

**COASTAL RESOURCES
MANAGEMENT COUNCIL**

**SEMI-MONTHLY
MEETING**

TUESDAY, JUNE 11, 2019

6:00 P.M.

AGENDA



State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

AGENDA

Semi-Monthly Meeting – Full Council
Tuesday, June 11, 2019; 6:00 p.m.
Administration Building; Conference Room A
One Capitol Hill, Providence, RI 02908

Approval of the minutes of the previous meeting – May 28, 2019
Subcommittee Reports
Staff Reports

STATUS UPDATE (as required by Council from Decemer 11, 2018):

B1990-08-029 WC COASTAL DEVELOPMENT LLC (previously Melville Associates)
– Original assent to: Construct and maintain a 1,495 slip commercial complex, including various marina buildings and facilities, parking, offshore, timber breakwater, dredging, structural shoreline protection, and public access. Assent Modification for Wave Fence. Location of project is plat 43, lots 4, 5 and plat 50, lots 6, 7; west of Burma Road, Portsmouth, RI.

APPLICATIONS WHICH HAVE BEEN OUT-TO-NOTICE AND ARE BEFORE THE FULL COUNCIL FOR DECISION:

2019-03-030 QUONSET DEVELOPMENT CORP -- To perform approximately 678,000 cubic yards of maintenance dredging from the approach channels and areas around Piers 1 & 2 at the Quonset Business Park. The material will be disposed offshore at the Rhode Island Sound Disposal Site and has already received its suitability determination from the Army Corps of Engineers/EPA. Located at Piers 1 and 2 and approach channels, West Passage, Quonset Business Park, North Kingstown, RI. Plat 193, lots 015, 026

ENFORCEMENT CASE BEFORE THE COUNCIL FOR AN ORDER TO RESTORE:

17-0106 KRISTAN PETERS HAMLIN AND GEOFFREY HAMLIN -- An order to restore the buffer zone at plat 11, Lot 38 Battery Lane, Jamestown in accordance with the approved restoration plan (“Proposed Buffer Zone Restoration Plan”, dated 10/30/18), and to permanently demarcate the inland edge of the buffer zone.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Coastal Resources Management Council
Oliver Stedman Government Center
4808 Tower Hill Road; Suite 3
Wakefield, RI 02879
(401) 783-3370

CRMC ASSENT EXTENSION REQUEST FORM

File Number of Assent/Permit: #B1990-08-029
Expiration Date (including any extensions): December 13, 2018 (See Attached -
letter from Jeffrey M. Willis, Deputy Director) Name _____
which assent was issued to: Melville Marine Industries, and the Assent Modification was
issued to the successor in title, Melville Associates, LP
Location of Project: West of Burma Road/Weaver Cove Plat: _____
43/50 Lot: 4,5,6,7 City/Town: _____
Portsmouth.
Present Owner: Melville Associates, LP
Mailing Address: c/o Arsenal Real Estate Funds 158 US-206 Suite 3 Gladstone
State New Jersey Zip Code 07934
Phone Nos. Bus. 973-985-5555 Home 973-985-5555 Contact Person No. 973-985-5555
Indicate the reason why an extension is being requested: Due to the "Great Recession"
and other factors, development is taking longer than anticipated.

Please indicate
what if any work has been done on site: No work has been performed yet.

Melville Associates, LP
By: Gary H. Picone
Owner's Signature Gary Picone, Authorized Signatory

NOTE: The applicant acknowledges by evidence of their signature that they have reviewed the Rhode Island Coastal Resources Management Program, and have, where possible, adhered to the policies and standards of the Program. The applicant also acknowledges by evidence of their signature that to the best of their knowledge the information contained in the application is true and valid. The filing of false information can result in the Coastal Resources Management Council revoking state assent.

01/00



ALLISON R. LANE, ESQUIRE
ALANE@DARROWEVERETT.COM

PROVIDENCE OFFICE
1 Turks Head Place – Suite 1200
Providence, RI 02903
Tel: 401.453.1200
Fax: 401.453.1201

September 10, 2018

BY FEDEX

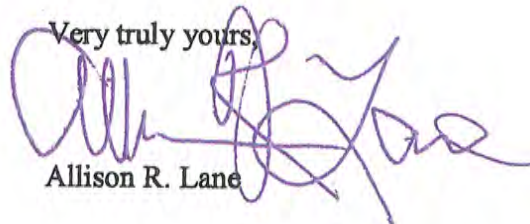
Attn: Application Coordinator
Coastal Resources Management Council
Oliver Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879

RE: CRMC Assent Extension Request Form for Assent #B1900-08-029

Dear Sir or Madam:

Enclosed please find the original CRMC Assent Extension Request Form signed on behalf of the owner of the property located on West of Burma Road/Weaver Cove, along with the \$250.00 filing fee and one copy of the last CRMC approval. We also included letters from the tax assessors stating ownership of the property (which remains the same owner as in the previous extension).

Should you have any questions or require anything further, please let me know.

Very truly yours,

Allison R. Lane

Enclosure

cc: Melville Associates, LP c/o G. Picone (via email, with enclosures)



CRMC Application Review Sheet

File Number: 1990-08-029 Extension Request #2
Owner Name: Melville Associates LP
Site Address: Burma Road/Weaver Cove, Portsmouth
Plat: 43|50 Lot: 4,5,6,7

Administrative Review

Reviewer: WJM Completed on _____ <input type="checkbox"/> Application Complete <input type="checkbox"/> Application Deficient <input type="checkbox"/> FONSI	Missing _____ Application _____ Fee _____ ISDS _____ Proof of Ownership _____ Building Permit _____ Site Plans Notes _____ _____
(X) EXTENSION (Enforcement review) BAH LKM 9/14/18 09-12-2018 OK	

Team Review for Acceptance

Application Deficient

Deficiency Letter Required
 Notified Via Phone Call – waiting for _____

<input type="checkbox"/> Application Accepted	Assigned To:	Date Completed
date _____	_____ Engineer	_____
	_____ Biologist	_____
	_____ Geologist	_____
	_____ Aqua	_____
	_____ Dredge	_____
	_____ Other	_____

Category:

Project Type: _____
Water Type: _____
Water Area: _____

PGP Category: 1 2 IP Public Access 355 Public Access Easement

Short Project Description: MOD to substitute breakwater system for wave fence

REV 11/09/04



Coastal Resources Management Council

Application Snapshot

File No: 1990-08-029

File No: 1990-08-029 Melville Associates LP

Category: B

Acceptance: 08/17/1990

Expiration: 12/13/2018

Address: Burma Road/Weaver Cove

Town: Portsmouth

Zip:

Pole #:

Plats: 43|50

Lots: 4,5,6,7

Owner: Melville Associates LP

Owner Address: 2701 Renaissance Blvd 4th Floor, King Of Prussia, PA 19406

Owner Phones: (401)682-2450

Project Type: 18

Project Desc.: MOD to substitute breakwater system for wave fence

Dock:

Site Location:

Note: 8/27/14 corr to applicant re ACOE notice

84-2-15,85-1-10,95-2-35, 94-10-31, 94-1-55,
01-11-70,90-7-79,87-8-11, 89-1-3, 89-3-13,89-9-32,89-5-27, 94-8-62,
94-4-46,92-8-13,94-9-176,90-6-41: 5yr ext app3/25/03:Weaver Cove
Purchase & Sales Agreement begin 1st const. marina phase :WQ
mod. 10/16/03 dredge to begin 10/15/03- require shellfish transplant
be coordinated with F& W approval for 3 sunken vessels within
proposed marina dredge area-file in lge box

Event Number and Name

Completed

<u>Event Number and Name</u>	<u>Completed</u>	
405 Process Extension	/ /	LAT
185 Semi-Monthly Meeting Date Scheduled	12/11/2018	<i>reschedule from 10-09-2018 per JMW/GJF</i>
185 Semi-Monthly Meeting Date Scheduled	10/09/2018	<i>Continued to December 11, 2018</i>
212 Mail Agenda Notice	10/01/2018	
162 Management Review	10/01/2018	JMW <i>Reschedule for December 11, 2018.</i>
527 Continuance Requested	10/01/2018	GJF <i>Allison Lane of Darrow Everett LLP - 1 Turks Head Place, Suite 1200, Providence, RI 02903</i>
212 Mail Agenda Notice	09/24/2018	
216 Ready to Schedule Semi-Monthly Meeting	09/24/2018	JMW <i>Final Extension</i>
231 Enforcement Compliance Inspection	09/19/2018	BAH <i>Compliant 5th request to Council</i>
16 Extension of Permit Request	09/12/2018	
71 Extension Approved	11/07/2017	#2
405 Process Extension	11/07/2017	LAT
231 Enforcement Compliance Inspection	11/07/2017	LKM
16 Extension of Permit Request	09/28/2017	
545 Extension Toll letter mailed	04/05/2016	<i>Request as per KWA from Harbor Engineering....</i>

545	Extension Toll letter mailed	01/13/2014		<i>Tolling Letter says expires 11/27/15 but database says 11/27/17? –TS</i>
291	Phone Call	02/24/2010		<i>courtesy call to owner for copy of recording</i>
58	Land Evidence Date	11/16/2009	RHM	<i>mod recorded</i>
457	Modification Correction mailed	11/09/2009		<i>misspelled name.</i>
53	Modification Approved	10/22/2009		
330	Dredge Report	10/22/2009	DRG	<i>need to comply before extension can be granted – as per drg/lam 11-17-2008</i>
328	DEM Dredge Permit	10/22/2009	DRG	<i>entire file scanned on cd as of 3/12/2009 per RHM</i>
386	Plans Received	03/11/2009		<i>also cd & was scanned</i>
386	Plans Received	03/11/2009		<i>hand delivered; Rick St. Jean. Drawing sheets 1 & 5 – rev. No. 1.</i>
71	Extension Approved	03/09/2009		<i>CD as well.</i>
374	Correspondence Received	02/11/2009		<i>Adler Pollock & Sheehan states addl plans re mod.have been filed</i>
374	Correspondence Received	11/21/2008		<i>response to 11/3/08 letter re incomplete info.re modif.</i>
433	HPHC Historical Preservation No Effect	10/14/2008		
16	Extension of Permit Request	10/09/2008		
154	Team Review for Completeness	09/11/2008	DRG	
157	Administrative Review for Completeness	09/02/2008	WJM	<i>modify timber wave attenuator with steel pipe pile supports</i>
15	Modification Request	08/29/2008		
355	Letter of Authorization	08/01/2008		
273	Correspondence Mailed/Faxed/E-mailed	05/22/2008		<i>follow up to 5/3/07 meeting with CRMC staff</i>
273	Correspondence Mailed/Faxed/E-mailed	05/22/2007		<i>letter re follow up meeting 5/3/07</i>
48	Water Quality Certification Denied	10/27/2006		
374	Correspondence Received	01/18/2006		<i>Natural Resources report</i>
46	Water Quality Certification	01/11/2006		<i>per request of 10/13/2005 dredge window ext to 1/31/06 under original WQ cert</i>
273	Correspondence Mailed/Faxed/E-mailed	12/27/2005		<i>letter of appropriate guidance for planning project</i>
56	Modification Canceled	06/06/2005		<i>work completed under prev.permit</i>
374	Correspondence Received	06/30/2004		
15	Modification Request	09/26/2003		<i>Missing Mod Receipt Date</i>
71	Extension Approved	07/23/2003		<i>went out as corrected Assent</i>
374	Correspondence Received	07/23/2003		<i>re wave attenuator design stips F & G</i>
369	Assent Correction Mailed	07/23/2003		
75	Objections/Comments Received	07/14/2003		
86	Sub-Committee Report To Full Council	04/29/2003		
71	Extension Approved	03/28/2003		
58	Land Evidence Date	11/13/1995		
350	Permit Expiration Date	10/20/1995		
70	Permit Issued	10/04/1995		
374	Correspondence Received	04/28/1994		<i>move marina perimeter line in front of leased property of Textile Chemical</i>
318	Council Approval Granted	04/29/1993		
138	Meeting Held	03/18/1993		
138	Meeting Held	02/26/1993		
318	Council Approval Granted	12/17/1992		
138	Meeting Held	12/17/1992		
283	Legal Response/Decision	12/17/1992		
280	Stipulation Package from Biologist	12/17/1992	DSR	

138	Meeting Held	12/04/1992	
138	Meeting Held	11/19/1992	
31	Engineering Report	11/19/1992	KWA
32	Biologist Report	11/19/1992	DSR
138	Meeting Held	10/29/1992	
75	Objections/Comments Received	10/19/1990	
73	30 day Public Notice Issued	09/19/1990	
39	Historical Preservation Approval Granted	09/19/1990	
77	Application Accepted	08/17/1990	

Total Events for 1990-08-029: 68

Town of Portsmouth

2200 East Main Road
Portsmouth, RI 02871-1268
www.portsmouthri.com/www.visionappraisal.com

Tax Assessor
Tel. 401-683-1536
Fax 401-683-0095

Tax Collector
Tel. 401-683-1214
Fax 401-683-0095

August 31, 2018

Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Rd. Suite 3
Wakefield, R.I. 02879

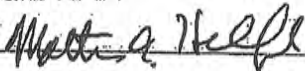
Dear Sirs:

According to our Assessors records, the indicated owners or owner of property located in the Town of Portsmouth, Rhode Island and further identified as Assessor's Map 43 Lot 4 are/is as follows:

Address of Parcel: **0 LITTLE HARBOR WAY, PORTSMOUTH, RI 02871**

Owner: MELVILLE ASSOCIATES LP
201 KING OF PRUSSIA RD STE 501
RADNOR, PA. 19087-5148

Respectfully,



Matthew A. Helfand
Tax Assessor/Collector



Town of Portsmouth

2200 East Main Road
Portsmouth, RI 02871-1268
www.portsmouthri.com/www.visionappraisal.com

Tax Assessor

Tel. 401-683-1536
Fax 401-683-0095

Tax Collector

Tel. 401-683-1214
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August 31, 2018

Coastal Resources Management Council

Oliver H. Stedman Government Center
4808 Tower Hill Rd. Suite 3
Wakefield, R.I. 02879

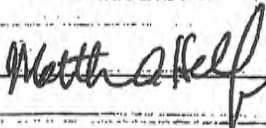
Dear Sirs:

According to our Assessors records, the indicated owners or owner of property located in the Town of Portsmouth, Rhode Island and further identified as Assessor's Map 43 Lot 7 are/is as follows:

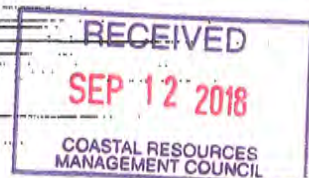
Address of Parcel: 0 BURMA RD, PORTSMOUTH, RI 02871

Owner: MELVILLE ASSOCIATES LP
201 KING OF PRUSSIA RD STE 501
RADNOR, PA. 19087-5148

Respectfully,



Matthew A. Helfand
Tax Assessor/Collector



Town of Portsmouth

2200 East Main Road
Portsmouth, RI 02871-1268
www.portsmouthri.com/www.visionappraisal.com

Tax Assessor

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August 31, 2018

Coastal Resources Management Council

Oliver H. Stedman Government Center

4808 Tower Hill Rd. Suite 3

Wakefield, R.I. 02879

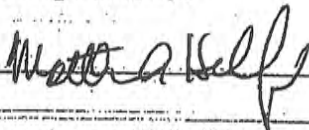
Dear Sirs:

According to our Assessors records, the indicated owners or owner of property located in the Town of Portsmouth, Rhode Island and further identified as Assessor's Map 50 Lot 6 are/is as follows:

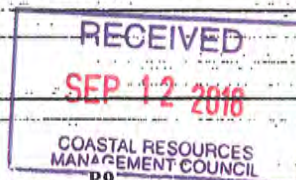
Address of Parcel: 0 BURMA RD, PORTSMOUTH, RI 02871 (MELVILLE)

Owner: MELVILLE ASSOCIATES LP
201 KING OF PRUSSIA RD STE 501
RADNOR, PA. 19087-5148

Respectfully,



Matthew A. Helfand
Tax Assessor/Collector



Town of Portsmouth

2200 East Main Road
Portsmouth, RI 02871-1268
www.portsmouthri.com/www.visionappraisal.com

Tax Assessor

Tel. 401-683-1536
Fax 401-683-0095

Tax Collector

Tel. 401-683-1214
Fax 401-683-0095

August 31, 2018

Coastal Resources Management Council

Oliver H. Stedman Government Center
4808 Tower Hill Rd. Suite 3
Wakefield, R.I. 02879

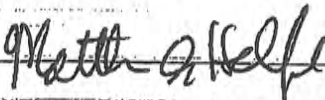
Dear Sirs:

According to our Assessors records, the indicated owners or owner of property located in the Town of Portsmouth, Rhode Island and further identified as Assessor's Map 50 Lot 7 are/is as follows:

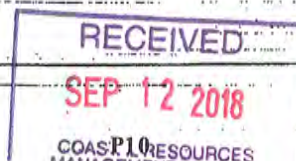
Address of Parcel: 0 BURMA RD, PORTSMOUTH, RI 02871 (WEST OF RR TRACKS)

**Owner: MELVILLE ASSOCIATES LP
201 KING OF PRUSSIA RD STE 501
RADNOR, PA. 19087-5148**

Respectfully,



**Matthew A. Helfand
Tax Assessor/Collector**





State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

MEETING NOTICE

September 24, 2018

Site Address: Burma Road/Weaver Cove; 43|50; 4,5,6,7
Site Town: Portsmouth
Proj. Desc: Extension of CRMC Assent B1990-08-029

The request for Extension of the State Assent of Melville Associates LP, CRMC File Number B1990-08-029, will be reviewed at the next meeting of the Coastal Resources Management Council. If you are the applicant, it is necessary that you be present at the meeting to answer any questions that may arise. Interested parties may attend and present evidence for or against, or for informational purposes in accordance with CRMC rules. Parties interested in this matter are encouraged to review the latest information contained in this file and also should refer to Management Procedures 5.3(8) among others for additional information.

