

Rhode Island Coastal Resources Management Council Oliver H. Stedman Government Center Wakefield, RI 02879 (401) 783-3370



Rhode Island Department of Environmental Management 235 Promenade Street Providence, RI 02908-5767 (401) 222-6820

APPLICATION FOR MARINE DREDGING AND ASSOCIATED ACTIVITIES pursuant to the Marine Infrastructure Maintenance Act of 1996 and the Marine Waterways and Boating Facilities Act of 2001, Chapter 46-6.1 of the Rhode Island General Laws.

PURPOSE OF APPLICATION			Agency Use Only File Number
Application for Dredging and Disposal of Dredged Material Request Renewal of RIDEM Dredge Permit File #			2022-11-010
	<u> </u>		Date Received
(Please Type or Print)			
APPLICANT INFORMATION			
Applicant Name: Watch Hill Yacht Club c/o Jeffrey Living	ston		
(NOTE: Applicant must be the owner of the property on which t	he activity	is propose	d)
Applicant Address: 1 Fort Road		Telephon	e No. <u>86</u> 0-573-757 <u>5</u>
City/Town: Westerly	State: _	Ri	Zip: <u>02891</u>
PROJECT INFORMATION			
Project Address: 1 Fort Road			
City/Town: Westerly	State: _	RI	Zip:02891
Tax Assessor's Plat(s) and Lot Number(s): Map 185, Lot 31-	1		 .
Project Consultant/Engineer Name: On-Site Engineering, I	nc. c/o A	nthony Ne	nna, P.E.
Consultant/Engineer Address3 Crestview Drive, Wester	ly RI 028	391	
Consultant/Engineer Telephone No. 401-348-6831			

ACTIVITIES ASSOCIATED WITH THE PROP	USED DREDGE PROJECT (check all that apply,)*				
Filling of Waters of the State	☐ Flow Alterations					
Marinas – New construction or expansion	Point Source Discharge of Pollutar	nts				
☑ Site Disturbances	_					
Residential Development: six (6) or more d	wellings					
✓ Commercial, Industrial, State or Municipal	Development					
Any project ≥ five (5) acres of disturbance						
GENERAL INFORMATION						
Identify program and associated application number	for any other RIDEM applications filed for this proj	ect				
Freshwater Wetlands	Application Number					
RIPDES	Application Number					
Individual Sewage Disposal System Other ()	Application NumberApplication Number					
	Application Authori					
If you have any questions, please contact the RIDEM	at 222-7500 or CRMC at 783-3379.					
CERTIFICATION OF APPLICANT						
CERTIFICATION OF AFTERCANT						
I hereby certify that I have requested and authorized to						
information, in whatever form, contained in this App						
the information submitted herein; and that such information knowledge.	mation is true, accurate and complete to the best of r	ny				
\sim Λ	- 1- 1-					
Signature of Applicant:	Date: 10 27 2	<u>), x o</u>				
Please return this completed application form and a Submittal Checklist to:	ll supporting information, as indicated on the acco	ompanying				
Rhode Island Coastal	Resources Management Council					
	dman Government Center					
Wake	efield, RI, 02879					
	and					
Rhode Island Departme	ent of Environmental Management					
	ical & Customer Assistance					
	Promenade Street					
FIOVE	dence, RI 02908					
* Water Quality Certification required for these activities p Quality Rules may be incorporated into an approval issu		l Water				
Quanty Raises may be incorporated into an approval 1992	to as pare or has approacion.					
Office Use Only:		~ ~ ~				
Suitable for Public Notice	Date:	ZOZ				
Approved		E E				
☐ Denied						
☐ Withdrawn		RECEIVED NOV 0 1 2022				



February 1, 2022

Watch Hill Yacht Club Attn: Tom Donoghue Via Email

The Watch Hill Fire District's Park Commission agrees that the sand dredged from around the Watch Hill Yacht Club as planned for the winter 2022-2023 may be returned to the Watch Hill Fire District Beaches for future use.

Please let me know if you have any questions or would like further information regarding this matter. My direct email address is bethbean@msn.com.

Sincerely,

Elizabeth W. Bean

ENTBRA.

Park Commissioner





Town of Westerly, R. I.

Town Assessor's Office 45 Broad St Westerly RI 02891 Tel (401) 348-2541 Fax (401) 348-2616

COASTAL RESOURCE MANAGEMENT COUNCIL STEDMAN GOVERNMENT CENTER TOWER HILL ROAD WAKEFIELD, RI 02879

TO WHOM IT MAY CONCERN:

RECORDS AT THE ASSESSOR'S OFFICE, TOWN OF WESTERLY, RI, INDICATE THAT THE FOLLOWING OWN PROPERTY IN SAID TOWN:

NAME:

WATCH HILL FIRE DISTRICT

ADDRESS:

222 WATCH HILL RD WESTERLY, RI 02891

PROPERTY LOCATION:

151 BAY ST

WESTERLY, RI 02891

PLAT/LOT:

185/31-1

LAND EVIDENCE RECORDS: BOOK 63 PAGE 247

DATE OF ISSUE:

October 25, 2022

SINCERELY.

DAVID B. THOMPSON TOWN ASSESSOR



TO:

Coastal Resources Management Council

4808 Tower Hill Road Suite 3 Wakefield, RI 02879

Wakefield, RI 02879 Phone: (401) 783-3370



FRO	M: Building Official DATE: October 25, 2022
SUB	J: Application of: Watch Hill Yacht Club, c/o Jeffrey Livingston
	To a distribution of the state
	Location: Westerly
_	
	Address: 1 Fort, Westerly Plat No. 185 Lot No. 31-1
	To Construct: Dredge approximately 765 CY of marine sediment that has accumulated within the marina perimeter at the Watch Hill Yacht Club
	I hereby certify that I have reviewed foundation plan(s). plan(s) for entire structure X site plans
	Titled: Emergency Dredge at the Watch Hill Yacht Club, Prepared for The Watch Hill Fire District, 151 Bay Street, Plat 185, Lot 31-1 Westerly Rhode Island October 20, 2022, prepared by On-Site Engineering, Inc.
	Date of Plan (last revision): October 20, 2022
_	and find that the issuance of a local building permit is not required as in accordance with Section of the Rhode Island State Building Code.
	and find that the issuance of a local building permit is required. I hereby certify that this permit shall be issued once the applicant demonstrates that the proposed construction/activity fully conforms to the applicable requirements of the RISBC.
	and find that a Septic System Suitability Determination (SSD) must be obtained from the RI Dept. of Environmental Management.
/	and find that a Septic System Suitability Determination (SSD) need not be obtained from the RI Dept. of Environmental Management.
	and find that said plans conform with all elements of the zoning ordinance, and that if said plans require zoning board approval, that the applicant has secured such approval and that the requisite appeal period has passed with no appeal filed or appeal is final. The Zoning Board approval shall expire on
_	Building Official's Signature Date
	and find that said plans conform with all elements of the zoning ordinance, and that if said plans require zoning board approval, that the applicant has secured such approval and that the requisite appeal period has passed with no appeal filed or appeal is final.

NOV U 1 2022

Registered in CT, RI & MA

October 31, 2022

Coastal Resources Management Council Attn: Dan Goulet, P.E. Oliver H. Stedman Government Center 4808 Tower Hill Road, Suite 3 Wakefield, Rhode Island 02879

RE: Maintenance Dredge Application

Watch Hill Yacht Club

Property Address: 1 Fort Road, Westerly, RI; Plat 185, Lot 31-1

Property Owner: Watch Hill Yacht Club and The Watch Hill Fire District

Dear Mr. Goulet:

Attached herewith are plans, details and supporting documents for proposed maintenance dredging at the Watch Hill Yacht Club located at 1 Fort Road in Watch Hill. Over the past 15 years sands have been deposited and built-up at the existing bulkhead adjacent to the Watch Hill Yacht Club. This deposition of sediment can be attributed to the natural currents within the Watch Hill Cove and the close proximity to the adjacent beach dunes. In the past, the club has routinely removed the sediment build-up in 1985, 1988, 1992 and 2007, with the most recent permit being obtained under CRMC Permit No. 2007-10-055 and RIDEM Water Quality Certification File No. DP 07-069/WOC 07-003.

The sediment build-up is currently posing a significant issue with the daily boating operations at the club. The sediment is occurring between the floating docks and the existing bulkhead. The excessive sediment creates a safety concern especially when boaters/sailors leave the floating docks to go to their prospective moorings or out sailing for the day.

Dredging will occur in areas on the east and west sides of the existing Watch Hill Yacht Club. The dredging will be within the club's established Marina Perimeter and the sand removal will have no significant impact on any existing structures or coastal resources. The dredge area on the west side is approximately 12,200 s.f. and 4,200 s.f. on the east side. Site photographs are included in Exhibit 1 of this letter. The last group of photographs show the sediment build-up in 2022 and below that is a photo of the same area in 1998.

Maintenance Dredge Application Watch Hill Yacht Club

Property Address: 1 Fort Road, Westerly, RI; Plat 185, Lot 31-1

Property Owner: Watch Hill Yacht Club and The Watch Hill Fire District

Page 2 of 2

The total anticipated dredge material was calculated to be approximately 765 c.y. This material is consistent with previous dredging operations and is described as light brown fine to medium sand. When comparing the sieve analyses from the 1992 and the 2007 dredging operations, the dredge material is very similar. A sampling plan was sent to your office and approved in February 2022 with the samples taken on March4, 2022. Exhibit 2 contains the sampling plan and copies of the current sieve analysis of both the dredge material and disposal site. Exhibit 3 contains copies of the previous sieve analyses to illustrate the consistency in previous dredge operations.

