Connecticut Department of
Energy & Environmental Protection
Bureau of Water Protection & Land Reuse
Office of Long Island Sound Programs

Permit Application for Programs Administered by the Office of Long Island Sound Programs

CPPU USE ONLY
App #:_____
Doc #:_____
Check #:_____
_____

IMPORTANT - Please refer to the instructions (DEEP-OLISP-INST-100) for completing this application form to ensure that all required information is provided. Print or type all information within the form, providing additional pages as necessary.

Part I: Permit Type and Fee Information

Check only one of the boxes below identifying the applicable state permit program(s). You must submit the initial fee indicated below and a copy of the published notice of permit application and the completed Certification of Notice Form with this application.

Type of Permit	Initial Fee
☐ **Structures, Dredging & Fill** *CGS sec. 22a-361 [#1085]*	$660.00
☒ **Structures, Dredging & Fill and 401 Water Quality Certificate** *[#1632]*	$660.00
☐ **Structures, Dredging & Fill, and Tidal Wetlands** *CGS sec. 22a-361 & sec. 22a-32 [#438]*	$660.00
☐ **Structures, Dredging & Fill, and Tidal Wetlands and 401 Water Quality Certificate** *[#417]*	$660.00
☐ **401 Water Quality Certificate** *33 U.S.C. 1341* ***(For Federal Use Only)*** *[#1195]*	None

Note: The fee for municipalities is 50% of the above listed rates. Additional fees based on the water area occupied by the project will be invoiced. The application will not be processed without the initial fee. The fee shall be non-refundable and shall be paid by check or money order to the Department of Energy and Environmental Protection.

Town where site is located: Old Lyme (Dredging) & Madison (Disposal)

Brief Description of Project: Dredge a navigation channel.

The public notice of application must be published ***prior*** to submitting an application, as required in CGS section 22a-6g. A copy of the published notice of application and the completed Certification of Notice Form must be included as Attachment AA to this application. Your application will **not** be processed if Attachment AA is not included.

Date of Publication: October 24, 2014

☐ Check here, in addition to one of the boxes above, if your application is being submitted pursuant to CGS sec. 22a-361(a)(2)(d) to address a violation.

Part II: Applicant Information

- *If an applicant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, registrant's name shall be stated* ***exactly*** *as it is registered with the Secretary of State. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of State's database (CONCORD).* ***(www.concord-sots.ct.gov/CONCORD/index.jsp)***
- *If an applicant is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).*
- *If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the Request to Change Company/Individual Information to the address indicated on the form. If there is a change in name of the entity holding a DEEP license or a change in ownership, contact the Office of Planning and Program Development (OPPD) at 860-424-3003. For any other changes you must contact the specific program from which you hold a current DEEP license.*

1. Applicant Name: Town of Old Lyme

Mailing Address: **52 Lyme Street**

City/Town: **Old Lyme** State: **CT** Zip Code: **06371**

Business Phone: **860-434-1605** ext.

Contact Person: **Steven Ross** Title: **HMC Chairman**

*E-mail: **steveross@snet.net**

*By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject application. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes.a) Applicant Type (check one):

☐ individual ☐ federal agency ☐ state agency ☒ municipality ☐ tribal

☐ *business entity (*If a business entity complete i through iii):

i) check type: ☐ corporation ☐ limited liability company ☐ limited partnership ☐ limited liability partnership ☐ statutory trust ☐ Other: _____

ii) provide Secretary of the State business ID #:_____This information can be accessed at database (CONCORD). **(www.concord-sots.ct.gov/CONCORD/index.jsp)**

iii) ☐ Check here if your business is **NOT** registered with the Secretary of State's office.

b) Applicant's interest in property at which the proposed activity is to be located:

☒ site owner ☐ option holder ☐ lessee

☐ easement holder ☐ operator ☐ other (specify): _____

☐ Check if any co-applicants. If so, attach additional sheet(s) with the required information as requested above.

Note: If the applicant is not the owner, submit written permission from the owner as Attachment B.

2. List billing contact, if different than the applicant.

Name:

Mailing Address:

City/Town: State: Zip Code:

Business Phone: ext.

Contact Person: Title:

E-mail:

Part II: Applicant Information (continued)

3. List primary contact for departmental correspondence and inquiries if different than applicant.

Name: **Coastline Consulting & Development, LLC**
Mailing Address: **5-B Old Post Road**
City/Town: **Madison** State: **CT** Zip Code: **06443**
Business Phone: **203-245-8138** ext.
Contact Person: **David Provencher** Title: **Project Manager**
*E-mail: **david@coastlineconsulting-ct.com**

4. List Site Owner, if different than applicant:

Name:
Mailing Address:
City/Town: State: Zip Code:
Business Phone: ext.
Contact Person: Title:
E-mail:

5. List Facility Owner, if different than applicant:

Name:
Mailing Address:
City/Town: State: Zip Code:
Business Phone: ext.
Contact Person: Title:
E-mail:

6. List attorney or other representative, if applicable.

Firm Name:
Mailing Address:
City/Town: State: Zip Code:
Business Phone: ext.
Attorney: Title:
E-mail:

7. List all engineer(s), surveyor(s) and/or other consultant(s) employed or retained to assist in preparing the application and designing or constructing the activity.

Name: **Coastline Consulting & Development, LLC**
Mailing Address: **5-B Old Post Road**
City/Town: **Madison** State: **CT** Zip Code: **06443**
Business Phone: **203-245-8138** ext.
Contact Person: **David Provencher** Title: **Project Manager**
E-mail: **david@coastlineconsulting-ct.com**
Service Provided: **Environmental Consulting/Application Preparation**

☐ Check if additional Applicant Information sheets are included, and label and attach them to this sheet.

8. A pre-application meeting with Office of Long Island Sound Program (OLISP) staff is strongly recommended prior to application submission. Please note the meeting date and OLISP staff person's name:

Staff Name: **Susan Bailey** Meeting Date: **6/11/13, 9/24/13, 4/4/14, 6/11/14, 7/31/14, 8/27/14, 9/5/14**

Part III: Project Information

1. Describe the proposed regulated work and activities in a detailed narrative, including the number and dimensions of structures. Refer to both the instructions and Appendix A of the instructions (Activity Specific Instructions).

The applicant proposes the following regulated work:

- **Dredge by clamshell bucket approximately 9,787 cubic yards of material to a depth of -3.0' MLW (+1' overdredge) to create a 4,000 linear foot navigation channel. The channel will maintain an approximate 26-30' width from the head of the river to the south side of the railroad bridge, and maintain a 60' width from that point to the mouth of the Four Mile River.**
- **Dispose of the material dredged north of the railroad bridge at the New London Disposal Site.**
- **Dispose of the material dredged south of the railroad bridge at the Hammonasset Nearshore Disposal Site (see map of disposal location in Attachment M).**

The areal extent of the proposed dredge channel measures approximately 147,014 square feet.

There is no proposed dredging or reconfiguration of slip perimeters associated with this project.

All proposed activities are consistent with municipal zoning requirements.

The proposed dredging is not associated with an adjacent upland property.

The proposed dredging is consistent with municipal zoning requirements.

The proposed dredge footprint is located in FEMA flood zones "VE" and ''AE"; Areas Subject To 1% Annual Flood Chance, per FEMA Map 09011C0486J, effective date 8/5/2013. No structures are proposed.

The applicant intends to use the proposed dredge channel to facilitate private recreational boating for the general public.

No fill is proposed as part of this project.

No changes are proposed to any stormwater runoff system.

2. a. Describe the construction activities involved for the project in detail, including methods, sequencing, equipment, and any alternative construction methods that might be employed.

The proposed regulated work will be conducted as follows:

Water Based Rig

- **Using GPS navigation onboard the dredge barge, the contractor will position the rig over the dredge footprint. Once all equipment is in place, the contractor will lower the spuds to anchor the barge in place.**
- **The dredge will repeatedly excavate sediment with an approximately 2.5 cubic yard bucket and load the spoils into a scow barge.**
- **Once the scow barge is full, the dredge spoils will be transported to the proposed disposal sites.**

b. Describe any erosion and sedimentation or turbidity control installation and maintenance schedule and plans in detail.

No specific measures to control turbidity during the dredging are proposed. It is anticipated that any permits issued for this work will include restrictions on dredging during environmentally sensitive periods, thereby mitigating any potential adverse impacts caused by turbidity.

c. Indicate the length of time needed to complete the project and identify any anticipated time period restrictions.

It is anticipated that the proposed work will commence in the fall/winter of 2015 and take approximately 1 month to complete.

Part III: Project Information (continued)

3. Describe the purpose of, the need for, and intended use of the proposed activities. (For example, private recreational boating, marina, erosion protection, public infrastructure, etc.)

PROPOSED DREDGING

Purpose

The purpose of the proposed dredging is to establish proper control depths for safe navigation within this section of the Four Mile River.

Need

The proposed dredging is necessary because siltation has occurred in this area of the river, leading to progressively shallower water depths that become particularly problematic at lower portions of the tide cycle. Specifically, depths immediately south of the railroad bridge and along Rocky Neck State Park in Long Island Sound average around -2.5' MLW at low tide. Once north of the bridge, depths within the river proper are as shallow as -1.1' MLW at low tide. These shallow areas persist until the river reaches the northern extent of the study, where depths immediately adjacently to the Four Mile River Marina and the State of Connecticut Boat Launch are as shallow as -0.5' MLW. These shallow depths at the launch render it useless at low tide, forcing all users to launch and retrieve at high tide, causing congestion and deterring boaters from utilizing this otherwise viable point of boating access.

Use

The proposed dredging will be used for public recreational boating purposes.

4. Identify and describe all coastal or aquatic resources on the site by checking the appropriate box and describe the expected impact on these resources. You may add addenda as necessary as Attachment M.

Coastal/Aquatic Resources	On-site	Adjacent	Describe Expected Impact
Coastal bluffs and escarpments	☐	☐	
Rocky Shorefront	☐	☒	**Rocky shorefront is located on each side of the mouth of the Four Mile River. No work is proposed within this resource.**
Beaches and Dunes	☐	☒	**Beach is located on the west side of the mouth of the Four Mile River. The proposed dredge footprint does not encroach onto this resource.**
Intertidal Flats	☒	☒	**Intertidal flats are present throughout the Four Mile River. During the planning stages, Coastline Consulting & Development, LLC identified the location of the Lowest Predicted Tide (LPT) in the Four Mile River. In order to prevent any adverse impacts to this resource, all of the proposed dredging will occur waterward of LPT. The only exception is at the toe of the State of Connecticut Launch Ramp, where approximately 38 square of dredging landward of LPT will occur. This minimal adverse impact is necessary in order to ensure the continued functionality of this public launch ramp.**
Tidal Wetlands	☒	☒	**Tidal wetland vegetation is present throughout the Four Mile River. In order to prevent adverse impacts to this vegetation, the side slopes of the proposed channel will maintain a minimum setback of 10' from the nearest tidal wetland vegetation. This offset is sufficient to avoid any direct impact during the dredging operations, as well as prevent any sloughing of the vegetation into the proposed channel.**
Fresh Water Wetlands and Watercourses	☐	☐	
Estuarine Embayments	☒	☒	**The proposed dredging does not alter the existing patterns of tidal exchange or introduce additional freshwater into the estuarine embayment. Therefore, no adverse impacts to this resource are anticipated.**

Coastal Hazard Areas	☒	☒	**The proposed dredge footprint is located in FEMA flood zones "VE" and "AE"; Areas Subject To 1% Annual Flood Chance, per FEMA FIRM 09011C0467J, effective date 8/5/2013. No structures are proposed. Furthermore, the proposed dredging will not result in the creation of impermeable surfaces that would diminish flood storage capacity.**
Developed Shorefront	☐	☐	
Islands	☐	☐	
Near shore Waters	☒	☒	**The southern portion of the dredge footprint is located in nearshore waters. As the proposed work only involves dredging, it does not create any impediments to tidal flow, nor does it alter tidal flushing/exchange at the site. Therefore, the proposed work is consistent with the criteria for consideration for work within near shore waters.**
Offshore Waters	☐	☐	
Shorelands	☐	☐	
Shellfish Concentration Areas	☒	☒	**It is our conclusion that the proposed dredging will not result in any significant adverse impacts to shellfish resources. Principally, the work will occur outside of the shellfish spawning periods in order to prevent the adverse impacts from turbidity such as the smothering of oyster spat and other larval stage shellfish. In addition, both the Old Lyme Shellfish Commission and CT Bureau of Aquaculture have reviewed the proposed dredging and determined that it will not result in significant adverse impacts to shellfish (see Attachments D & F).**
Wildlife Resources and Habitat	☒	☒	**Correspondence from the NDDB (see Attachment C) was received stating that no adverse impacts to State-listed species are anticipated from the proposed dredging.** **We have determined that there would be minimal impacts to wildlife and habitat in general. Impacts have been minimized by ensuring that the dredging will occur outside of tidal wetlands and the vast majority of intertidal flats present in the vicinity of the dredge footprint. Additionally, all dredging will be conducted outside of environmentally sensitive time periods so as not to conflict with fish spawning/migration or shellfish spawning. As such, it is not anticipated that the proposed dredging will pose any adverse impacts on wildlife resources or habitat.**
Benthic (bottom) Habitat	☒	☒	**We have determined that there would be minimal adverse impacts to benthic habitat. The proposed dredge depth is not sufficient to change sediment type or typical bottom temperature, which would potentially alter the habitat and benthic community structure. Furthermore, the benthic species communities in the proposed dredge footprint were analyzed by Peter Pellegrino, Ph. D, of Coastal Resource Analysts (see Attachment M). Dr. Pellegrino's analysis concluded that, based on the successional stages of the species identified and the presence of these same species outside of the dredge footprint, impacts to these communities will be temporary and that full recovery within the dredge footprint will be achieved within 8-12 months following completion of dredging. As such, it is not anticipated that the proposed dredging will pose any significant, permanent adverse impacts on benthic habitat.**
Indigenous aquatic life, including shellfish and finfish	☒	☒	**Correspondence from the NDDB (see Attachment C) was received stating that no impacts to State-listed species are anticipated from the proposed dredging. However, Mark Johnson of DEEP Fisheries indicated that there are historic records of anadromous alewife in the Four Mile River. In order to protect these various species, Mr. Johnson indicated that he would recommend prohibiting dredging**

			between April 1st and May 15th in the Four Mile River. **In addition, we have determined that there will be minimal adverse impacts to indigenous aquatic life, including shellfish and finfish. The proposed dredging will occur outside of environmentally sensitive periods and will avoid any direct disturbance to tidal wetlands, and have only minimal impacts to intertidal flats. Furthermore, the dredging will result in only temporary disruption to benthic habitat. Therefore, no significant impacts to these resources are anticipated.**
Submerged Aquatic Vegetation	☐	☐	**Coastline Consulting & Development, LLC conducted a field survey on June 20, 2014 to identify and locate the presence of any eelgrass within the vicinity of the proposed dredge footprint south of the railroad. This area was surveyed due the findings of previous USFWS eelgrass surveys and observations made by DEEP Fisheries staff. Utilizing GPS based topographic survey equipment, and operating from a shallow draft work boat, staff traversed the area of the proposed footprint, as well as the areas shown to contain eelgrass in the 2009 and 2012 USFWS eelgrass surveys, at low tide in 15' transects in all directions. Water clarity was sufficient to allow for visual observation of the eelgrass. Staff collected data throughout the survey area using the GPS equipment. Staff observations noted the presence of several eelgrass patches of various size and density to the east of the proposed dredge footprint and side slopes. These patches are located outside of the footprint and, therefore, will not be adversely impacted by the proposed dredging. Another patch is located within the side slope of the proposed dredge footprint. The extent of observed eelgrass is shown on the project plans. With respect to the patch located within the dredge footprint, DEEP Fisheries and DEEP/OLISP staff have concluded that dredging this patch is an acceptable, minimal adverse impact and that no reconfiguration of the dredge footprint is necessary. Therefore, it is anticipated that the proposed dredging will not cause any significant adverse impacts to this resource.**

Part III: Project Information (continued)

5. Identify whether the proposed activities will impact the following categories. If so, describe the expected impact, adding addenda as necessary as Attachment M.

Categories	Yes	No	Describe Expected Impact
Prevention or alleviation of shoreline erosion and coastal flooding	☐	☒	
Use and development of adjoining uplands	☐	☒	**The proposed work is not directly associated with any upland properties.**
Use and development of adjacent lands and properties	☐	☒	
Improvement of coastal and inland navigation for all vessels, including small craft for recreational purposes	☒	☐	**The proposed dredging will establish proper control depths for safe navigation and improved recreational boating access within this stretch of the Four Mile River.**
Pollution control	☒	☐	**The proposed work will not result in any discharge of stormwater or other potential pollutants.**
Water quality	☒	☐	**Outside of temporary turbidity, no impacts to water quality will result from the proposed work.**
Water circulation and drainage	☐	☒	
Recreational use of public water	☒	☐	**By improving water depths for recreational boating, the proposed dredging represents a benefit for the recreational use of public water.**
Management of coastal resources	☒	☐	**The proposed dredging has been designed to avoid or minimize encroachment into tidal wetlands and intertidal flats, and will occur outside of environmentally sensitive time periods as directed by the Bureau of Aquaculture and DEEP Fisheries. Therefore, the proposed dredging appears to be consistent with DEEP criteria for the management of coastal resources.**
Public health and welfare	☐	☒	
The protection of life and property from flood, hurricane and other natural disasters	☐	☒	

6. Identify and evaluate any potential beneficial and adverse impacts to:

a. navigation: (include federal and local navigation channels and distance to nearby docks)

During the initial planning stages, Coastline Consulting & Development, LLC carefully evaluated the potential impacts to navigation. As the project does not involve the installation of any structures within the navigable waterway, the proposed work does not pose any potential adverse impacts to navigation. Given that the proposed work consists entirely of dredging a formalized navigation channel to establish proper control depths to facilitate safer navigation at low tide, the proposed work represents a benefit to navigation within this portion of the Four Mile River. Furthermore, the Old Lyme Harbor Management Commission reviewed the project and concluded that it is consistent with their approved harbor management plan (see Attachment E). Therefore, the proposed dredging will pose no adverse impacts to navigation.

b. public access to, and public use of, public trust lands and waters waterward of mean high water:

Public Access to Public Trust Lands
As the work does not involve the installation of any structures within the Four Mile River, the proposed dredging does not inhibit public access to public trust lands. On the contrary, by establishing a formal navigation channel with proper control depths the proposed work improves public access for boaters to enjoy recreational activities in the Four Mile River and Long Island Sound.