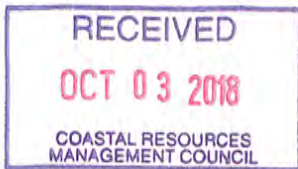
The meeting is to be held at **6:00 p.m.** (*please be advised that the CRMC Educational series begins at 6:00 p.m.*) on **Tuesday, October 9, 2018** in **Conference Room A, at the Administrative Building, One Capitol Hill, Providence, RI**. Evidence or testimony regarding this case may be submitted at the time of the meeting (see CRMC Management Procedures). The CRMC office policy for public review of files scheduled for review by the full Council states that they are available to the public until 12:00 p.m. on the day of the meeting. **Please confirm application's hearing status via CRMC website (www.crmc.ri.gov) or by calling 401-783-3370.**

Parties interested in/or concerned with the above mentioned matter are invited to be present and/or represented by counsel at the above mentioned time and place. This meeting place is accessible to individuals with disabilities. The meeting location is accessible to handicapped persons. Any individual requiring a reasonable accommodation in order to participate in this meeting should contact CRMC offices at least 72 hours prior to the meeting.

Sincerely yours,

Lisa A. Turner, Office Manager
Coastal Resources Management Council

/lat



PROVIDENCE OFFICE
1 Turks Head Place – Suite 1200
Providence, RI 02903
Tel: 401.453.1200
Fax: 401.453.1201

ALLISON R. LANE, ESQUIRE
ALANE@DARROWEVERETT.COM

October 1, 2018

BY EMAIL TO jwillis@crmc.ri.gov AND MAIL

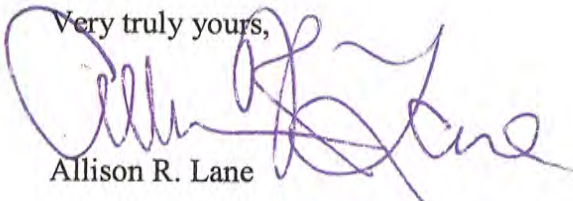
Attn: Jeffrey M. Willis, Deputy Director
Coastal Resources Management Council
Oliver Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879

RE: CRMC Assent Extension Request Form for Assent #B1900-08-029
Site Address: Burma Road/Weaver Cove; 43/50, 4, 5, 6, 7 Portsmouth, RI

Dear Mr. Willis:

Pursuant to Section 1.5.7 of the Management Procedures for the Coastal Resources Management Council, I am writing on behalf of the Property Owner to request that the hearing on the above matter be continued until after November 15, 2018. The Property Owner is in the process of selling the property described above and in light of that change, additional time will allow the Buyer and the Seller to better ascertain the future of this project.

Should you have any questions or require anything further, please do not hesitate to contact me. We look forward to receiving a notice of the hearing in November.

Very truly yours,

Allison R. Lane

cc: Melville Associates, LP c/o G. Picone (via email)

Jeff Willis

From: Lisa Turner <lturner@crmc.ri.gov>
Sent: Wednesday, September 12, 2018 11:39 AM
To: Laura Miguel; 'Brian Harrington'; 'Danni Goulet'
Cc: 'Jeff Willis'
Subject: Melville Associates Extension Request
Attachments: 1990-08-029 Melville Assoc Extension Request.pdf

All:

This file is almost 30 year old file is in for an extension due to the issuance of a modification after 2009 when tolling went into place.

Not even sure what project they are requesting extension on. The Extension application states that no work has been done.

Lisa A. Turner

Office Manager

Coastal Resources Management Council

O S Government Center

4808 Tower Hill Road, Rm 116

Wakefield, RI 02879

(401)783-3370



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State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

November 7, 2017

Melville Associates LP
2701 Renaissance Blvd; 4th Floor
King Of Prussia, PA 19406

RE: Extension of CRMC Assent No. 1990-08-029
Site Location: Burma Road/Weaver Cove, Portsmouth
Plat(s): 43|50 Lot(s): 4,5,6,7

Dear Sir/Madam:

Coastal Resources Management Council Assent File Number B1990-08-029 is granted a one year extension from December 13, 2017 and will expire on December 13, 2018.

All future Assent Extensions will be subject to the provisions of Rhode Island Coastal Resources Management Council Management Procedures Section 5.12.

Sincerely,


Jeffrey M. Willis, Deputy Director
Coastal Resources Management Council

/lat





State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

April 5, 2016

Mellville Associates, LP
Attn: Edward Lopes, PE
300 Willow Lane
Portsmouth, RI 02871

RE: CRMC File No. 1990-08-029
Site Location: Burma Road/Weaver Cove, Portsmouth
Plat(s): 43|50 Lot(s): 4,5,6,7

Dear Mr. Lopes:

In accordance with revisions to R.I.G.L. 46-23-6.3 - Tolling of expiration periods, signed into law November 9, 2009, and as amended effective June 19, 2015, all work being permitted under this Assent must now be completed on or before December 13, 2017 after which date this assent is null and void, (unless written application requesting an extension is received by CRMC sixty (60) days prior to expiration date).

All aspects, conditions and stipulations of CRMC Assent #B1990-08-029 remain in full force and effect.

If you have any questions regarding this letter, please contact the CRMC at 401-783-3370.

Thank you.

Sincerely,

Jeffrey M. Willis, Deputy Director
Coastal Resources Management Council

/lat

cc: Harbor Engineering





State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
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(401) 783-3370
Fax (401) 783-3767

January 13, 2014

Mellville Associates, LP
c/o Nicholas Morel
300 Willow Lane
Portsmouth, RI 02871

RE: CRMC File No. 1990-08-029

Site Location: Burma Road/Weaver Cove, Portsmouth
Plat(s): 43|50 Lot(s): 4,5,6,7

Dear Mr. Morel:

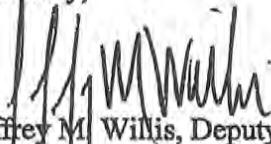
In accordance with revisions to R.I.G.L. 46-23-6.3 - Tolling of expiration periods, signed into law November 9, 2009, and as amended effective June 26, 2013, all work being permitted under this Assent must now be completed on or before November 27, 2015 after which date this assent is null and void, (unless written application requesting an extension is received by CRMC sixty (60) days prior to expiration date).

All aspects, conditions and stipulations of CRMC Assent #B1990-08-029 remain in full force and effect.

If you have any questions regarding this letter, please contact the CRMC at 401-783-3370.

Thank you.

Sincerely,


Jeffrey M. Willis, Deputy Director
Coastal Resources Management Council

/lat



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL

Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, R.I. 02879-1900

(401) 783-3370
FAX: (401) 783-3767

ASSENT MODIFICATION

October 22, 2009

Melville Associates, LP
Attn: Edward Lopes PE
300 Willow Lane
Portsmouth, RI 02871

RE: Modification of CRMC Assent B1990-08-029 -- Wave Fence
Site Address: Burma Road/Weaver Cove Plat: 43|50 Lot: 4,5,6,7
Site Town: Portsmouth

Dear Mr. Lopes:

The Rhode Island Coastal Resources Management Council has reviewed your request for modification of assent no. B1990-08-029 and approves the limited modification with the following alterations to stipulations:

Stipulations of Approval:

1. The applicant shall record this assent in its entirety in the land evidence records of the City/Town of Portsmouth within thirty (30) days of the date of assent issuance. Certification by the Town Clerk's office that this stipulation has been complied with shall be furnished to Coastal Resources Management Council by the applicant within fifteen (15) days thereafter. Failure to comply with provision will render this assent null and void.
2. The approved site plans shall be those titled "Weaver Cove Marina Complex, Portsmouth, Rhode Island prepared for owner: Melville Associates, LLP Proposed Wave Fence Layout Plan, Wave Fence Schematic, Wave Fence Details, miscellaneous details dated February 10, 2009 with a revision date of 3/7/2009 on Sheet 1. There are 5 sheets total. All work prepared and stamped by St. Jean Engineering, LLC Richard St. Jean, PE #4997. Except as stipulated or modified herein, all details and specifications thereon shall be strictly adhered to. Any and all changes require written approval from this office.

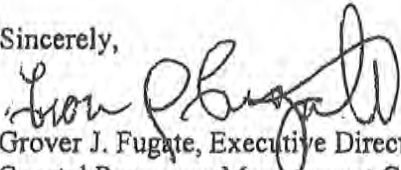
Melville Associates LP
CRMC Assent Modification B1990-08-029
October 22, 2009
Page Two

3. This modification only allows the substitute of the original timber wave fence with the steel and timber fence detailed on the approved plan. All other stipulations of the original Assent remain in effect.

Unless modified by this document all work authorized by this CRMC Assent Modification Approval must be completed within the approval period established in the CRMC Assent Extension dated March 9, 2009. The date all work must be completed by is April 13, 2010 (as noted by page 1, paragraph 2 of the original assent). In cases where the approved work will not be completed within this time frame, an Assent Extension Request Form must be submitted 60 days prior to the expiration of the established time frame for work completion. **In addition, all stipulations of the original CRMC assent remain in full force and effect except as modified by the stipulations contained herein and/or by the plans approved by this assent modification approval.**

All future Assent Extensions will be subject to the provisions of Rhode Island Coastal Resources Management Council Management Procedures Section 5.12.

Sincerely,



Grover J. Fugate, Executive Director
Coastal Resources Management Council

/lam



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL

Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, R.I. 02879-1900

(401) 783-3370
FAX: (401) 783-3767

March 9, 2009

Mr. Edward Lopes, PE
O'Neill Properties
300 Willow Lane
Portsmouth, RI 02871

RE: Extension of CRMC Assent No. 1990-08-029
Site Location: Burma Road/Weaver Cove, Portsmouth
Plat(s): 43|50 Lot(s): 4,5,6,7

Dear Sir/Madam:

Coastal Resources Management Council Assent File No. B1990-08-029, is granted a one year extension from April 13, 2009 and will expire on April 13, 2010.

All future Assent Extensions will be subject to the new provisions of Rhode Island Coastal Resources Management Council Management Procedures Section 5.12.

Sincerely,


Grover J. Fugate, Executive Director
Coastal Resources Management Council

GJF/lam



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, R.I. 02879-1900

(401) 783-3370
FAX: (401) 783-3767

March 28, 2003

Melville Marine Industries
One Little Harbor Landing
Portsmouth, RI 02871

RE: CRMC Request for Extension of Assent Number B90-08-029

Dear Sirs:

Coastal Resources Management Council Assent No. B90-08-029, is granted a five year extension from April 13, 2004 and will expire April 13, 2009. All future Assent Extensions will be subject to the new provisions of RICRMC Management Procedures Section 5.12.

Sincerely,

Grover J. Fugate, Executive Director
Coastal Resources Management Council

GJF/lam/rhm

*Received
4/2/03*



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL
Oliver H. Stedman Government Center
4808 Tower Hill Road
Wakefield, R.I. 02879-1900
(401) 277-2476

March 27, 1998

Mellville Marine Industries
One Little Harbor Landing
Portsmouth, RI 02871

RE: CRMC Request for Extension of Assent B90-8-29

Dear Sir/Madam:

Coastal Resources Management Council Assent No. B90-8-29, is granted a one year extension from April 13, 2003 and will expire April 13, 2004.

Sincerely yours,

Grover J. Fugate, Executive Director
Coastal Resources Management Council

GJF/jmm



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL

Oliver H. Stedman Government Center

4808 Tower Hill Road

Wakefield, R.I. 02879-1900

(401) 277-2476

CORRECTED

ASSENT

File Number: 90-8-29 Assent Number: B90-8-29

Meeting Date: April 13, 1993

Whereas, **MELVILLE MARINE INDUSTRIES**
P.O. BOX 42, ONE LITTLE HARBOR LANDING
of **PORTSMOUTH, RI 02871**

has applied to the Coastal Resources Management Council for assent to: construct and maintain a 1,495 slip commercial complex, including various marina buildings and facilities, parking, offshore, timber breakwater, dredging, structural shoreline protection, and public access, in accordance with approved plans and specifications, and hereby represents that THEY are the owners of the riparian rights attached to the property involved and submitted plans of the work to be done.

Now, said Council, having fully considered said application in accordance with all the regulations as set forth in the Administrative Procedures Act does hereby authorize said applicant, subject to the provisions of Title 46, Chapter 23 of the General Laws of Rhode Island, 1956, as amended, and all laws which are or may be in force applicable thereto: **construct and maintain a 1,495 slip commercial complex, including various marina buildings and facilities, parking, offshore, timber breakwater, dredging, structural shoreline protection, and public access, in accordance with approved plans and specifications, located at West of Burma Road, Portsmouth, Plat 43/50, Lot 4,5,/6,7, in accordance with said plans submitted to this Council and approved by this Council. All work being permitted must be completed in accordance with the time frames established in Stipulation "N", after which date this assent is null and void, (unless written application requesting an extension is received by CRMC sixty (60) days prior to expiration date).**

Applicant agrees that as a condition to the granting of this assent, members of the Coastal Resources Management Council or its staff shall have access to applicant's property to make on-site inspections to insure compliance with the assent.

Licensee shall be fully and completely liable to State, and shall waive any claims against State for contribution or otherwise, and shall indemnify, defend, and save harmless State and its agencies, employees, officers, directors, and agents with respect to any and all liability,

damages (including damages to land, aquatic life, and other natural resources), expenses, causes of action, suits, claims, costs (including testing, auditing, surveying, and investigating costs), fees (including attorneys' fees and costs), penalties (civil and criminal), and response, cleanup, or remediation costs assessed against or imposed upon Licensee, State, or the Property, as a result of Licensee's control of the Property, or Licensee's use, disposal, transportation, generation and/or sale of Hazardous Substances or that of Licensee's employees, agents, assigns, sublicensees, contractors, subcontractors, permittees, or invitees.

Nothing in this assent shall be construed to impair the legal rights of this granting authority or of any person. By this assent the granting authority by no manner, shape, or form assumes any liability or responsibility implied, or in fact, for the stability or permanence of said project; nor by this assent is there any liability implied or in fact assumed or imposed on the granting authority. Further, the granting authority by its representatives or duly authorized agents shall have the right to inspect said project at all times including, but not limited to, the construction, completion, and all times thereafter.

This Assent is granted with the specific proviso that the construction authorized therein will be maintained in good condition by the owner thereof, his heirs, successors, or assigns for a period of fifty (50) years from the date thereof, after which time this permission shall terminate necessitating either complete removal or a new application.

Permits issued by the CRMC are issued for a finite period of time, confer no property rights, and are valid only with the conditions and stipulations under which they are granted. Permits imply no guarantee of renewal, and may be subject to denial, revocation, or modification.

A copy of the legal decision may be acquired by contacting the CRMC office in writing.

A copy of this Assent shall be kept on site during construction.

Application for future alteration of the shoreline or other construction or alteration within the CRMC jurisdiction shall be submitted to the CRMC for review prior to commencing such activity.

All applicable policies, prohibitions, and standards of the RICRMP shall be upheld.

All local, state or federal ordinances and regulations must be complied with.

Please be advised that as a further conditions of this Assent, it is hereby stipulated that you and/or your agents shall comply at all times with Federal and State Water Quality Standards and other State standards and regulations regarding water quality, and shall exercise such supervision over and control of these facilities to prevent the dumping or discarding or refuse, sanitary wastes and other pollutants in the tidal waters, either from vessels docked at said facilities or from land adjacent thereto.

Melville Marine Industries
CRMC Assent B90-8-29
October 3, 1995
Page 3

No work that involves alteration to wetlands or waters of the United States, shall be done under this Assent until the required Federal Permit has been obtained.

Non-compliance with this assent shall result in legal action and/or revocation of this permit.

In Witness Whereof, said Coastal Resources Management Council have hereto set their hands and seal this third day of October in the year nineteen hundred ninety-five.



Grover J. Fugate, Executive Director
Coastal Resources Management Council

CAUTION:

The limits of authorized work shall be only for that which was approved by the CRMC. Any activities or alterations in which deviate from the approved plans will require a separate application and review. If the information provided to the CRMC for this review is inaccurate or did not reveal all necessary information or data, then this permit may be found to be null and void. Plans for any future alteration of the shoreline or construction or alteration within the 200' zone of CRMC jurisdiction or in coastal waters must be submitted for review to the CRMC prior to commencing such activity.

ATTENTION: ALL STRUCTURES AND FILLED AREAS IN THE TIDAL, COASTAL, OR NAVIGABLE WATERS OF THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS ARE SUBJECT TO:

1. The Superior Property Rights of the State of Rhode Island and Providence Plantations in the Submerged and Submersible Lands of the Coastal, Tidal, and Navigable Waters;
2. The Superior Navigation Servitude of the United States;
3. The Police Powers of the State of Rhode Island and the United States to regulate Structures in the Tidal, Coastal, or Navigable Waters.