The method of dredging is by mechanical means, either utilizing a hydraulic clam shell with a crane or an excavator. The material will be loaded onto a rubber track dump truck and will be hauled to the disposal site located on the adjacent beach owned by the Watch Hill Fire District. The disposal site was previously approved by both CRMC and RIDEM under the prior dredging permits. The dump truck will travel through the existing parking lot to Bay Street then travel southerly on Bay Street to a gravel driveway and onto the beach area. This travel path is illustrated on Sheet 9 of the submitted plan set. The dredge material will be stockpiled and once de-watered will be spread onto the beach area. The material will be spread above the mean high-high waterline. There is no evidence of any eel grass, shellfish or any other aquatic resources that may be negatively impacted from the dredging operations.

Thank you for your consideration with this application, if you have any questions regarding this application, please feel free to call me at 401-348-6831.

Sincerely,

Anthony A. Nenna, P.E.

President

Attachments

EXHIBIT 1 SITE PHOTOGRAPHS





Photo 1: Panoramic Photo of East Side of Watch Hill Yacht Club.

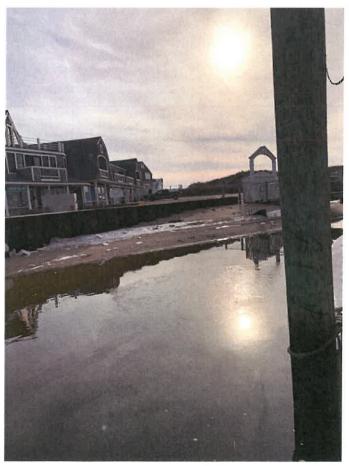


Photo 2: East Side of Watch Hill Yacht Club at Mean Low Water.

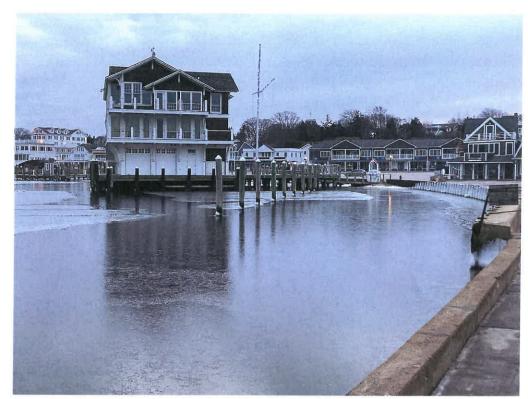


Photo 3: West Side of Watch Hill Yacht Club in Area of Proposed Dredging.

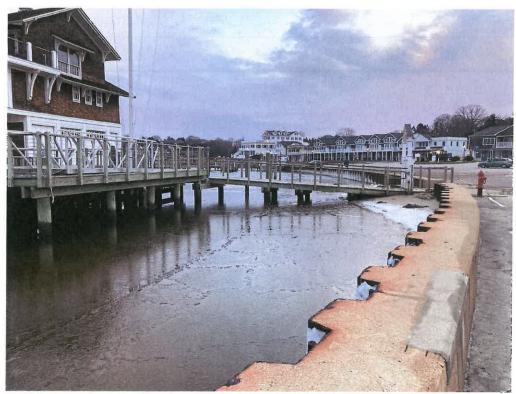


Photo 4: West Side of Watch Hill Yacht Club at Mean Low Water.

Photo 5: East Side of Watch Hill Yacht Club in Area of Proposed Dredging at MLW.



Photo 6: East Side of Watch Hill Yacht Club at Mean Low Water.

Photo 7: 2022 Photograph - East Side of Watch Hill Yacht Club in Area of Proposed Dredging at MLW.



Photo 8: 1998 Photograph - East Side of Watch Hill Yacht Club at Mean Low Water.

EXHIBIT 2

2022 SAMPLING PLAN AND SIEVE ANALYSES

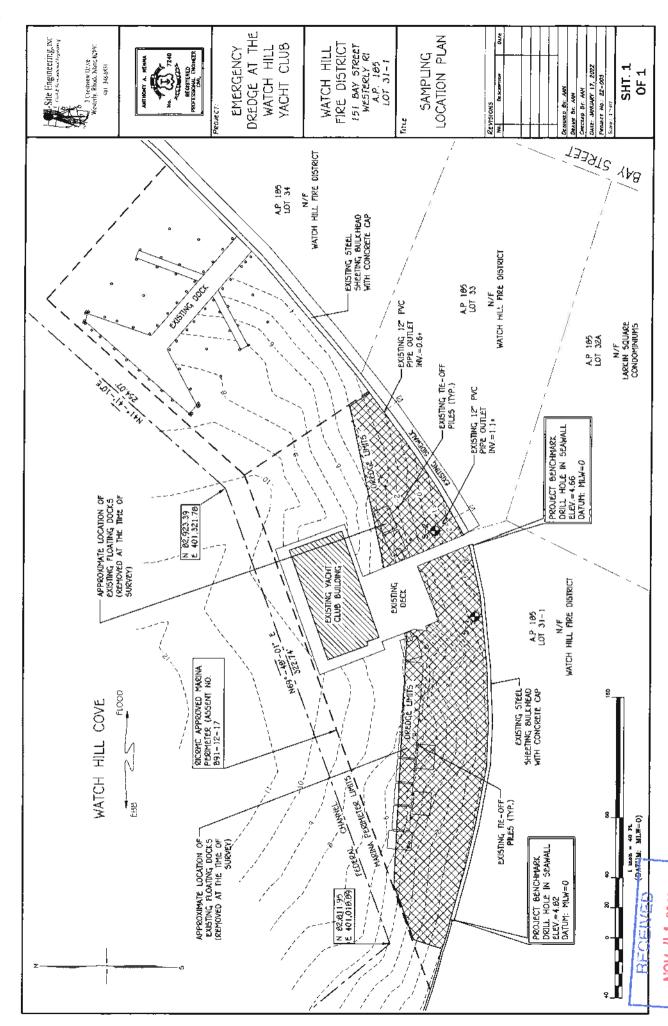






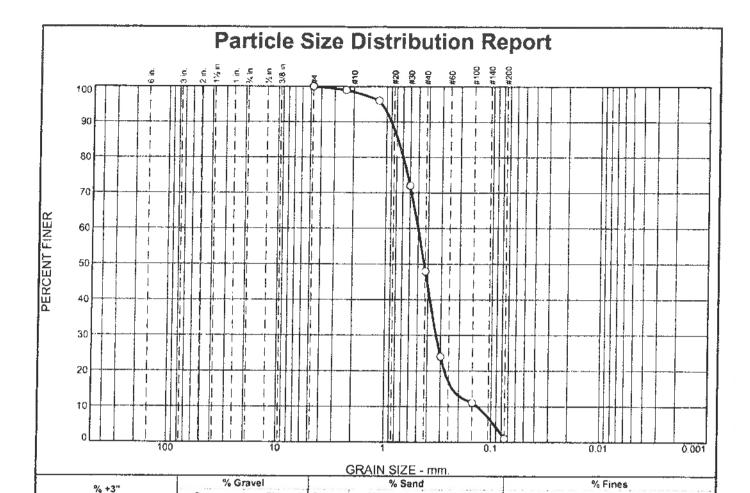
SOP Number: WR-GNUWW-1 Effective Date: 3/11/09 Revision No. 5 Last Revision Date: 3/11/09 Page No. 1