Private Encroachment into and Occupation of Public Trust Lands
As the proposed work involves no structural components and is a municipal channel, the project does not represent any private encroachment into/occupation of public trust lands.

Public Access along Public Trust Lands
As the proposed work does not involve the installation of any structures waterward of mean high water, the project does not pose any potential obstacles to public access along public trust lands.

Part III: Project Information (continued)

7. Describe how the proposed work will be a water-dependent use(s) of the property or will physically support water-dependent use(s) of the property, such as marinas, recreational and commercial fishing, boating facilities, shipyards and boat building facilities. Please do not include private recreation docks in this category. Include how upland facilities, such as sanitary facilities, designated parking, boat repair and sales, winter storage, etc., will support water-dependent uses on-site.

The dredging of the proposed channel will entirely support and enhance recreational boating opportunities in the Four Mile River. In addition, the proposed channel will provide secondary benefits to the nearby commercial marinas by improving access for their patrons. The proposed work also benefits the users of the State of Connecticut launch ramp on the Four Mile River, located on the west side of the dredge footprint, by creating deeper water at all tides for vessel launching and retrieval. As such, the proposed dredging is a water-dependent use.

8. Identify and evaluate the potential adverse impacts of the proposed work upon future water-dependent development opportunities and activities.

As the proposed dredging will create a formalized navigation channel that improves recreational boating access, it is possible that the proposed work may actually encourage the creation of new, or expansion of existing, water-dependent uses where appropriate.

9. Discuss the alternatives to the proposed project which were considered and indicate why they were rejected.

In arriving at the conclusion that the proposed dredging footprint and depth is the most appropriate design to achieve the applicant's goal of maintaining recreational boating access in the Four Mile River, several design iterations were considered. The following is a discussion of each consideration and the rationale for either dismissing or accepting it.

NO ACTION ALTERNATIVE

The first alternative that was evaluated was a no-action alternative. However, as sediment accretion continues to occur in the river, this alternative was discounted since it would not resolve the need to maintain adequate conditions to support recreational boating access in the Four Mile River.

PROPOSE DREDGE DEPTH OF -2.0' MLW

The second consideration was to propose a channel to a depth of -2.0' MLW (+1' overdredge). While this would improve conditions in the shallowest portions of the river, even minimal accretion would impair the navigability for recreational vessels, necessitating more frequent dredging events at considerable expense. For these reasons, this alternative was dismissed as a viable alternative.

PROPOSE NARROWER CHANNEL WIDTH, DREDGE TO -3.0' MLW

Another alternative considered was to dredge to a depth of -3.0' MLW (+1' overdredge) and create a channel with narrow widths. This would establish an appropriate depth to facilitate access for typical recreational vessels and minimize the frequency of dredging events. However, it was determined that

a narrower footprint would create navigational concerns, especially when vessels are approaching from opposite directions. As a result, it was decided that the proposed widths are the minimum necessary to allay this concern and this design was removed from further consideration.

PROPOSE CHANNEL TO TERMINATE AT RAILROAD BRIDGE

The applicant also evaluated the feasibility of dredging a channel only as far south as the railroad bridge that spans the Four Mile River. This would address the immediate need to dredge the areas that are currently the shallowest. However, the shallow water depths in the river persist south of the bridge, which impairs navigation for the full length of the river. Therefore, it was determined that a channel extending further south would better facilitate the applicant's goal of maintaining adequate conditions for recreational boating in the river. Accordingly, this design was not pursued further.

DREDGE A 4,000 LINEAR FOOT CHANNEL WITH WIDTH VARYING FROM 30' TO 60' TO A DEPTH OF -3.0' MLW (+1' OVERDREDGE)

The final design consideration was to dredge a 4,000 linear foot channel that would maintain a width of 30' from the head of the river to the railroad bridge and a width of 60' from that point until its waterward terminus in Long Island Sound, and dredge the channel to a depth of -3.0' MLW (+1' overdredge). This would establish an adequate depth to facilitate recreational boating while creating a safe width for navigation. As such, this is the preferred alternative.

Part III: Project Information (continued)

10. After all measures to eliminate or minimize adverse impacts have been incorporated in the proposed project, describe why any adverse impacts that remain should be deemed acceptable by OLISP.

The proposed project has been designed to incorporate measures to eliminate or minimize potential adverse impacts. However, not all potential impacts could be entirely eliminated. The following is a list of remaining potential adverse impacts as defined by the Connecticut Coastal Management Act, why the impact was not eliminated, and an explanation of why the project should meet the statutory and regulatory standards for approval.

<u>Water Quality</u>
Potential impacts to water quality remain from the turbidity that will be encountered during the dredging operations and propeller dredging from vessels using the channel.

***Turbidity* – It was determined that the potential for adverse impacts caused by turbidity during dredging is low due to the fact that the dredging will occur outside of any shellfish spawning or anadromous fish spawning/migration periods. Therefore, there is only limited potential for turbidity to smother oyster spat or other shellfish/finfish larvae, or to interfere with the migration patterns of finfish.**

***Propeller Dredging* – It was determined that the potential for adverse impacts caused by propeller dredging is minimal at this site. Although propeller action has the potential to suspend sediments, multiple empirical studies have shown that the increased turbidity is short lived. Furthermore, the proposed dredge depth will ensure that there is sufficient water depth at all tides to accommodate the size vessels that would typically utilize the channel, which will minimize the potential for propeller dredging altogether. As a result, the proposed activities will have minimal adverse impacts on water quality.**

To conclude, the project will only have the potential to introduce minimal amounts of suspended solids into the waterway in the form of dredging related turbidity. According to CGS section 22a-93(15)(A), adverse impacts to water quality are defined by significant introduction of suspended solids into the waterway. As the turbidity will be short term and occur outside of environmentally sensitive time periods, this project should be consistent with the statutory and regulatory standards for approval.

<u>Essential Wildlife, Finfish or Shellfish Habitat</u>
Potential impacts to wildlife, finfish or shellfish habitat remain from the proposed dredging. The dredging operation itself poses potential impacts to benthic habitat.

The potential impacts to benthic habitat could not be entirely eliminated due to the need to conduct dredging within this portion of the Four Mile River. However, benthic impacts are expected to be minimal due to the fact that the proposed dredging will not establish depths that will alter benthic temperature or sunlight penetration, which could alter the density and diversity of the existing benthic community. In addition, it is anticipated that the benthic organisms will fully recover within short order of the cessation of dredging per the findings of Dr. Pellegrino (see Attachment M).

The only way to eliminate the potential impacts to benthic habitat from the proposed project would be to entirely disallow the dredging. However, as the dredging supports water-dependent uses and improves and encourages recreational boating within the existing harbor, disallowing dredging entirely would be contrary to coastal management policies that encourage the facilitation of such activities.

A correspondence has been obtained (see Attachment C) from the DEEP Wildlife Division stating that it does not anticipate any adverse impacts to State-listed species from the proposed dredging. However, Mark Johnson of DEEP Fisheries has informed Coastline Consulting & Development, LLC that there are records of anadromous alewife in the river. Significant adverse impacts to this species

have been avoided by prohibiting dredging during the April 1st to May 15th spawning migration period (see Part III, item 4 of this document).

CGS section 26-304(13) states that "Destruction or adverse modification of essential habitat means any activity that significantly alters, pollutes, impairs, degrades, damages, destroys or otherwise reduces the ability of the habitat to sustain populations of endangered or threatened species." By implementing the protective measures described above, this project should have no significant impacts to essential habitat and should be consistent with the statutory and regulatory standards for approval.

11. a. Is any portion of the work for which authorization is being sought now complete or under construction?

☐ Yes ☒ No ***If No, skip to question #12***.

b. Specify what parts of the proposed work have been completed or are under construction.

N/A

c. Indicate when such work was undertaken or completed. Identify completed portions on the plans submitted.

N/A

d. When did you acquire interest in this property? **N/A**

e. Were you responsible for the unauthorized activity as a result of actions taken before the acquisition of the property? ☐ Yes ☐ No If Yes, explain.

N/A

Part III: Project Information (continued)

f. Did you know or have reason to know of the unauthorized activity? ☐ Yes ☐ No If Yes, explain.

N/A

g. Is this application associated with an enforcement action pending with DEEP? ☐ Yes ☐ No

If Yes, explain: **N/A**

12. Is there or will there be any federal and/or state funding of this project? ☒ Yes ☐ No If Yes, explain.

The proposed dredging will be partly funded with monies provided by the CT DOT.

☐ Check here if additional Project Information sheets are necessary, and label and attach them to this sheet.

Part IV: Site and Resource Information

1. SITE NAME AND LOCATION

Name of Site : **Four Mile River Navigation Channel**

Street Address or Location Description: **Head of river to south of railroad bridge.**

City/Town: **Old Lyme** State: **CT** Zip Code: **06371**

Tax Assessor's Reference: Map **15** Block **-** Lot **-**

Latitude and longitude of the exact location of the proposed activity in degrees, minutes, and seconds or in decimal degrees: Latitude: **Northern Limit: 41°18'22.21"** Longitude: **Northern Limit: 72°15'05.57"**
Southern Limit: 41°17'53.10" **Southern Limit: 72°14'56.39"**

Method of determination (check one):

☐ GPS ☐ USGS Map ☒ Other (please specify): **Google Earth**

If a USGS Map was used, provide the quadrangle name:

2. INDIAN LANDS: Is or will the facility be located on federally recognized Indian lands? ☐ Yes ☒ No

3. COASTAL AREA: Is the project site located in a municipality within the coastal area? (check town list in the instructions) ☒ Yes ☐ No

4. ENDANGERED OR THREATENED SPECIES: According to the most current "State and Federal Listed Species and Natural Communities Map", is the project site located within an area identified as a habitat for endangered, threatened or special concern species? ☒ Yes ☐ No Date of Map: **December 2013**

Part IV: Site Information (continued)

If yes, complete and submit a *Request for NDDB State Listed Species Review Form* (DEEP-APP-007) to the address specified on the form. **Please note NDDB review generally takes 4 to 6 weeks and may require additional documentation from the applicant.**

A **copy** of the completed *Request for NDDB State Listed Species Review Form* **and** the CT NDDB response ***must*** be submitted with this completed application as Attachment C.

For more information visit the DEEP website at www.ct.gov/deep/nddbrequest or call the NDDB at 860-424-3011.

5. AQUIFER PROTECTION AREAS: Is the site located within a mapped Level A or Level B Aquifer Protection Area, as defined in CGS section 22a-354a through 22a-354bb?

☐ Yes ☒ No If **yes**, check one: ☐ Level A **or** ☐ Level B

If **Level A**, are any of the regulated activities, as defined in RCSA section 22a-354i-1(34), conducted on this site? ☐ Yes ☐ No

If **yes**, and your business is **not** already registered with the Aquifer Protection Program, contact the local aquifer protection agent or DEEP to take appropriate actions.

For more information on the Aquifer Protection Area Program visit the DEEP website at www.ct.gov/deep/aquiferprotection or contact the program at 860-424-3020.

6. SHELLFISH COMMISSION: Does your town have a shellfish commission? ☒ Yes ☐ No

If yes, you must submit a completed *Shellfish Commission Consultation Form* (DEEP-OLISP-APP-101D) with this application as Attachment D.

7. HARBOR MANAGEMENT COMMISSION: Does your town have a Harbor Management Commission?

☒ Yes ☐ No

If yes, you must submit a completed *Harbor Management Commission Consultation Form* (DEEP-OLISP-APP-101E) with this application as Attachment E.

8. DEPARTMENT OF AGRICULTURE/BUREAU OF AQUACULTURE: If the subject site is located in a specific area as explained in Part IV, item 8 of the application instructions (DEEP-OLISP-INST-100), you must submit a completed *Department of Agriculture/Bureau of Aquaculture Consultation Form* (DEEP-OLIS-APP-101F) as Attachment F.

9. CONSERVATION OR PRESERVATION RESTRICTION: Is the property subject to a conservation or preservation restriction? ☐ Yes ☒ No

If yes, proof of written notice of this application to the holder of such restriction or a letter from the holder of such restriction verifying that this application is in compliance with the terms of the restriction, must be submitted as Attachment G.

10. Indicate the number and date of issuance of any previous state coastal permits or certificates issued by DEEP authorizing work at the site and the names to whom they were issued.

Permit/COP Number	*Date Issued*	*Name of Permittee/Certificate Holder*
N/A		

Part IV: Site Information (continued)

11. Identify any changes in conditions of the site (including ownership, development, use, or natural resources) since the issuance of the most recent state permit or certificate authorizing work at the site.

N/A

12. a. Identify and describe the existing municipal zoning classification of the site.

N/A: The proposed channel exists in entirely state regulated waters

b. Identify and describe the existing land use(s) on and adjacent to the site.

The properties adjoining the Four Mile River in the vicinity of the proposed navigation channel consist of residential properties and two commercial marinas near the head of the channel.

13. Provide the name of the waterbody at the site of proposed work: **Four Mile River**

14. Provide the elevation of the applicable regulatory limit for your project referenced to NAVD88. Refer to the instructions for more information.

☐ Tidal Wetlands Limit = _____ ☒ Coastal Jurisdiction Limit = **2.6'**

15. How was the regulatory limit identified above determined? Please check one of the following**:**

☒ **DEEP-calculated elevation**

☐ **Self-calculated elevation** (If a self-calculated elevation is used, please provide the additional information and calculations per the instructions.)

☐ **Mean High Water elevation** (use only if project is upstream of a tide gate, dam or weir) (If a MHW elevation is used, provide a discussion of the location of the tide gate, dam or weir.)

If other than a DEEP calculated elevation was used to calculate the CJL, please provide the additional information and calculations per the instructions and label and attach them as Attachment M.

16. Provide the elevations of the mean high water and mean low water at the site and the reference datum used. Refer to the instructions regarding elevation datum.

MHW = **3.0'** MLW = **0.0'** Datum = **MLW**

☒ Check here If NAVD88 is not referenced, and provide an orthometric conversion table in Attachment M**.**

Part V: Supporting Documents

The supporting documents listed below must be submitted with the application and labeled as indicated. The specific information required in each attachment is described in the *Instructions for Completing a Permit Application for Programs Administered by the Office of Long Island Sound Programs* (DEEP-OLIS-INST-100). Check the box by the attachments listed to indicate that they have been submitted.

☒ Attachment AA: a copy of the published notice of permit application, as described in the instructions, attached to a completed "Certification of Notice Form (DEEP-APP-005A

☒ Attachment A: Executive Summary; summarize the information contained in the complete application which must include a description of the proposed regulated activities and a synopsis of the environmental and engineering analyses of the impact of such activities. Include a list of the titles of all plans, drawings, reports, studies, appendices, or other documentation which are attached as part of the application.

☐ Attachment B: If the applicant is not the owner, submit written permission from the owner as Attachment B.

☒ Attachment C: **Copy** of the completed *Request for NDDB State Listed Species Review Form* (DEEP-APP-007) **and** the NDDB response, if applicable.

☒ Attachment D: *Shellfish Commission Consultation Form* (DEEP-OLIS-APP-101D), if applicable.

☒ Attachment E: *Harbor Management Commission Consultation Form* (DEEP-OLIS-APP-101E), if applicable.

☒ Attachment F: *Department of Agriculture/Bureau of Aquaculture Consultation Form* (DEEP-OLIS-APP-101F), if applicable.

☐ Attachment G: Conservation or Preservation Restriction Information, if applicable.

☒ Attachment H: *Applicant Compliance Information Form* (DEEP-APP-002).

☒ Attachment I: Provide plans of the project as Attachment I. They must be 8 1/2" x 11" scaled plans of the site and proposed work, with the datum of the measurements noted, including:

a. A Vicinity Map;

b. A Tax Assessor's Map showing the Map, Block and Lot #, subject property and immediately adjacent properties;

c. Plan Views showing existing and proposed conditions, including vessel berthing arrangement, based on a site survey prepared by a licensed surveyor; and

d. An Elevation or Cross-Section View showing existing and proposed conditions, including vessel berthing arrangement, based on a site survey prepared by a licensed surveyor.

Please refer to Attachment I of the instructions for identification and discussion of required plan components.

☒ Attachment J: Photographs showing existing conditions of the site.

☒ Attachment K: Abutting or adjacent property owner information; including names and mailing addresses and names and addresses of shellfish bed owners or lessees.

☒ Attachment L: *Applicant Background Information Form* (DEEP-APP-008) (if applicable).

☒ Attachment M: Other Information: Any other information the applicant deems relevant or is required by DEEP.

☒ Attachment N: *US. Army Corps of Engineers Consultation Form* (DEEP-OLISP-APP-101N)

Part VI: Applicant Certification

The applicant(s) *and* the individual(s) responsible for actually preparing the application must sign this part. An application will be considered insufficient unless *all* required signatures are provided.

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

I certify that this application is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I certify that I have complied with all notice requirements as listed in section 22a-6g of the General Statutes."

Steven Ross	Oct. 15, 2014
Signature of Applicant	Date
Steven Ross	**Authorized Representative**
Name of Applicant (print or type)	Title (if applicable)
David R. Provencher	10/22/14
Signature of Preparer (if different than above)	Date
David R. Provencher	**Agent**
Name of Preparer (print or type)	Title (if applicable)

☐ Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies to this sheet. You must include signatures of any person preparing any report or parts thereof required in this application (i.e., professional engineers, surveyors, soil scientists, consultants, etc.)

Note: Please submit the completed Application Form, Fee, and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Please remember to publish notice of the permit application **prior** to submitting your completed application to DEEP. Send a copy of the published notice to the chief elected official of the municipality in which the regulated activity is proposed and provide DEEP with a copy of the published notice, as described in the instructions, attached to a completed *Certification of Notice Form* (DEEP-APP-005A) as Attachment AA to this application.