THE SUBMERGED AND SUBMERSIBLE LANDS OF THE TIDAL, COASTAL, AND NAVIGABLE WATERS OF THE STATE ARE OWNED BY THE STATE AND HELD IN TRUST FOR THE PUBLIC. CONVEYANCE OF THESE LANDS IS ILLEGAL; TITLES PURPORTING TO TRANSFER SUCH LANDS ARE VOID. ASSENTS THAT INVOLVE THE FILLING OR USE OF THE STATES SUBMERGED LANDS ARE GRANTED WITH THE PROVISIO THAT IT IS SUBJECT TO THE IMPOSITION OF A USAGE FEE TO BE ESTABLISHED BY THE COASTAL RESOURCES MANAGEMENT COUNCIL.

SPECIFIC STIPULATIONS OF APPROVAL:

A. Approval of the project, CRMC file No. 90-8-29, is subject to conditions and stipulations as set forth in the CRMC Decision dated (signed) 4/29/93. Stipulations nos. 1,2,3,4,7,8,10,11,20,24,25,26,31,32,33, and 36 have been satisfied by the submittal and approval of the following plans and specifications, or other information. For purposes of this Assent, the approved plans shall be those entitled "Melville Marina, Portsmouth, Rhode Island, FINAL Marina Permit Drawings for Coastal Resources Management Council", dated September 1995, prepared by Dean Coker and Neil Gray. The remaining stipulations and conditions of CRMC Decision dated 4/29/93 (namely stipulations nos. 5,6,9,12,13,14,15,16,17,18,19,21,22,23,27,28,29,30,34,35, and 37 to 51), reprinted/renumbered herein, shall be strictly adhered to. Any/all modifications to these approved plans shall require written authorization from CRMC prior to construction.

B. With regard to rip-rap revetment construction and cobble beach preservation and/or restoration, the applicant shall remove all demolition debris (rubble) from the shoreline fronting the revetment and either bury it on site or dispose of it at a suitable upland landfill.

C. Upon completion of each section (phase) of rip-rap revetment, cobble beach restoration shall be undertaken immediately. This shall be immediately followed by the planting of saltmarsh cordgrass and shall be coordinated with a Council Staff Biologist.

D. The allowed dredge window for the Project shall be November 1 through December 31 of each year. Extension of this dredge window shall not be allowed without the prior written approval of RIDEM Division of Fish and Wildlife and Division of Water Resources.

E. The wave fence breakwater shall be inspected by a Registered Professional Engineer, on a bi-annual basis, as well as during the prescribed post-storm schedule. A written report documenting the structural integrity of the breakwater shall be submitted to the Council after the completion of each inspection.

F. The applicant shall at its sole expense maintain or cause to be maintained the wave fence breakwater and all other shoreline protection facilities of the Project in accordance with the approved Maintenance Plan. The applicant shall be required to execute and deliver with the Town of Portsmouth a Maintenance Assurance Fund agreement which shall provide, among other things, that (i) the applicant will make periodic contributions to the Maintenance Assurance Fund, (ii) in the event that the applicant fails to fulfil its maintenance obligations under said agreement, the Town shall have the right of access to said fund for the payment of required maintenance and (iii) in the event that following the conclusion of any enforcement action by the Council against the applicant for failure to maintain the breakwater and/or shoreline protection facilities in accordance with the Maintenance Plan, and in the event Town has not already exercised its right of access to said fund, the Council shall have the right of access to said fund for the payment of required maintenance. Nothing in such agreement shall create any obligation on the part of the Council to undertake any such maintenance. Such agreement shall be subject to the reasonable approval of legal counsel to the Council, shall be binding upon the applicant,

its successors and assigns and shall be recorded in the Records of Land Evidence in the Town.

G. The applicant shall also execute and deliver with the Council, an agreement under which the applicant shall at its sole expense fund over a period of 50 years (concomitant with the duration of the Assent) and escrow account in an amount sufficient to pay the net costs (at the end of said 50 year period) for the removal of the wave fence breakwater in the event that such removal is required by law. Such agreement shall, among other things, provide that in the event that the applicant fails to remove said breakwater if and when required by law, the Council shall have the right of access to said account for payment for such removal. Nothing in such agreement shall create any obligation on the part of the Council to undertake any such removal. Such agreement shall be subject to the reasonable approval of legal counsel to the Council, shall be binding upon the applicant, its successors and assigns and shall be recorded in the Records of Land Evidence of the Town. (Reference "Maintenance Fund Assurance Agreement" dated 10/25/94, and Amendment dated 8/23/95).

H. All marina float piles and floating breakwater piles shall have final pile heights (top of pile height) of +17 feet NGVD, coincident with FEMA velocity zone base flood elevation (regardless of flood elevation (regardless of flood map revision)).

I. The construction and dredging for the Project shall be conducted consistent with the phasing drawings shown on Exhibits 92-12-17-3 through -6. At the end of each year of construction the applicant shall submit to the Council Staff a written status report of the prior year's construction activities. Further, the applicant shall submit for Council Staff review, information which updates the status of the Project between each of the dredging sequences set forth in Exhibits 92-12-17-3 through -6. Such submission shall be made at least (60) days prior to the commencement of the next dredging phase, and Council Staff shall conduct its review within thirty (30) days after each submission. Such information shall be provided in brief report form that shall include (i) a statement that at least sixty-five percent (65%) of the completed slips have been sold or rented, (ii) the estimated volume to be dredged in the next phase, (iii) the estimated scheduling of the dredging activities, and (iv) a set of plans that show the area to be dredged and the slips to be constructed (consistent with the originally approved plan submission).

J. The applicant shall ensure that at any one time at least 25 percent of the boat slips constructed shall be made available for rental on an annual basis or shorter period of time. It shall be the policy of the applicant to accommodate transient vessels whenever possible.

K. The applicant shall allow public access to the Project as shown on Exhibit 13 dated 11/3/92. There shall be restricted access to the floating docks and slips and to the approximately 150 foot long area at the north end of the Project adjacent to Dock Tree #1, and access to such restricted areas shall not be unreasonably denied. In addition, the applicant shall allow public access to the floating breakwater when it is placed in its final location connected to the shoreline.

L. The applicant shall obtain any required permits from the U.S. Army Corps of Engineers prior to the commencement of construction of the Project.

M. As proposed by the application, the following rules and regulations for public access or restricted access at the Project will be displayed on signs posted throughout the Project and any changes to these rules and regulations shall be subject to the approval of the Executive Director of CRMC:

1. Floating Dock/Slips and other Restricted Access Areas:

Access beyond this point is for boat owners and their guest only. All others, including contractors, please check in at the dock office.

PLEASE NO:

- Fishing, swimming or diving.
- Children under 12 unless accompanied by an adult; life jackets are recommended.
- Loud music or disorderly behavior.
- Alcoholic beverages.
- Running, bicycles, skateboards, rollerskates/blades.
- Littering; please use trash containers.
- Pets without leashes.

2. Floating Breakwater:

Public access allowed in fair weather between sunrise and sunset. This area is for passive observation only. Use of floating breakwater is at your own risk. Mellville Marina is not liable for ANY accident or injury resulting from the use of this facility. For the safety and enjoyment of everyone, please follow the rules listed below:

PLEASE NO:

- Fishing, swimming or diving.
- Children under 12 unless accompanied by an adult; life jackets are recommended.
- Loud music or disorderly behavior.
- Alcoholic beverages.
- Running, bicycles, skateboards, rollerskates/blades.
- Littering; please use trash containers.
- Pets without leashes.

(on separate sign):

No docking of vessels for any reasons. For landings of 30 minutes or less, use floats at boat launch or call dockmaster on Channel 9.

3. Shoreline Walkway:

Welcome to Mellville Marina. The shoreline walkway is for private recreation only; please be courteous to other users. The walkway is open from sunrise to sunset during fair weather. Pets must be kept on leash or carried by hand. Please use dog run. For the safety and enjoyment of everyone, please follow the rules listed below:

PLEASE NO:

- Running, bicycles, skateboards, rollerskates/blades.
- Loud music or disorderly behavior.
- Fishing, swimming or diving.
- Alcoholic beverages.
- Littering; please use trash containers.

N. The CRMC approved construction period of the "original" construction plan shall be for eight (8) years commencing upon the date of receipt by the applicant of the required Army Corps of Engineers (ACOE) permits or one (1) year after the date of issuance of the Assent, whichever first occurs. The CRMC approved construction period for the contingency plan shall be for ten (10) years commencing upon the date of receipt by the applicant of the required ACOE permits or one (1) year after the date of issuance of the Assent, whichever first occurs.

O. As proposed by the application, the applicant shall, during the recreational off-season for November through March, provide reduced rate (i.e., one-half the usual rate) dockage for any shellfisherman holding a valid Rhode Island Shellfisherman's License and regularly working Narragansett Bay. The applicant shall, during the recreational season from April through October, provide reduced rate (i.e. one-half the usual rate) dockage by way of a Q-line or doubling up in ordinary slips for any such shellfisherman.

P. The applicant shall operate and maintain one fixed sewage pump-out unit at each of the two fueling docks of the Project and one mobile sewage pump-out unit on each Dock Tree #1, #3, and #4. For transient users, a single pump-out coupon will be issued and the fee therefore will be included in the overnight docking rate. For regular slip users, a book of six (6) coupons will be provided and the fees therefore will be provided as part of the annual rental agreement or dockominium maintenance agreement. For year round users (i.e., live aboards), a book of twelve (12) coupons will be provided and the fees therefore will be included as part of the annual rental agreement or dockominium maintenance agreement.

Q. The applicant shall pursue a shellfish transplant project with RIDEM prior to dredging commencement. All correspondence regarding the transplant project shall be submitted to CRMC staff for review.

R. The proposed "hazard mitigation facility" or equivalent, shall be constructed on-site within one (1) year of the assent date (see stipulation #11).

S. Regarding the contingency construction plan-parking garage plans (adequately fulfilling parking space requirements shall be submitted to the CRMC staff (subsequent to local building inspector approval) prior to initiation of phase 2 (year 5) dredging.

T. Any/and all requisite federal, state and local permits shall be obtained prior to initiation of construction.

U. This assent shall be recorded in the land evidence records in it's entirety in the City/Town of Portsmouth within thirty (30) days of the date of assent issuance. Certification by the Town Clerk's office that this stipulation has been complied with shall be furnished to Coastal Resources Management Council within fifteen (15) days thereafter. Failure to comply with provision will render this assent null and void.

V. For the purpose of this permit the coastal feature shall be the coastal wetland and the coastal bank and the inland edge of the coastal feature shall be the inland edge of the coastal wetland and the top of the existing coastal bank.

W. The applicant shall notify CRMC in writing at least two weeks (2) in advance of the approximate date of the start of construction. This does not alleviate the applicant's responsibility to arrange appointments for any required pre-construction meeting.

X. Prior to initiation of construction, the applicant is required to schedule a meeting between the contractor and the CRMC staff. This meeting will be held to clarify and stress the terms of the permit, and to discuss details of erosion and sedimentation controls, methods of construction, construction timing, dewaterers, etc.

Y. This project shall be connected to and serviced by the Navy/municipal sewer system.

Z. The standards and specifications set forth in the most recent RI Soil Erosion and Sediment Control Handbook (RISESCH) shall be strictly adhered to.

AA. Prior to initiation of any grading, construction, or earthwork activity, the proposed silt fence shall be placed along the downslope perimeter of the proposed area of construction. No soils nor any other materials shall be allowed to enter beyond this line, neither temporarily nor permanently.

BB. There shall be no stockpiling or disposal of soils, construction materials, debris, etc., on the coastal feature, within 25 feet of the inland edge of the coastal feature, in coastal waters, or in any areas designated as a CRMC setback or coastal buffer zone.

CC. All excess excavated materials, excess soils, excess construction materials, and debris (including all destructed materials) shall be removed from the site and disposed of at an inland landfill or a suitable and legal upland location outside of CRMC jurisdiction. No materials shall be deposited on the coastal feature, within 25 feet of the inland edge of the coastal feature, in coastal waters, or in any areas designated as a CRMC setback or coastal buffer zone.

DD. All fill materials shall be clean, free of debris and rubble, and free of materials which may cause pollution of surface waters or groundwater.

EE. All areas of exposed soil which are disturbed by construction and related activities shall be revegetated as immediately as is physically possible so as to minimize erosion and sedimentation. (if revegetation is not practicable or desired, exposed soils shall be covered with crushed stone) If the season is not conducive to immediate revegetation, all exposed soils shall be temporarily stabilized with hay mulch or similar control material (or covered with 2-3" of crushed stone). Soil stabilization methods shall be employed during, as well as after, the construction phase to the maximum extent possible.

FF. Excavation and grading shall be limited to the area approved. Excess earthwork beyond that authorized by this assent is not permitted.

GG. There shall be no discharge or disposal of hazardous wastes or hazardous materials which may be associated with construction machinery, etc. on the site or in the waterway. All used oil, lubricants, construction chemicals, etc. shall be disposed of in full compliance with applicable State and Federal regulations.

HH. To permit light penetration, the minimum spacing between pier deck planking shall be 1/2 inch.

II. Floats, ramps, and other marine appurtenances or equipment shall not be stored on a coastal wetland, shoreline embankment, nor in any area designated as a buffer zone.

JJ. No sewage, refuse, or waste of any kind may be discharged from this facility or from any vessel utilizing it.

KK. The owner is required to maintain this facility in good working condition. This facility may not be abandoned. The owner shall remove from tidal waters and coastal features any structure or portions of structures which are destroyed by any natural or man-induced manner.

LL. With regard to the Coastal Wetland Mitigation Plan, the following stipulations shall apply:

- (1) The planting of salt marsh cordgrass (Spartina alterniflora) along the shoreline seaward of the proposed riprap revetment in accordance with stipulation "C" herein is not considered to be part of the coastal wetland mitigation plan. This requirement applies to shoreline restoration and enhancement due to other proposed shoreline alterations, not to mitigation for salt marsh filling during phase 1.

- (2) A vegetative nursery shall not be constructed in the salt marsh as proposed in the February 14, 1995 Coastal Wetland Mitigation Plan by Natural Resource Services, Inc. This will result in undesirable and unnecessary disturbance of an existing area of coastal wetland.
- (3) Coastal Wetland Mitigation in accordance with the approved mitigation plan must be initiated within 6 months of any alteration to the salt marsh to be impacted by Phase 1 (part B) of the proposed project (or as growing season constraints allow as approved by CRMC staff biologist). Once initiated, the restoration project shall be followed through diligently until completion.
- (4) The CRMC staff biologist shall be notified in writing at least 2 weeks prior to disturbance of the salt marsh and again at least 2 weeks prior to initiating the approved mitigation plan.
- (5) The applicant shall coordinate all salt marsh mitigation efforts with the CRMC staff biologist. Where feasible, any recommendations of the CRMC biologist based on actual site-inspections and monitoring during construction shall be accommodated.
- (6) It shall be the applicant's responsibility to maintain the proposed riprap reinforced coastal wetland mitigation project breachway in a functional condition in accordance with the approved plans.

/lam



State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

MEETING NOTICE

November 27, 2018

Site Address: Burma Road/Weaver Cove; 43|50; 4,5,6,7
Site Town: Portsmouth
Proj. Desc: Extension of CRMC Assent B1990-08-029

The request for Extension of the State Assent of Melville Associates LP, CRMC File Number B1990-08-029, will be reviewed at the next meeting of the Coastal Resources Management Council. If you are the applicant, it is necessary that you be present at the meeting to answer any questions that may arise. Interested parties may attend and present evidence for or against, or for informational purposes in accordance with CRMC rules. Parties interested in this matter are encouraged to review the latest information contained in this file and also should refer to Management Procedures 5.3(8) among others for additional information.

The meeting is to be held at **6:00 p.m.** (*please be advised that the CRMC Educational series begins at 6:00 p.m.*) on **Tuesday, December 11, 2018** in **Conference Room A, at the Administrative Building, One Capitol Hill, Providence, RI**. Evidence or testimony regarding this case may be submitted at the time of the meeting (see CRMC Management Procedures). The CRMC office policy for public review of files scheduled for review by the full Council states that they are available to the public until 12:00 p.m. on the day of the meeting. **Please confirm application's hearing status via CRMC website (www.crmc.ri.gov) or by calling 401-783-3370.**

Parties interested in/or concerned with the above mentioned matter are invited to be present and/or represented by counsel at the above mentioned time and place. This meeting place is accessible to individuals with disabilities. The meeting location is accessible to handicapped persons. Any individual requiring a reasonable accommodation in order to participate in this meeting should contact CRMC offices at least 72 hours prior to the meeting.

Sincerely yours,

Lisa A. Turner, Office Manager
Coastal Resources Management Council

/lat

CRMC File Number B1990-08-029 (Extension #5)
Melville Marine Industries

Gary Picone
Melville Associates, LP
c/o Arsenal Real Estates Funds
158 US-206 Suite 3
Gladstone, NJ 07934

Allison R. Lane
Darrow Everett LLP
1 Turks Head Place – Suite 1200
Providence, RI 02903

CRMC (B1990-08-029 Extension)
O. S. Government Center
4808 Tower Hill Road
Wakefield, RI 02879

2019-03-030

QUONSET DEVELOPMENT CORP

CRMC DECISION WORKSHEET

Hearing Date:	
Approved as Recommended	
Approved w/additional Stipulations	
Approved but Modified	
Denied	Vote

APPLICATION INFORMATION						
File Number	Town	Project Location		Category	Special Exception	Variance
2019-03-030	North Kingstown	Piers 1&2 Quonset Business Park		B	<input type="checkbox"/>	<input type="checkbox"/>
		Plat	Lot			
		Owner Name and Address				
Date Accepted				Work at or Below MHW		<input checked="" type="checkbox"/>
Date Completed				Lease Required		<input type="checkbox"/>

PROJECT DESCRIPTION

Maintenance and Improvement dredging of approximately 679,000 cubic yards of material with disposal at the Rhode Island Sound Disposal Site.