Date:_Febru	uary 10, 20	22		Applica	ant(s): <u>V</u>	Vatch	Hill Yacht	Club			
Project Nan	ne: <u>Mainter</u>	nance Dredg	e at WH Ya	cht Club A	Address	: <u>1 Fo</u>	rt Road, V	Vesterly RI			
Estimated \	olume of I	Oredge (cy):	765	_ New (c	y):			Maintenance (cy): <u>7</u>	65		
Area of Dre	dge (sf): <u>16</u>	5,400 +/-		De	pth of D	redge	: Approx.	3 ft.			
Proposed D	isposal Lo	cation (inclu	ide Plat/Lot	if on land):	151 Bay	Street.	Watch Hill	Fire District Beach, Pl	at 185	Lot 31	-1
ALIAN LATER								l Area (if, known): _			
		Sec	liment Sar	mpling Pla	n for D	reda	ing Proje	ects			
		(Google Earth	printout and N	avigation Char	t or	Propos	ed Depth of	Samples 36"			
		within 200' of pr			- 1	Propos	ed Coring Me	ethod <u>Hand dug</u>			
		ocks or any oth			ation	# of Sa	moling Locat	ions 2			—
_		h, flounder or s				# 01 Ou	mping Local	10(13) 2		_	
		ootprint and ave									
Submit Pro	posed Ana	lysis and de	tection limi	ts dependir	ig on dis	sposa	I location:	The detection limits for a	n analy	te should	d be
								Whenever possible, an Milingth in the OTM (USEPA and			е
below are appro	poriate to follow	w. In-water disp	osal must mee	t all Army Corps	Requirem	nents.	VE 2 261 (0111)	in the OTM (OSEFA and	USACE	: 1991)	
		n box you are					ded laborat	ory method.			
Sample	Beach	CAD Cap	GA	Residential	Comme	ercial/	TCLP	Acceptable		MRL**	k
	Criteria	Criteria	Leachability	Disposal	Industri	ial	Criteria	EPA Method(s)		- 14	
			Criteria	Criteria [†]	Exposu	ıre²	for Haz.				
			TCLP/SPLP				Waste ³				
	<10%		1_		_						
Grain Size	silt/clay		<u> </u>		<u> </u>					 	
% Moisture TPH	□<25% □ND		☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	□500 mg/kg	□ □ 2500 m	o/ka		SW 8015C		100 ma	IV.
SVOC	LOND	+	☐Table 2 ³	□Table11	☐ Table 12			8270 SIM		100 mg/ 10 ug/Kg	
PCB	□*ND	□0.4 mg/kg	□10 mg/kg	□10 mg/kg	□10 mg/k			8082		*.02 mg	
PAH		☐4.0 mg/kg				_		8270- Six (6) Tier 1 compou	nds		
Arsenic (As)	□1.7 mg/kg	□10 mg/kg	<u> </u>	□7.0 mg/kg	□7.0 mg/l	kg	□5.0 mg/L	6010,6020,7061,7062,7000,	7010	0.4 mg/l	
Cadmium (Cd) Chromium (Cr)	□1 mg/kg □10 mg/kg	□5 mg/kg □100 mg/kg	□0.03 mg/L	□39 mg/kg	□ 1000 mg		□1.0 mg/L	6010,6020,7000,7010		0.07 mg	
Copper (Cu)	□10 mg/kg	□ 200 mg/kg	□1.1 mg/L	□390 mg/kg □3100 mg/kg	□10000 n		□5.0 mg/L	6010,6020,7000,7010 6010,6020,7000,7010		0.5 mg/l 0.5 mg/l	
Lead (Pb)	□25 mg/kg	□100 mg/kg	□0.04 mg/L	□150 mg/kg	□500 mg/		□5.0 mg/L	6010,6020,7000,7010		0.5 mg/r	
Mercury (Hg)	□0.5 mg/kg	□0.5 mg/kg	□0.02 mg/L	□23 mg/kg	□610 mg/		□0.2 mg/L	7470,7471,7472		0.07 mg	
Nickel (Ni)	□5 mg/kg	□50 mg/kg	□1 mg/L	□1000 mg/kg				6010, 6020,7000, 7010		0.5 mg/k	
Zinc (Zn)	□ 25 mg/kg	□200 mg/kg		□6000 mg/kg				6010,6020,7000,7010		1.0 mg/k	⟨ g
TCLP or SPLP Barium (Ba)	21/23/2012/10/10/10/2012				8 7 41 6		□100 mg/L	1311 or 1312 6010, 6020	0.11		
Selenium (Se)	1						□1.0 mg/L	6010, 6020, 7741, 7742			
Silver (Ag)							□5.0 mg/L	6010, 6020			
* For each arochic		n Critera – any oth								•	
								nediation of Hazardous Materia			
								on and Remediation of Hazardo Hazardous Material Releases	us ivialei	iai Releasi	25.
Approvals		STATES F					TOTTO GIBLOT O	The state of the s	71.		J.J.
	rdinator ((DMC).					Datas				
Dredge Coo									0	2	SEG
WQC Progr				GLIST S.					N V	R	COL
GW Program									13	=	1
Dredge Coo	ordinator (I	JEM):					_ Date:		E E	<u>\$</u>	To Assert



NOV U 1 2022

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l
-

Coarse

Fine

Coarse

Medium

50.5

Fine

47.0

SAMPLE S-1: S CLIENT.	AND TAKEN AT 3' D	DEPTH. SAMPLED BY
PL= NP	Atterberg Limits	PI= NP
D ₉₀ = 0.9023 D ₅₀ = 0.4363 D ₁₀ = 0.1343	Coefficients D ₈₅ = 0.7815 D ₃₀ = 0.3322 C _u = 3.72	D ₆₀ = 0.4998 D ₁₅ = 0.2301 C _c = 1.64
USCS= SP	Classification AASHT(D= A-1-b
SAND TAKEN A	Remarks AT 3' DEPTH (SAMPL	LE S-1).

(no	fication	provided)	

Location: WESTERLY, Rt Sample Number: S-1

Depth: N/A

Date: 03/04/22

Geisser Engineering Corporation

Client: ON-SITE ENGINEERING

Project: WATCH HILL YACHT CLUB - WESTERLY, RI

Riverside, Rhode Island Project No: GEC-5102 **Figure**

Tested By: RH Checked By: SAB



Clay

1.0

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2022

Client: ON-SITE ENGINEERING

Project: WATCH HILL YACHT CLUB - WESTERLY, RI

Project Number: GEC-5102 Location: WESTERLY, RI

Depth: N/A

Sample Number: S-1

Material Description: SAMPLE S-1: SAND TAKEN AT 3' DEPTH. SAMPLED BY CLIENT.

Date: 03/04/22

PL: NP

LL: NV

PI: NP

USCS Classification: SP

AASHTO Classification: A-1-b

Testing Remarks: SAND TAKEN AT 3' DEPTH (SAMPLE S-1).

Tested by: RH

Checked by: SAB

Sieve Test Data

Sieve Opening Size	Percent Finer
4	
3	
2	
1.5	
1.0	
.75	
.5	
.375	
#4	100.0
#8	99.0
#16	96.0
#30	72.0
#40	48.0
#50	24.0
#100	0.11
#200	1.0

Fractional Components

Cobbles	Gravel			Sand				· · · · · · · · · · · · · · · · · · ·	Fines	
OGODICS	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	1.5	50.5	47.0	99.0			1.0

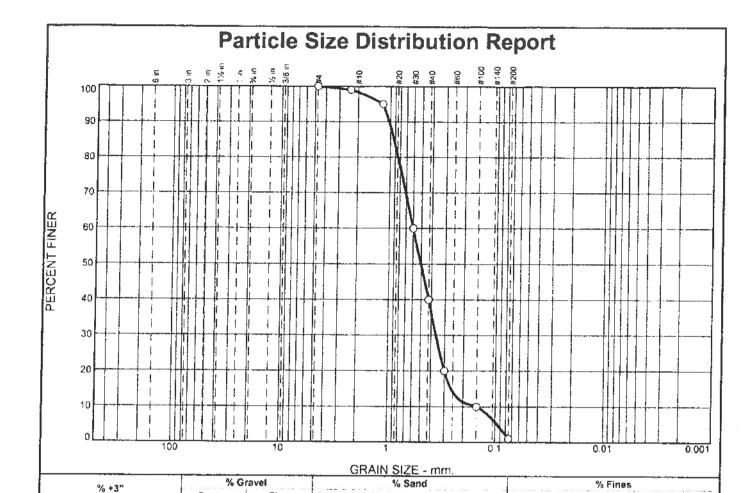
D ₅	D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₄₀	D ₅₀	D ₆₀	D _{BC}	D ₈₅	090	D ₉₅
0.0943	0.1343	0.2301	0.2745	0.3322	0.3826	0.4363	0.4998	0.6968	0.7815	0.9023	1.1112

Fineness Modulus	Cu	C _C	
1.98	3.72	1.64	

CEIVED 1 U1 2022

Geisser Engineering Corporation ___

2



SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO)
#4	100.0		
#8	99.0		
#16	95.0		
#30	60.0		
#40	40.0	!	
#50	20.0		
#100	10.0	[
#200	1.0	ļ	
i		!	
•			
- 1		1	
ľ		ļ .	

Coarse

0.0

Fine

Coarse

1.7

Medium

58.3

DI - ND	Atterberg Limits	01
PL= NP	LL= NV	PI= NP
D ₉₀ = 1.0287 D ₅₀ = 0.5041 D ₁₀ = 0.1500	Coefficients D85= 0.9248 D30= 0.3617 Cu= 4.00	D ₆₀ = 0.6000 D ₁₅ = 0.2587 C _c = 1.45
USCS= SP	Classification AASHTC)= A-1-b
	Remarks	

Material Description

Location: WESTERLY, RE Sample Number: S-2

0.0

Depth: N/A

Date: 03/04/22

Geisser Engineering Corporation

Client: ON-SITE ENGINEERING

Project: WATCH HILL YACHT CLUB - WESTERLY, RI

Fine

39.0

Riverside, Rhode Island

Project No: GEC-5102

Figure

Tested By: RH

Checked By: SAB

Clay

1.0

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2022

Client: ON-SITE ENGINEERING

Project: WATCH HILL YACHT CLUB - WESTERLY, RI

Project Number: GEC-5102 Location: WESTERLY, RI

Depth: N/A

Sample Number: S-2

Material Description: SAMPLE S-2: SAND TAKEN AT 3' DEPTH. SAMPLED BY CLIENT.

Date: 03/04/22

PL: NP

LL: NV

PI: NP

USCS Classification: SP

AASHTO Classification: A-1-b

Testing Remarks: SAND TAKEN AT 3' DEPTH (SAMPLE S-2).

