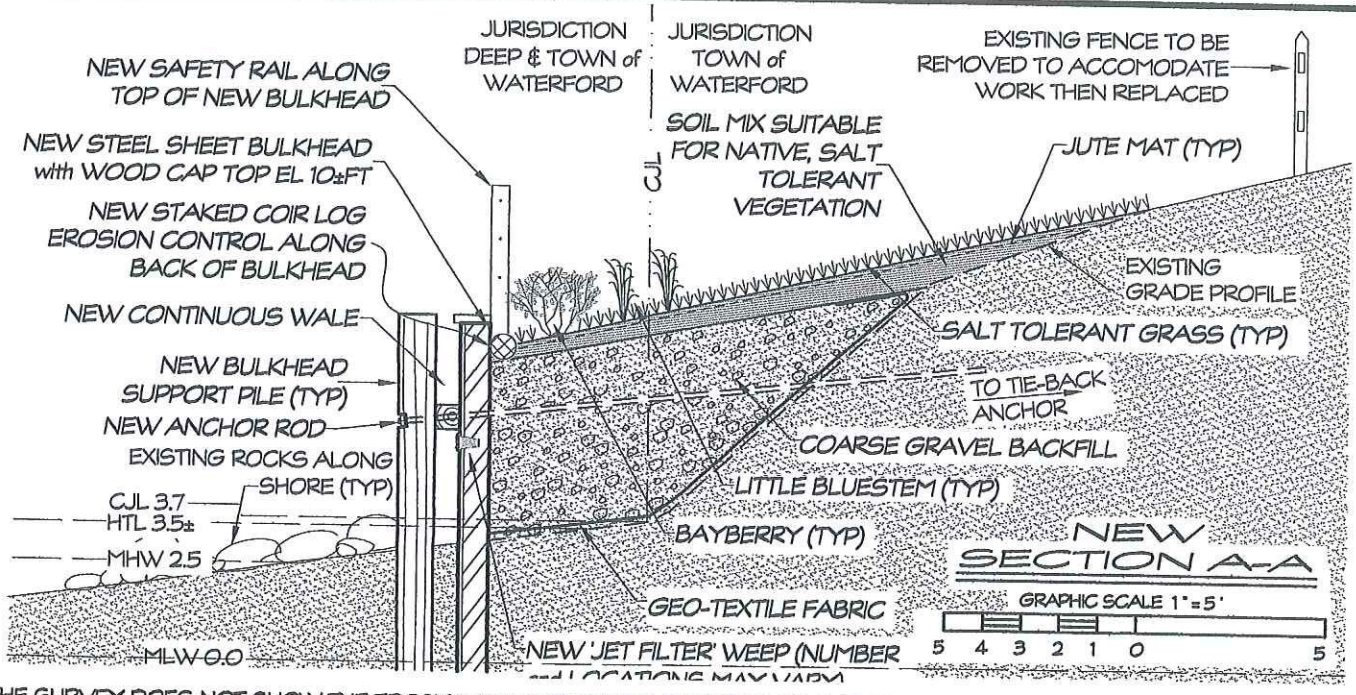
APPLICANT: LORRAINE HARRINGTON
 CO-TRUSTEE