Also send a copy of the notice to the Chairman of the Shellfish Commission and to the Chairman of the Harbor Management Commission in the municipality in which the regulated activity is proposed, where applicable. Refer to the Shellfish Commission and Harbor Management Commission lists for contact information.

Submit one complete application copy to the U.S. Army Corps of Engineers, Regulatory Division, 696 Virginia Road, Concord, MA, 01742.

If you are submitting a tidal wetlands application, mail complete application copies to the municipal CEO, Shellfish Commission and Conservation Commission.

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

May 5, 2015

Town of Old Lyme
c/o Steven Ross
52 Lyme Street
Old Lyme, CT 06371

SUBJECT: **Permit** #201410682-SB
Four Mile River, Old Lyme

Dear Mr. Ross:

Enclosed is the signed permit which constitutes the approval of your application to conduct regulated activities. Your attention is directed to the conditions of the enclosed permit. Construction or work must conform to that which is authorized.

Please note that Appendix B of the permit has been enclosed for your convenience to comply with Connecticut General Statutes Section 22a-363g. Also, please note that the Permit Notice, found at the back of your authorization, must be posted at the work area while the work is being undertaken. Please refer to the SPECIAL TERMS AND CONDITIONS of your permit for further details.

If you have not already done so, you should contact your local Planning and Zoning Office to determine local permit requirements on your project, if any. Also, if you have any questions regarding the required authorization from the U.S. Army Corps of Engineers, please contact Diane Ray at 978-318-8831 or Diane.M.Ray@usace.army.mil.

If you have any questions concerning your permit, please contact me at 860-424-3625 or sue.bailey@ct.gov.

Sincerely,

Susan L. Bailey

Susan L. Bailey, Environmental Analyst 3
Office of Long Island Sound Programs
Bureau of Water Protection and Land Reuse

Enc. – Permit #201410682-SB (original cover letter, Appendix B and Permit Notice; Permit copy)

cc: File #201410682-SB (original permit; copy cover letter, Appendix B, Permit Notice)
Certified to: Owners of franchised oyster ground/lessee of leased oyster ground;
First Class to: Adjacent Property Owners; Steven Ross
E-mail to:
david@coastlineconsulting-ct.com; US ACOE, c/o Diane.M.Ray@usace.army.mil, breemsnyder@oldlyme-ct.gov; Commissioner of DOT and Bureau of Waterways; steveross@snet.net; Conservation, Shellfish, Planning, Zoning and Harbor Management Commissions; Dept. of Agriculture/Aquaculture Division; Harbormaster

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

PERMIT

Permit No: 201410682-SB

Municipality: Town of Old Lyme

Work Area: the Four Mile River

Permittee: Town of Old Lyme
c/o Steven Ross
Memorial Town Hall
52 Lyme Street
Old Lyme, CT 06371

Pursuant to sections 22a-359 through 22a-363g of the Connecticut General Statutes ("CGS") and in accordance with section 401 of the Federal Clean Water Act, as amended, CGS section 22a-98 and the Connecticut Water Quality Standards, effective February 25, 2011, a permit is hereby granted by the Commissioner of Energy and Environmental Protection ("Commissioner") to conduct dredging with open water disposal for public recreational boating access as is more specifically described below in the SCOPE OF AUTHORIZATION, off property identified as the "work area" above.

*****NOTICE TO PERMITTEES AND CONTRACTORS*****

UPON INITIATION OF ANY WORK AUTHORIZED HEREIN, THE PERMITTEE ACCEPTS AND AGREES TO COMPLY WITH ALL TERMS AND CONDITIONS OF THIS PERMIT. FAILURE TO CONFORM TO THE TERMS AND CONDITIONS OF THIS PERMIT MAY SUBJECT THE PERMITTEE AND ANY CONTRACTOR TO ENFORCEMENT ACTIONS, INCLUDING INJUNCTIONS AS PROVIDED BY LAW AND PENALTIES UP TO $1,000.00 PER DAY PURSUANT TO THE ADMINISTRATIVE CIVIL PENALTY POLICY DESCRIBED IN SECTIONS 22a-6b-1 THROUGH 22a-6b-15 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES.

SCOPE OF AUTHORIZATION

The Permittee is hereby authorized to conduct the following work as described in application #201410682-SB, including 8 sheets of plans dated October 3, 2014, of which sheets 3 through 7 were revised February 26, 2015, submitted by the Permittee to the Commissioner and attached hereto, as follows:

1. Dredge by clamshell bucket approximately 9,787 cubic yards (cy) of material, approximately 8,602 cy of which will be dredged from areas with no prior authorization, over an approximately 132,869.1 square foot area to a depth of -3.0' MLW with a maximum allowable 1' overdredge to create an approximately 4,000 linear foot navigation channel. The channel will maintain an approximate 26'-30' width from the head of the river to the southern side of the railroad bridge, and maintain a 60' width from that point south of the railroad bridge to the mouth of the Four Mile River; and

2. Dispose of the dredged material at the Central Long Island Sound Disposal Site.

SPECIAL TERMS AND CONDITIONS

1. Not later than two (2) weeks prior to the commencement of dredging authorized herein, the Permittee shall submit to the Commissioner, on the form attached hereto as Appendix A, 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.

2. The Permittee shall file Appendix B on the land records of the municipality in which the subject property is located not later than thirty days after permit issuance pursuant to CGS Section 22a-363g. A copy of Appendix B 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 permit issuance.

3. The Permittee shall give a copy of this permit to the contractor(s) who will be carrying out the activities authorized herein prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The Permittee's contractor(s) shall conduct all operations at the site in full compliance with this permit and, to the extent provided by law, may be held liable for any violation of the terms and conditions of this permit. At the work area the contractor(s) shall, whenever work is being performed, make available for inspection a copy of this permit and the final plans for the work authorized herein.

4. The Permittee shall post the attached Permit Notice in a conspicuous place at the work area while the work authorized herein is undertaken.

5. The Permittee shall conduct the work authorized herein in accordance with the attached addendum entitled "Construction Methodology" unless otherwise authorized in writing by the Commissioner.

6. Unconfined in-water excavation, dredging, filling or removal of debris or other material is prohibited between April 1 through May 15, inclusive, of any year in order to protect spawning migration of alewife and June 1 through September 30, inclusive, of any year to protect spawning shellfish in the area unless otherwise authorized in writing by the Commissioner.

7. The 2,939 cubic yards of dredged material to be dredged south of the railroad bridge shall be

dredged and disposed of first and then be capped by the remaining material to be dredged under this permit.

8. The Permittee shall off set the dredging top of slope a minimum of a 10 feet from any tidal wetland vegetation adjacent to the area to be dredged.

9. The Permittee shall dispose of aquatic sediments in accordance with the terms and conditions of this permit. All other waste material generated by the performance of the work authorized herein shall be disposed of by the Permittee at an upland site approved for the disposal of such waste material, as applicable.

10. Sediment dredged pursuant to this authorization shall not be sold nor shall any fee for its use be charged without the express prior written authorization of the Commissioner and payment of a $4.00 per yard royalty to the State of Connecticut Department of Energy & Environmental Protection, pursuant to section 22a-361(e) of the CGS.

11. Not later than sixty (60) days following receipt of this authorization to conduct dredging, the Permittee shall submit to the Commissioner a proposed schedule for the dredging project.

12. Dragging the bottom with a spoil barge, scow, vessel, beam or similar equipment outside of the area authorized by this permit to be dredged or excavated is prohibited.

13. Sidecasting or in-water rehandling of dredged or excavated material is prohibited.

14. Spoil scows or barges shall be loaded and navigated in a manner which prevents uncontrollable motion or spillage and washout of dredged or excavated materials.

15. The Permittee shall not dispose of dredged material as authorized herein unless said disposal is supervised and witnessed by an on-board inspector or documented by an automated disposal monitoring program approved by the United States Army Corps of Engineers-New England District.

16. Spoil scows or barges used by the Permittee for disposal of dredged or excavated material as authorized hereunder shall travel to and from the Central Long Island Sound Disposal Site utilizing sea lanes delineated by the United States Army Corps of Engineers-New England District.

17. The Permittee shall point-dump dredged or excavated materials at a specified buoy or set of coordinates identified by United States Army Corps of Engineers-New England District within the disposal area authorized by this certificate.

18. The Permittee shall ensure that any barge utilized in the execution of the work authorized herein shall not rest on or come into contact with the substrate. Any such barge shall not interfere with navigation or be berthed in an area of submerged aquatic vegetation or tidal wetland vegetation.

19. At no time shall any barge be stored over intertidal flats, submerged aquatic vegetation or tidal wetland vegetation or in a location that interferes with navigation. In the event any barge

associated with the work authorized herein is grounded, no dragging or prop dredging shall occur to free the barge. The Permittee shall ensure that any vessel utilized in the execution of the work authorized herein shall not rest on, or come in contact with, the substrate at any time.

20. Prior to the commencement of the work authorized herein, the Permittee shall obtain all appropriate state, federal and local authorizations.

21. The Commissioner may modify the disposal site authorized herein and direct the dredged sediment to an alternate site for use as cap material, provided that no modification will take effect if such modification imposes uncompensated additional costs solely attributable to such modification on the Permittee.

22. On or before ninety (90) days after completion of the work authorized herein, the Permittee shall submit to the Commissioner an "as-dredged" survey of the work area showing contours, bathymetries, and tidal datums. Such survey shall be the original one and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut.

GENERAL TERMS AND CONDITIONS

1. All work authorized by this permit shall be completed within five (5) years from date of issuance of this permit ("work completion date") in accordance with all conditions of this permit and any other applicable law.

   a. The Permittee may request a one-year extension of the work completion date. Such request shall be in writing and shall be submitted to the Commissioner at least thirty (30) days prior to said work completion date. 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.

   b. Any work authorized herein conducted after said work completion date or any authorized one year extension thereof is a violation of this permit and may subject the Permittee to enforcement action, including penalties, as provided by law.

2. In conducting the work authorized herein, the Permittee shall not deviate from the attached plans, as may be modified by this permit. The Permittee shall not make de minimis changes from said plans without prior written approval of the Commissioner.

3. The Permittee may not conduct work waterward of the coastal jurisdiction line or in tidal wetlands at this permit site other than the work authorized herein, unless otherwise authorized by the Commissioner pursuant to CGS section 22a-359 et. seq. and/or CGS section 22a-32 et. seq.

4. The Permittee shall maintain all structures or other work authorized herein in good condition. Any such maintenance shall be conducted in accordance with applicable law including, but not limited to, CGS sections 22a-28 through 22a-35 and CGS sections 22a-359 through 22a-363g.

5. In undertaking the work authorized hereunder, the Permittee shall not cause or allow pollution

of wetlands or watercourses, including pollution resulting from sedimentation and erosion. For purposes of this permit, "pollution" means "pollution" as that term is defined by CGS section 22a-423.

6. Upon completion of any work authorized herein, the Permittee shall restore all areas impacted by construction, or used as a staging area or access way in connection with such work, to their condition prior to the commencement of such work.

7. The work specified in the SCOPE OF AUTHORIZATION is authorized solely for the purpose set out in this permit. No change in the purpose or use of the authorized work or facilities as set forth in this permit may occur without the prior written authorization of the Commissioner. The Permittee shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this permit, request authorization from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.

8. The Permittee shall allow any representative of the Commissioner to inspect the work authorized herein at reasonable times to ensure that it is being or has been accomplished in accordance with the terms and conditions of this permit.

9. This permit is not transferable without prior written authorization of the Commissioner. A request to transfer a permit shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Permittee's obligations under this permit shall not be affected by the passage of title to the work area to any other person or municipality until such time as a transfer is authorized by the Commissioner.

10. Any document required to be submitted to the Commissioner under this permit or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:

    Permit Section
    Office of Long Island Sound Programs
    Department of Energy and Environmental Protection
    79 Elm Street
    Hartford, Connecticut 06106-5127
    (860) 424-3034
    Fax # (860) 424-4054

11. The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, 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 this permit, the word "day" as used in this permit means calendar day. Any document or action which is required by this permit 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.

12. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this permit shall be signed by the Permittee 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."

13. In evaluating the application for this permit the Commissioner has relied on information and data provided by the Permittee and on the Permittee's representations concerning site conditions, design specifications and the proposed work authorized herein, including but not limited to representations concerning the commercial, public or private nature of the work or structures authorized herein, 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, this permit may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.

14. In granting this permit, the Commissioner has relied on representations of the Permittee, including information and data provided in support of the Permittee's application. Neither the Permittee's representations nor the issuance of this permit shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.

15. In the event the Permittee becomes aware that they did not or may not comply, or did not or may not comply on time, with any provision of this permit or of any document required hereunder, the Permittee shall immediately notify the Commissioner 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 Commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates which may be approved in writing by the Commissioner. Notification by the Permittee shall not excuse noncompliance or delay and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically stated by the Commissioner in writing.

16. This permit may be revoked, suspended, or modified in accordance with applicable law.

17. The issuance of this permit does not relieve the Permittee of their obligations to obtain any other approvals required by applicable federal, state and local law.