KEY PROGRAMMATIC ISSUES

Coastal Feature:

Water Type: Type 6 , Industrial Waterfronts and Commercial Navigation Channels

CRMP: 1.2.1(F), 1.3.1(A), 1.3.1(I)

SAMP: none

Variances and/or Special Exception Details:

None

Additional Comments and/or Council Requirements:


Specific Staff Stipulations (beyond Standard stipulations):

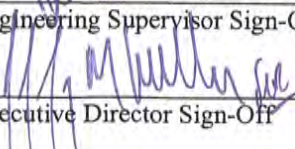
STAFF RECOMMENDATION(S)

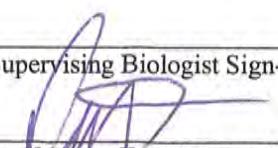
Engineer DRG Recommendation: Approve

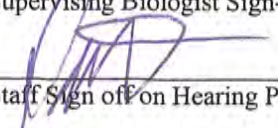
Biologist _____ Recommendation: _____

Other Staff _____ Recommendation: _____


 Engineering Supervisor Sign-Off _____ date 6 MAY 2019


 Executive Director Sign-Off _____ date 5/6/2019


 Supervising Biologist Sign-off _____ date _____


 Staff Sign off on Hearing Packet (Eng/Bio) _____ date 3/June 2019

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
COASTAL RESOURCES MANAGEMENT COUNCIL
ENGINEERING REVIEW**

TO: Grover J. Fugate, Executive Director
DEPT: Coastal Resources Management Council
FROM: Danni Goulet, PE
DEPT: CRMC Engineering Section

Date: May 3, 2019

SUBJ: **CRMC File No.:** A2019-03-030

Owner: Quonset Development Corp Quonset Development Corp

Site Address: Davisville - Quonset Business Park Plat: 193 Lot: 015,026

Site Town: North Kingstown

Project: The project includes maintenance dredging along Piers 1 & 2 in Quonset and new (improvement) dredging along the new pier extension under construction at Pier 1.

Water Type/Name: Type 6, Industrial Waterfronts and Commercial Navigation Channels

Coastal Feature: Manmade Shoreline (bulkhead)

Staff Comments/Recommendation:

The overall project is to dredge approximately 679,000 cubic yards of material from the area around Piers 1 and 2 at the Quonset business park and dispose the material at the Rhode Island Sound Disposal site (RISDS). The project has already received its approval for the disposal from the Army Corps of Engineers marine analysis section as well as the State of Rhode Island water quality certificate.

The dredging is mainly maintenance dredging of the areas around the piers and approach channels however there is a portion at the north end of Pier 2 where a previously approved pier extension is being constructed. In this area, the dredge footprint will be extended to include the new pier portion.

Given the physical properties of the dredge materials and the large volume to be dredged, beneficial reuse is not a viable option. The use of the RISDS is in keeping with the policies of Section 1.3.1(I) for large volumes of dredge material. The project has been out for a 30 day public notice and the only comment received was from the Town of North Kingstown which stated that they have no objection to the project. It is the opinion of the staff engineer that the project is in conformance with the RICRMP and approval is recommended.

The table below outlines the sections of the RICRMP that apply to this project and staff comments about compliance with the RICRMP and the applicants submittal/proposal.

Signed _____



Staff Engineer

Section Number	Section Title	Staff Comments
1.2.1(F)	Type 6 Industrial Waterfronts and Commercial Navigation Channels	The primary policy of this section of the RICRMP is to encourage and support modernization of commercial activity related to shipping. This project is a continuation of the Councils support (previous approval) of increased shipping at this facility. The proposed dredging will meet this policy.
1.3.1(A)	Category B Applications	The applicant submitted complete responses to the 11 criteria of this section and it is the opinion of staff that the responses demonstrate compliance with the requirements of this section of the RICRMP.
1.3.1(I)	Dredging and Dredged Materials Disposal	The project as proposed meets the policy goals of section 1.3.1(I) of the RICRMP. The applicant provided written responses or provided a graphic response on the plans to meet all of the additional Category B requirements of this section.

Signed _____



Staff Engineer

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879
(401)783-3370

State of Rhode Island
Department of Environmental Management
Office of Technical and Customer Asst.
235 Promenade Street
Providence, RI 02908-5767
(401)222-6822

JOINT PUBLIC NOTICE

CRMC File No.: 2019-03-030 Date: March 26, 2019

RIDEM Water Quality Certification Number: WQC 19-054 DP 19-172

These offices have under consideration the application of:

Quonset Development Corp
95 Cripe Street
North Kingstown, RI 02852

for State of Rhode Island Assent (in accordance with the Coastal Resources Management Program), and a State of Rhode Island Dredge Permit (in accordance with the Marina infrastructure Maintenance Act of 1996 and the Marine Waterways and Boating Facilities Act of 2001, Rhode Island General Laws Chapter 46-6.1) and State of Rhode Island Water Quality Certification (in accordance with Chapter 42-35 pursuant to Chapters 46-12 and 42-17.1 of the RIGL, as amended) to:

The project will include: To perform approximately 678,000 cubic yards of maintenance dredging from the approach channels and areas around Piers 1 & 2 at the Quonset Business Park. The material will be disposed offshore at the Rhode Island Sound Disposal Site and has already received its suitability determination from the Army Corps of Engineers/EPA.

Project Location: Piers 1 & 2 and approach channels
Street & Number: Davisville - Quonset Business Park
City/Town: North Kingstown
Plat Number: 193 Lot Number: 015,026
Waterway: West Passage

Plans of the proposed work may be seen at the CRMC office in Wakefield.

In accordance with the Administrative Procedures Act (Chapter 42-35 of the Rhode Island General Laws) you may request a hearing on this matter. You are advised that if you have good reason to enter protests against the proposed work it is your privilege to do so. It is expected that objectors will review the application and plans thoroughly, visit site of proposed work if necessary, to familiarize themselves with the conditions and cite what law or laws, if any, would in their opinion be violated by the work proposed.

RICRMC/RIDEM Joint Public Notice
CRMC File No. 2019-03-030
March 26, 2019
Page Two

This also serves as notice that the Rhode Island Department of Environmental Management, Office of Water Resources, Water Quality Certification Program has under consideration and review the same proposed activity as described above for compliance with the State's Water Quality Regulations (AUTHORITY: in accordance with Clean Water Act, as amended (33 U.S.C. 1251 et.seq.; Chapter 42-35 pursuant to Chapters 46-12 and 42-17.1 of the Rhode Island General Laws of 1956, as amended).

If you desire to protest, you must attend the scheduled hearing and give sworn testimony. A notice of the time and place of such hearing will be furnished you as soon as possible after receipt of your request for hearing. If you desire to request a hearing, to receive consideration, it should be in writing and be received at this office on or before April 26, 2019.

It is expected that objectors will review the application and associates plans thoroughly. Comments that pertain to this Joint Notice must be submitted in writing and must be addressed to Rhode Island Coastal Resources Management Council and Rhode Island Dept of Environmental Management at the above referenced addresses.

/lat

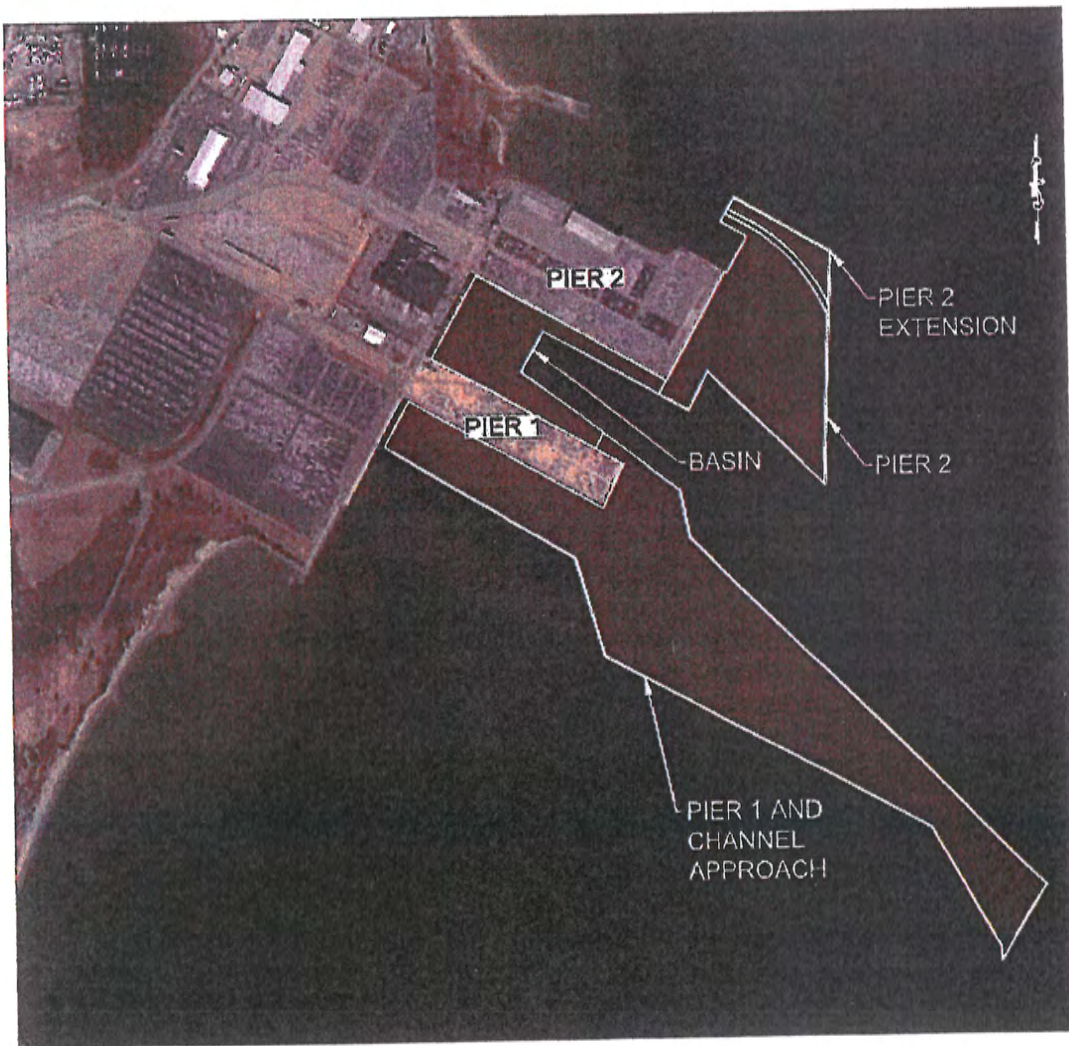


Photo #1

Quonset/Davisville Pier 1 (South) and Pier 2 (North). Locations are approximate, see Permit Plans (Exhibit A) for detail.

2019-03-030
COPY

**RHODE ISLAND COASTAL RESOURCES MANAGEMENT
COUNCIL PERMIT APPLICATION FOR:**

**PORT OF DAVISVILLE DREDGING WITH PLACEMENT AT
THE RHODE ISLAND SOUND DISPOSAL SITE**

PIERS 1 & 2

Prepared for:

**QUONSET DEVELOPMENT CORPORATION
95 CRIPE STREET
NORTH KINGSTOWN, RI 02852**

March 2019

Prepared by:



Foth-CLE Engineering Group
15 Creek Road
Marion, MA 02738
T: 508.748.0937
www.Foth.com
www.CLEEngineering.com





March 6, 2019

Mr. Dan Goulet
RI Coastal Resources Management Council
Oliver Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879

RE: Quonset Business Park – Piers 1 and 2, Port of Davisville Dredging
Davisville Road, North Kingstown, RI

Dear Mr. Goulet

Foth-CLE Engineering Group (Foth) has prepared this RI CRMC Assent Application on behalf of the Quonset Development Corporation for the proposed maintenance and improvement dredging in Narragansett Bay, along the Davisville Channel. The proposed maintenance and improvement dredging is a critical component to maintaining, consistent, safe and reliable water transit service serving the regional transportation needs. The proposed dredging at the Port of Davisville is necessary to facilitate vessel traffic. The proposed dredging for the Port is located in North Kingstown, RI, within the Narragansett Bay and the dredge material will be placed at the Rhode Island Sound Disposal Site.

The Quonset Development Corporation respectfully a RI CRMC Assent for the proposed dredging in order to maintain required depths at this vital waterfront parcel for the State of Rhode Island.

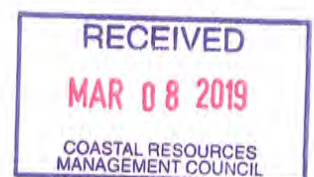
The Quonset Development Corporation consultants and staff looks forward to discussing this proposed dredging project with you. If you have any questions regarding this application, please feel free to contract me at 401-295-0044 x238.

Sincerely,
QUOSNET DEVELOPMENT CORPORATION

A handwritten signature in blue ink that reads "Edward J. Spinard".

Edward J. Spinard, P.E.
Development Services Director

Enclosures:



TO: Coastal Resources Management Council
4808 Tower Hill Road Suite 3
Wakefield, RI 02879
Phone: (401) 783-3370



FROM: Building Official

DATE: February 2019

SUBJ: Application of: Dredging and Disposal of Dredged Material

Location: Quonset Business Park - Pier 1 (approach channel to Davisville) and Pier 2

Address: Davisville, North Kingstown, RI 02852 Plat No. 193 Lot No. 026 and 015

To Construct: Maintenance and improvement dredging

I hereby certify that I have reviewed _____ foundation plan(s).

_____ plan(s) for entire structure

_____ site plans

Titled: Permitting Plans

Date of Plan (last revision): February 2019

X


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 _____.

 3/4/19
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.

Zoning Officer's Signature

Date

rev. 5/11/2001





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

- Application for Dredging and Disposal of Dredged Material
- Request Renewal of RIDEM Dredge Permit File # _____
- Request Renewal of CRMC Dredge Permit File # _____
- Request Modification of RIDEM Dredge Permit File # _____
- Request Modification of CRMC Dredge Permit File # _____

Agency Use Only File Number <u>2019-03-030</u> Date Received

(Please Type or Print)

APPLICANT INFORMATION

Applicant Name: RI Economic Development Corporation/Quonset Development Corporation

(NOTE: Applicant must be the owner of the property on which the activity is proposed)

Applicant Address: 95 Cripe Street Telephone No. 401-295-0044

City/Town: North Kingstown State: RI Zip: 02852

PROJECT INFORMATION

Project Address: Davisville - Quonset Business Park

City/Town: North Kingstown State: RI Zip: 02852

Tax Assessor's Plat(s) and Lot Number(s): Plat 193, Lot 26; Plat 193, Lot 15

Project Consultant/Engineer Name: Foth-CLE Engineering Group

Consultant/Engineer Address 15 Creek Road, Marion, MA 02738

Consultant/Engineer Telephone No. 508-762-0777

ACTIVITIES ASSOCIATED WITH THE PROPOSED DREDGE PROJECT (check all that apply)*

- Filling of Waters of the State
- Marinas – New construction or expansion
- Site Disturbances
 - Residential Development: six (6) or more dwellings
 - Commercial, Industrial, State or Municipal Development
 - Any project \geq five (5) acres of disturbance
- Flow Alterations
- Point Source Discharge of Pollutants

GENERAL INFORMATION

Identify program and associated application number for any other RIDEM applications filed for this project

_____ Freshwater Wetlands	Application Number _____
_____ RIPDES	Application Number _____
_____ Individual Sewage Disposal System	Application Number _____
_____ Other (_____)	Application Number _____

If you have any questions, please contact the RIDEM at 222-7500 or CRMC at 783-3379.

CERTIFICATION OF APPLICANT

I hereby certify that I have requested and authorized the investigation, compilation, and submission of all the information, in whatever form, contained in this Application; that I have personally examined and am familiar with the information submitted herein; and that such information is true, accurate and complete to the best of my knowledge.

Signature of Applicant:  Date: 3/6/19

Please return this completed application form and all supporting information, as indicated on the accompanying Submittal Checklist to:

Rhode Island Coastal Resources Management Council
Oliver H. Stedman Government Center
Wakefield, RI, 02879

and

Rhode Island Department of Environmental Management
Office of Technical & Customer Assistance
235 Promenade Street
Providence, RI 02908

* Water Quality Certification required for these activities pursuant to Section 401 of the CWA and the Rhode Island Water Quality Rules may be incorporated into an approval issued as part of this application.