Tested by: RH

Checked by: SAB

Sieve Test Data

Sieve Opening Size	Percent Finer
4	
3	
2	
1.5	
1.0	
.75	
.5	
.375	
#4	0.001
#8	99.0
#16	95.0
#30	60.0
#40	40.0
#50	20.0
#100	10.0
#200	1.0

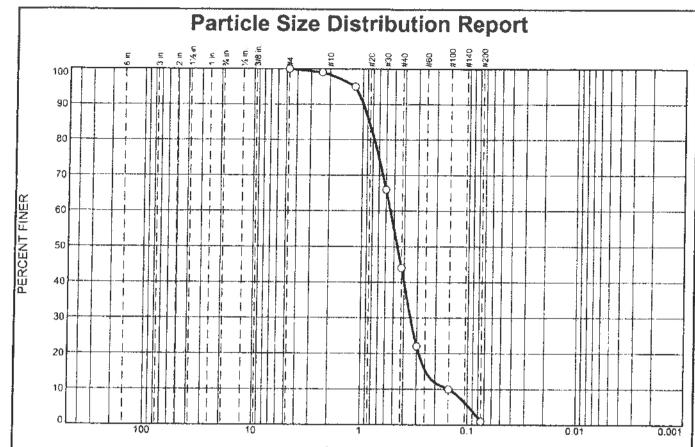
Fractional Components

Cobbles	Gravel			Sand					Fines	
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	1.7	58.3	39.0	99.0			1.0

D ₅	D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₄₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	090	D ₉₅
0.0960	0.1500	0.2587	0.3000	0.3617	0.4250	0.5041	0.6000	0.8419	0.9248	1.0287	1.1800

Fineness Modulus	Сц	C _C
2.16	4.00	1.45

Geisser Engineering Corporation _



			GF	<u>RAIN SIZE -</u>	നന്.		
% +3"	% Gr		% Sand			% Fines	
70 - 0	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	1.7	54.3	43.0	1.0	

SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO)
#4	100.0		
#8	99.0	1	
#16	95.0		
#30	66.0		
#40	44.0	1	
#50	22.0		
#100	10.0		
#200	0.1	1	
		l	

Material Description

SAMPLE S-3: SAND TAKEN AT DREDGE DISPOSAL SITE (2' DEPTH). SAMPLED BY CLIENT.

PL= NP	Atterberg Limits LL= NV	PI≃ NP
D ₉₀ = 0.9901 D ₅₀ = 0.4645 D ₁₀ = 0.1500	Coefficients D ₈₅ = 0.8695 D ₃₀ = 0.3457 C _u = 3.62	D ₆₀ = 0.5431 D ₁₅ = 0.2454 C _c = 1.47
USCS= SP	Classification AASHTO:	= A-1-b
CAND TAKEN A	Remarks	L PITE OF DEPOTE

SAND TAKEN AT DREDGE DISPOSAL SITE (2' DEPTH) SAMPLE S-3.

(no specification provided)

Location: WESTERLY, RI Sample Number: S-3

Depth: N/A

Date: 03/04/22

Geisser Engineering Corporation

Riverside, Rhode Island

Client: ON-SITE ENGINEERING

Project: WATCH HILL YACHT CLUB - WESTERLY, RI

Project No: GEC-5102 Figure

Tested By: RH

Checked By: SAB

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2022

Client: ON-SITE ENGINEERING

Project: WATCH HILL YACHT CLUB - WESTERLY, RI

Project Number: GEC-5102 Location: WESTERLY, RI

Depth: N/A

Sample Number: S-3

Material Description: SAMPLE S-3: SAND TAKEN AT DREDGE DISPOSAL SITE (2' DEPTH). SAMPLED BY CLIENT.

Date: 03/04/22

PL: NP

LL: NV

PI: NP

USCS Classification; SP

AASHTO Classification: A-1-b

Testing Remarks: SAND TAKEN AT DREDGE DISPOSAL SITE (2' DEPTH) SAMPLE S-3.

Tested by: RH

Checked by: SAB

Sieve Test Data

Sieve Opening Size	Percent Finer
4	
3	
2	
1.5	
1.6	
.75	
.5	
.375	
#4	100.0
#8	99.0⊧
#16	95.0
#30	66.0
#40	44.0
#50	22.0
#100	10.0
#200	1.0

Fractional Components

Cobbles		Gravel		i	Sa	nd	Fines			
Condias	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	1.7	54.3	43.0	99.0			1.0

05	D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₄₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.0968	0.1500	0,2454	0.2868	0.3457	0.4011	0.4645	0.5431	0.7786	0.8695	0.9901	1.1800

	Fineness Modulus	c _u	c _c
ı	2.08	3.62	1,47

RECEIVED WW

EXHIBIT 3 SIEVE ANALYSES FROM 1992 AND 2007

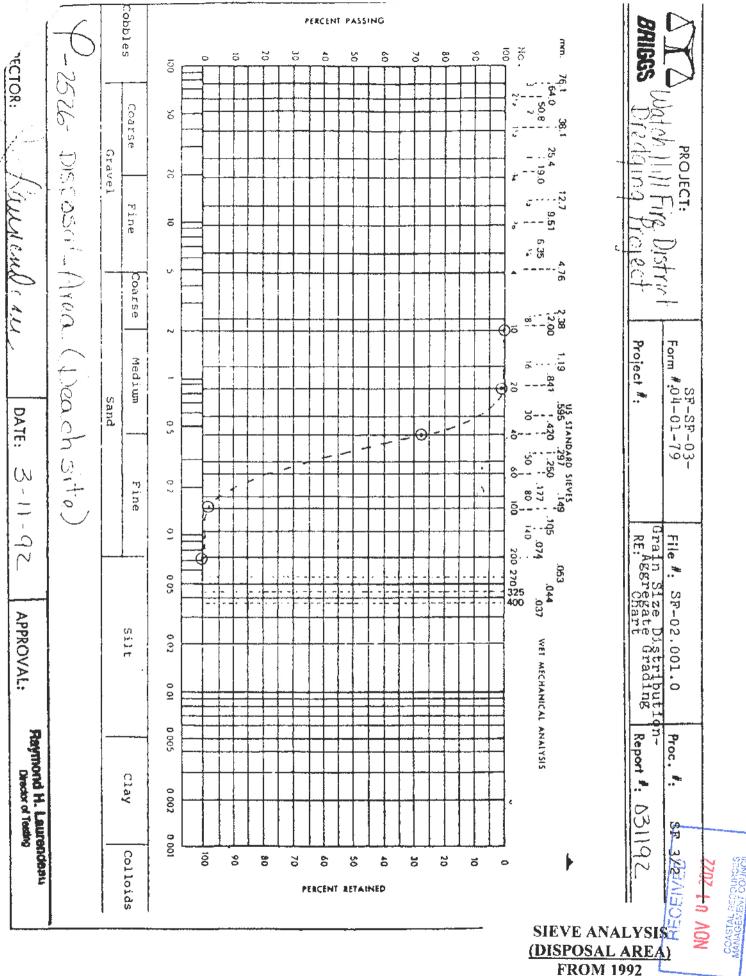
1. Sample Description:

<u>Sample No.</u>	<u>Description</u>	<u>Source</u>
P-2525	Fine Sand	Dredged Sample
P-2526	Fine Sand	Disposal Area (Beach Site)

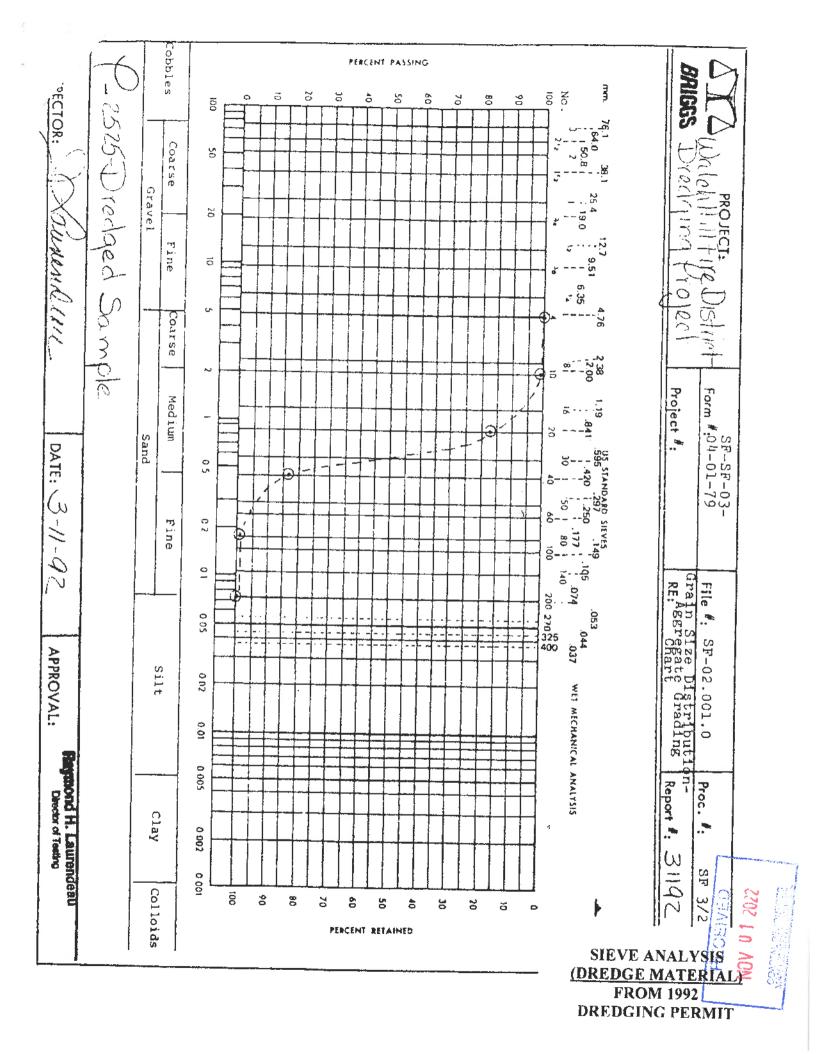
2. Sieve Analysis ASTM D-422:

Sieve Size	Percent Passing		sing
Sample Number	P-2525		P-2526
#4	100.0%		100.0%
#10	99.4%		100.0%
#20	83.9%		99.8%
#40	15.2%		73.0%
#80	0.3%	45	2.9%
#200	0.2%		0.1%

SIEVE ANALYSES FROM 1992 DREDGING PERMIT



FROM 1992 DREDGING PERMIT





GZA GEOENVIRONMENTAL, INC.