18. This permit 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.

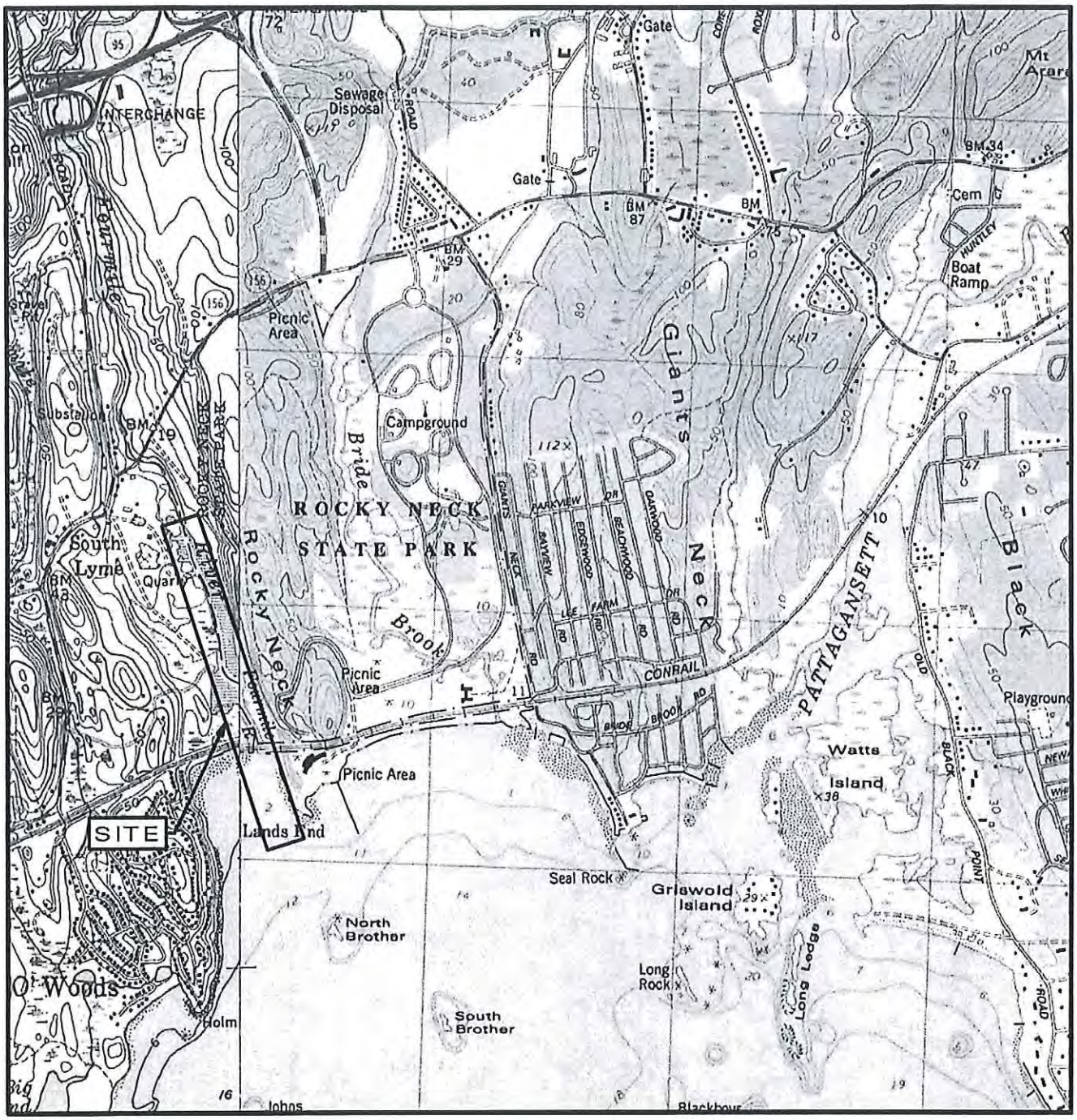
Issued on May 2, 2015

STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Michael Sullivan

Michael Sullivan
Deputy Commissioner

Permit #201410682-SB
Town of Old Lyme, Permittee



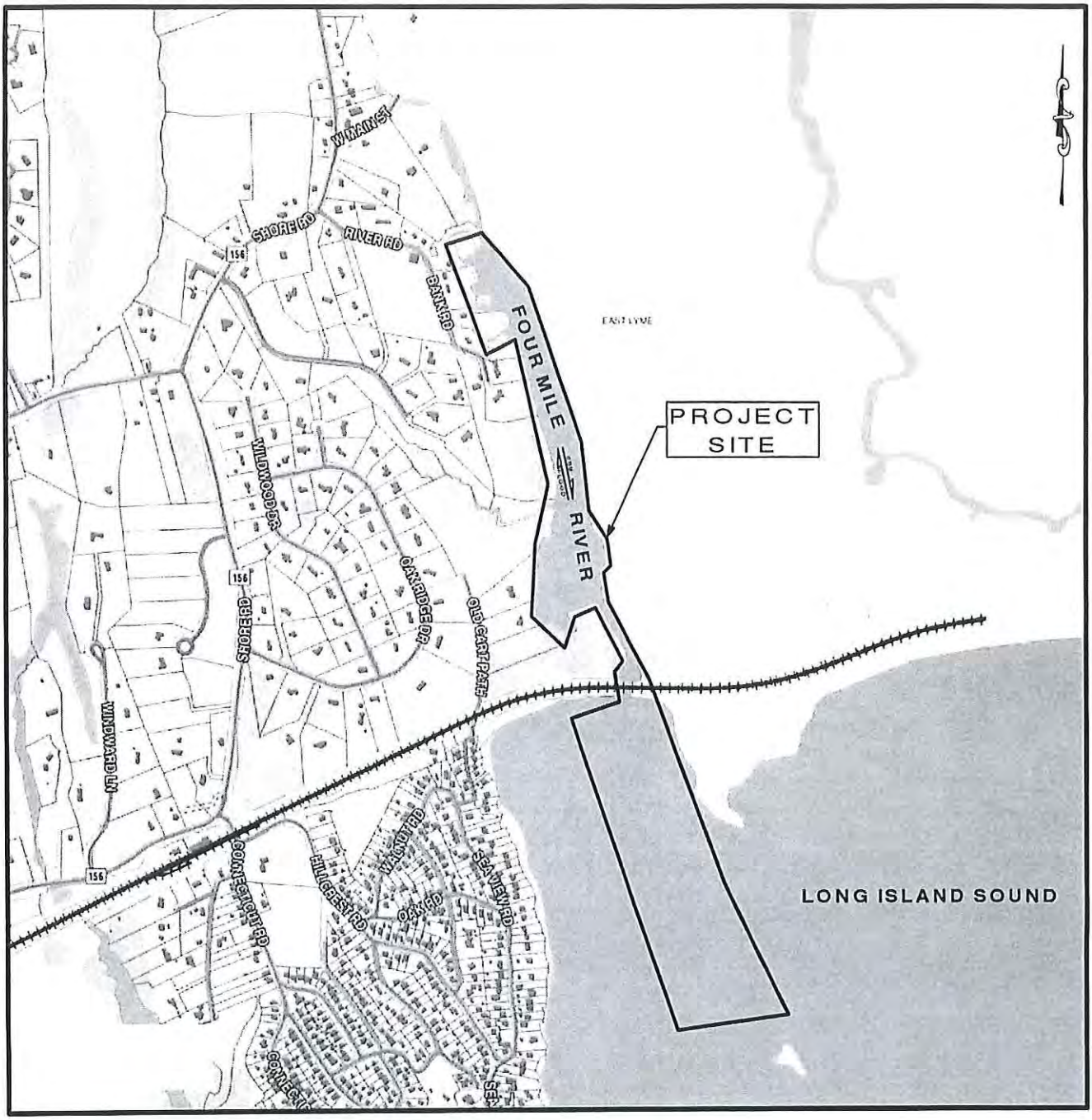
Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
(203) 245-8138

SHEET 1 OF 8
PROPOSED NAVIGATION CHANNEL
SITE LOCATION MAP

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014 | SCALE: 1 = 24,000

NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.



GRAPHIC SCALE

500 0 1000 2000

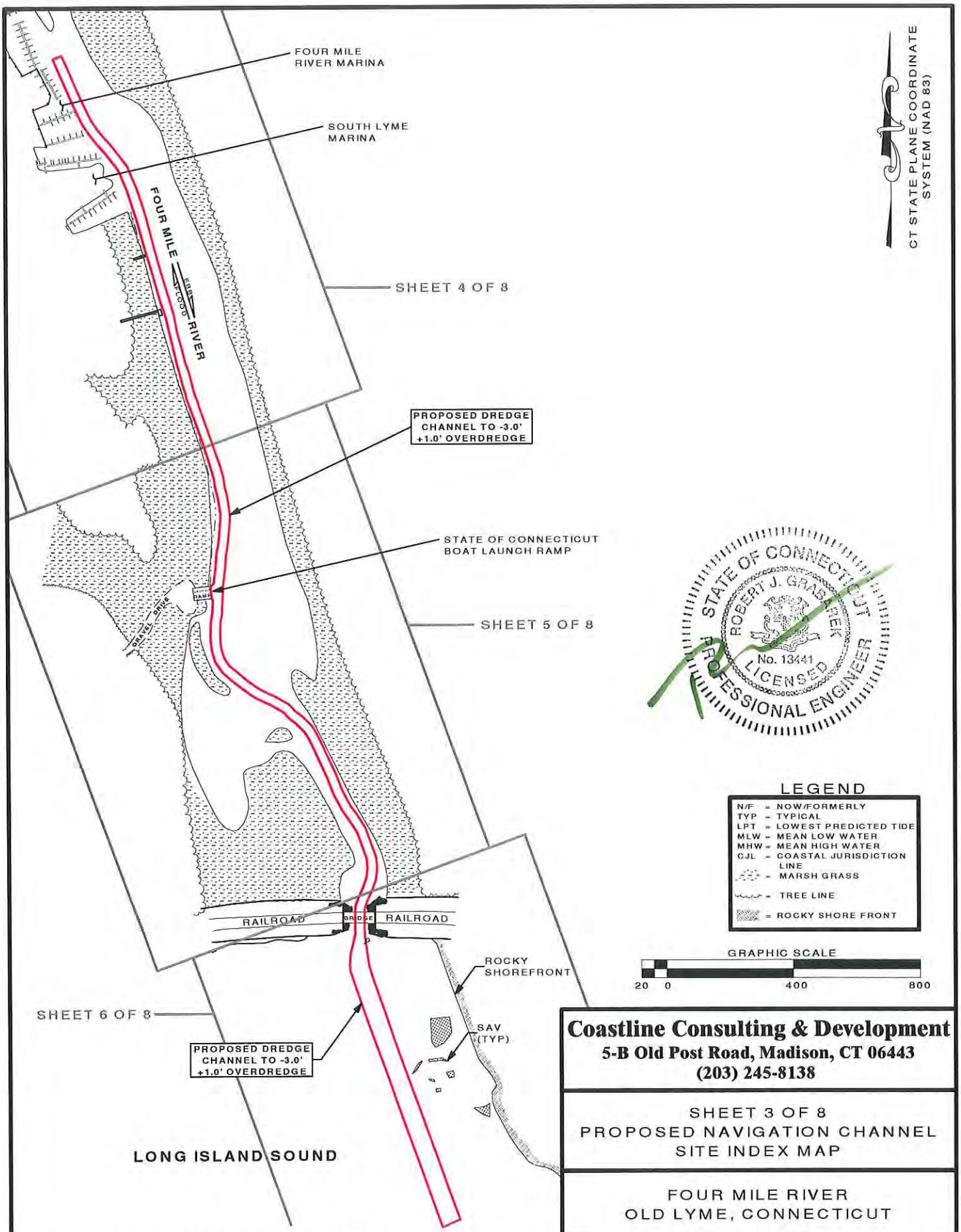
NOTE: REFER TO NOTES FOR THIS SHEET IN SAMPLING PLAN DRAWING NOTES ON SHEET 8 OF 8.

Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
(203) 245-8138

SHEET 2 OF 8
PROPOSED NAVIGATION CHANNEL
SITE PLAN VIEW

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014	SCALE: 1" = 1000'



NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.

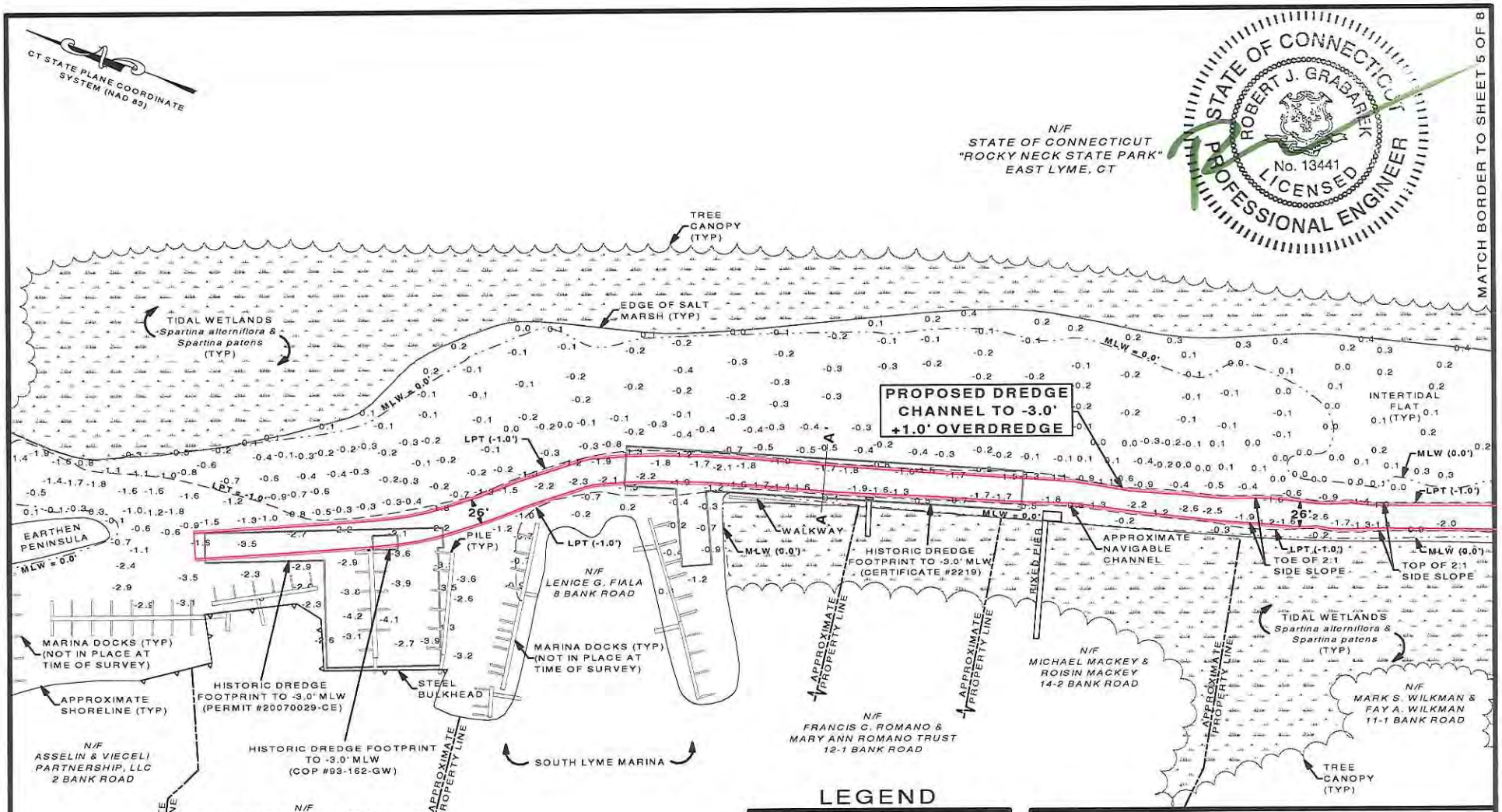
Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
(203) 245-8138

SHEET 3 OF 8
PROPOSED NAVIGATION CHANNEL
SITE INDEX MAP

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 400'



STATE OF CONNECTICUT
ROBERT J. GRABAREK
No. 13441
LICENSED
PROFESSIONAL ENGINEER

LEGEND

-1.2	= SOUNDINGS IN FEET
+7.3	= UPLAND ELEVATION
N/F	= NOW/FORMERLY
TYP	= TYPICAL
MLW	= MEAN LOW WATER
LPT	= LOWEST PREDICTED TIDE

LINE TYPE

- MEAN LOW WATER (MLW)
- LOWEST PREDICTED TIDE (LPT)
- TOP OF 2:1 SIDE SLOPE
- TOE OF 2:1 SIDE SLOPE

-2.1

NOTE: MEASURING POINT FOR INDIVIDUAL SOUNDINGS IS LOCATED AT THE DECIMAL POINT

GRAPHIC SCALE

60 30 0 150 300

NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.

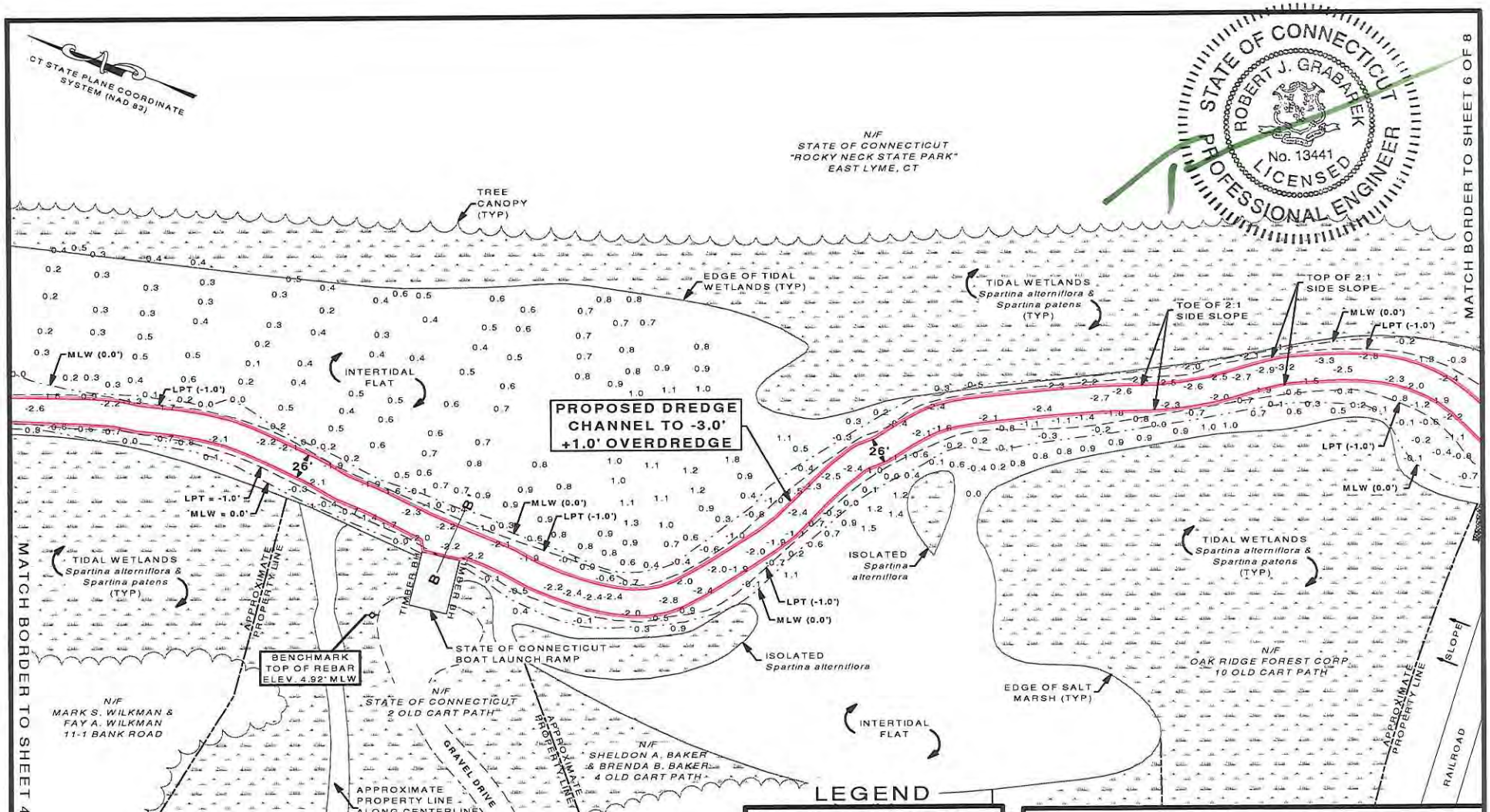
Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
(203) 245-8138

SHEET 4 OF 8
PROPOSED NAVIGATION CHANNEL
PROPOSED CONDITIONS

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 150'



LEGEND

-1.2	= SOUNDINGS IN FEET
+7.3	= UPLAND ELEVATION
N/F	= NOW/FORMERLY
TYP	= TYPICAL
MLW	= MEAN LOW WATER
LPT	= LOWEST PREDICTED TIDE

LINE TYPE

- MEAN LOW WATER (MLW)
- LOWEST PREDICTED TIDE (LPT)
- TOP OF 2:1 SIDE SLOPE
- TOE OF 2:1 SIDE SLOPE

-2.1

NOTE: MEASURING POINT FOR INDIVIDUAL SOUNDINGS IS LOCATED AT THE DECIMAL POINT

GRAPHIC SCALE

60 30 0 150 300

NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.