Office Use Only:

Suitable for Public Notice _____ Date: _____

- Approved
- Denied
- Withdrawn

Proposed Maintenance and Improvement
Dredging of the
Port of Davisville- Piers 1 & 2
Quonset Business Park, North Kingstown, RI

QDC 2016-014

Dredge Permit Applications

March 2019

Prepared by:



Foth-CLE Engineering Group
15 Creek Road
Marion, MA 02738
T: 508.748.0937
www.Foth.com
www.CLEEngineering.com

Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2

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Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2

Exhibits

- Exhibit A: Permitting Plans
- Exhibit B: North Kingstown Assessors Information - For Project Site
- Exhibit C: Regulated Resource Areas
- Exhibit D: Volume Calculations
- Exhibit E: Sediment Analyses- 'Suitability Determination for Quonset Development Corporation- South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI; Application No. NAE-2017-1086; dated October 23, 2018
- Exhibit F: 'Marine Structural Dredging, Davisville Pier No. 1- Fitness of Purpose, #33645.02'; (Performed by GZA, dated March 5, 2012, revised March 22, 2012)
'Pier 2- Fitness of Purpose Evaluation of Pier 2 Cellular Cofferdam for Proposed Dredging, Port of Davisville, Rhode Island' (Performed by Moffatt & Nichol, dated October 7, 2011)
- Exhibit G: Water Classification
- Exhibit H: Aquaculture Areas

PROJECT NARRATIVE

Project Site

The proposed project is located at the Davisville Piers 1 & 2 which are located within the Quonset Business Park in North Kingstown, Rhode Island. Pier 1 and Pier 2 are referenced as Plat 193, Lot 026 and Plat 193, Lot 015 on the North Kingstown Assessors Map, respectively.

The U.S. Navy constructed the Quonset and Davisville waterfront in the 1940's as a deep-water port and dredged channels and turning basins to support their operations and allow access to the Atlantic Ocean. The Port of Davisville is an active maritime facility primarily used for the importation of foreign made automobiles. Additional uses for the Port of Davisville Piers facilities are for auto processing, seafood and public cold storage, marine highway terminal, wind energy and project cargo.

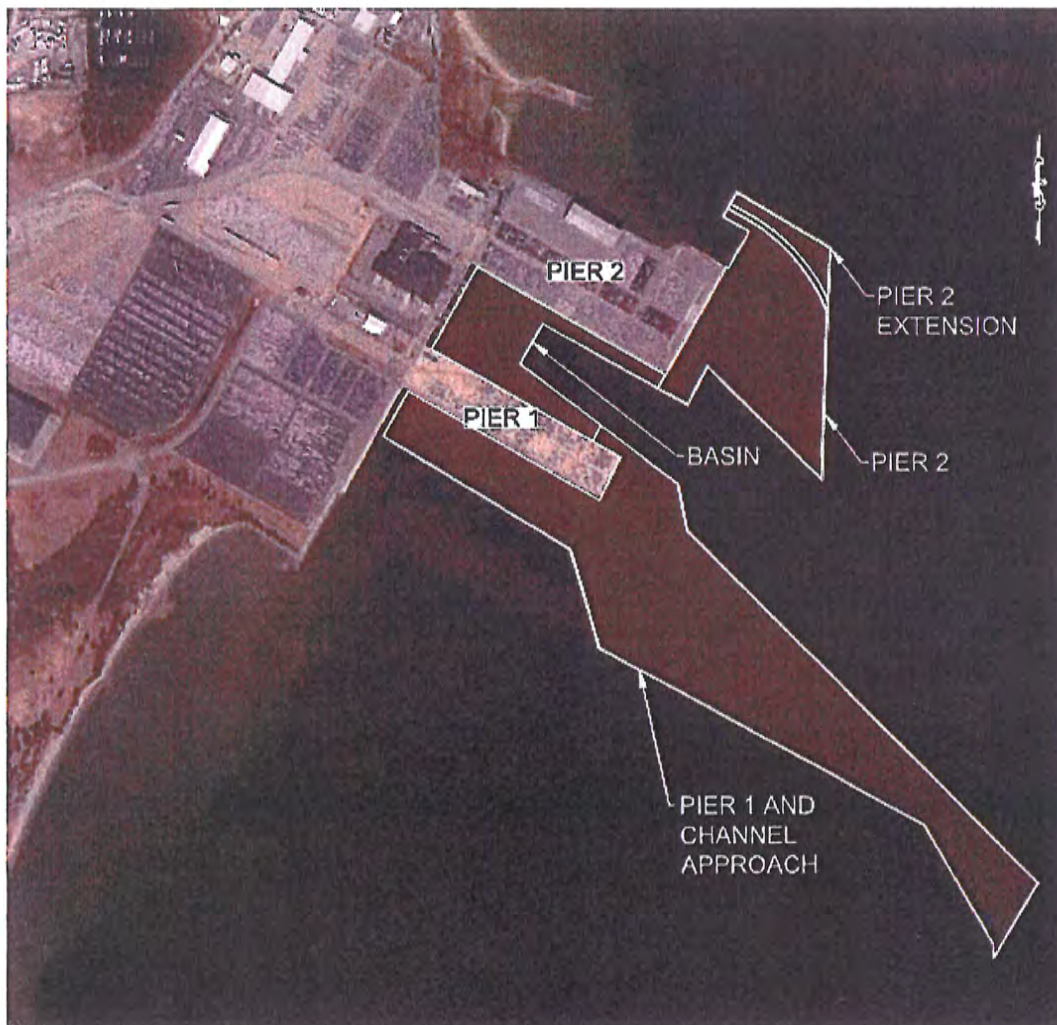


Photo #1

Quonset/Davisville Pier 1 (South) and Pier 2 (North). Locations are approximate, see Permit Plans (Exhibit A) for detail.

The U.S. Navy constructed the Quonset and Davisville waterfront in the 1940's as a deep-water port and dredged channels and turning basins to support their operations and allow access to the Atlantic Ocean. Pier 1 is approximately 250 feet wide by 1,200 feet long and was constructed for the US Navy in 1942. It was originally constructed of timber (deck, superstructure and foundation piles); and around 1950, the superstructure was replaced with reinforced concrete. Fendering along the north face consists of rubber leg elements and steel contact panels supported partially by 16-inch diameter steel pipe piles.

The Pier 2 facility was constructed by the United States Navy as part of the Construction Battalion Center. Pier 2 is a steel sheet pile cell cofferdam type structure, built in 1956 to support the overseas construction activities. The subject area continued to be used for open storage of construction material and equipment. The State of Rhode Island acquired the Davisville port area and began to operate it as a public maritime port operation. Since the early 1980's the port has operated as a public port. The principal port activity has been the importation of foreign made vehicles that uses the port area to off load and store vehicles. Thus, the use of the Davisville area has been relatively consistent over its site history, as being used as an open storage and assembly area to support maritime activities. Repairs to Pier 2 East face are currently under construction. An extension on the East face of Pier 2 is under construction and is scheduled to be completed September 2019. The construction of the rehabilitation of the South face of Pier 2 is scheduled to begin in August 2019.

Project Purpose

The proposed maintenance and improvement dredging is a critical component to maintaining consistent, safe, and reliable water transit service serving the regional transportation needs. The proposed dredging of the Pier 1 and Pier 2 facilities is necessary to facilitate vessel traffic. The proposed dredging for the Pier 1 and Pier 2 facilities is located in North Kingstown, RI, within the Narragansett Bay.

The Quonset Development Corporation (QDC) is planning to perform maintenance and improvement dredging at the channel towards Pier 1 and a section on the eastern face of Pier 2. The eastern face of the Pier 2 dredge area including the newly constructed pier extension, is a total of approximately 15.76 acres at -33 feet MLW plus an authorized over-depth of one foot to -34 feet MLW. The dredge area along the Pier 2 is planned to be dredged at a depth of -22 feet MLW plus an authorized over-depth of one foot to -23 feet MLW (approximately 1.41 acres). The Basin and channel approach at Pier 1 is planned to be dredged to -32 feet MLW plus an authorized over-depth of one foot to -33 feet MLW (approximately 54.45 acres). All dredge templates are shown on the attached permit planes titled "Pier 1 and Pier 2 Dredge Plan". Approximately 678,921 cubic yards (cy) of material would need to be dredged to reach this depth (this calculation includes a 100% achievement of removing all material including the over dredge tolerance). Please see Exhibit D- Volume Calculations for volume details.

Dredging will be conducted by mechanical dredging means within the footprint depicted on the attached plans. The dredge material will be mechanically excavated from a barge mounted crane. The material will be placed on a barge to be transferred to the off-shore disposal site at the Rhode Island Sound Disposal Site (RISDS).

Spill Information

Foth has conducted an investigation of the number of SPILLS that have occurred at the vicinity Pier 1 and Pier 2. According to the Rhode Island Department of Environmental Management (RIDEM), there was one documented spill within the Davisville Pier area occurring at Pier 2 Davisville on April 17, 1996. The material spilled during the incident was 100 gallons of Diesel Fuel by a tug boat at the pier. The SPILL was reported by Providence Steamboat and is identified within the RIDEM database system as 96-88.

Point Source Discharge Information

The following is a list of pipes and culverts discharging in the vicinity of the project area as provided by QDC:

Outfall #	Northing	Easting
1	193579.09	353391.34
2	193373.60	353263.54
3	193133.71	353124.97
4	192850.50	352967.78

NAD83 Rhode Island State Plane, US Survey Feet



Photo #2
Outfall Locations

DREDGE MATERIAL CHARACTERISTICS

Sediment samples were collected at depths of -23' MLW and -33' MLW from the dredge areas and analyzed for physical and chemical constituents and biological response in support of the proposed dredge plans of QDC. Testing was performed in accordance with the Sampling Plan approved by the United States Corp of Engineers (USACE) and Coastal Resource Management Council (CRMC) to determine whether sediments are suitable for placement at the Rhode Island Sound Disposal Site (RISDS).

The results of the physical, chemical, and biological analyses were tested in accordance with the requirements of the 'Regional Implementation Manual for the Evaluation of Dredged Material for Disposal in New England Waters' (RIM). The sediment and elutriate chemistry were within the accepted levels for placement within the RISDS. Based on the toxicity tests, it meets the minimum standard. Based on an absence of any significant adverse biological effects and contaminant concentrations below the dredge material acceptance criteria screening, it meets the minimum standard. On October 23, 2018, the USACE and Environmental Protection Agency (EPA) determined that the proposed project was deemed suitable for open water disposal at the RISDS (see Exhibit E- Sediment Analysis).

Physical and chemical analyses were performed on the sediment proposed to be dredged. The analytical data indicates that the sediment is deemed suitable for unrestricted ocean disposal at RISDS.

ALTERNATIVE ANALYSIS

Dredged material disposal options consist of various dredging methods and disposal locations. The options typically fall into one of three categories: beneficial use, upland disposal or in-water disposal. The feasibility of the alternative were analyzed relative to the volume of dredged material, the availability of a suitable disposal site, and the cost of disposal.

Beneficial Re Use as Beach Nourishment

The proposed dredge material located within Pier 1 and Pier 2 was characterized as Silty Soils ranging from 10.4%-94.7% Silt and Clay. Dredged material proposed to be used for beach nourishment must not exceed 10% for Silt and Clay. Results of the sediment sampling indicated levels of Arsenic ranging from 3.22 – 6.13 mg/kg (acceptance level 1.7 mg/kg); levels of Chromium ranging from 20.4 – 50.7 mg/kg (acceptance level 10 mg/kg); levels of Copper at 21.8 - 60.4 mg/kg (acceptance level 10 mg/kg); levels of Nickel ranging from 9.18 – 17.3 mg/kg (acceptance level 5 mg/kg); levels of Zinc ranging from 54.6 – 116.0 mg/kg (acceptance level 25 mg/kg).

Due to the nature of the material (silt and clay) and exceedances of the acceptance levels, the proposed dredge material was deemed unsuitable for beneficial re-use and beach nourishment.

Conclusion

Results of Silt/Clay, Arsenic, Chromium, Copper, Nickel, and Zinc exceeded the set acceptance levels for beach nourishment as described in Section 9.2.2 of the "Rules and Regulations for Dredging and the Management of Dredged Material", RIDEM; therefore this alternative was ruled out of further consideration.

Upland Disposal and Re Use

The sediment sample results exceeded the limits of Residential Direct Exposure and Commercial/Industrial Direct Exposure as described in the "Rules and Regulations for Dredging and the Management of Dredged Material" as levels of Arsenic were above the acceptance levels. Results of the sediment sampling indicated levels of Arsenic at 3.22 – 6.13 mg/kg (acceptance level 1.7 mg/kg (Residential) and 3.8 mg/kg (Commercial/Industrial)).

Conclusion

The proposed dredge material is not suitable for upland re-use. The double handling of material and potential environmental impacts deems upland disposal/placement as unsuitable.

Due to the nature of the material and exceedances of the acceptance levels for Arsenic, the proposed dredge material was deemed unsuitable for upland disposal and re-use.

In Water Disposal

Confined Aquatic Disposal (CAD) Cell

Water Quality Certification (WQC) – File No. 01-61 was issued to the Rhode Island Coastal Resources Management Council for the transfer of responsibility for the Providence River Confined Aquatic Disposal (RI CAD) cells on October 12, 2005.

Conclusion

Disposal at the RI CAD site is not feasible due to the quantity of dredged material proposed to be removed and the available capacity at the RI CAD site.

Rhode Island Sound Disposal Site

Open ocean disposal is allowed at the Rhode Island Sound Disposal Site, which is one square nautical mile in size, is approximately nine nautical miles south of Point Judith, and 6.5 nautical miles east of Block Island. It is the same location as Site 69B, selected for short-term use by the U.S. Army Corps of Engineers to receive dredged material from the Providence River and Harbor Maintenance Dredging Project. This site was also used by QDC for the disposal of dredge material from the Pier 2 dredge project in 2012. Dredged material proposed for ocean disposal would be required to meet stringent testing criteria that are developed through consultation with the Army Corps of Engineers Marine Analysis Unit.

Conclusion

The Army Corps of Engineers has determined that the proposed dredged material is suitable for placement at the Rhode Island Sound Disposal Site (Exhibit E).

Determination

The following disposal alternatives were analyzed. They are:

- On-site or offsite disposal/reuse on a Residential or Commercial/Industrial facility.
- Disposal in the State of Rhode Island Confined Aquatic Disposal site in the Providence River.

- Dredging with displacement at the offshore Rhode Island Sound Disposal site.

Offsite land disposal is not deemed practical or logical on the basis of logistics, double handling of material (which includes additional equipment requirements and contractors to provide offloading equipment), availability of sites, cost, and the material having exceedances of residential and commercial/industrial acceptable levels of Arsenic. Disposal at the RI CAD site was also not deemed suitable for disposal due to the quantity of dredged material proposed to be removed.

- The proposed maintenance and improvement dredging with displacement at the offshore RISDS is the preferred alternative.

MITIGATION MEASURES

QDC shall implement the following mitigation measures into the proposed project to reduce any adverse impacts to water quality and biological impacts:

1. The proposed dredging shall occur during the permitted environmental windows of October to January.
2. Dredging shall be performed by mechanical means.
3. A shellfish sampling survey, if required, prior to dredge activities within the shallower reaches of the proposed dredge footprint to determine the densities of shellfish within the proposed dredge footprint to determine if relocation is required prior to dredging.
4. Evidence of floating and suspended materials generated by project activities shall be removed forthwith by the dredging contractor. All monitoring, report preparation and adaptive management shall be in conformity with all permits for the respective site.
5. The work will be performed by an experienced marine contractor.
6. The extent of the project area will be clearly delineated and all construction personnel will be informed of the boundaries of the project area.
7. The Contractor shall maintain adequate materials onsite for containment and cleanup of any spills.
8. The Contractor conducting the work shall utilize good housekeeping practices, safer alternative products where feasible and employee training programs to prevent or reduce the discharge of pollutants from construction activities.
9. All debris generated as a result of the project construction shall be removed from the site and disposed of at an appropriate upland disposal location.
10. No debris, oil, petroleum products or other organic material resulting from construction activities shall be allowed to enter or be placed where it may be washed by rainfall or runoff into the Strait or adjacent water of the US.
11. Activities Shall Not Violate Water Quality Standards.
12. Appropriate Best Management Practices (BMP) shall be implemented throughout the project site.
13. An Agreement has been prepared between QDC and Allen Harbor Oyster and CRMC that permits the temporary relocation of the oyster aquaculture during the dredging activities.

REGULATED RESOURCE AREAS

USACE

Section 404 of the Federal Clean Water Act and Section 10 of the Federal Rivers and Harbors Act of 1899 give the U.S. Army Corps of Engineers (Corps) authority to regulate work and structures located in or that affect navigable waters of the United States. The waters adjacent to the site are considered both "waters of the U.S." and "navigable waters of the U.S." as defined in the above referenced Acts and are therefore under the jurisdiction of the Corps.

The Corps has issued Programmatic General Permit (PGP) for the State of Rhode Island that expedites review of minimal impact work in coastal and inland waters. The PGP regulates work in Navigable Waters as either Category 1, Category 2, or under an Individual Permit.

Conclusion

The maintenance and improvement dredging volume is greater than 10,000 cubic yards (total is approximately 678,921 CY) within the proposed dredge limits and therefore the project qualifies as an Individual Permit project.

RIDEM

The quality of Rhode Island's surface waters is regulated under the Rhode Island and Providence Plantations Department of Environmental Management's (DEM) Office of Water Resources through the Water Quality Regulations (Regulations). The Regulations are adopted in accordance with the Federal Water Pollution Control Act (33 U.S.C. sec. 1251 et seq.) and the Rhode Island General Laws Chapter 46-12. The Regulations establish standards to "provide for the protection of the surface waters from pollutants so that the waters shall, where attainable, be fishable and swimmable, be available for all designated uses, taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and also taking into consideration their use and value for navigation, and thus assure protection of the public health, safety, welfare, a healthy economy and the environment."

A review of the RIDEM Office of Water Resources Shellfish Program Shellfish Map May 2018-2019 indicates that the taking of shellfish is prohibited from a portion of the proposed dredge area. The area is further described as within Growing Area 9 – West Middle Bay as GA 9-2. Review of data on the RIGIS website also indicated the dredge area does not contain eelgrass, or any Estimated Habitat and Range of Rare Species and Noteworthy Natural Communities (Exhibit C).