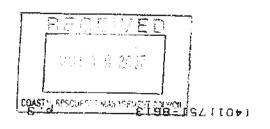
GRAIN SIZE ANALYSIS - MECHANICAL (ASTM D422)

Project:	Watch Hill Yatch Club			Job No.	Job No.: 33329.00		
Location of Project:							
Sample No.:	Composite	Borting No:	N/A	Depth:	N/A		
Sample Description	Light Brown, Fine to	Medium SAND					
Sample Source:	Onsite						
Tested By:	LAS		Date of Test:	10/9/2007			
Sample Weight							
		Dry	Washed (#200)				
Wt of dry sample + container (s)	1573.8	1570.5				
Wt. of container (g)	P-0	332,8	332.8	his of Fines			
Wt of dry sample (g)		1241	1237.7	3,3			

Gradation lest Kesuits

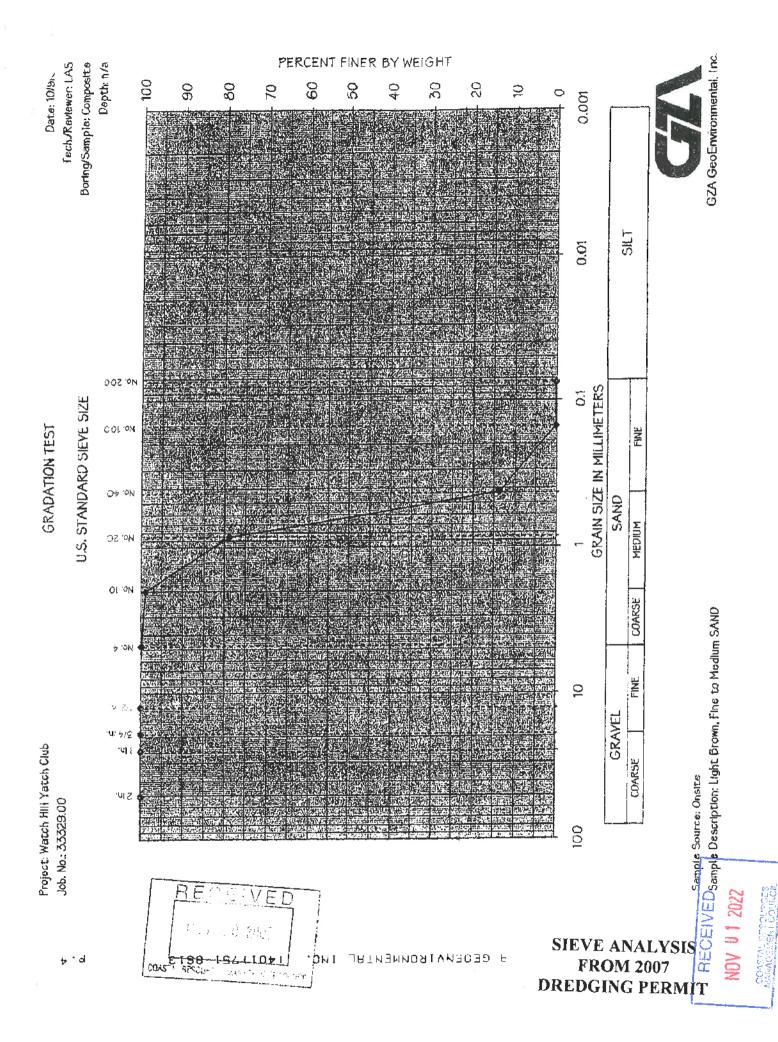
Slave No.	Sleve + Soll	Wt. of Sieve	Wt. retained	Cummunt retained	% rotained	% passing
2 ^l '	624.7	824.7	0.0	0.00	0.00	100.00
1"	826.7	8267	Ç.Q	6.0	0.0	00.0
3/4"	677.2	5 <i>1</i> 7.2	0.0	, 0.0	0.0	:00.0
1/2"	7896	789.6	0.0	0.0	0.0	100.0
#4	512.0	510.1	1.9	1.9	0.2	99.8
#10	483.4	472.4	11.0	12.9	1.0	99,5
#20	672.3	422.7	249.6	262,5	21.1	78.9
#40	1196.1	386.9	809.2	1071.7	86.3	13,7
#100	514.9	34 9 .0	165.9	1237.6	99 7	03
#20G	825.5	825.0	05	1238.1	99.7	0.3
PAN	3695	3695	33	1241.4	100	0

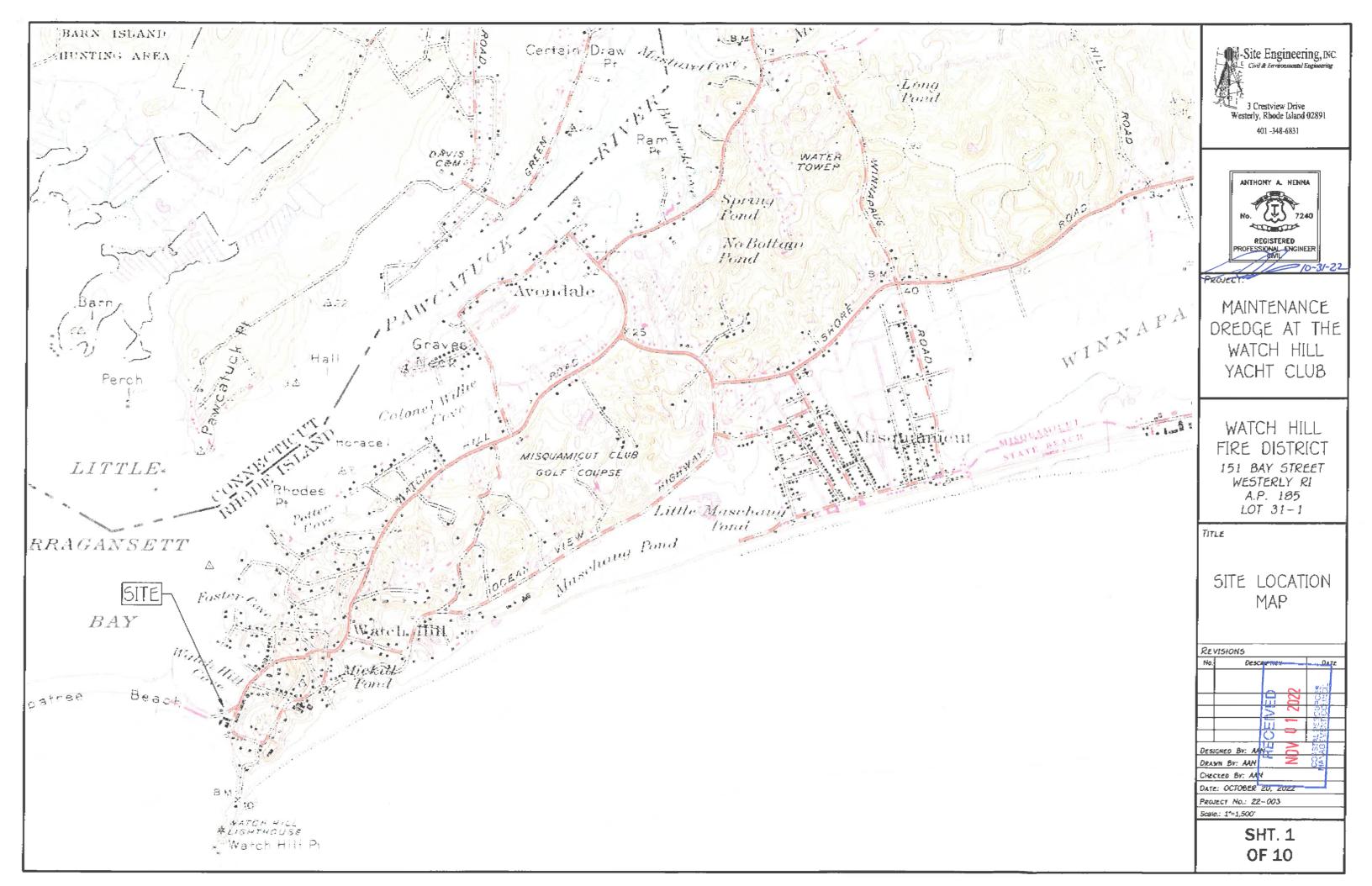
Comments:	·
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SH GEOENAIRONMENTHE INC.