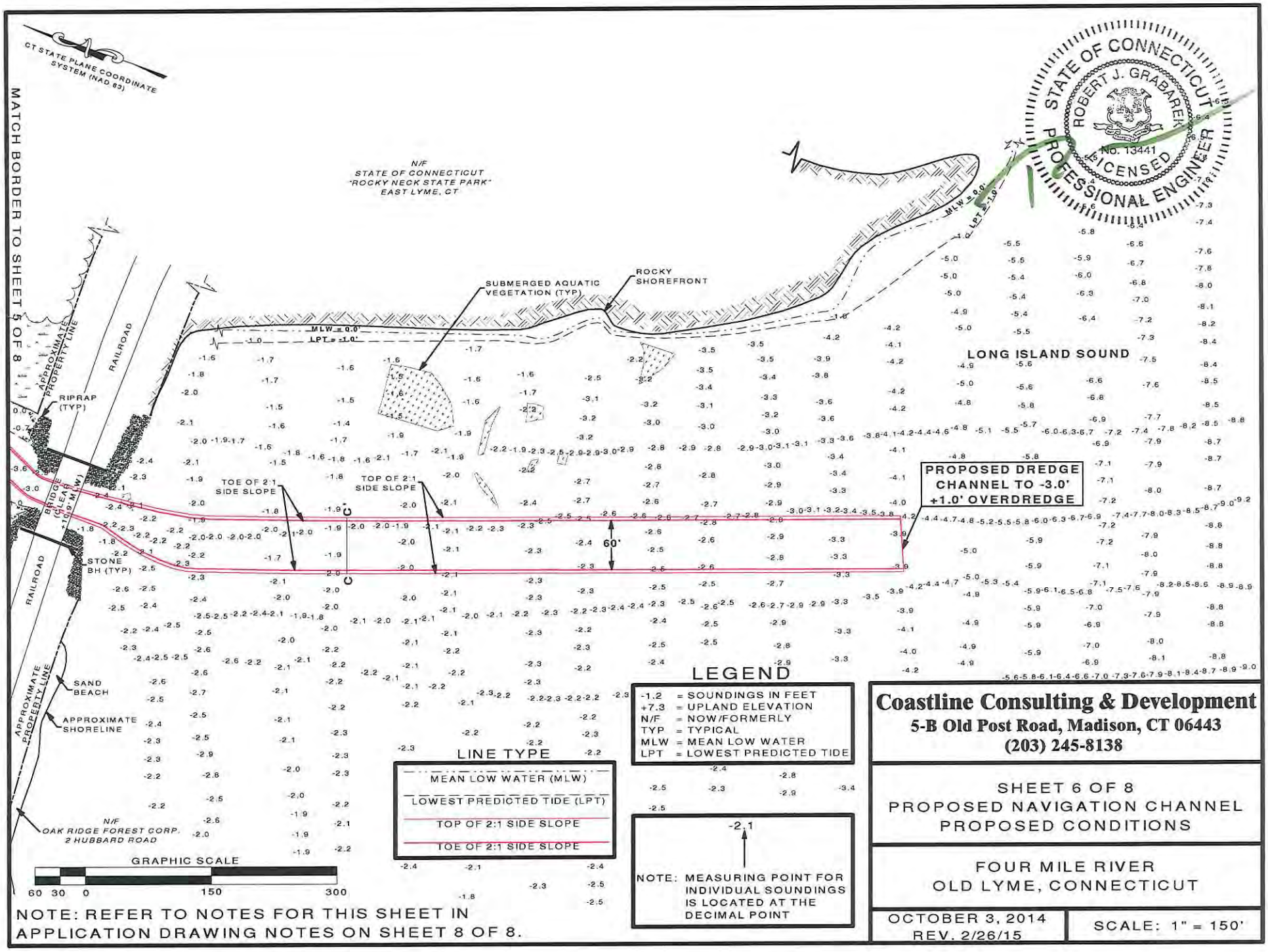
Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
(203) 245-8138

SHEET 5 OF 8
PROPOSED NAVIGATION CHANNEL
PROPOSED CONDITIONS

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 150'



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SHEET 6 OF 8
PROPOSED NAVIGATION CHANNEL
PROPOSED CONDITIONS

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
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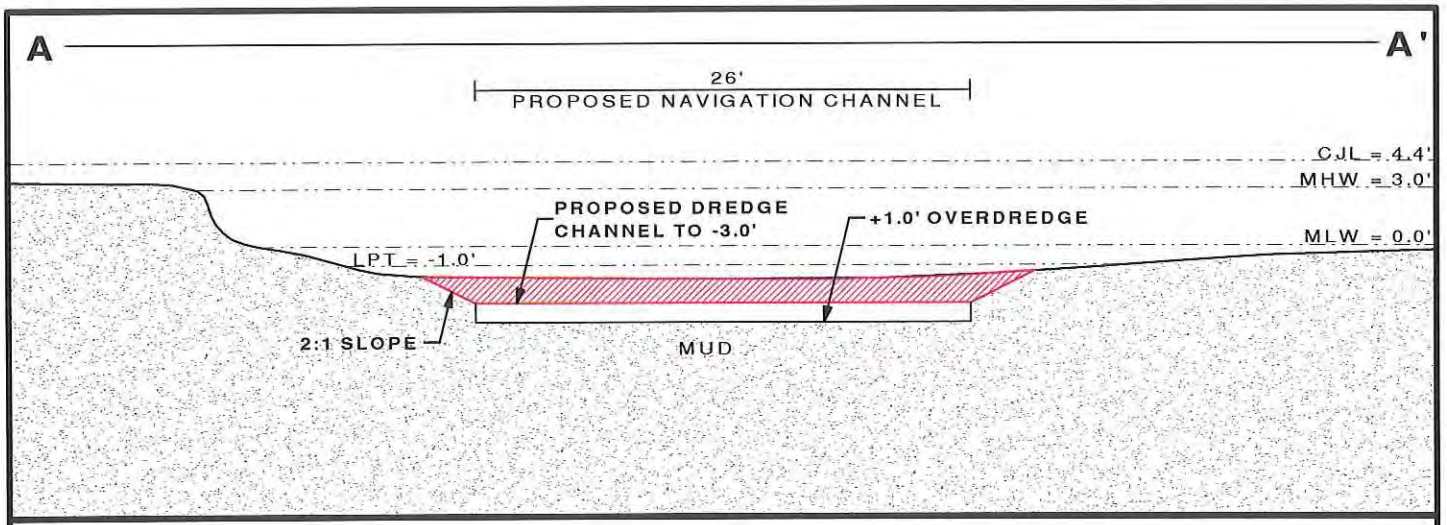
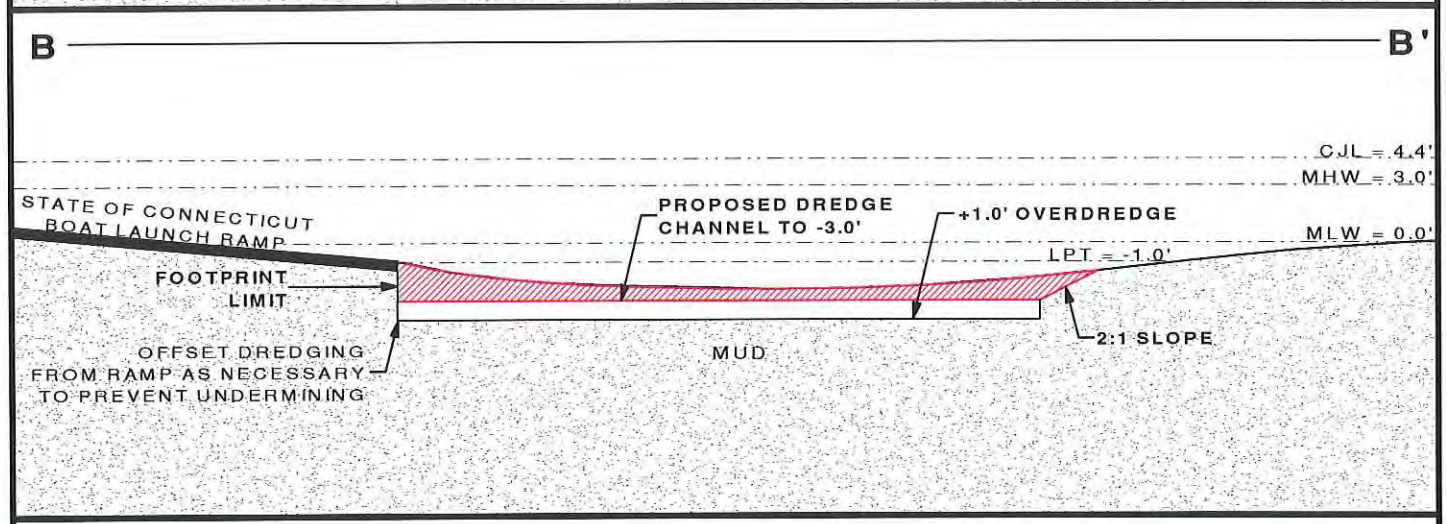
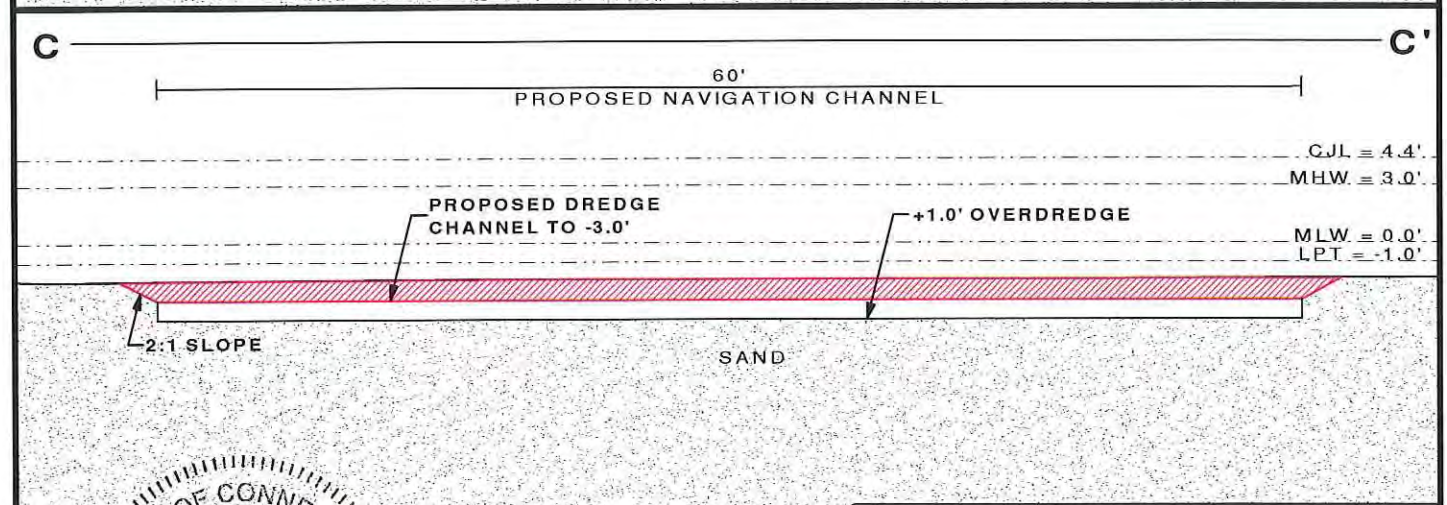
SCALE: 1" = 150'







STATE OF CONNECTICUT
ROBERT J. GRABAREK
No. 13441
LICENSED
PROFESSIONAL ENGINEER

GRAPHIC SCALE

5 0 10 20

NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.

Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
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SHEET 7 OF 8
PROPOSED NAVIGATION CHANNEL
CROSS-SECTIONS A - A', B - B' & C - C'

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 10'

APPLICATION DRAWING NOTES

SHEET 1 OF 8
SITE LOCATION MAP

1. MAP TAKEN FROM TOPO, INC., 7.5 MINUTE USGS TOPOGRAPHIC MAPS OF THE OLD LYME, CONNECTICUT, QUADRANGLE, 1960 (PHOTO INSPECTED 1976, PHOTO REVISED 1984).

SHEET 2 OF 8
SITE PLAN VIEW

1. THE CONDITIONS ARE APPROXIMATE AND ARE BASED UPON OLD LYME, CT GIS MAPPING, TAKEN FROM "http://www.mapgeo.com/oldlymect/" ON JANUARY 17, 2013 AND FIELD OBSERVATIONS.

SHEETS 3 - 6 OF 8
SITE INDEX MAP & PROPOSED CONDITIONS

1. THESE APPLICATION DRAWINGS WERE PREPARED FROM RECORDED RESEARCH, OTHER MAPS, FIELD OBSERVATIONS COLLECTED ON 1/10/2013, 1/11/2013, 1/15/2013 & 6/20/14 (EELGRASS SURVEY), AND OTHER SOURCES.
2. REFERENCE IS MADE TO THE FOLLOWING MAPS & DRAWINGS:
   A. "FOUR MILE RIVER, TOPOGRAPHIC SURVEY, HYDROGRAPHIC CONDITIONS, PREPARED FOR THE TOWN OF OLD LYME, NAVIGABLE WATERWAYS STUDY, OLD LYME, CONNECTICUT", SCALE 1" = 100', DATED JANUARY 31, 2013, AND CERTIFIED BY JAMES NAGLE, LS. LIC. NO. 15195.
   B. AN AERIAL IMAGE OF THE PROJECT SITE TAKEN FROM "GOOGLE EARTH" ON JANUARY 17, 2013.
3. BENCHMARK, TIDE LINES, SOUNDINGS, AND UPLAND ELEVATIONS ARE IN FEET AND REFERENCED TO THE MEAN LOW WATER (MLW) TIDAL DATUM BASED ON NAVD88 VERTICAL DATUM USING NOAA TIDE STATIONS #8463701 & #8461925 (1983-2001 EPOCH) IN CLINTON & WATERFORD, CONNECTICUT RESPECTIVELY. THE CJL (COASTAL JURISDICTION LINE) ELEVATION OF 2.6' NAVD88 (4.4' MLW DATUM) IS THE VALUE FOR OLD LYME, CT AS ESTABLISHED BY THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.
4. THIS DRAWING IS FOR PLANNING AND PERMITTING PURPOSES ONLY. ANY PROPERTY LINES ARE DEPICTED GRAPHICALLY ONLY, AND DO NOT REPRESENT ANY PROPERTY/BOUNDARY OPINION. NOT ALL IMPROVEMENTS AND FEATURES HAVE BEEN DEPICTED.
5. SITE MAY BE SUBJECT TO AND/OR TOGETHER WITH CERTAIN LITTORAL, RIPARIAN, OR OTHER RIGHTS AS PER THE RECORD MAY APPEAR
6. ANY UNDERGROUND AND/OR UNDERWATER UTILITY, STRUCTURE, AND FACILITY LOCATIONS DEPICTED AND/OR NOTED HEREON MAY HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE LOCATIONS OF WHICH ARE UNKNOWN TO COASTLINE CONSULTING & DEVELOPMENT, LLC. THE SUBSURFACE LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION. CALL BEFORE YOU DIG: 1-800-922-4455.

SHEET 7 OF 8
CROSS-SECTIONS

1. THESE APPLICATION DRAWINGS WERE PREPARED FROM RECORDED RESEARCH, OTHER MAPS, FIELD OBSERVATIONS, AND OTHER SOURCES.
2. REFERENCE IS MADE TO THE FOLLOWING:
   A. "SHEETS 3 - 8 OF 10, PROPOSED NAVIGATION CHANNEL, SITE INDEX MAP & PROPOSED CONDITIONS, FOUR MILE RIVER, OLD LYME, CONNECTICUT", SCALE: 1" = 400' & 1" = 150'.
3. SOUNDINGS AND UPLAND ELEVATIONS ARE IN FEET AND REFERENCED TO THE MEAN LOW WATER TIDAL DATUM.
4. THESE APPLICATION DRAWINGS ARE FOR PLANNING AND PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR BID DOCUMENTS, STRUCTURAL DESIGN, OR CONSTRUCTION. NOT ALL IMPROVEMENTS AND FEATURES HAVE BEEN DEPICTED.

Coastline Consulting & Development
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(203) 245-8138

SHEET 8 OF 8
PROPOSED NAVIGATION CHANNEL
APPLICATION DRAWING NOTES

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014	FILE NO.: 13-062

Construction Methodology

The proposed regulated work will be conducted as follows:

North of Railroad Bridge

- **Due to the shallow depths and resource constraints, dredging from the railroad bridge to the head of the proposed channel will consist of a three barge operation comprised of one 25' wide dredge barge with GPS navigation for horizontal control, and two 25' wide barges containing 30 cubic yard sealed containers. These barges will be assembled using smaller modular interlocking components, thereby ensuring that the width of each rig will fit within the confines of the proposed channel and not encroach into adjacent coastal resources.**

- **All equipment will be moored within the footprint of the proposed channel, where there is sufficient water depth to ensure continuous floatation of these shallow draft barges.**

- **The dredge will repeatedly excavate sediment with an approximately 2.5 cubic yard bucket and load the spoils into the container.**

- **Once one container is full, a small push boat will transport the container barge to a standard scow barge moored in the deeper water south of the railroad bridge to offload the spoils.**

- **While one container is towed to the scow barge, another container barge will be positioned in place by a small push boat in order to resume dredging activities.**

- **This process will be repeated until such time as the dredging activities are completed in this portion of the proposed dredge footprint.**

- **Once the scow barge is full, the dredge spoils will be transported to the proposed disposal site.**

South of Railroad Bridge

- **Using GPS navigation onboard the dredge barge, the contractor will position the rig over the dredge footprint. Once all equipment is in place, the contractor will lower the spuds to anchor the barge in place.**

- **The dredge will repeatedly excavate sediment with an approximately 2.5 cubic yard bucket and load the spoils into a scow barge.**

- **Once the scow barge is full, the dredge spoils will be transported to the proposed disposal site.**

OFFICE OF LONG ISLAND SOUND PROGRAMS

APPENDIX A

TO: **Permit Section**
Department of Energy and Environmental Protection
Office of Long Island Sound Programs
79 Elm Street
Hartford, CT 06106-5127

PERMITTEE: Town of Old Lyme
c/o Steven Ross
Memorial Town Hall
52 Lyme Street
Old Lyme, CT 06371

Permit No: 201410682-SB, Four Mile River dredging, Old Lyme

CONTRACTOR 1: _____

Address: _____

_____

Telephone #: _____

CONTRACTOR 2: _____

Address: _____

_____

Telephone #: _____

CONTRACTOR 3: _____

Address: _____

_____

Telephone #: _____

EXPECTED DATE OF COMMENCEMENT OF WORK: _____

EXPECTED DATE OF COMPLETION OF WORK: _____

PERMITTEE: _____
(signature) (date)

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

OFFICE OF LONG ISLAND SOUND PROGRAMS

APPENDIX B

NOTICE OF PERMIT ISSUANCE
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

To: Old Lyme Town Clerk

Signature and Date: Susan L. Bailey 5-5-2015

Subject: Four Mile River dredging Coastal Permit #201410682-SB

Pursuant to Section 22a-363g and Section 22a-361 of the Connecticut General Statutes, the Commissioner of Energy and Environmental Protection gives notice that a permit has been issued to Town of Old Lyme, c/o Steven Ross, Memorial Town Hall, 52 Lyme Street, Old Lyme, CT 06371 to:

1. Dredge by clamshell bucket approximately 9,787 cubic yards of material, approximately 8,602 cy of which will be dredged from areas with no prior authorization, over an approximately 132,869.1 square foot area to a depth of -3.0' MLW with a maximum allowable 1' overdredge to create a 5,000 linear foot long navigation which will be approximately 26-30' wide from the head of the river to the southern side of the railroad bridge, and maintain a 60' width from that point south of the railroad bridge to the mouth of the Four Mile River; and

2. Dispose of the dredged material at the Central Long Island Sound Disposal Site.

If you have any questions pertaining to this matter, please contact the Office of Long Island Sound Programs at 860-424-3034.