Classification

The Rhode Island Water Quality Regulations have classified the waters adjacent to the proposed Davisville dredging as Class SA designated for shellfish harvesting for direct human consumption, primary and secondary contact recreational activities, shellfish harvesting for controlled relay and depuration, and fish and wildlife habitat and Class SB waters designated for primary and secondary contact recreational activities; shellfish harvesting for controlled relay and depuration; and fish and wildlife habitat. Class SA waters shall be suitable for aquacultural uses, navigation, and industrial cooling. Class SB shall be suitable for aquacultural uses, navigation, and industrial cooling.

The classification of Rhode Island's waterbodies are contained within the State of Rhode Island and Providence Plantations Department of Environmental Management, Office of Water Resources "Water Quality Regulations" (Regulations). The current version of the Regulations was amended on 2017. Appendix A of the Regulations contains the list of Rhode Island waterbodies which are assigned Waterbody ID numbers, given a description of its boundaries, and assigned a classification. The water quality classifications denote the water quality goal for the waterbody; not its present condition.

The water bodies involved in the dredging project are designated as RI0007027-03B and RI0007027E-03A. RI0007027-03B is identified as "West Passage" waters in the vicinity of Pier No. 1 and Pier No. 2 at the Davisville Depot as defined by the following geographical coordinates: RIDEM Ranger Marker located north side of Pier No. 2 Lat 41.615N/Long -71.4034W; 41 6165N/long- 71.4026W; Lat 41.6153N/Long-71.3995W; Nun Buoy; Lat41.6082N/Long-71.4020W and the point south of the end bulkhead located south of Pier No. 1at 41.6115N/Long-71.4098W.NorthKingstown. (Exhibit H) Water Classification). The waterbody outside of Waterbody ID Number RI0007027E-03B in the project site (Water Body ID Number RI0007027E-03A, as delineated as SA Waters in the permitting plans), are waters south of a line from the eastern extremity of Sandy point on Potowomut Neck, East Greenwich, to the flagpole located at the Warwick Country Club on Warwick Neck; south of a line from the southernmost extremity of Warwick Point on Warwick Neck, to the northernmost point on Prudence Island (Providence Point); west of a line from the southernmost point on Prudence Island to the northernmost point on Jamestown, and north of a line from Cormorant Point at the mouth of Pettaquamscutt River, Narragansett to Beavertail, Jamestown, excluding the West Passage waters, Allen's Harbor and Wickford Harbor waters. It generally includes all the waters south of a line from the eastern end of Sandy Point, East Greenwich to the north end of Prudence Island, west of Prudence Island and Conanicut Island (Jamestown), and north of a line from the southern end of Jamestown to Cormorant Point at the mouth of the Pettaquamscutt River in Narragansett.

Appendix D of the Regulations contains a list of the Special Resource Protection Waters (SRPWs) that are considered to be high quality surface waters having significant ecological or recreational uses. The State cannot allow any measurable degradation of the existing water quality necessary to protect the existing characteristic(s) which qualify the water as a SRPW. The maintenance and improvement dredge footprint are not located within an SRPW.

Effects of the proposed maintenance and improvement dredging on water quality

Potential water quality impacts resulting from the proposed maintenance and improvement dredging and resultant increased shipping traffic include:

- Loss of shellfish habitat due to dredging: In July of 2012, QDC performed a shellfish harvesting as part of the dredging project for the Port including water areas adjacent to the piers and the channel. The photographs below show the tracking of the harvesting vessels and the shellfish recovered.

Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2



Photo #3

Shell Fish Tracking Routes



Photo #4

Shellfish Recovered

The harvesting was performed by the URI vessel *Cap'n Bert* using a "rocking chair" rig. This was necessary due to the deep depth of the water. The harvesting occurred within the dredge area of about 37 acres in size. As the photograph showed, a very small quantity of shellfish was recovered. This is consistent with the findings of a 2003 study (*Shellfish Resources*, The Louis Berger Group, Inc. and Maguire Group, April 2003) that concluded "The lack of quahog resource in the channel area is consistent with studies in other parts of the Bay" (p.3-3). The Study also concluded softshell clams were not found in the study, and are typically not expected in the Quonset-Davisville navigation channel since the water depth in the channel exceed the preferred habitat depth" (p. 3-40). The same conclusion was reached in the Study for Oysters and Blue Mussels.

- Increased turbidity during dredging:
 - Dredging shall occur by mechanical means. No scow overflow shall be permitted. Turbidity shall be monitored during all dredging activities.
- Discharge of pollutants from vessels:
 - Evidence of floating and suspended materials generated by project activities shall be removed forthwith by the dredging contractor. All monitoring, report preparation and adaptive management shall be in conformity with all permits for the respective site.

Conclusion

The Rhode Island Water Quality Regulations have classified the waters adjacent to the proposed Davisville dredging as Class SB. Class SB waters are designated for primary and secondary contact recreational activities; shellfish harvesting for controlled relay and depuration; and fish and wildlife habitat. They shall be suitable for aquaculture uses, navigation, and industrial cooling. Primary contact recreational activities may be impacted due to pathogens from approved wastewater discharges, however all Class SB criteria must be met. The maintenance and improvement dredging goals of the QDC can be achieved consistent with the water classification.

Aquaculture

There is an active aquaculture operation located about 550 feet north, northwest of the proposed project. The aquaculture area is operated by Allen Harbor Oyster, Inc. (AHO). The photographs below show the aquaculture operation (Facebook Allen Harbor Oyster).

The aquaculture water area is about 3 acres in size. AHO raises oysters using the on-bottom technique. The seeds of oysters are placed in trays that are located in the sandy bottom of the water area. The area is marked by buoys. The seeds are obtained from hatcheries and are reseeded every spring. It generally takes about two years for the oysters to grow out to market size. The oyster trays are maintained.

The project has the potential of disturbing sediment during the dredging activities. Although a silt curtain can be installed for sedimentation control, the owners of AHO still expressed concern of the fine sediment escaping the barrier and affecting the oysters.



Photo #5
Mature Oyster



Photo #5
Aquaculture Area

Discussions have been held with the owners of AHO and CRMC. A solution was identified that would provide a temporary suitable water area where the oysters can be moved during the dredging. CRMC and AHO have identified the area. The area is about 4,000 from the existing oyster beds along the Calf Pasture area. AHO would apply for a license to use the temporary area. (Exhibit I Aquaculture Areas)

QDC and AHO will entered into an Agreement that provides for QDC to pay the temporary relocation of the oyster beds during the dredging activities. At the completion of the dredging, QDC will pay to move the oyster beds back to their original location.

CRMC

The Rhode Island Coastal Resources Management Council (CRMC) has mapped the dredging area within Quonset Channel as Type 6 Industrial Waterfronts and Commercial Navigation Channels that are defined as extensively altered for use by commercial and industrial water dependent activities.

It is CRMC policy to support modernization and increased commercial activity related to shipping. The highest priority uses of Type 6 waters and adjacent lands include the construction and maintenance of berths and facilities required for the support of commercial shipping and fisheries.

Conclusion

The maintenance and improvement dredging will allow for the expansion and continued use of Piers 1 and 2 and is consistent with the CRMC goals for Type 6 Waters.

CRMC Section 300.1 Category B Requirements

Demonstration of Compliance with Standards

1. Demonstration of need for the proposed maintenance dredging:

QDC proposes maintenance and improvement dredging of the Port of Davisville's Pier 1 and Pier 2 in order to facilitate vessel traffic of this significant waterfront parcel.

2. Demonstration of compliance with all applicable local zoning ordinances, building codes, flood hazard standards, and all safety codes, fire codes, and environmental requirements:

A RIDEM Water Quality Certificate and an Individual US Army Corps of Engineers Dredge Permit will be required in addition to a CRMC Assent. Davisville Waterfront District is based on the Quonset Business Park "Master Land Use and Development Plan", which identifies the area as waterfront industrial. Dredging is supportive to the Port activities permitted in this General Industrial use. The State Building Code does not regulate dredging activities. The dredging activity for safety, navigability and environmental requirements are regulated by RIDEM, CRMC and USACE.

3. Description of the boundaries of the coastal waters and land area that are anticipated to be affected:

The work will be conducted in CRMC Type 6 – Industrial Waterfronts and Commercial Navigation Channels. CRMC policies indicate the 'goals for Type 6 waters and adjacent lands under Council jurisdiction are: (a) berthing, loading and unloading, and services of commercial vessels; (b) construction and maintenance of facilities required for the support of commercial shipping and fishing activities. The Council shall prohibit activities that substantially detract from or interfere with these priorities.' The proposed dredging of Pier 1 and Pier 2 benefits these activities as described above.

4. Demonstration that the alteration or activity will not result in significant impacts on erosion and/or deposition processes along the shore and in tidal waters:

The proposed project consists of dredging material from Pier 1 and 2 within the dredging template to a depth of -22' at mean low water (MLW) plus a one-foot of allowable overdredge at the Pier 2 Extension, dredging template to a depth of -33' plus a one-foot of allowable overdredge at mean low water (MLW) at Pier 2, and dredging template to a

depth of -32' plus a one-foot of allowable overdredge at mean low water (MLW) to Basin and Pier 1 Channel and approach. The proposed project shall not cause an impact on erosion and/or deposition along the shoreline and within the tidal waters. The proposed dredging is below the splash and tidal zones, and no significant erosion will occur.

5. Demonstration that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life:

Foth has not observed eelgrass beds or other wetlands within the proposed dredge footprint. Eelgrass is present approximately 1,990' north of the bulkhead of Pier 2 (Pier 1 Channel and approach dredge template).

- Species of interest:

- o QDC proposes to perform a shellfish sampling survey prior to dredge activities within the shallower reaches of the proposed dredge footprint to determine the densities of shellfish within the proposed dredge footprint to determine if relocation is required prior to dredging. Any benthic organisms and lobsters in the area will be removed or destroyed as a result of dredging and those organisms in adjacent areas could experience mortalities resulting from increased siltation and burial from the dredging. However, it is expected the areas would be re-colonized by similar benthic species and lobsters within 12 months of completion of dredging of the berth. Dredging in winter would minimize impact to fishing activity and to migrating lobsters. (Quonset/Davisville Port Alternatives Report, 1999).
 - The concern that shellfish in the areas may experience project-induced mortality. Modeling and previous monitoring efforts indicate the expected increases in suspended sediments resulting from the dredging would be well below the concentrations that cause acute impacts to adult shellfish or their larvae. There may be short term reduction in the shellfish feeding and growth rates of shellfish affected by increased siltation, however these are expected to be short lived and with little discernable long-term implications.
 - The temporary loss of the benthic community in the area during dredging would result in the temporary loss of food for finfish. However, the benthic habitat is expected to recover within 12 months and thereby restore the finfish food source.
 - Dredging in winter would minimize impact to fishing activity and to migrating lobsters (Normandeau Associates 1999). The proposed dredge window for this project is October – January, which falls between the recommended window.
- o The tautog (*Tuatoga onitus*) lives in close association with structures such as rocks, wrecks, pilings, jetties, natural and artificial reefs and other bottom discontinuities. They are active in the daytime and become quiescent at night often retiring to shelter. Adult tautog migrate into Narragansett Bay in late April and remain through September, and are essentially absent in the Bay from late November to March. Spawning takes place within the Bay from May through August, and peak spawning occurs in June and July. Juvenile tautog are present from July through October in Narragansett Bay, but likely begin settling in June. Dredging is best conducted between mid-Fall and mid-Spring, when adult fish are in deeper waters and no spawning is happening (Normandeau Associates 1999). The proposed dredge window

Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2

- for this project is October – January, which falls between the recommended window to protect mature and spawning tautog.
- o Winter flounder are bottom dwelling fish. They are active during the day. Winter flounder make short seasonal migrations into shallower bays and estuaries in the fall and winter to spawn in the late winter-early spring. They may move offshore in response to warmer waters in the late summer-early fall or to severe cold in shallow bays in the winter, returning in spring to spawn. Winter flounder spawn from January to May in Narragansett Bay, with peak spawning occurring in February and March. Dredging is best between September and November after young fish have migrated to deeper waters (Normandeau Associates 1999). The proposed dredge window for this project is October – January, which falls between the recommended window.
 - o The scup is a pelagic schooling fish and appears to school more closely at night. The Narragansett Bay serves as a spawning ground and nursery area for the species with the latter being the more important function, as the bay is a host to both young and juveniles. In addition, scup serve as a food source for weakfish, bluefish and striped bass. The migration patterns for scup into and out of the bay suggest that dredging should occur between November and April (Normandeau Associates 1999).
 - o Other fish populations in Narragansett Bay include summer flounder, bluefish, and weakfish. Minimal dredging impacts would occur for these species within the proposed environmental window for the project. The peak of bivalve larval occurs as water temperatures are around 68°F, as summer progresses (Butet 1997).
- In summary, dredging of the Port of Davisville Piers 1 and 2 facilities will not significantly impact the presently low abundance of plant and animal life, nor will it impact its diversity. It is likely the dredged area will be re-colonized by the benthic organisms found in the adjacent undisturbed sediments and the finfish will return to their habitat once dredging reaches completion. In addition, few studies have found organisms with a need or preference for a change in suspended sediment or sedimentation in the field or laboratory (Berry et al 2003). Species living in frequently active areas have adapted characteristics to repopulate easier (Normandeau 2017).
6. Demonstration that the alteration will not unreasonably interfere with, impair, or significantly impact existing public access to, or use of, tidal waters and/or the shore:
- The project will not interfere with, impair, or significantly impact the access to the tidal waters except during the duration of the dredging operation.
7. Demonstration that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation:
- The proposed dredging will provide for unimpeded flow. Cyclonic current in the Rhode Island Sound is related to density stratification and summer winds modulate the flow. Any increases in turbidity resulting from the dredging operation will be short term and have no long-term negative impacts. The project template proposes to have a border meeting the existing -22' MLW and -32' MLW elevation to transition the depths and flows throughout the area. The proposed designs of the Pier 2 basins and the Pier 1 channel utilizes a 3h:1v side slope template to diminish the creation of deep sumps within the project area.

8. Demonstration that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM:

No change of water quality is expected as a result of the dredging. There will be no discharges associated with the work. It will be necessary to obtain a Water Quality Certificate from the Rhode Island DEM prior to commencement of dredging. The Water Quality Certificate will contain any conditions required to ensure state water quality regulations. Additionally, the Contractor will adhere to the mitigation measures proposed for the project. These will be incorporated in the contract documents and enforced during construction to ensure there are no negative impacts to the coastal and marine resources. Tidal circulation tends to move up and down away from the release site, as a result, locations away from the immediate dredging has elevated concentrations for only partial of the tidal cycle (Spaulding and Swanson 2008).

9. Demonstration that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance:

There are no identifiable historical and archaeological resources within the area to be affected by the dredging.

10. Demonstration that the alteration or activity will not result in significant conflicts with water-dependent uses and activities such as recreation boating, fishing, swimming, navigation, and commerce

The project will not create any permanent conflicts with the water dependent uses of the berth but will in fact improve the use of the berth for vessel transportation.

11. Demonstration that measures have been taken to minimize any adverse scenic impact:

No change in use of the site is requested. There will be no alteration of present water dependent uses and activities. Other than the temporary visual impact of the dredge barge at the berth, the impacts to the site will be below the water and will not have an adverse scenic impact.

CRMC Section 300.9 Dredging and Dredged Material Disposal

Demonstration of Compliance with Standards

1) For Dredging:

- a) Bottoms of dredged areas shall slope downward into the waterway so as to maximize tidal flushing:
As shown on the attached plans, the template is proposed to tie into the existing depths.
- b) Bottom slopes at the edges of the dredged areas shall have a maximum slope of 50%:
The Pier 1 and 2 dredge areas utilize a 3h:1v (33.3%) slope throughout the template to minimize flow restrictions and the creation of deep holes.
- c) Dredging shall be planned so as to avoid undermining adjacent shoreline protection facilities and/or coastal features:
The proposed dredge limit will not impact the structural integrity of the adjacent timber piers based on the evaluation provided by GZA and Moffatt & Nichol (See Exhibit F) and Moffatt & Nichol (Exhibit G).
- d) Shellfish dredged from waters classified SB or lower shall not be made available for human consumption or bait:
The proposed dredge site is in SA and SB waters. The benthic habitat value of the area is considered low, and it is not likely to support a shellfish population. Any shellfish encountered during dredging will not be made available for human consumption or bait.

2) For Dredged Materials Disposal in Open Water:

- a) Dredged materials may not be placed in areas determined by the CRMC to be prime fishing grounds:
The dredged materials are proposed to be deposited at the Rhode Island Sound Disposal Site.
- b) Measures must be employed and described to ensure that all dredged materials will be dumped solely within the confines of an approved site:
The monitoring plan developed by the USACE, EPA, and RIDEM will be complied with in order to ensure the dredged materials are dumped solely within the confines of the Rhode Island Sound Disposal Site.
- c) Hydrographic conditions at the approved disposal site must be such that the disposed dredged materials will remain within the disposal area and that re-suspension of bottom sediments will be minimal:
The dredged material will be deposited in accordance with the permits.
- d) Following disposal operations involving polluted materials, clean coarse-grained materials must be deposited to cap the spoil mound and minimize the release of any potential contaminants to the water column. The cap shall have a minimum thickness of 6 inches:
The dredged material will be deposited in accordance with the permits.
- e) The applicant shall provide for an environmental monitoring program designed to detail physical conditions and biological activity at and near the site for a period of at least one year. The results of such programs shall be made public. However, if the

monitoring of the disposal of dredged materials at a site is to be performed by, and/or in conjunction with, a state or federally-sponsored motoring program, then the applicant shall adhere to the requirements of such state-or-federally –sponsored program:

The proposed dredging will adhere with the requirements as set forth in the permits.