SIEVE ANALYSIS
FROM 2007
DREDGING PERMIT





LEGEND

5.5 ≐	EXISTING SPOT ELEVATION/SOUNDING	WW	- PROPOSED WATER SERVICE
	EXISTING CONTOUR	UEUE-	· · · · · · · · · · · · · · · · · · ·
	EDGE OF POND		ELECTRICAL
cf-a △	COASTAL FEATURE FLAG	6	- PROPOSED CONTOUR
	WETLAND BUFFER (50 FT.)	DIAM.	DIAMETER
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	TYP.	TYPICAL
$\sim\sim$	EXISTING TREE LINE	P.T.	PRESSURE TREATED
		BIT. CONC.	BITUMINOUS CONCRETE
	PROPERTY LINE	CONC.	CONCRETE
w	EXISTING WATER MAIN	F/FLR.	FINISHED FLOOR
		T.O.F.	TOP OF FOUNDATION
a	WELL	ML₩	MEAN LOW WATER
₩		MHW	MEAN HIGH WATER

CONSTRUCTION NARRATIVE

PROJECT DESCRIPTION

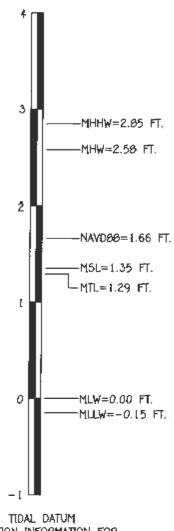
The subject property is located at 1 Fort Road, off of Bay Street in the Town of Westerly, Rhode Island and is part of an existing operational marina known as the Watch Hill Yacht Club. The marina is located within Watch Hill Cove. The proposed site improvements include dredging approximately 16,400 s.f. in order to remove sand that has collected between the existing building and the existing bulkhead. The build up of sediment is this area has occurred through previous years and can be attributed to the current wave action and tidal fluctuations. The dredging will occur within the approved marina periheter. The final elevation at the completion of dredging operations will be elevation -3.0, allowing boats to be docked on the Club's existing floating docks. Approximately 765 CY of marine sediment will be removed and temporarily stockpiled on the beach area currently owned by the Watch Hill Fire District. Once the haterial is de-watered, the haterial will be spread on site within the existing beach area. Dredging will be conducted with a hydraulic clam shell or excavator. The equipment will be setup at two locations on the existing parking lot inorder to reach the two dredging areas. The sediment will be loaded onto a rubber track dump truck and hauled through the existing parking lot and onto Bay Street to the dump site, which is located on an existing beach adjacent to the carrousel.

CONSTRUCTION SEQUENCE

- 1. OBTAIN PLAN APPROVAL AND APPLICABLE PERMITS.
- 2. INSTALL SILT CURTAIN WITHIN DREDGING AREAS.
- 3. CONSTRUCTION EQUIPMENT MOBILIZATION.
- 4. START DREDGING. NOTE THAT DREDGING SHALL OCCUR BETWEEN OCTOBER 315T AND JANUARY 315T.
- 5. TRANSPORT AND STOCKPILE DREDGE SPOILS AS INDICATED ON THE PLANS.
- 6. ONCE DREDGE MATERIAL IS DRY SPREAD WITHIN EXISTING BEACH AREA
- 7. FINALIZE DREDGING AND FINISH GRADING DREDGE SPOILS.

GENERAL NOTES:

- I. THE SUBJECT PROPERTY IS AN EXISTING OPERATIONAL MARINA LOCATED ON WATCH HILL COVE IN THE TOWN OF WESTERLY AT THE WATCH HILL YACHT CLUB LOCATED DIRECTLY OFF OF BAY STREET IN WATCH HILL.
- 2. THE PROPOSED PROJECT SCOPE CONSISTS OF DREDGING A PORTION OF THE COVE BOTTOM ADJACENT TO THE EXISTING CLUB BUILDING/DOCKS SO THAT BOATS HAVE ADEQUATE DEPTH AT LOW TIDE WHEN DOCKED ON THE EXISTING FLOATING DOCKS. THE DREDGE MATERIAL WILL BE SPREAD ON THE ADJACENT BEACH THAT IS CURRENTLY OWNED BY THE WATER HILL FIRE DISTRICT. APPROXIMATELY 765 C.Y OF MATERIAL WILL BE REMOVED FROM THE DREDGE AREA.
- 3. THE SUBJECT PROPERTY IS LOCATED ON WATCH HILL COVE PRIOR TO ENTERING LITTLE NARRAGANSETT BAY.
- 4. THE UTILITIES SHOWN HEREIN ARE APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
- 5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY DIG-SAFE AT LEAST 72 HOURS PRIOR TO CONSTRUCTION.
- 6. THE SUBJECT PROPERTY IS LOCATED IN ZONE V, ELEVATION 13, PER FEMA MAP NUMBER 44009C0261J DATED OCTOBER 16, 2013.
- 7. ELEVATION DAUTM IS NAVOGO, MLW=0.



TIDAL DATUM
ELEVATION INFORMATION FOR
WATCH HILL POINT
STATION ID: 8458694

Gird & Environmental Engineering

1 Crestview Drive
Westerly, Rhode Island 02891



401 - 148 - 6831

PROJECT:

MAINTENANCE DREDGE AT THE WATCH HILL YACHT CLUB

WATCH HILL
FIRE DISTRICT
151 BAY STREET
WESTERLY RI
A.P. 185
LOT 31-1

TITLE

NOTES

REVISIONS

No. Description Date

Designed By: AUN CHECKEO By: AAN

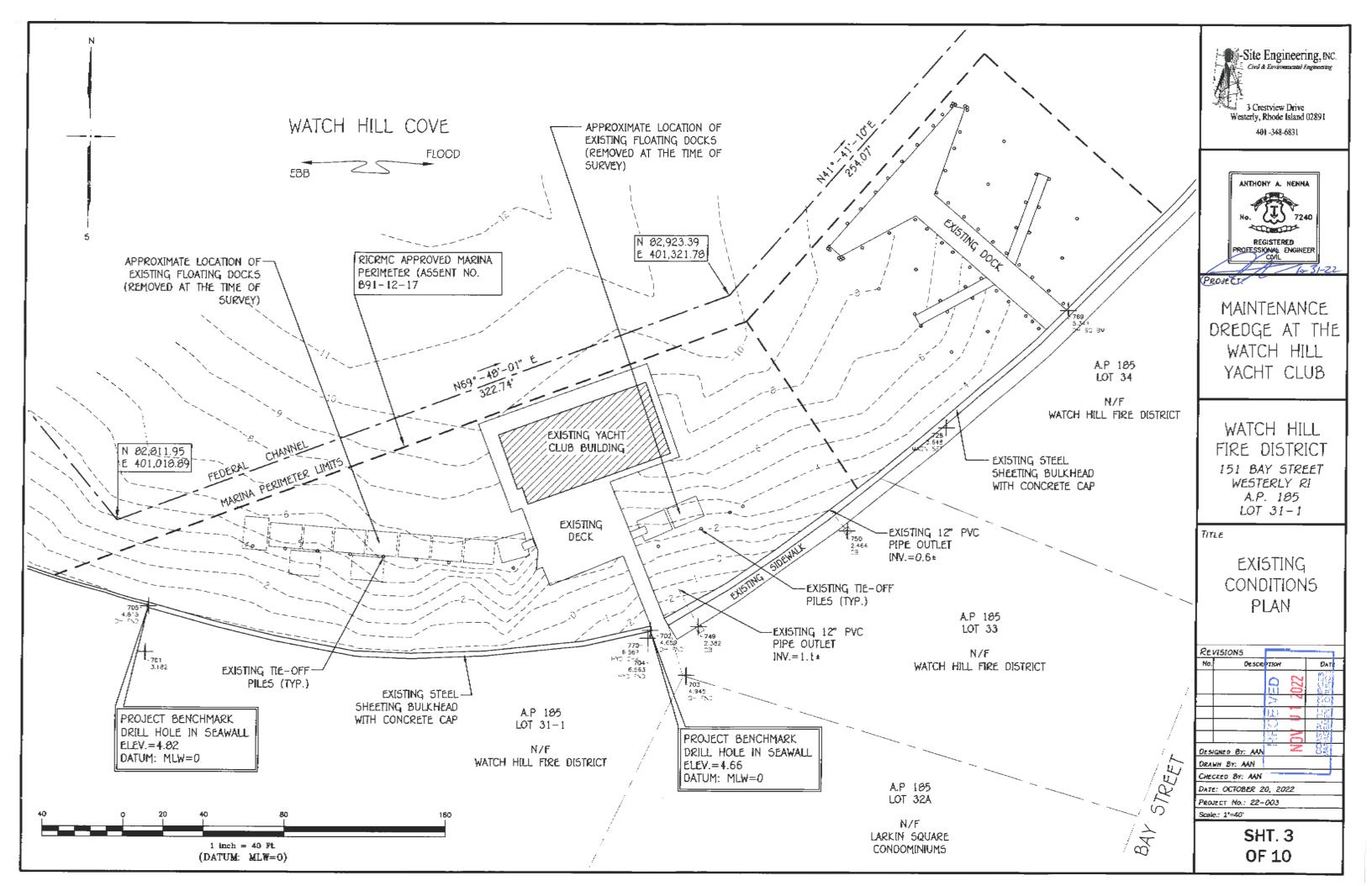
DATE: OCTOBER 20, 2022

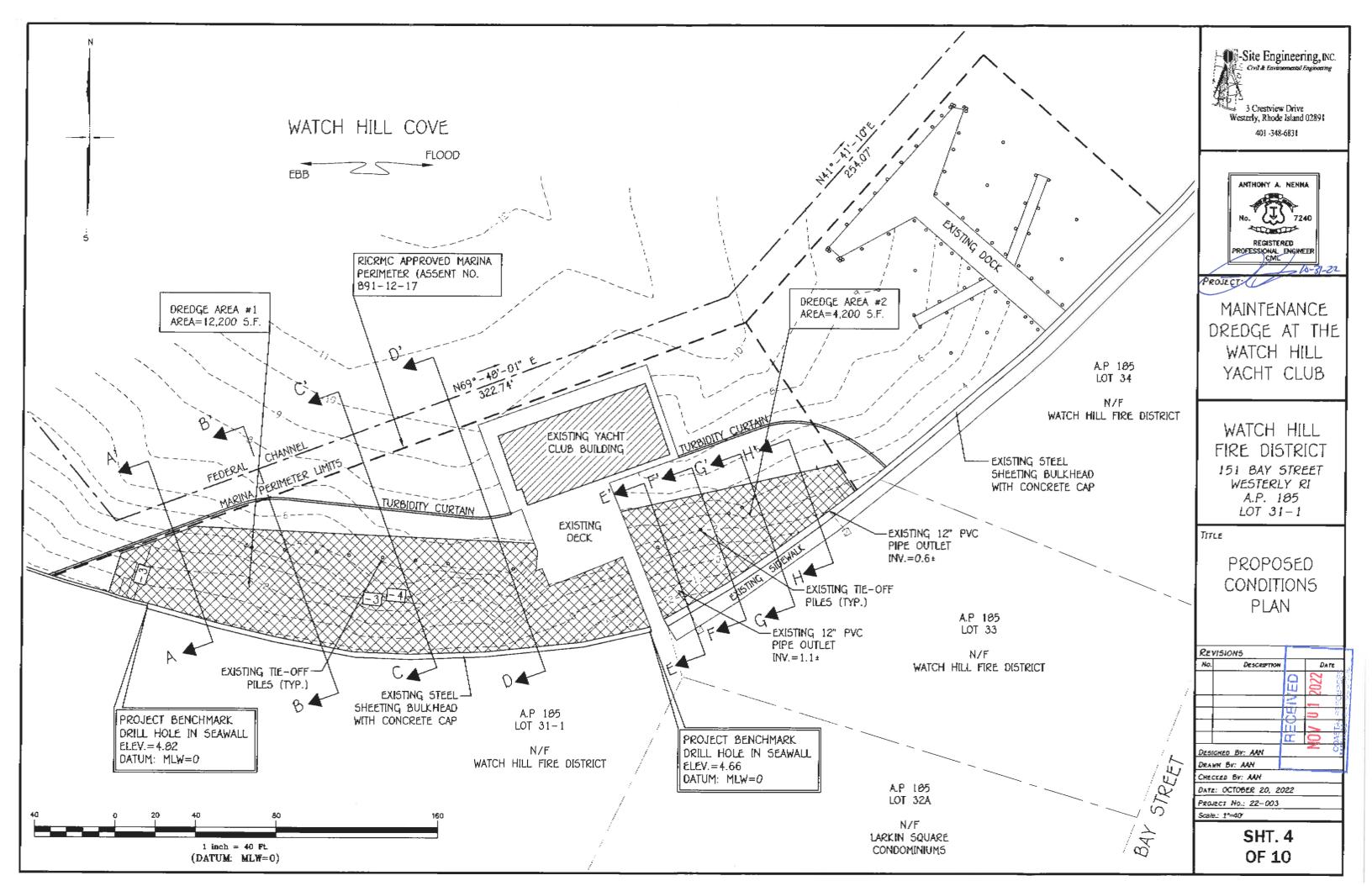
PROJECT No.: 22-003

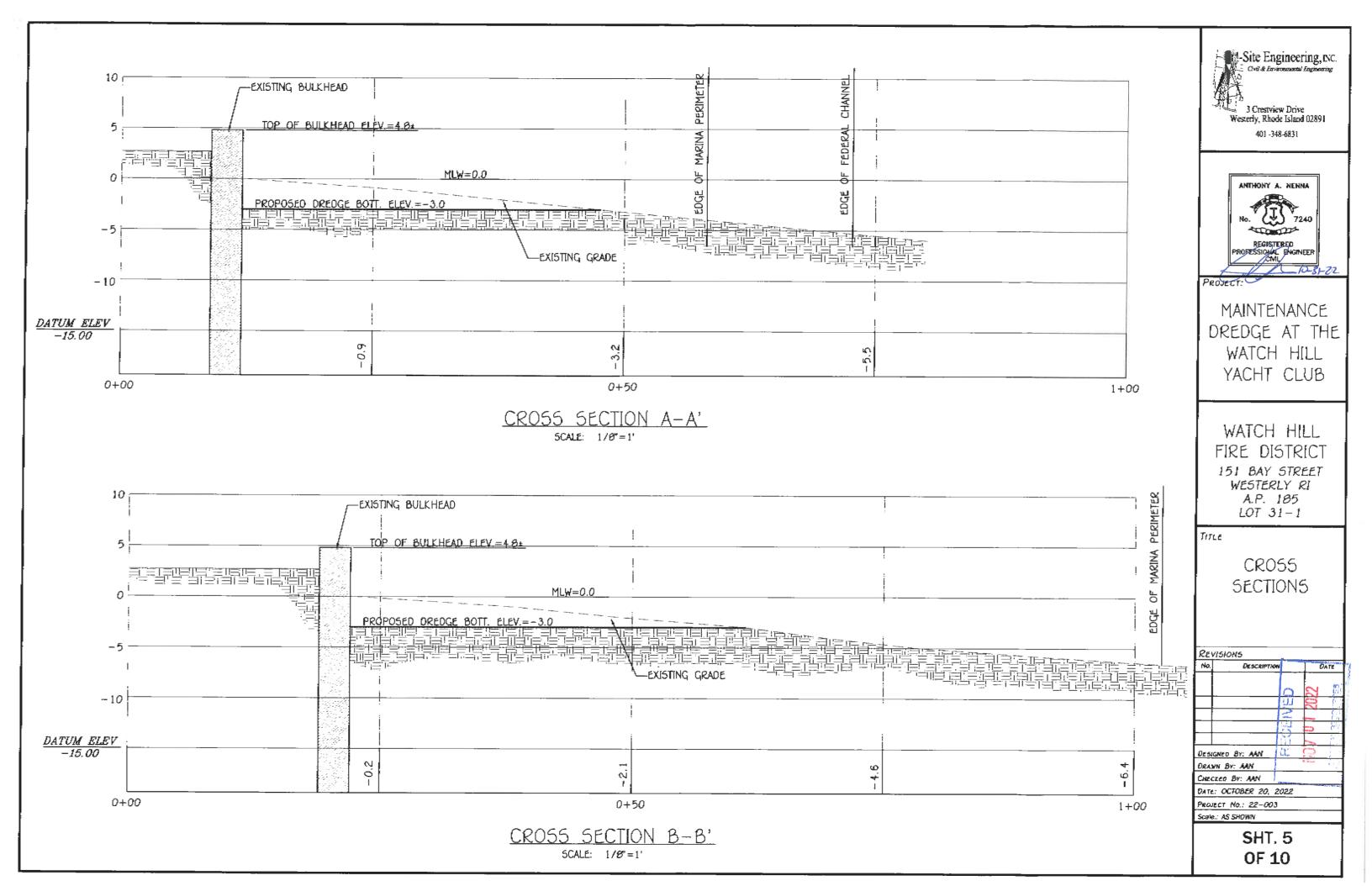
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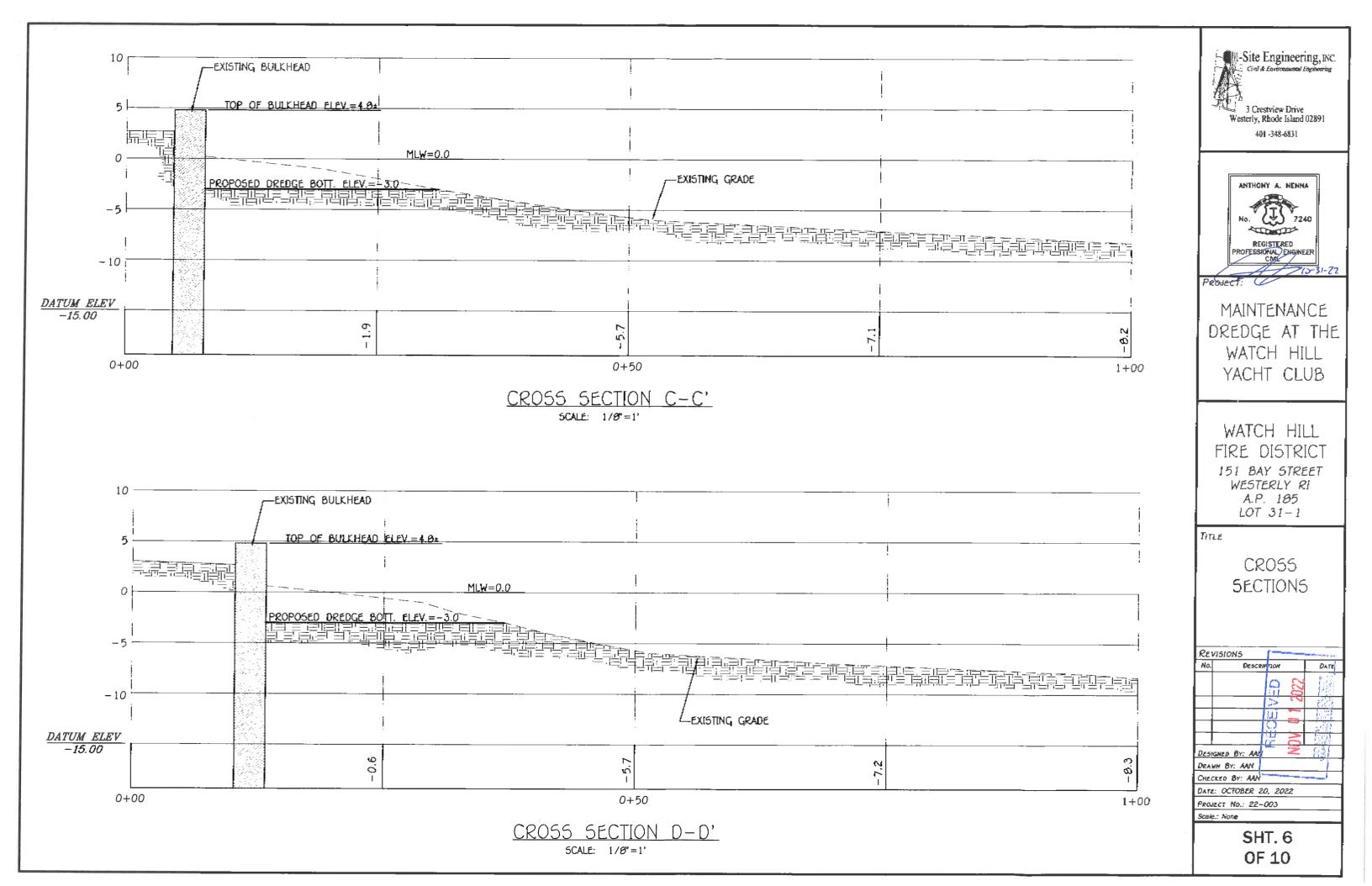
SHT. 2