Return to:
Office of Long Island Sound Programs
State of Connecticut
Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

PERMIT NOTICE

This Certifies that Authorization to perform work below the Coastal Jurisdiction Line and/or within Tidal Wetlands of coastal, tidal, or navigable waters of Connecticut

Has been issued to: Town of Old Lyme

At this location: Four Mile River extending south of the railroad bridge, Old Lyme

To conduct the following: Dredge a navigational channel

Permit #: 201410682-SB Issued on: May 2, 2015

This Authorization expires on: **May 2, 2020**

This Notice must be posted in a conspicuous place on the job during the entire project.

Department of Energy and Environmental Protection
Office of Long Island Sound Programs
79 Elm Street • Hartford, CT 06106-5127
Phone: (860) 424-3034 Fax: (860) 424-4054
www.ct.gov/deep

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

June 15, 2015

Regulatory Division
Permit Number: NAE-2014-63

Town of Old Lyme
c/o Steven Ross
Memorial Town Hall
52 Lyme Street
Old Lyme, Connecticut 06371

Dear Mr. Ross:

We have reviewed your application to perform dredging within an approximately 3.8 acre area to a depth of -3.0' mean low water in the Four Mile River in Old Lyme, Connecticut, as shown on the attached plans entitled, "Proposed Navigation Channel, Four Mile River, Old Lyme, Connecticut" in eight sheets dated, "October 3, 2014", revised, "2/25/15". A total of approximately 9,787 c.y of material will be dredged mechanically and disposed of at the Central Long Island Sound Disposal Site. This project will create a new local navigation channel.

Based on the information you have provided, we have determined that the proposed activity which includes a discharge of dredged or fill material into waters or wetlands, will have only minimal individual or cumulative impacts on waters of the United States, including wetlands. Therefore, this work is authorized under the attached Federal permit known as the Connecticut General Permit (GP). This work must be performed in accordance with the terms and conditions of the GP and also in compliance with the special conditions on the attached sheets.

You are responsible for complying with all of the GP's requirements. Please review the attached GP carefully, in particular the GP's general conditions. You should ensure that whoever does the work fully understands the requirements and that a copy of the permit document and this authorization letter are at the project site throughout the time the work is underway.

All dredged material must be released at a specified buoy or set of coordinates within the disposal site. Please notify the Marine Analysis Section, Regulatory Division by phone at (978) 318-8292 at least ten working days in advance of the time that disposal operations will begin so that specific coordinates for your project can be sent to you. To facilitate this process, please fill out and submit the attached Disposal Request Log Sheet to Norm Farris via email at: charles.n.farris@usace.army.mil.

The Corps of Engineers (Corps) has consulted with the National Marine Fisheries Service (NMFS) regarding the effects of your project on Essential Fish Habitat (EFH) as designated under the Magnuson-Stevens Fishery Conservation and Management Act. The NMFS provided

EFH conservation recommendations, which we included in special condition # 8, listed on the attached sheets. This condition is intended to prevent potential impacts to fisheries resources at both the dredge and disposal site.

The time limit for completion of work is July 15, 2016, unless the GP is modified, suspended or revoked. However, if you have either begun work or are under contract before that date, this authorization will be valid until July 15, 2017. Otherwise, you must contact this office to determine the need for further authorization before continuing the activity. We recommend you contact us before this permit expires to discuss permit reissuance.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

This authorization requires you to submit a Compliance Certification Form. Hence, you must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law, as listed in Section 2 of the GP. Performing work not specifically authorized by this determination or failing to comply with any special condition(s) provided above or all the terms and conditions of the GP may subject you to the enforcement provisions of our regulations.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

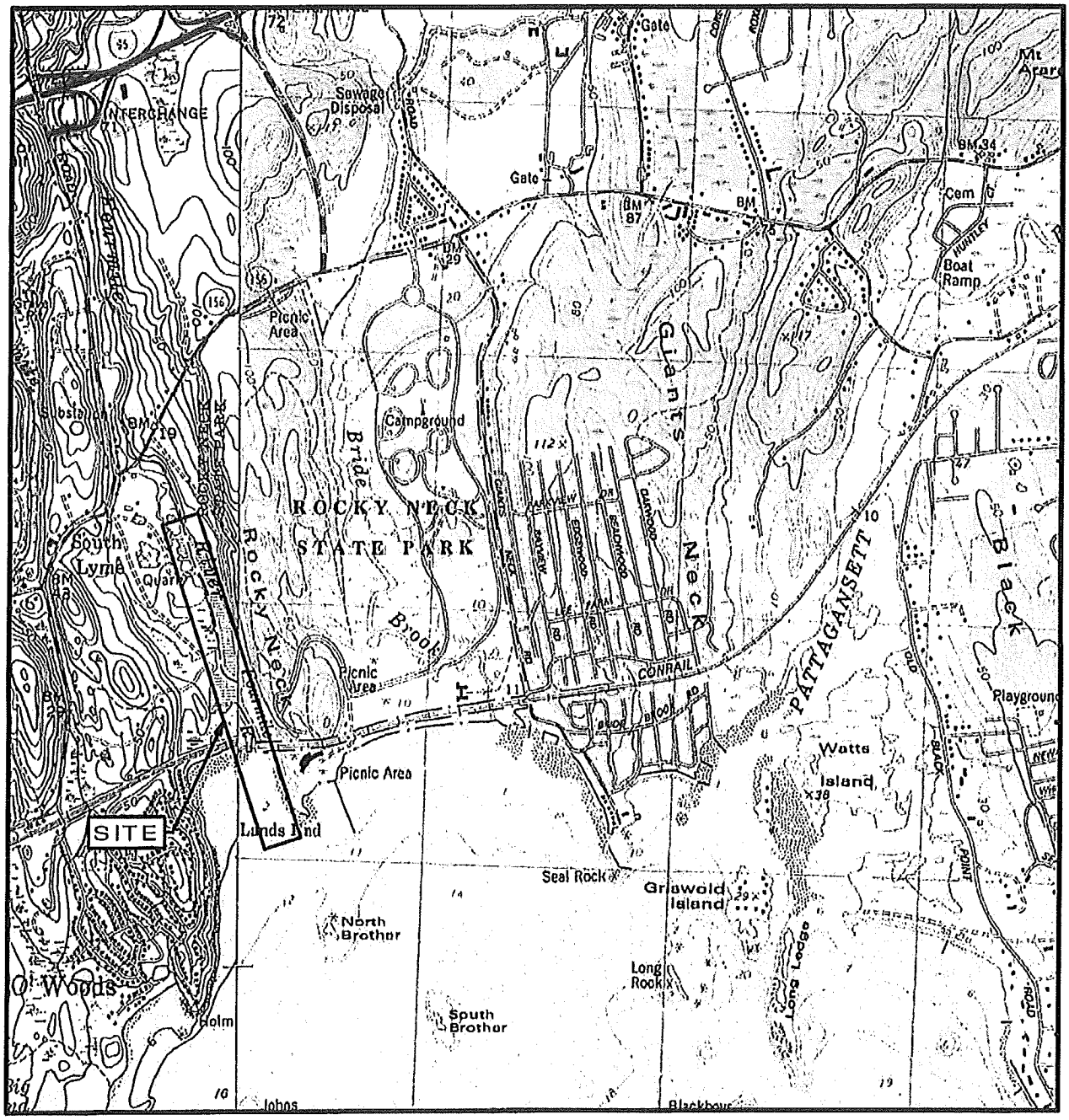
Please contact Ms. Diane M. Ray of my Regulatory staff, at (978) 318-8831 if you have any questions.

Sincerely,

Robert J. DeSista
Chief, Permits and Enforcement Branch
Regulatory Division

Enclosures

Copies Furnished:
Sue Bailey, CT DEEP – OLISP – via email
Mark Johnson, CT DEEP Marine Headquarters - via email
Coastline Consulting, LLC – David Provencher – via email



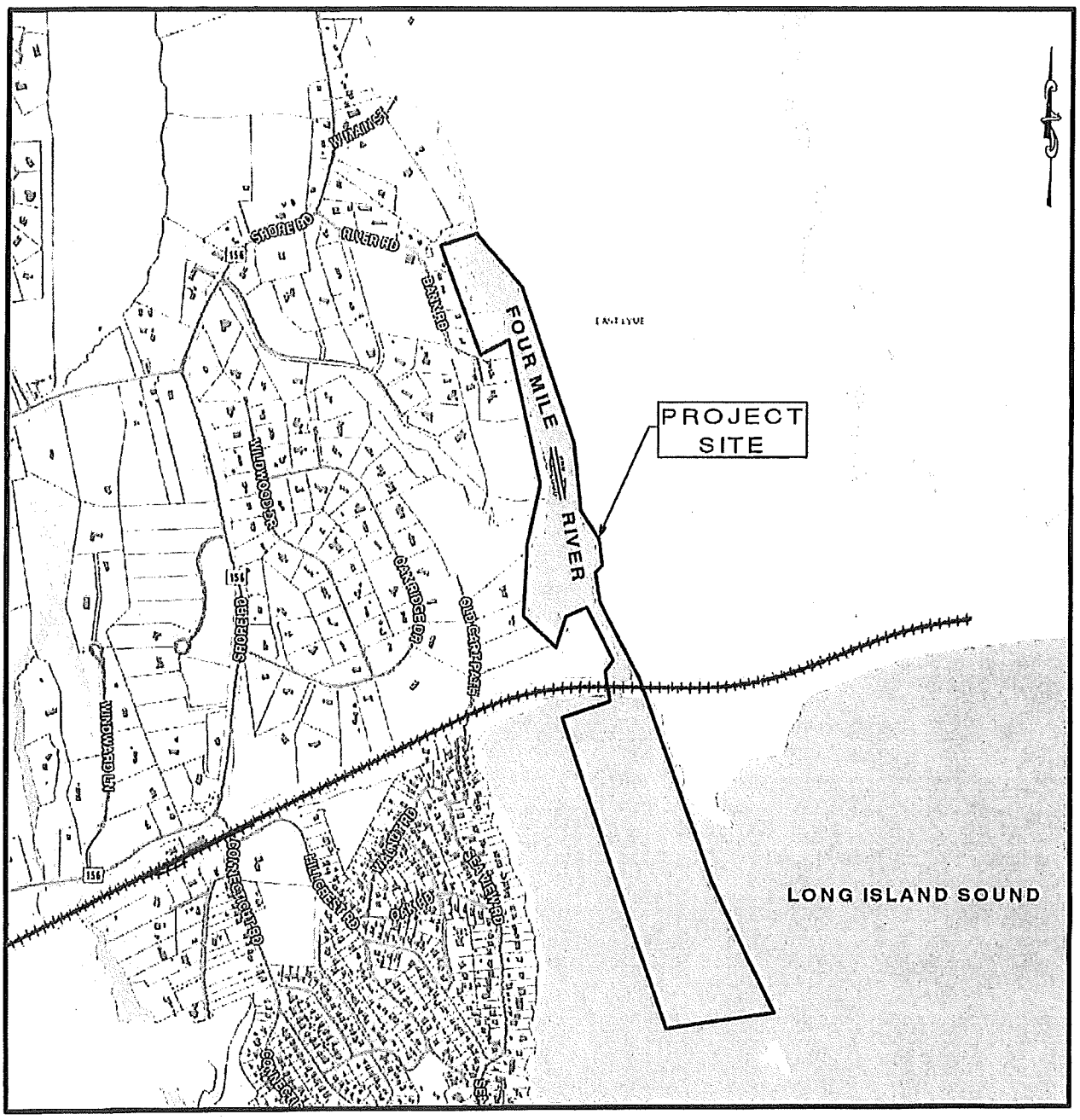
Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
(203) 245-8138

SHEET 1 OF 8
PROPOSED NAVIGATION CHANNEL
SITE LOCATION MAP

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014 | SCALE: 1 = 24,000

NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.



GRAPHIC SCALE

500 0 1000 2000

NOTE: REFER TO NOTES FOR THIS SHEET IN SAMPLING PLAN DRAWING NOTES ON SHEET 8 OF 8.

Coastline Consulting & Development
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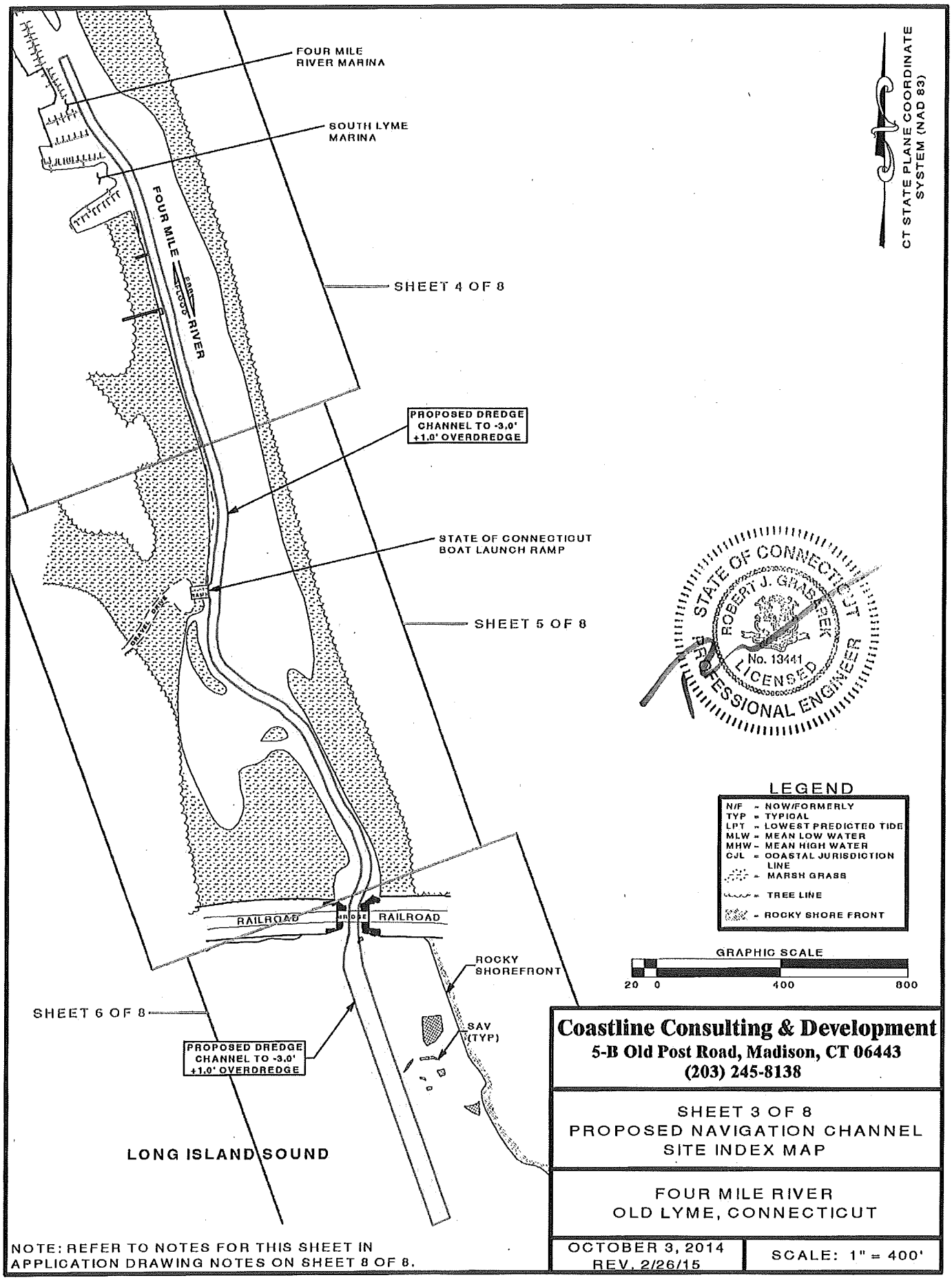
SHEET 2 OF 8
PROPOSED NAVIGATION CHANNEL
SITE PLAN VIEW

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014	SCALE: 1" = 1000'



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SHEET 3 OF 8
PROPOSED NAVIGATION CHANNEL
SITE INDEX MAP

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 400'

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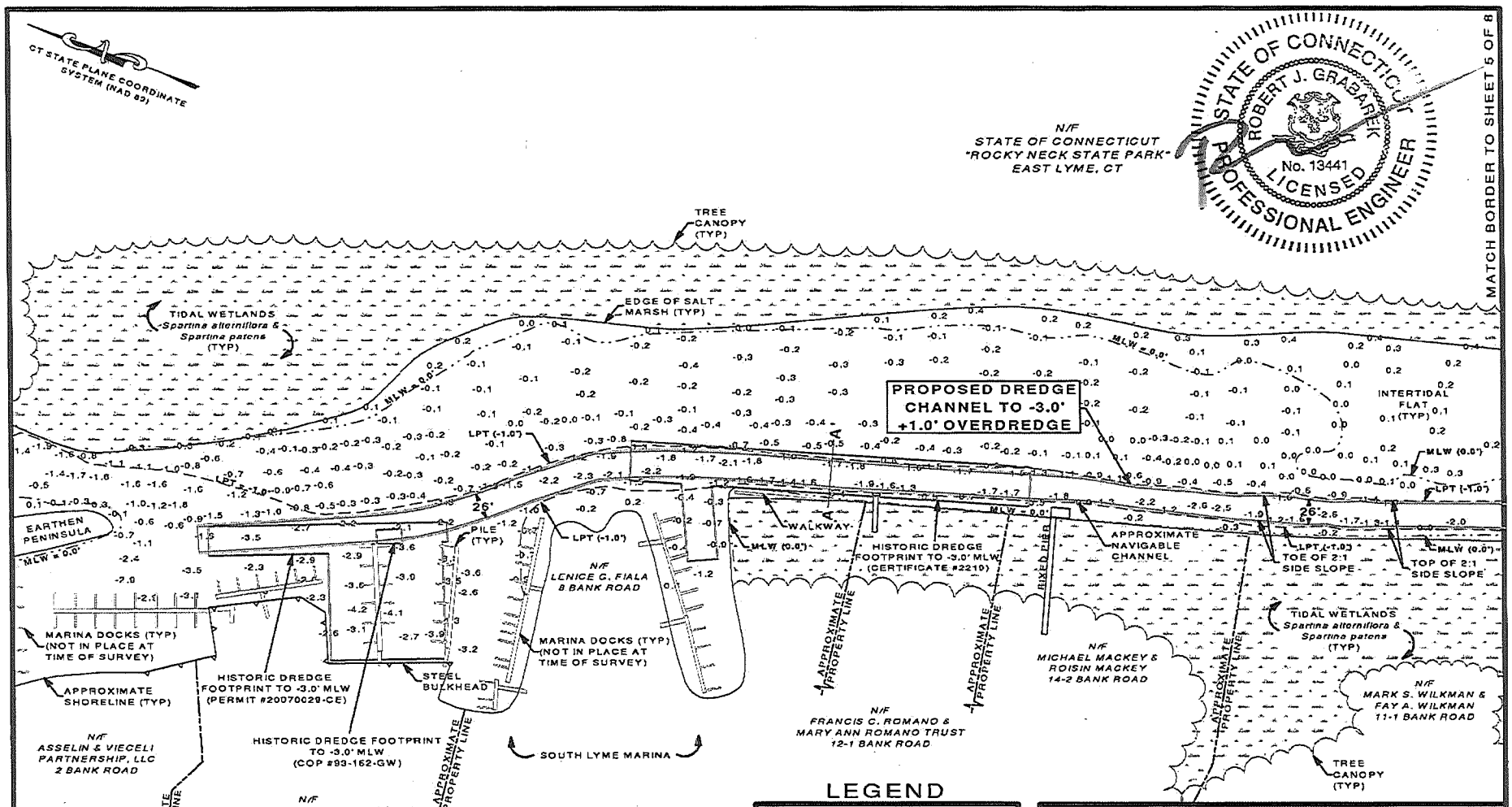

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- TOE OF 2:1 SIDE SLOPE

-2.1

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NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.