3) For Dredged Materials Disposal in the Creation of Wetlands, Aquatic Habitat, or Island:

This Standard is not applicable as the material is to be disposed of in the Rhode Island Sound Disposal Site.

4) For Upland Disposal:

This Standard is not applicable as the material is to be disposed of in the Rhode Island Sound Disposal Site.

5) Disposal for Beach Nourishment:

This Standard is not applicable as the material is to be disposed of in the Rhode Island Sound Disposal Site.

Local

The North Kingstown Zoning Ordinance defines the Quonset Business Park as the Quonset District. As such it is regulated under the Quonset Development Regulations administered by the Technical Review Committee.

CONCLUSION AND RECOMMENDATIONS

The maintenance and improvement dredging goals of the QDC will be achieved while maintaining compliance with the existing Regulations. It should be noted that there are numerous references throughout the Regulations, the Narragansett Bay Region Plan, and the Rhode Island Bays, Rivers and Watersheds System Level Plan to the stated goals and value of the navigation, economic and social benefits that would be derived from a project such as is proposed by the QDC.

Any additional conditions as required by the USACE, CRMC Assent, and the RI DEM Water Quality Certificate will be incorporated in the contract documents and enforced during construction to ensure there are no permanent negative impacts to the coastal and marine resources resulting from the essential improvement and maintenance dredging within the proposed Pier 1 and Pier 2 dredging area.

The proposed maintenance and improvement dredging will help aid a safe and navigable water transit and berthing service for the regional transportation needs for cargo ships.

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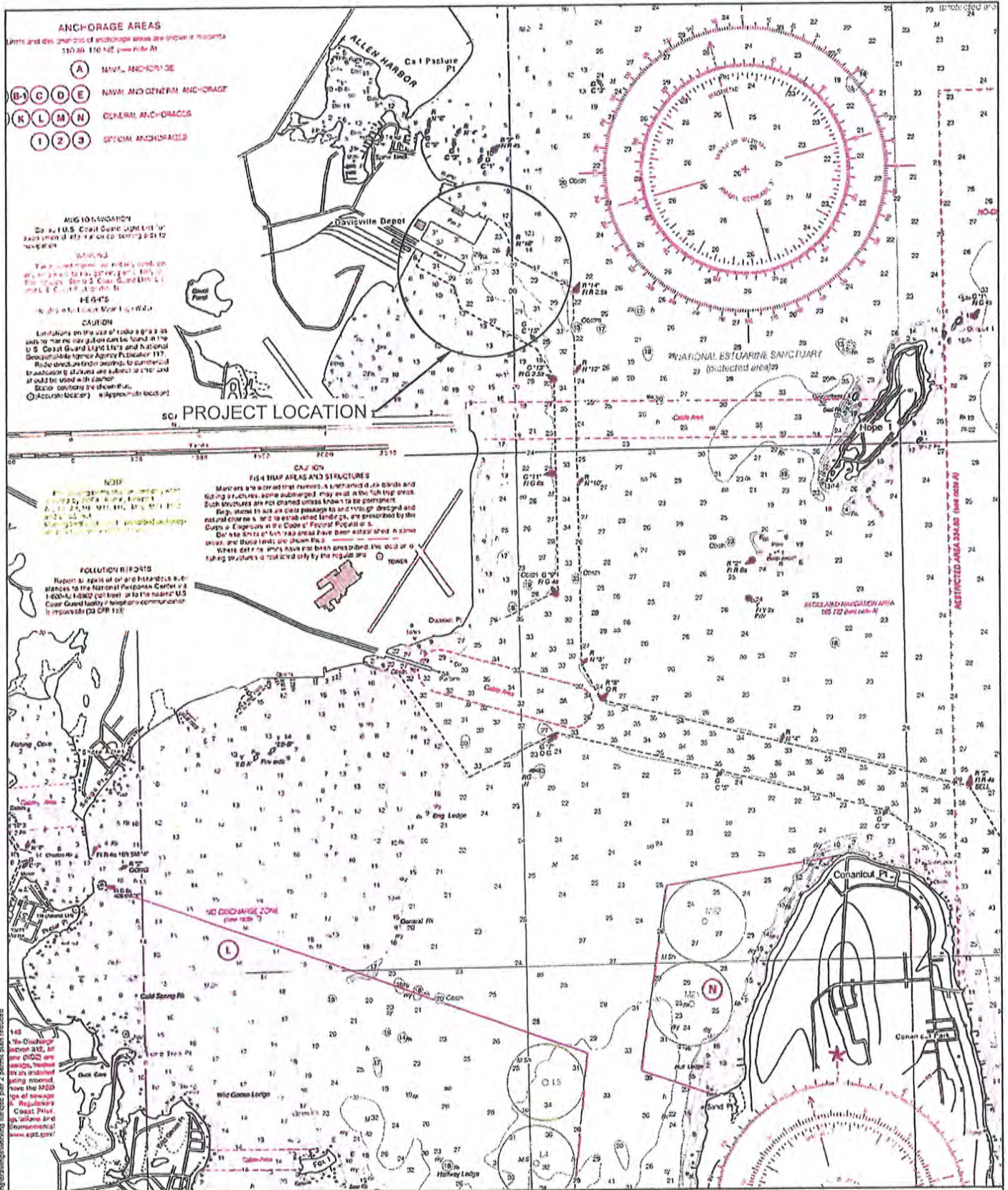
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Exhibit A
Permitting Plans

Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2
Quonset Development Corporation – North Kingstown, RI
Permit Applications



ANCHORAGE AREAS
 Limits and character of anchorage areas are shown in accordance with the following:

- (A) NAVAL ANCHORAGE
- (B-C-D-E) NAVAL AND GENERAL ANCHORAGE
- (K-L-M-N) GENERAL ANCHORAGES
- (1-2-3) SPECIAL ANCHORAGE

AUXILIARY NAVIGATION
 See U.S. Coast Guard Light List for exact limits of range and bearing of all navigational aids.

WATERS
 Two classes of waters are shown on this chart: (1) "Waters of the United States" and (2) "Waters of the State of Rhode Island."

HEIGHTS
 Heights are shown in feet above Mean High Water.

CAUTION
 Limitations on the use of radio aids are shown to mariners in the publication found in the U.S. Coast Guard Light List and National Oceanic and Atmospheric Administration Publication 117. Radio structure from existing to commercial radio stations are shown in the chart and should be used with caution. (S) indicates the station is a (S) Accurate location (A) Approximate location

PROJECT LOCATION

CAUTION
FIELD MAP AREAS AND STRUCTURES
 Maps are not intended to be used as a substitute for field maps and field structures. Some structures may exist in the field that are not shown on the map. Such structures are not shown unless known to be permanent. Plans, elevations and other data for structures designed and constructed after the date of publication are prescribed by the Corps of Engineers in the Code of Federal Regulations. Do not enter the field unless you have been authorized in writing. Where data are not shown, the user of the field structures is restricted only by the regulations.

POLLUTION REPORTS
 Report spills of oil or other hazardous substances to the National Response Center at 1-800-FR-882 (not toll free) or to the nearest U.S. Coast Guard facility. Report oil spills to the nearest U.S. Coast Guard facility. Report other pollution to the nearest U.S. Coast Guard facility.

143 "No Discharge" action 312, all one (022) one always, treated in its installed being records have the MSD (type of sewage & Regulations Coast Pilot, or, where and Environmental www.epa.gov/

PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
 MLW = 0.0
 NAVD88 = +2.18'
 MHW = +3.81'

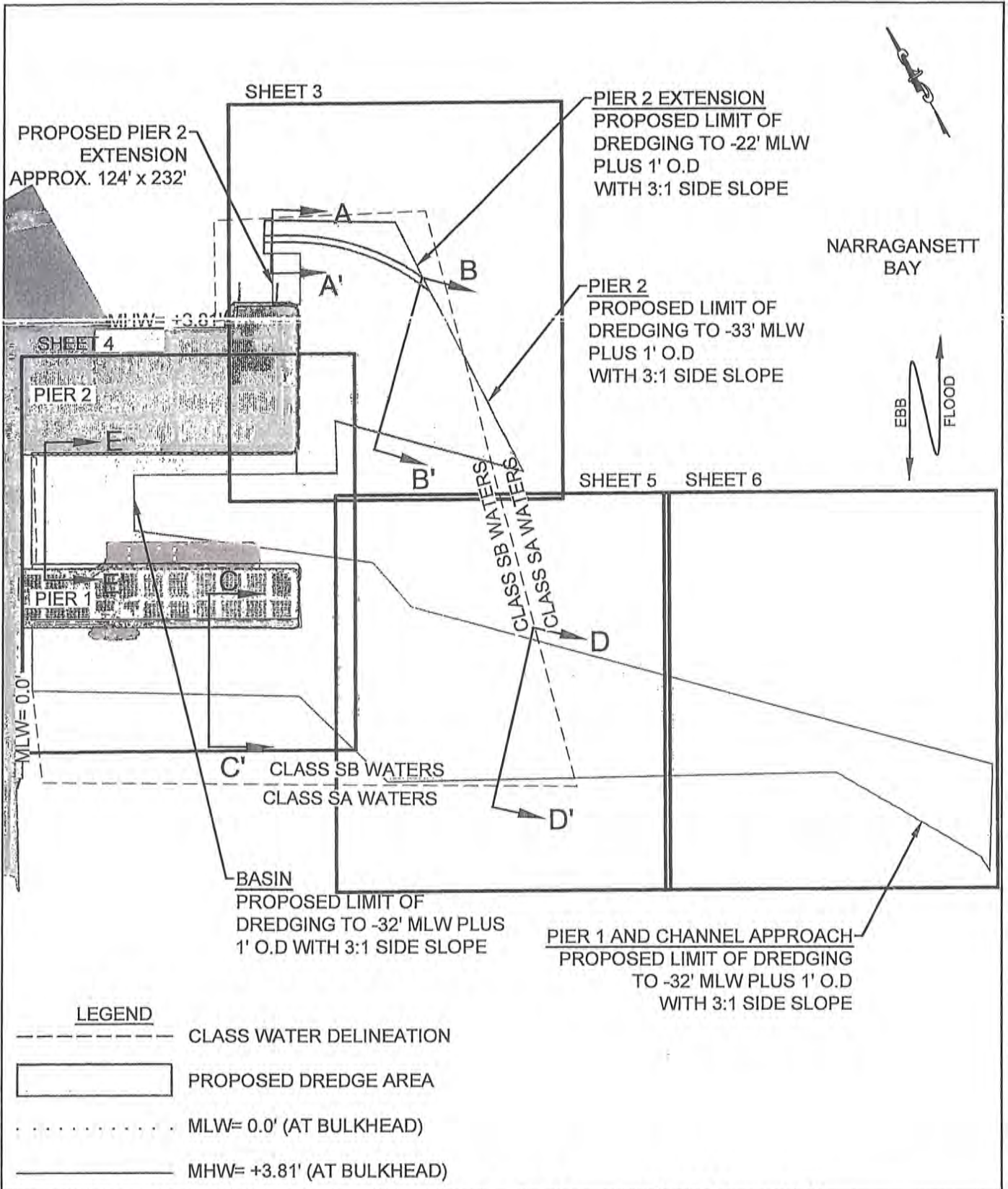
FOTH-CLE ENGINEERING GROUP
 15 CREEK ROAD, MARION MA, 02738

LOCUS MAP

GRAPHIC SCALE
 0 N.T.S.
 SCALE IN FEET

PIER 1 & 2 DREDGE PLAN
NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
COUNTY OF: WASHINGTON
APPLICATION BY: QUONSET DEVELOPMENT CORPORATION
DATE: MARCH 2019
SHEET 1 OF 12

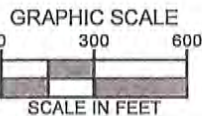


PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
MLW = 0.0
NAVD88 = +2.18'
MHW = +3.81'

FOTH-CLE ENGINEERING GROUP
15 CREEK ROAD, MARION MA, 02738

SITE PLAN

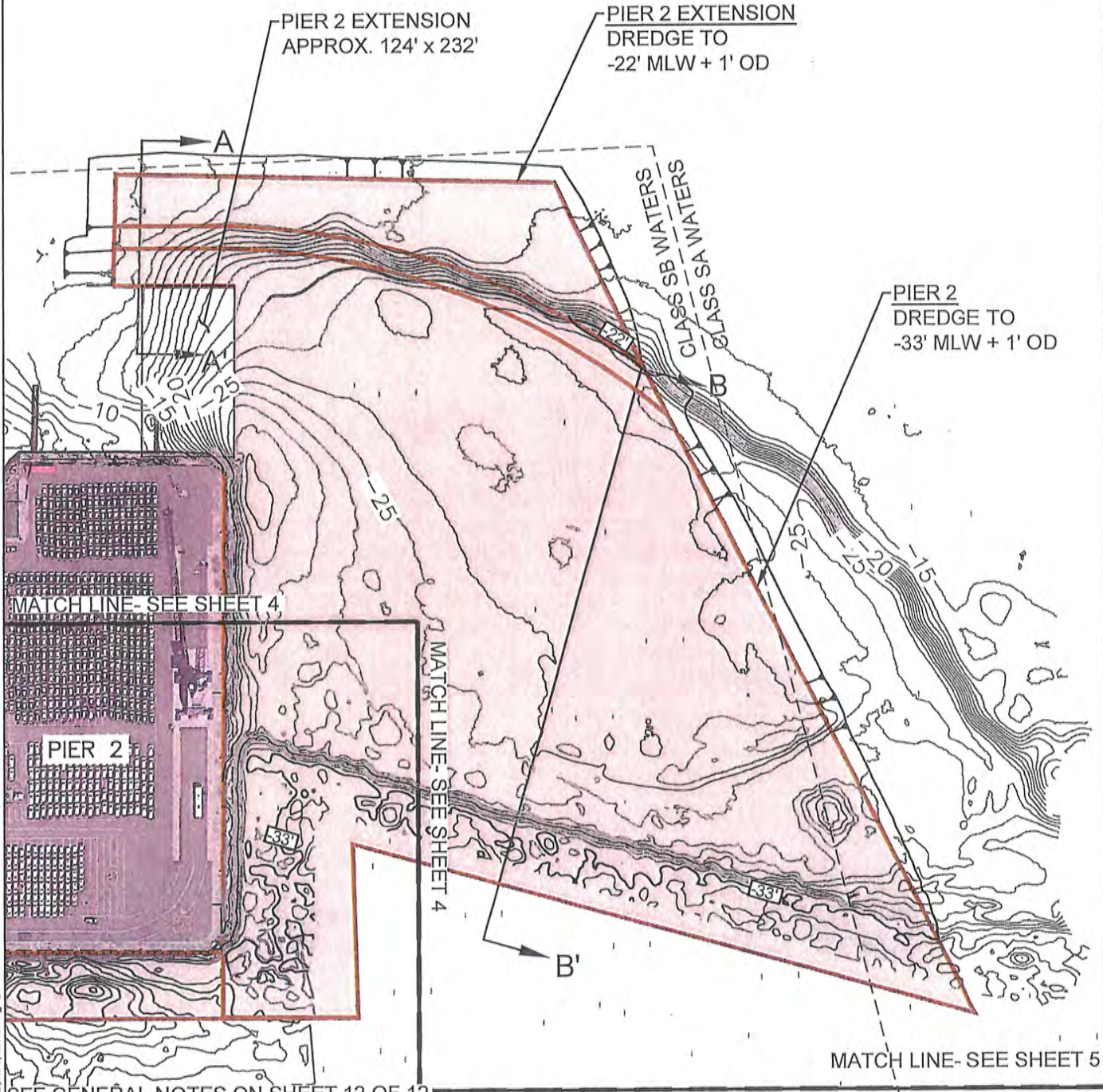


PIER 1 & 2 DREDGE PLAN
NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
COUNTY OF: WASHINGTON
APPLICATION BY: QUONSET DEVELOPMENT CORPORATION

DATE: MARCH 2019

SHEET 2 OF 12



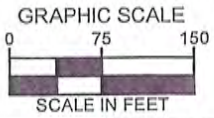
SEE GENERAL NOTES ON SHEET 12 OF 12

PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT
DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
MLW = 0.0
NAVD88 = +2.18'
MHW = +3.81'