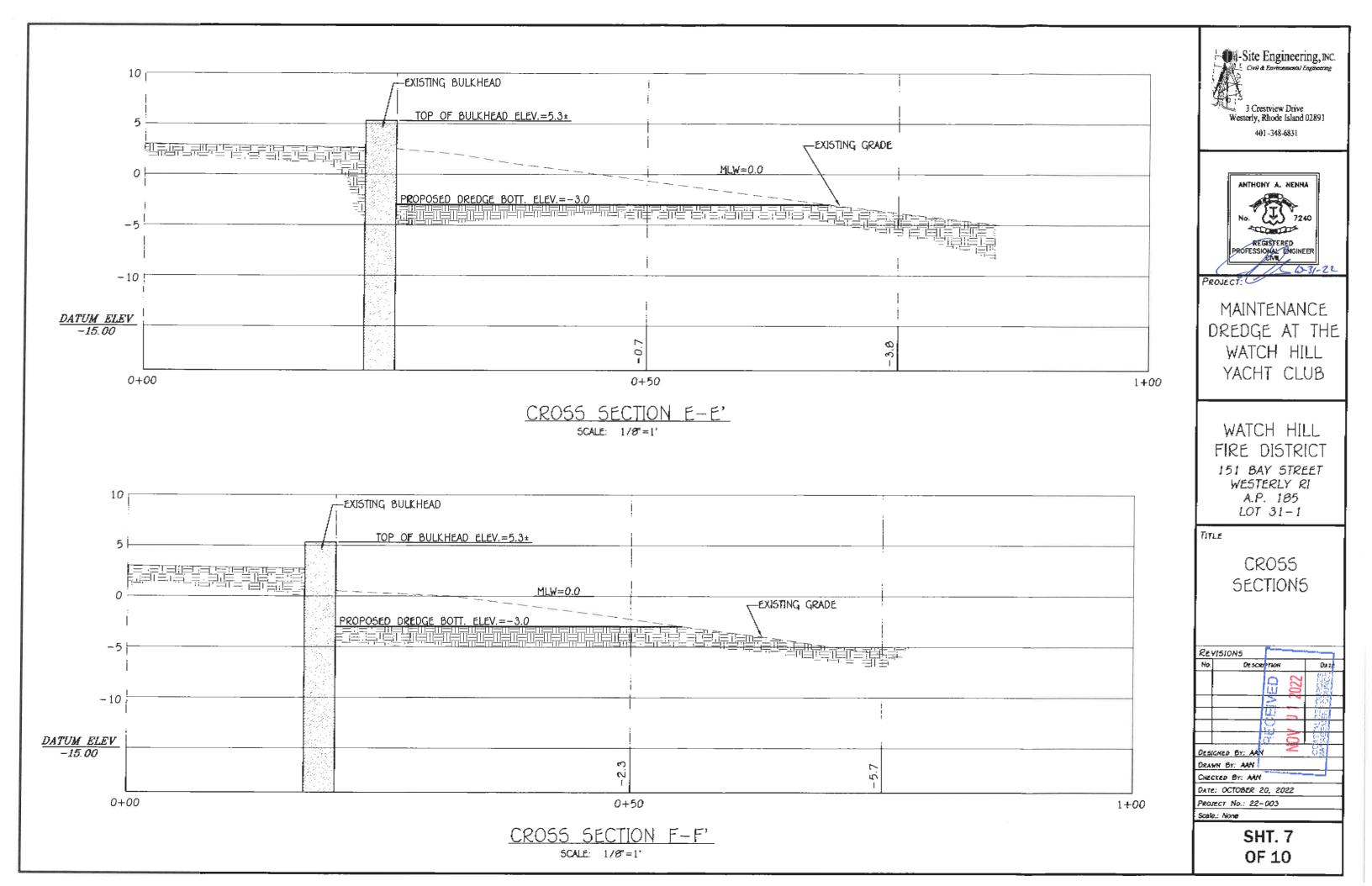
OF 10

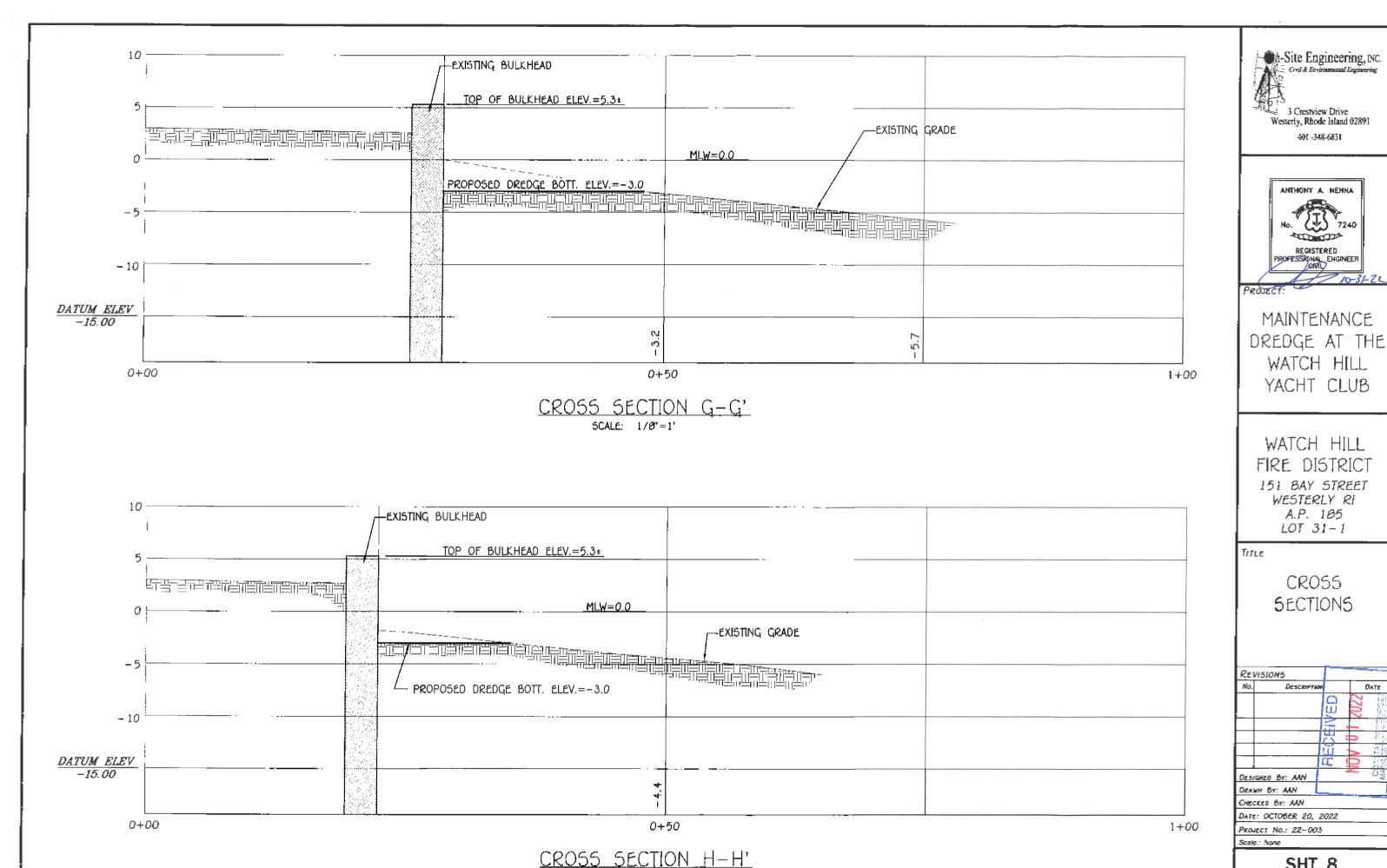












5CALE: 1/8"=1"

SHT. 8 OF 10