AGENT: SHEET 3A ADDITIONAL

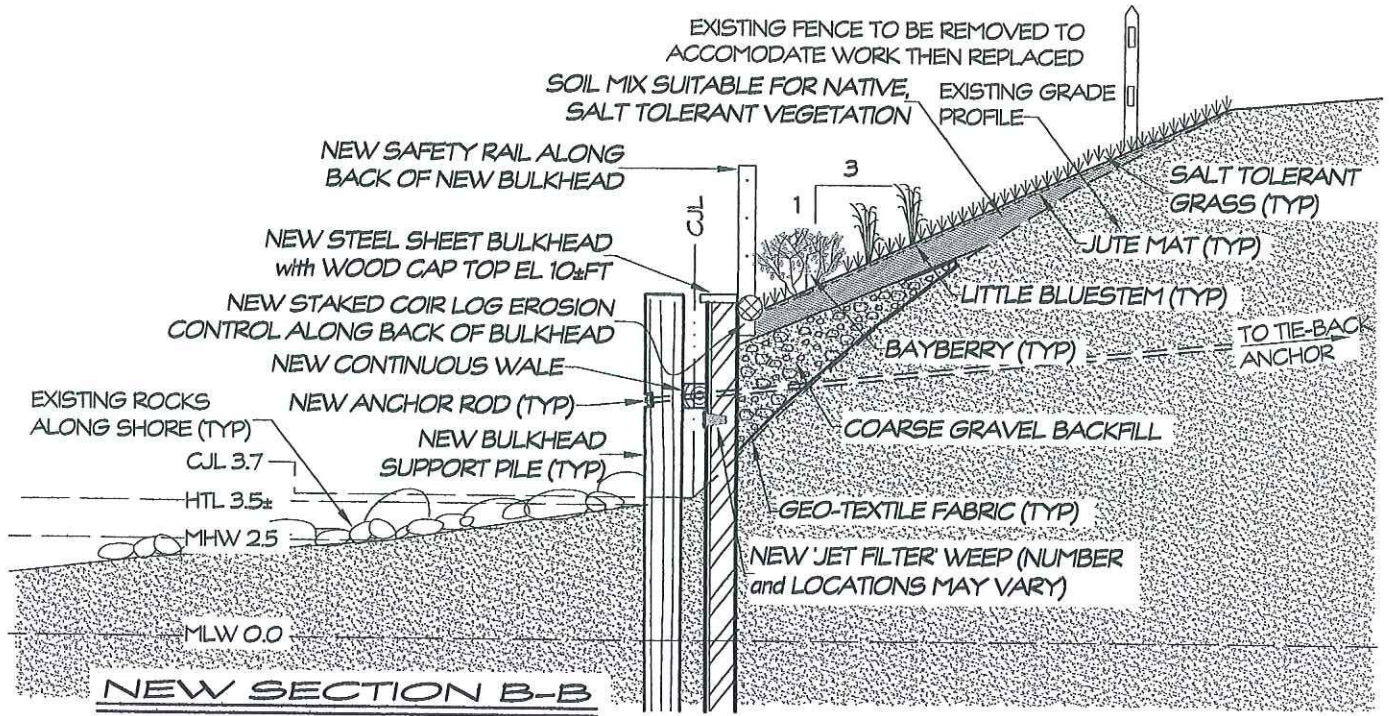
DOCKO, INC.
 Keith B. Neilson, PE
 Mystic, CT 06355
 860 572 8939 FAX 860 572 7569
 EMAIL: office@docko.com



DWG 18-09-2977



THE SURVEY DOES NOT SHOW THE EROSION DAMAGE WHICH OCCURED ON OCTOBER 31, 2019 THE SURVEY DOES SHOW BLUFF EROSION DAMAGE FROM MARCH/APRIL 2018 COASTAL STORMS. TYPICAL ERODED SLOPE IS 45° - 70°



ELEVATIONS ARE BASED ON MEAN LOW WATER (MLW)



REVISED 11-8-19 DEEP
ADDITIONAL SECTION
REVISED 12-4-19 DEEP
LANDSCAPING, WEEPS
and E&S CONTROL

PROJECT: **NEW BULKHEAD**
 LOCATION: TOWN of WATERFORD
 NEW LONDON COUNTY, CONNECTICUT
 WATERWAY: NIAN TIC RIVER
 DATE: SEPTEMBER, 2018
 APPLICANT: LORRAINE HARRINGTON
 CO-TRUSTEE
 AGENT: SHEET 4 OF 4
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EROSION AND SEDIMENT CONTROL NOTES:

1. REFERENCE IS MADE TO THE STATE OF CONNECTICUT GUIDELINES FOR SOIL AND EROSION SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
2. IT IS INTENDED THAT THE STEEL SHEET PILING INSTALLATION WILL BE THE FIRST ELEMENT OF WORK, DRIVEN ALONG A SURVEYED LINE, PRIOR TO ANY PLACEMENT OF GEOTEXTILE FABRIC OR BACKFILL MATERIALS.
3. PRIOR TO THE START OF WORK A PRE-CONSTRUCTION MEETING WILL BE HELD WITH THE ZONING AND WETLAND ENFORCEMENT OFFICER FOR THE TOWN OF WATERFORD, THE OWNER, THE ENGINEER AND THE CONTRACTOR TO ASSESS THE SCOPE OF WORK AND ANY CHANGES OR ENHANCEMENTS TO THE SOIL AND EROSION CONTROLS WHICH MIGHT BE REQUIRED BY PERMIT OR OTHERWISE APPROPRIATE.
4. THE APPLICATION OF EROSION CONTROL DEVICES AND ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FILED PRIOR TO THE START OF CONSTRUCTION BASED ON CURRENT CONDITIONS BUT WILL BE IN CONFORMANCE WITH DETAILS ON THE APPROVED DRAWINGS.
5. CALL BEFORE YOUR DIG (CBYD 1-800-922-4455) SHALL BE NOTIFIED A MINIMUM OF FIVE FULL WORKING DAYS PRIOR TO COMMENCEMENT OF ANY PROPOSED EXCAVATION AT THE SITE. PROVIDE SIMULTANEOUS NOTIFICATION TO THE WATERFORD.
6. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM; RE STABILIZATION WILL BE SCHEDULED AS SOON AS PRACTICAL, PREFERABLY IMMEDIATELY FOLLOWING THE DISTURBANCE OR WHEN CONSTRUCTION EQUIPMENT OR WORKMEN ACCESS TO THE AFFECTED AREA IS COMPLETE.
7. STAKED HAY BALES, WATTLE AND/OR SILT FENCE WILL BE INSTALLED ALONG THE DOWN SLOPE SIDE OF THE FILL AREA ABOVE THE TOP OF THE SHEET PILING, STOCKPILES AND IN AREAS OTHERWISE SHOWN ON THE DRAWINGS. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO DISTURBANCES OF THE SITE, AS AGREED TO IN ITEM 3 ABOVE.
8. IN THE EVENT THAT 10 OR MORE CUBIC YARDS IS STOCKPILED ON THE SITE AT ANY ONE TIME, HAY BALES WILL BE PLACED AROUND THE PERIMETER OF THE STOCKPILES TOE TO PREVENT EROSION AND SEDIMENT FROM BEING WASHED INTO THE RIVER/HARBOR.
9. EROSION CONTROLS AS APPROPRIATE, WILL BE INSPECTED DAILY AND AFTER ANY PERIOD OF RAINFALL TO ASSURE CONTINUITY AND ANY ACCUMULATED SOILS SILT WILL BE REMOVED
10. MAINTAIN OR REGRADE THE GROUNDS PROGRESSIVELY AND AS NECESSARY TO FORM A SMOOTH TRANSITION SO AS TO MAINTAIN CURRENT DRAINAGE PATTERNS.
11. IF EXCAVATION WILL IMPACT ANY DRAINAGE STRUCTURES, SILT SACKS OR SANDBAGS WILL BE PUT IN PLACE PRIOR TO THE COMMENCEMENT OF WORK. ALL GRADING AND TRENCH BACK FILL COMPACTION WILL BE COMPLETED AND ACCEPTABLE BY THE TOWN PRIOR TO REMOVAL OF THE SANDBAGS.

SCOPE OF WORK:

1. PLACE SURVEY WORK LIMIT STAKES FOR THE NEW STEEL SHEET PILE BULKHEAD.
2. PLACE AND STAKE E & S CONTROL MATERIALS AS SET FORTH IN THE E&S CONTROL NOTES.
3. INITIATE DRIVING STEEL SHEET PILE BULKHEAD.
4. PLACE GEOTEXTILE FABRIC IMMEDIATELY BEHIND BULKHEAD.
5. PLACE INITIAL BACK FILL MEETING CRITERIA SET FORTH IN THE PERMIT AND CONSOLIDATE IN LAYERS.
6. PLACE E&S CONTROLS ON THE BACK SIDE OF THE BULKHEAD AND CONTINUE FILL TO ROUGH GRADE LIMITS.
7. FILL PROGRESSIVELY UPHILL WITH SEQUENTIAL ADJUSTMENTS TO OR SUPPLEMENTATION OF E&S CONTROLS MOVING UP HILL.
8. PLACE BLENDED TOPSOIL AND BACKFILL BETWEEN EDGE OF LAWN AND BULKHEAD CONSOLIDATE SEED AND MULCH. TRIM EXCESS GEOTEXTILE ALONG BACK SIDE OF BULKHEAD.
9. INSTALL SAFETY RAIL BEHIND THE NEW BULKHEAD.



REVISED 12-13-19 DEEP
ADDITIONAL SHEET

PROJECT: **NEW BULKHEAD**

LOCATION: TOWN of WATERFORD
NEW LONDON COUNTY, CONNECTICUT

WATERWAY: NIAN TIC RIVER

DATE: SEPTEMBER, 2018

APPLICANT: LORRAINE HARRINGTON
CO-TRUSTEE

AGENT: SHEET 4-A ADDITIONAL

DOCKO, INC.

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