Coastline Consulting & Development
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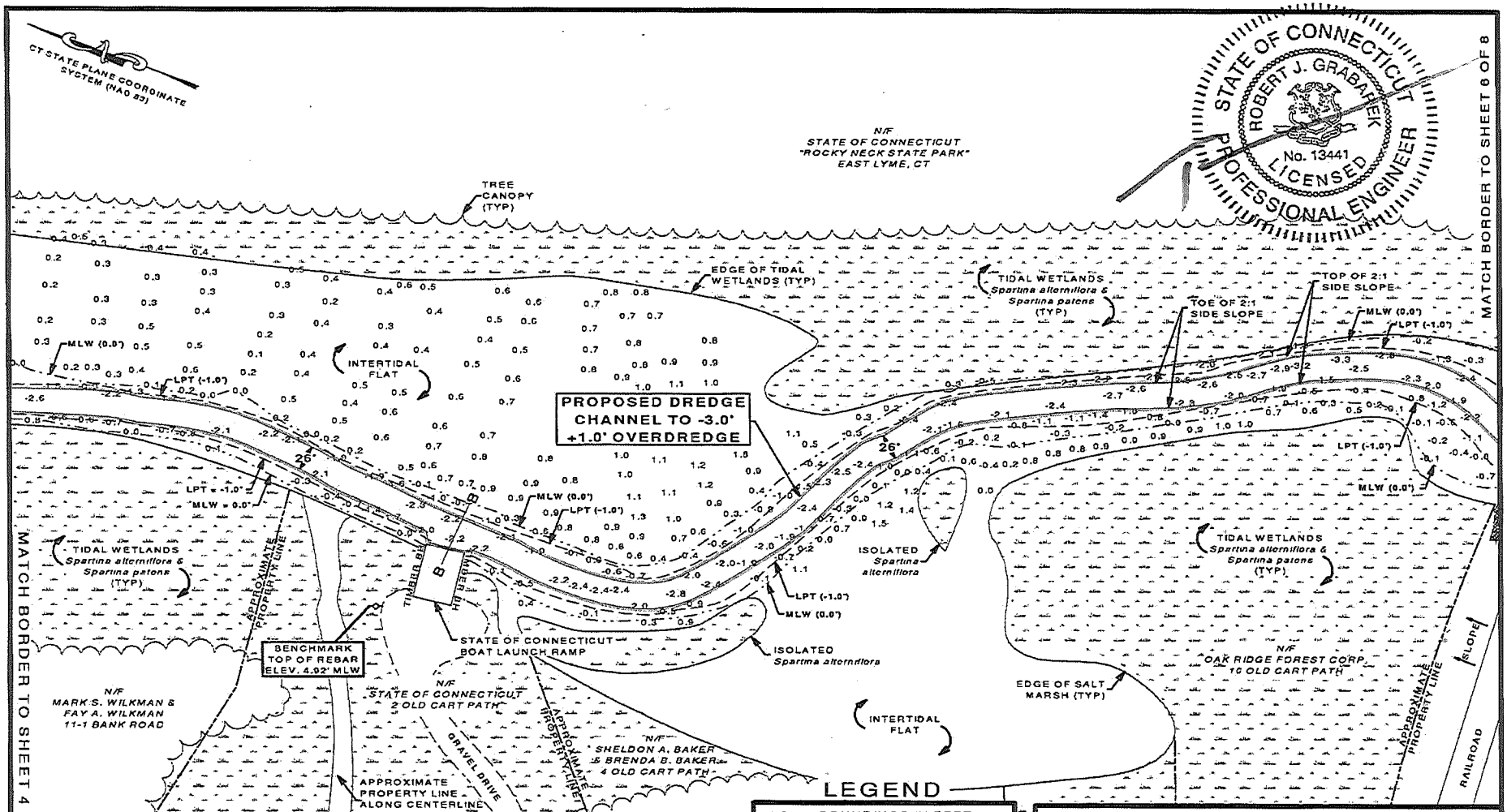
SHEET 4 OF 8
PROPOSED NAVIGATION CHANNEL
PROPOSED CONDITIONS

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 150'



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GRAPHIC SCALE

60 30 0 150 300

NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.

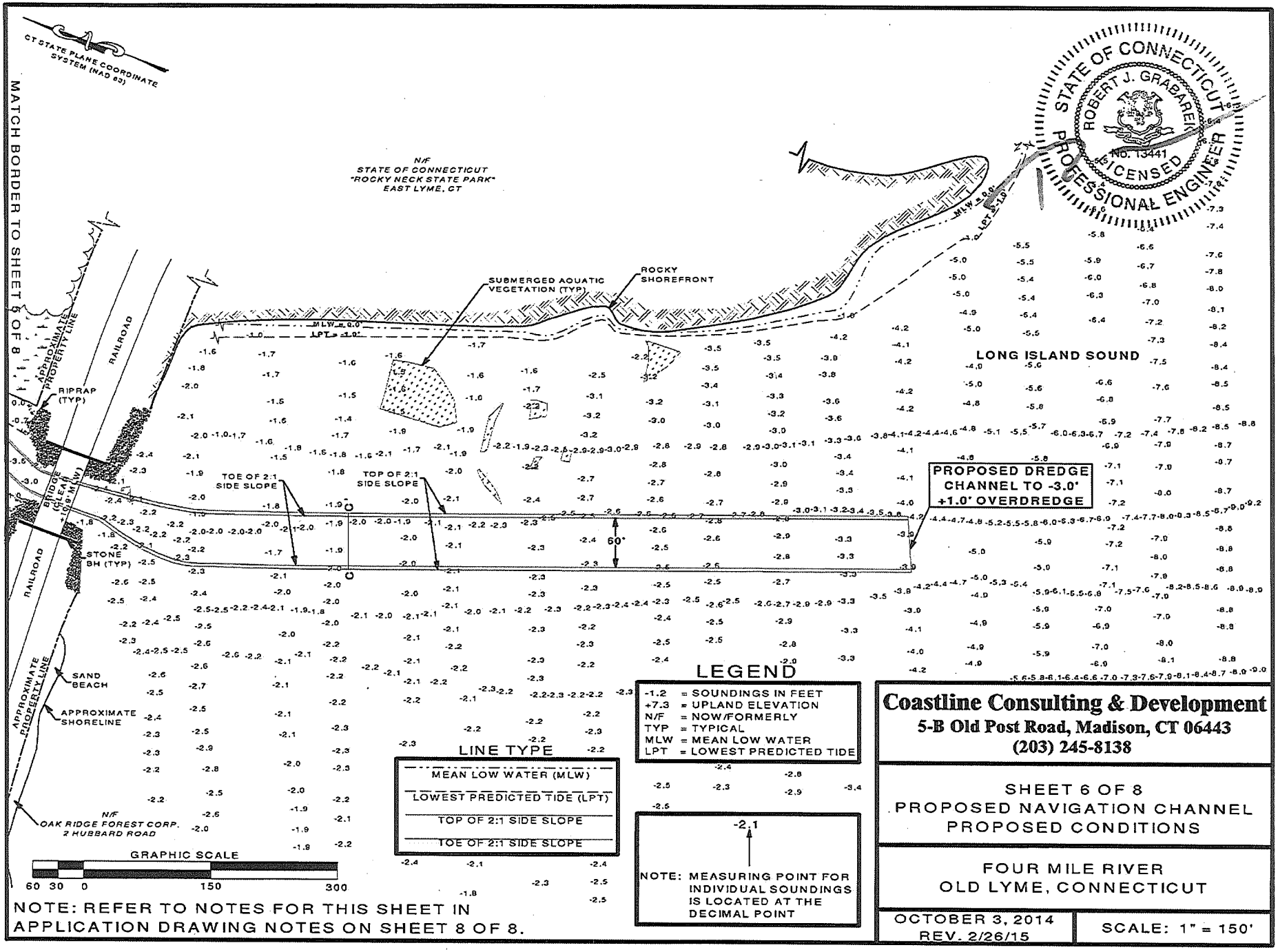
Coastline Consulting & Development
5-B Old Post Road, Madison, CT 06443
(203) 245-8138

SHEET 5 OF 8
PROPOSED NAVIGATION CHANNEL
PROPOSED CONDITIONS

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 150'



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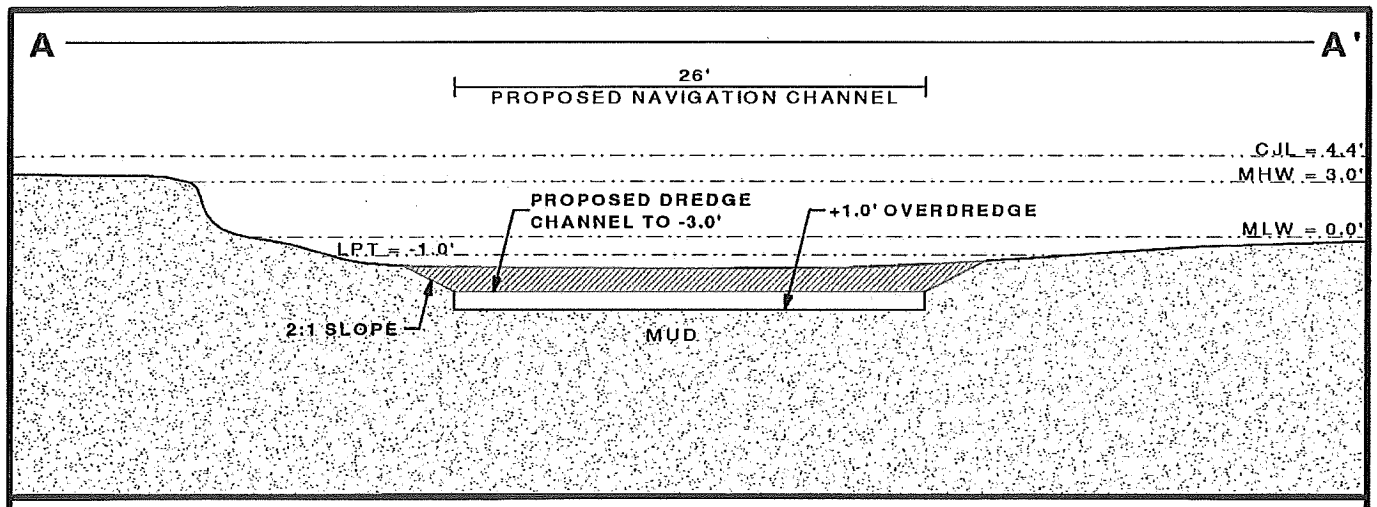
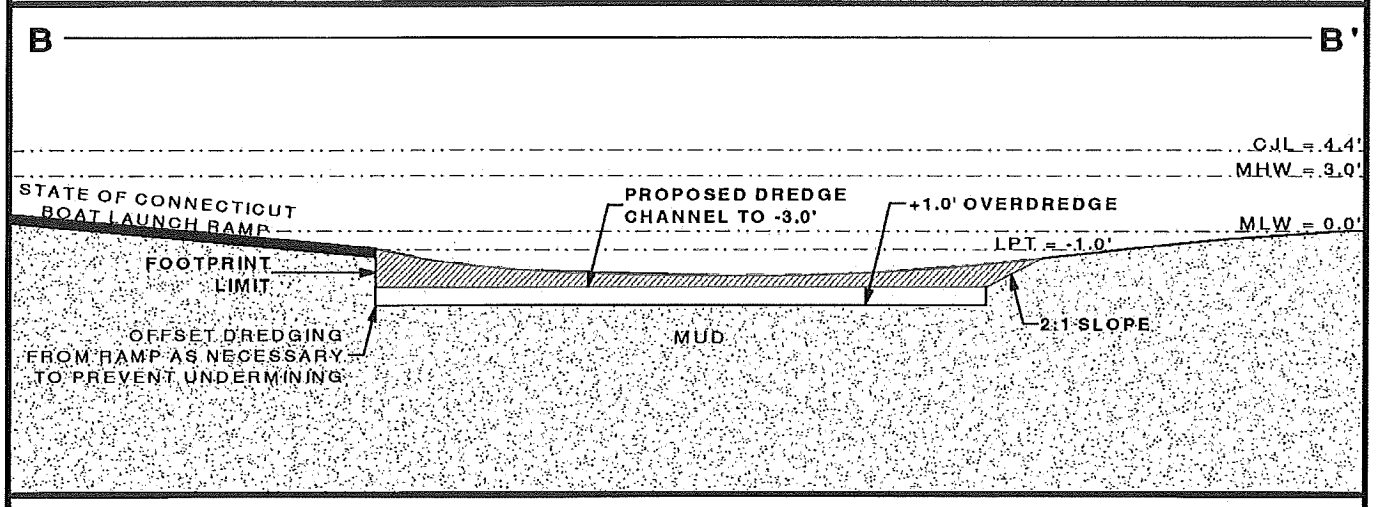
SHEET 6 OF 8
PROPOSED NAVIGATION CHANNEL
PROPOSED CONDITIONS

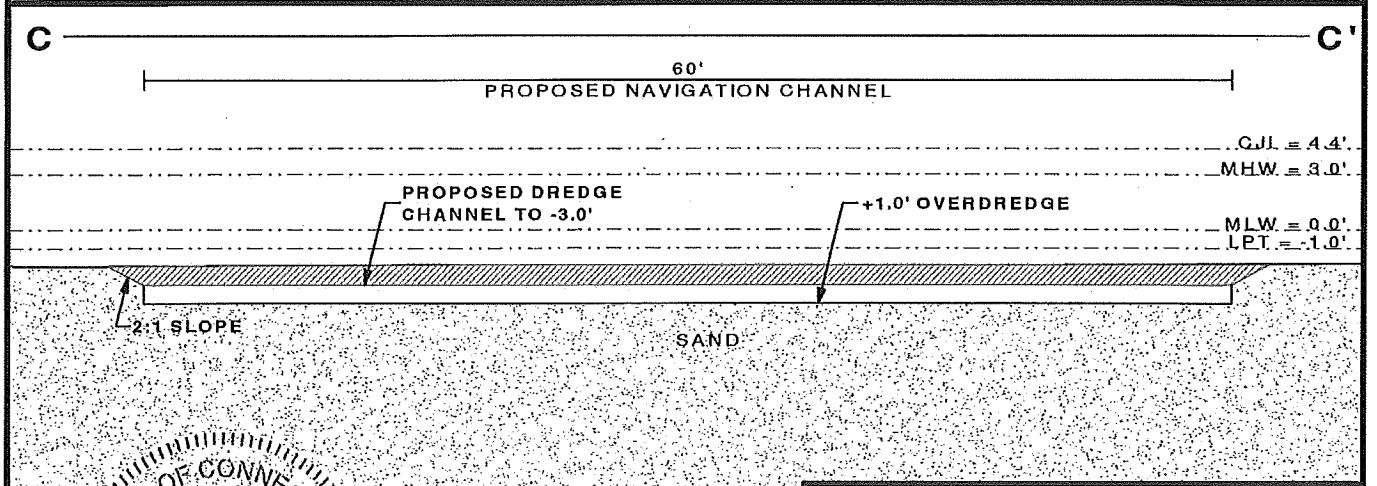
FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 150'







STATE OF CONNECTICUT
ROBERT J. GRABAREK
No. 13441
LICENSED
PROFESSIONAL ENGINEER

GRAPHIC SCALE

5 0 10 20

NOTE: REFER TO NOTES FOR THIS SHEET IN APPLICATION DRAWING NOTES ON SHEET 8 OF 8.

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SHEET 7 OF 8
PROPOSED NAVIGATION CHANNEL
CROSS-SECTIONS A - A', B - B' & C - C'

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014
REV. 2/26/15

SCALE: 1" = 10'

Construction Methodology

The proposed regulated work will be conducted as follows:

North of Railroad Bridge

- Due to the shallow depths and resource constraints, dredging from the railroad bridge to the head of the proposed channel will consist of a three barge operation comprised of one 25' wide dredge barge with GPS navigation for horizontal control, and two 25' wide barges containing 30 cubic yard sealed containers. These barges will be assembled using smaller modular interlocking components, thereby ensuring that the width of each rig will fit within the confines of the proposed channel and not encroach into adjacent coastal resources.

- All equipment will be moored within the footprint of the proposed channel, where there is sufficient water depth to ensure continuous floatation of these shallow draft barges.

- The dredge will repeatedly excavate sediment with an approximately 2.5 cubic yard bucket and load the spoils into the container.

- Once one container is full, a small push boat will transport the container barge to a standard scow barge moored in the deeper water south of the railroad bridge to offload the spoils.

- While one container is towed to the scow barge, another container barge will be positioned in place by a small push boat in order to resume dredging activities.

- This process will be repeated until such time as the dredging activities are completed in this portion of the proposed dredge footprint.

- Once the scow barge is full, the dredge spoils will be transported to the proposed disposal site.

South of Railroad Bridge

- Using GPS navigation onboard the dredge barge, the contractor will position the rig over the dredge footprint. Once all equipment is in place, the contractor will lower the spuds to anchor the barge in place.

- The dredge will repeatedly excavate sediment with an approximately 2.5 cubic yard bucket and load the spoils into a scow barge.

- Once the scow barge is full, the dredge spoils will be transported to the proposed disposal site.

APPLICATION DRAWING NOTES

SHEET 1 OF 8
SITE LOCATION MAP

1. MAP TAKEN FROM TOPO, INC., 7.5 MINUTE USGS TOPOGRAPHIC MAPS OF THE OLD LYME, CONNECTICUT, QUADRANGLE, 1960 (PHOTO INSPECTED 1976, PHOTO REVISED 1984).

SHEET 2 OF 8
SITE PLAN VIEW

1. THE CONDITIONS ARE APPROXIMATE AND ARE BASED UPON OLD LYME, CT GIS MAPPING, TAKEN FROM "http://www.mapgeo.com/oldlymect/" ON JANUARY 17, 2013 AND FIELD OBSERVATIONS.

SHEETS 3 - 6 OF 8
SITE INDEX MAP & PROPOSED CONDITIONS

1. THESE APPLICATION DRAWINGS WERE PREPARED FROM RECORDED RESEARCH, OTHER MAPS, FIELD OBSERVATIONS COLLECTED ON 1/10/2013, 1/11/2013, 1/15/2013 & 6/20/14 (EELGRASS SURVEY), AND OTHER SOURCES.
2. REFERENCE IS MADE TO THE FOLLOWING MAPS & DRAWINGS:
   A. "FOUR MILE RIVER, TOPOGRAPHIC SURVEY, HYDROGRAPHIC CONDITIONS, PREPARED FOR THE TOWN OF OLD LYME, NAVIGABLE WATERWAYS STUDY, OLD LYME, CONNECTICUT", SCALE 1" = 100', DATED JANUARY 31, 2013, AND CERTIFIED BY JAMES NAGLE, LS. LIC. NO. 15195.
   B. AN AERIAL IMAGE OF THE PROJECT SITE TAKEN FROM "GOOGLE EARTH" ON JANUARY 17, 2013.
3. BENCHMARK, TIDE LINES, SOUNDINGS, AND UPLAND ELEVATIONS ARE IN FEET AND REFERENCED TO THE MEAN LOW WATER (MLW) TIDAL DATUM BASED ON NAVD88 VERTICAL DATUM USING NOAA TIDE STATIONS #8463701 & #8461925 (1983-2001 EPOCH) IN CLINTON & WATERFORD, CONNECTICUT RESPECTIVELY. THE CJL (COASTAL JURISDICTION LINE) ELEVATION OF 2.6' NAVD88 (4.4' MLW DATUM) IS THE VALUE FOR OLD LYME, CT AS ESTABLISHED BY THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.
4. THIS DRAWING IS FOR PLANNING AND PERMITTING PURPOSES ONLY. ANY PROPERTY LINES ARE DEPICTED GRAPHICALLY ONLY, AND DO NOT REPRESENT ANY PROPERTY/BOUNDARY OPINION. NOT ALL IMPROVEMENTS AND FEATURES HAVE BEEN DEPICTED.
5. SITE MAY BE SUBJECT TO AND/OR TOGETHER WITH CERTAIN LITTORAL, RIPARIAN, OR OTHER RIGHTS AS PER THE RECORD MAY APPEAR
6. ANY UNDERGROUND AND/OR UNDERWATER UTILITY, STRUCTURE, AND FACILITY LOCATIONS DEPICTED AND/OR NOTED HEREON MAY HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE LOCATIONS OF WHICH ARE UNKNOWN TO COASTLINE CONSULTING & DEVELOPMENT, LLC. THE LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION. CALL BEFORE YOU DIG: 1-800-922-4455

STATE OF CONNECTICUT LICENSED PROFESSIONAL ENGINEER No. 13441

SHEET 7 OF 8
CROSS-SECTIONS

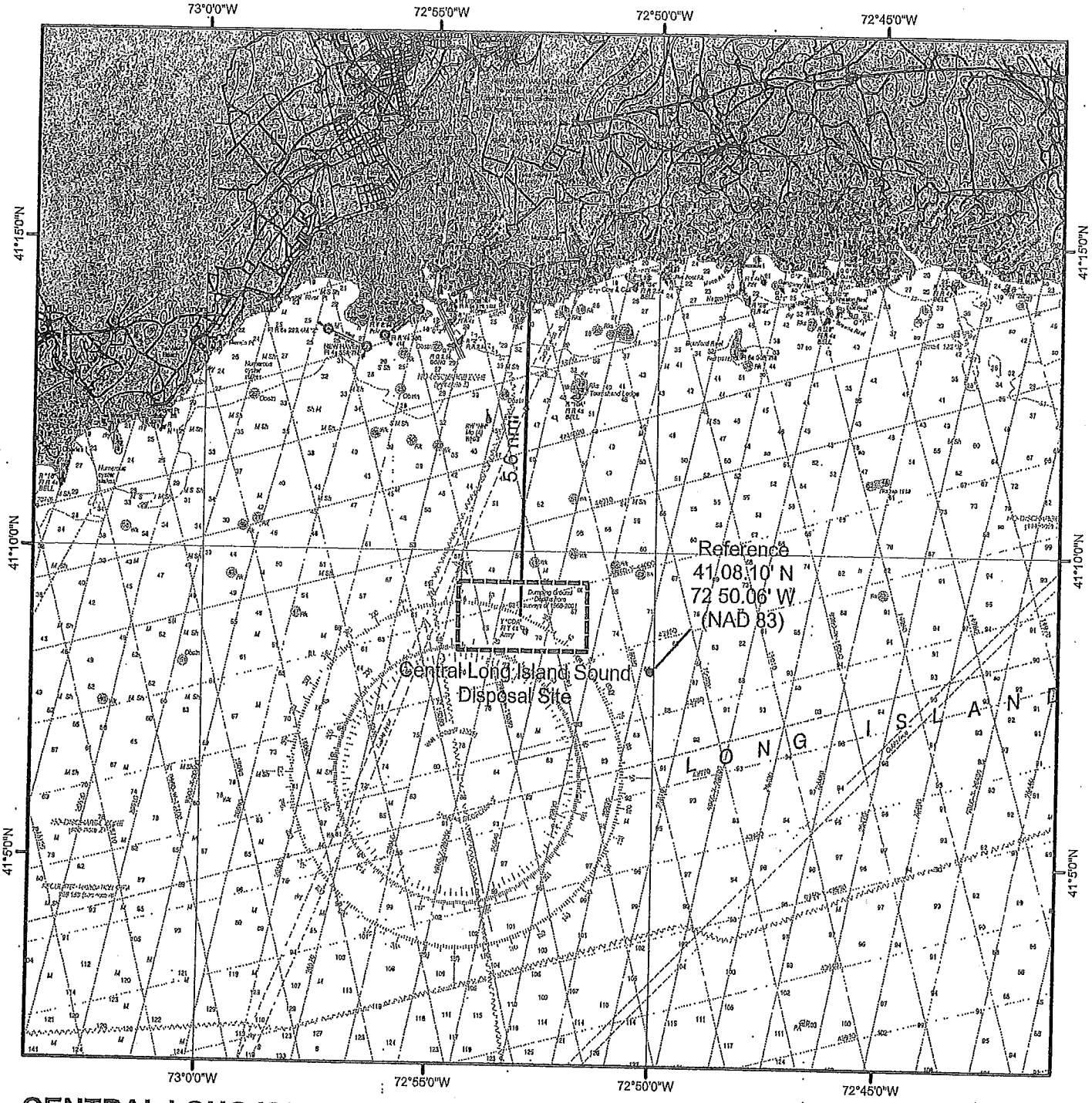
1. THESE APPLICATION DRAWINGS WERE PREPARED FROM RECORDED RESEARCH, OTHER MAPS, FIELD OBSERVATIONS, AND OTHER SOURCES.
2. REFERENCE IS MADE TO THE FOLLOWING:
   A. "SHEETS 3 - 8 OF 10, PROPOSED NAVIGATION CHANNEL, SITE INDEX MAP & PROPOSED CONDITIONS, FOUR MILE RIVER, OLD LYME, CONNECTICUT", SCALE: 1" = 400' & 1" = 150'.
3. SOUNDINGS AND UPLAND ELEVATIONS ARE IN FEET AND REFERENCED TO THE MEAN LOW WATER TIDAL DATUM.
4. THESE APPLICATION DRAWINGS ARE FOR PLANNING AND PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR BID DOCUMENTS, STRUCTURAL DESIGN, OR CONSTRUCTION. NOT ALL IMPROVEMENTS AND FEATURES HAVE BEEN DEPICTED.

Coastline Consulting & Development
5-B Old Post Road, Madison CT 06443
(203) 245-8138

SHEET 8 OF 8
PROPOSED NAVIGATION CHANNEL
APPLICATION DRAWING NOTES

FOUR MILE RIVER
OLD LYME, CONNECTICUT

OCTOBER 3, 2014	FILE NO.: 13-062



CENTRAL LONG ISLAND SOUND DISPOSAL SITE

Description: The Central Long Island Sound Disposal Site (CLDS) is one of four regional dredged material disposal sites located in the waters of Long Island Sound. CLDS covers a 11.04 km² (3.2 nmi²) area and is centered at 41° 08.950' N, 72° 52.950' W (NAD 83). It is located approximately 10.89 km (5.6 nmi) south of South End Point, East Haven, Connecticut. Since 1977, the management strategy at CLDS has entailed the controlled placement of small to moderate volumes of sediment to form individual disposal mounds on the seafloor. The authorized disposal point (within the overall disposal area) is specified for each dredging project in other project documents.

D A M O S

DISPOSAL AREA MONITORING SYSTEM

SCALE 1:175,000

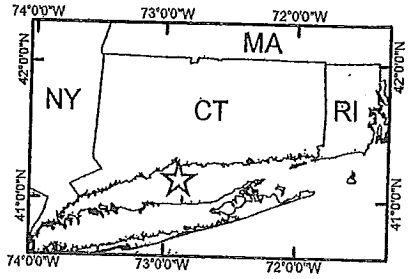
Kilometers

1 0 1 2 3 4 5 6 7

1 0 1 2 3

Nautical Miles

NOTE: This chart is not intended for use in navigation.



Town of Old Lyme – Four Mile River
File Number: NAE-2014-63

Special Conditions:

1. Periodic maintenance dredging to the area and depth limits described herein is authorized for ten years from the date of issuance of this permit, **provided disposal of the dredged material is at an upland site**. However, the permittee must notify this office, in writing, 60 days before the intended date of any such dredging and shall not begin such dredging until written authorization has been obtained. This 60-day notification is not required for the initial new and/or maintenance dredging authorized by this permit. A separate authorization shall be required for such dredging if the material to be dredged is to be deposited in open or ocean waters and/or wetlands.

2. At least ten working days in advance of the start date, the First Coast Guard District, Aids to Navigation Office, (617) 223-8355, **and** Department of Homeland Security, U. S. Coast Guard – Sector Long Island Sound, Travis Cortopassi at (203) 468-4559 shall be notified of the location and estimated duration of the dredging and disposal operations.

3. Except when directed otherwise by the Corps for site management purposes, all disposal of dredged material shall adhere to the following:

a. The permittee shall release the dredged material at a specified set of coordinates within the disposal site with the scow at a complete halt.

b. When a disposal buoy is present at the specified coordinates, disposal shall occur with the side of the scow at least 100 feet and no greater than 200 feet from the buoy to minimize collisions with the buoy.

These requirements must be followed except when doing so will create unsafe conditions because of weather or sea state, in which case disposal with the scow moving only fast enough to maintain safe control (generally less than one knot) is permitted. Disposal is not permitted if these requirements cannot be met due to weather or sea conditions. In that regard, special attention needs to be given to predicted conditions prior to departing for the disposal site.

4. National Dredging Quality Management Program Requirements:

a. Every discharge of dredged material at the disposal site requires monitoring by the contractor. This disposal monitoring of dredging projects must be performed using the Dredging Quality Management (DQM) system software and hardware system [formerly Silent Inspector (SI)] developed by the Corps. The DQM system must have been certified by the Corps within a year of the disposal activity. See the National DQM Support Center site https://si.usace.army.mil for additional DQM information. Questions regarding certification should be addressed to the DQM Point of Contact at the Corps New England District [Norm Farris, (978) 318-8336].

b. The permittee is responsible for ensuring that the system is operational throughout the project and that project data are submitted to the National DQM Support Center in accordance with the specifications provided at the aforementioned website. If any component of the system is inoperable, disposal may not take place unless otherwise authorized by the Corps New England District DQM Point of Contact.

c. The DQM system used by the permittee must be capable of providing the information necessary for the Scow Monitoring Profile Specification. The permittee is also responsible to provide the Corps with a record of estimated scow volume for each trip, in cubic yards (see below for submittal information). If scow volume information is not provided through the DQM system utilized, the permittee must submit a weekly report to Corps that provides estimated volume (cubic yards), date and disposal time for each trip. The data collected by the DQM system shall, upon request, be made available to the Corps.

d. For the initiation of disposal activity and any time disposal operations resume after having ceased for one month or more, the permittee or the permittee's representative must notify the Corps at least ten working days before the date disposal operations are expected to begin or resume. See below for contact information. The information to be provided in this notification is: permit number, permittee name, address and phone number, phone number of the dredging contractor, name, address and phone number of towing contractor, estimated dates dredging is expected to begin and end, name of all disposal vessels to be employed in the work, scow capacities in cubic yards and copies of their certification documents, name of the disposal site, and estimated volume of material to be dredged. **Disposal operations shall not begin or resume until the Corps issues a letter authorizing the initiation or continuation of open-water disposal.** The letter will include disposal point coordinates to use for this specific project at that time. These coordinates may differ from those specified for other projects using the same disposal site or even from those specified earlier for this project. It is not necessary to wait ten days before starting disposal operations. They may start as soon as this letter is issued.

5. If any material is released beyond the limits specified in this permit, the Captain or the permittee must notify the Corps immediately by phone (see below for contact information). Information provided shall include disposal coordinates, permit number, volume disposed, date and time of disposal, circumstances of incident, disposal vessel name, name of caller, and phone number of caller. If no person is reached at the number above, a voice message with the relevant information should be provided. In addition, a detailed written report must be provided to the Corps within 48 hours following any such incident.

6. Unless otherwise stated, all submittals and coordination related to these special conditions shall be submitted via: a) MAIL: PATS Branch - Regulatory Division, Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751, b) EMAIL: charles.n.farris@usace.army.mil; or c) FAX: (978) 318-8303. Direct dredge related questions to (978) 318-8336 or (978) 318-8338. Documents which are not addressed in this manner may not reach their intended destination and do not comply with the requirements of this permit.

7. Open-water disposal of more than 25,000 cubic yards of dredged material in Long Island Sound requires authorization under Section 103 of the Ocean Dumping Act. This permit authorizes disposal of dredged material under Section 404 of the Clean Water Act only. Hence, disposal of more than 25,000 cubic yards of dredged material in Long Island Sound under this permit authorization is a violation of the Ocean Dumping Act and could result in substantial penalties.

8. There shall be no dredging or disposal from February 1 through September 30, inclusive; in order to minimize adverse impact to prevent potential impacts to fisheries resources in both the dredge and disposal sites.

9. The material represented by Core FMR-4 shall be dredged and disposed of first followed by the remainder of the material to be dredged.

DISPOSAL REQUEST LOG SHEET	DATE
Permittee's Name	**Application Number**

Review permit for possible seasonal restrictions Yes (Describe)/No

Permittee's Address

Name	
Street	
City/State/Zip	
Contact Person	
Phone Number	
Email:	

Dredge Site Location:

Disposal Area:_____Is this continuing work? Yes /No

Previous volume dredged	Cu. yds.
Estimated volume to go:	Cu. yds.
Permitted total volume:	Cu. yds.
Disposal Area	
Project Dredging Depth	

Disposal Vessel:

Name: Report Date: Cert Date Received

Name: Report Date: Cert Date Received

Name: Report Date: Cert Date Received

Estimated Duration

Starting Date:_____

Ending Date:_____

Contractor

Name	
Street	
City/State/Zip	
Contact Person	
Phone Number	
Email:	

US Army Corps
of Engineers ®
New England District

(Minimum Notice: Permittee must sign and return notification within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

Permit Number: NAE-2014-63

Project Manager Diane Ray

Name of Permittee: Town of Old Lyme – Four Mile River

Permit Issuance Date: June 15, 2015

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

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*********************************************************************
* MAIL TO: U.S. Army Corps of Engineers, New England District       *
*          Permits and Enforcement Branch B                         *
*          Regulatory Division                                      *
*          696 Virginia Road                                        *
*          Concord, Massachusetts 01742-2751                        *
*********************************************************************
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Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

Signature of Permittee	Date
Printed Name	Date of Work Completion
( ) Telephone Number	( ) Telephone Number