FOTH-CLE ENGINEERING GROUP
15 CREEK ROAD, MARION MA, 02738

**PIER 2 EXTENSION & PIER 2
DREDGE SITE PLAN**

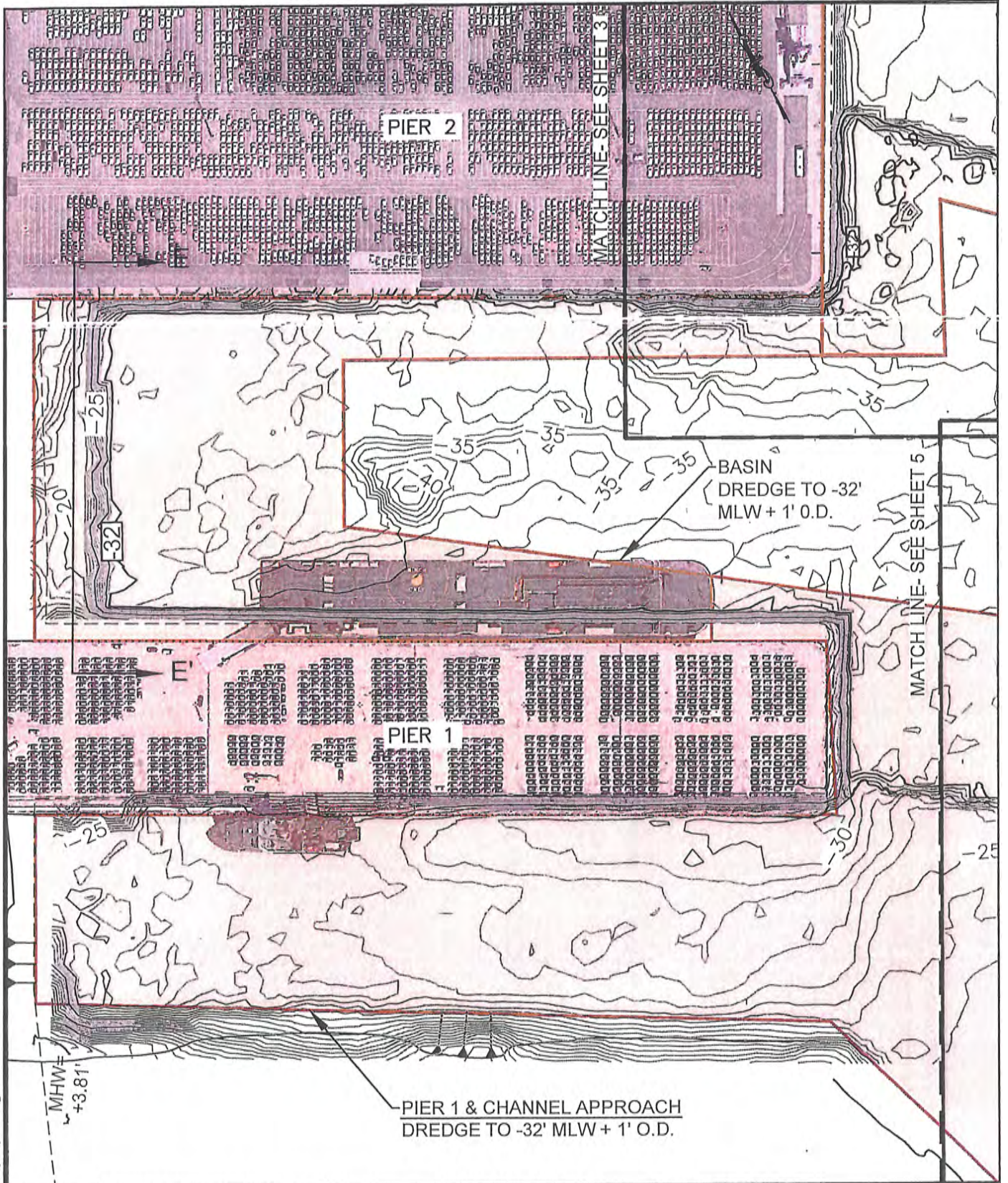


PIER 1 & 2 DREDGE PLAN
NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
COUNTY OF: WASHINGTON
APPLICATION BY: QUONSET DEVELOPMENT
CORPORATION

DATE: MARCH 2019

SHEET 3 OF 12

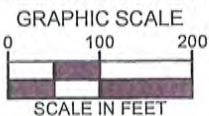


PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
MLW = 0.0
NAVD88 = +2.18'
MHW = +3.81'

FOTH-CLE ENGINEERING GROUP
15 CREEK ROAD, MARION MA, 02738

BASIN AND PIER 1 & CHANNEL APPROACH DREDGE SITE PLAN

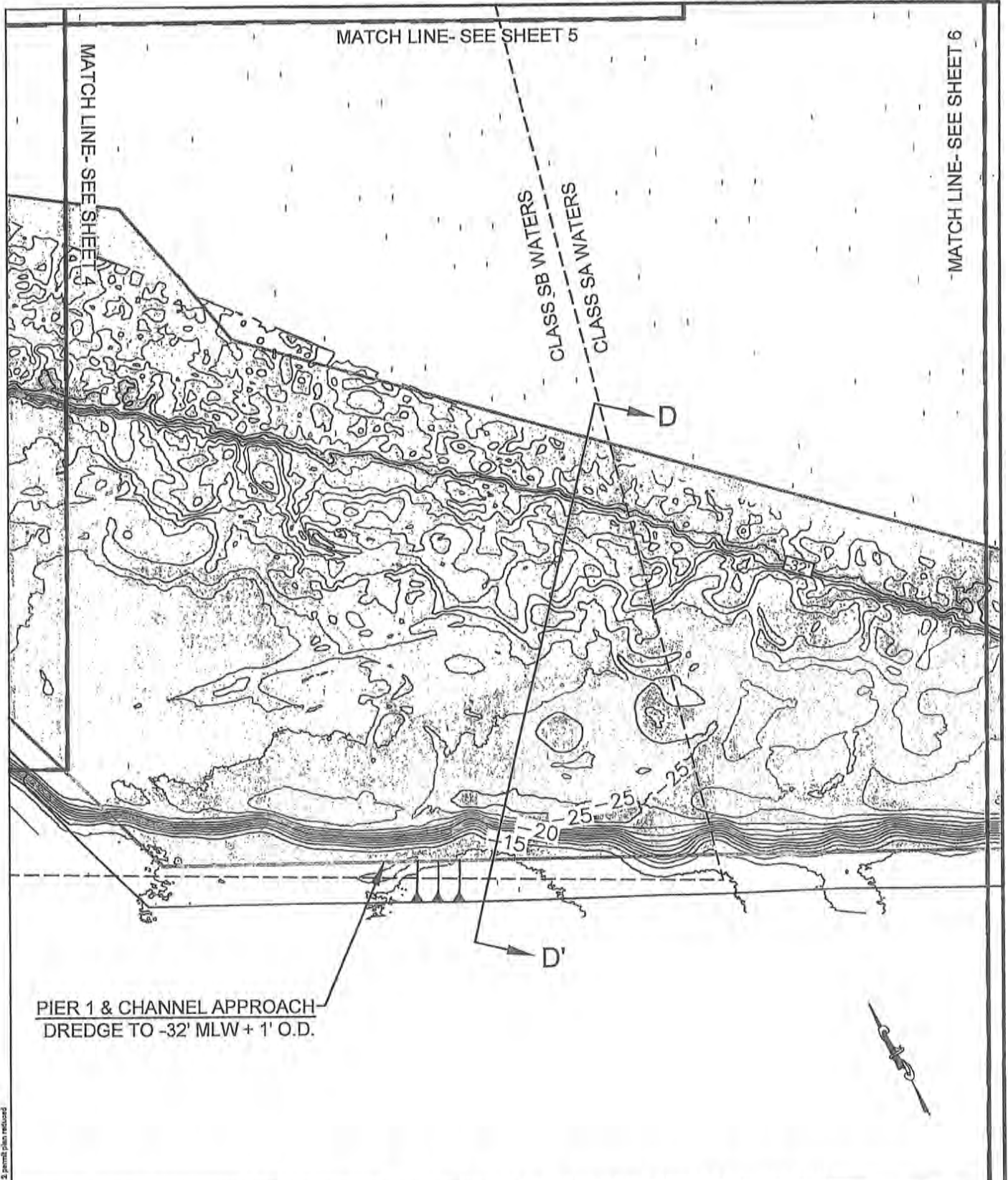


PIER 1 & 2 DREDGE PLAN
NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
COUNTY OF: WASHINGTON
APPLICATION BY: QUONSET DEVELOPMENT CORPORATION

DATE: MARCH 2019

SHEET 4 OF 12



PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT
DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
MLW = 0.0
NAVD88 = +2.18'
MHW = +3.81'

FOTH-CLE ENGINEERING GROUP
15 CREEK ROAD, MARION MA, 02738

**PIER 1 & CHANNEL APPROACH
DREDGE SITE PLAN**

GRAPHIC SCALE
0 100 200
SCALE IN FEET

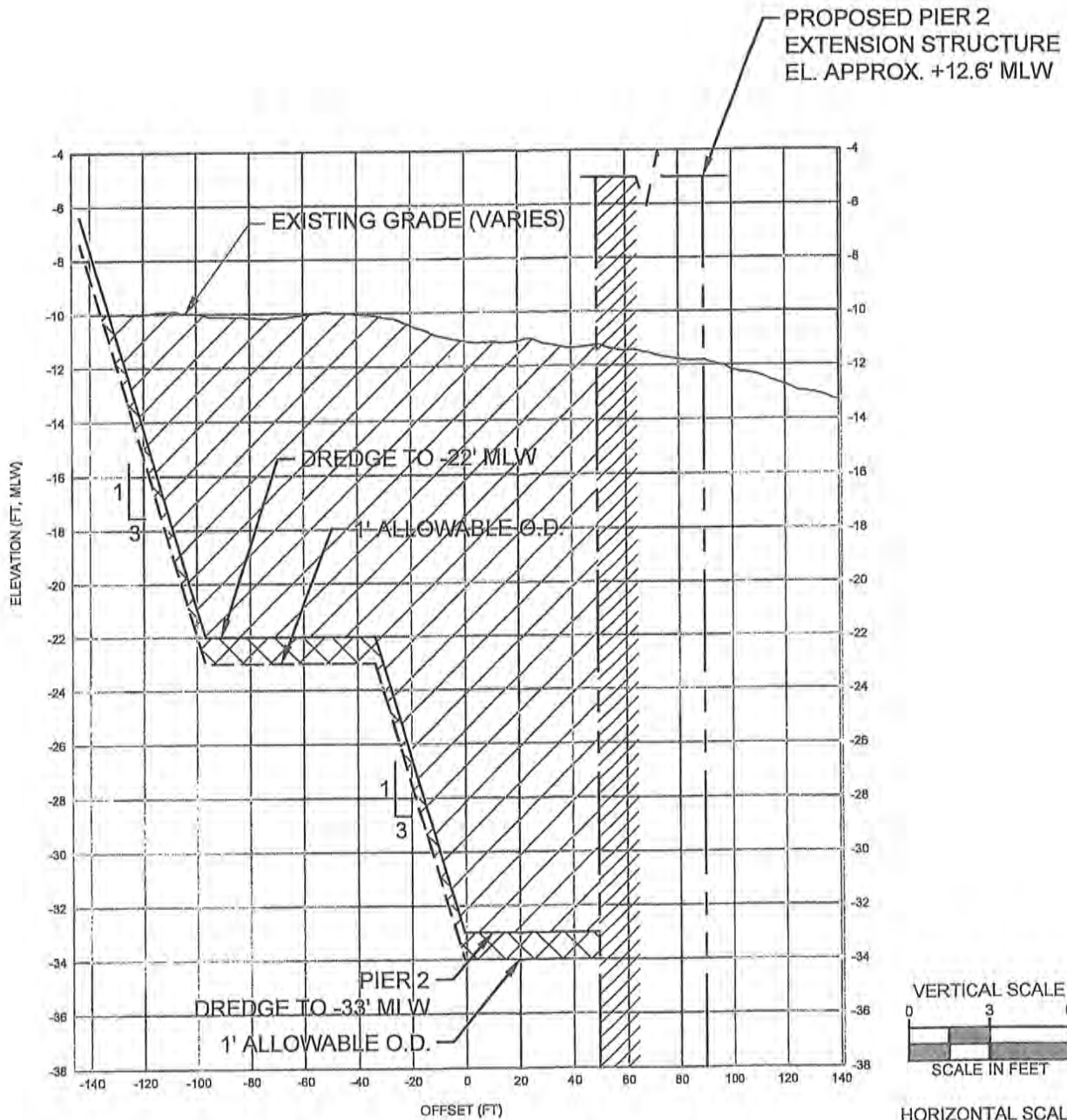
PIER 1 & 2 DREDGE PLAN
NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
COUNTY OF: WASHINGTON
APPLICATION BY: QUONSET DEVELOPMENT
CORPORATION

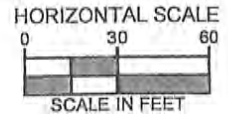
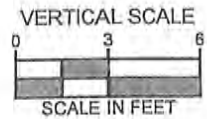
DATE: MARCH 2018

SHEET 5 OF 12

c:\work\projects\p1114_1\p1114\20180305\p1114_pier_2.dwg (plan reduced)



TYPICAL SECTION A-A' - PIER 2 EXTENSION
 VERTICAL SCALE: 1"=6'
 HORIZONTAL SCALE: 1"=60'



PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT
 DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
 MLW = 0.0
 NAVD88 = +2.18'
 MHW = +3.81'

FOTH-CLE ENGINEERING GROUP
 15 CREEK ROAD, MARION MA, 02738

CROSS SECTION A-A'
 PIER 2 EXTENSION

PIER 1 & 2 DREDGE PLAN
 NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
 COUNTY OF: WASHINGTON
 APPLICATION BY: QUONSET DEVELOPMENT
 CORPORATION

DATE: MARCH 2019

SHEET 7 OF 12

c:\users\j\documents\16251 - quonset\p02 - pier 2 permit\plan redlined_r.dwg

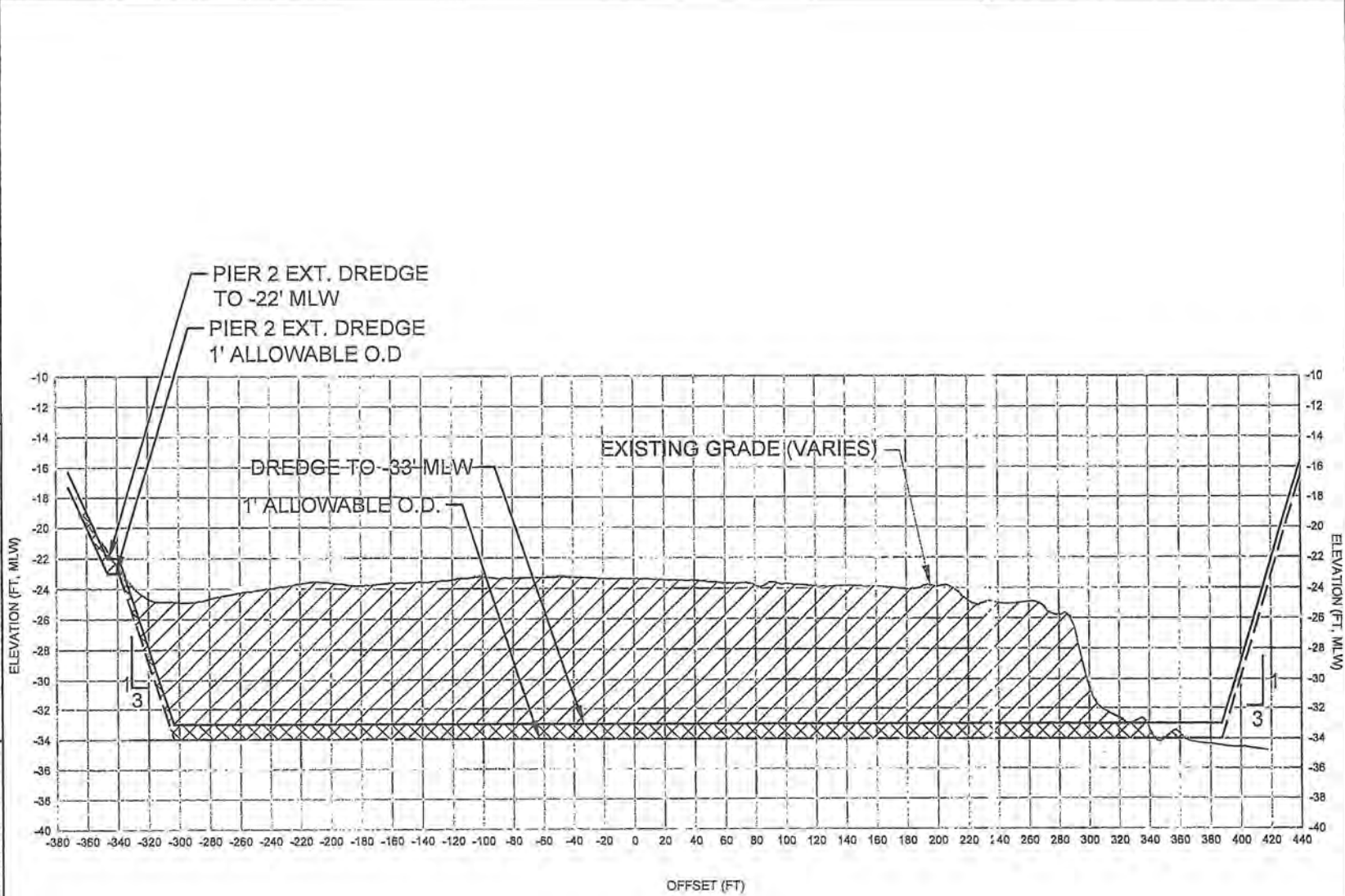
PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT
 DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

**CROSS SECTION B-B'
 PIER 2**

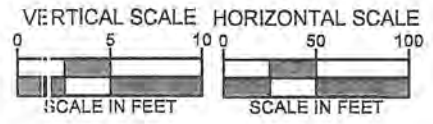
PIER 1 & 2 DREDGE PLAN
 NORTH KINGSTOWN, RHODE ISLAND

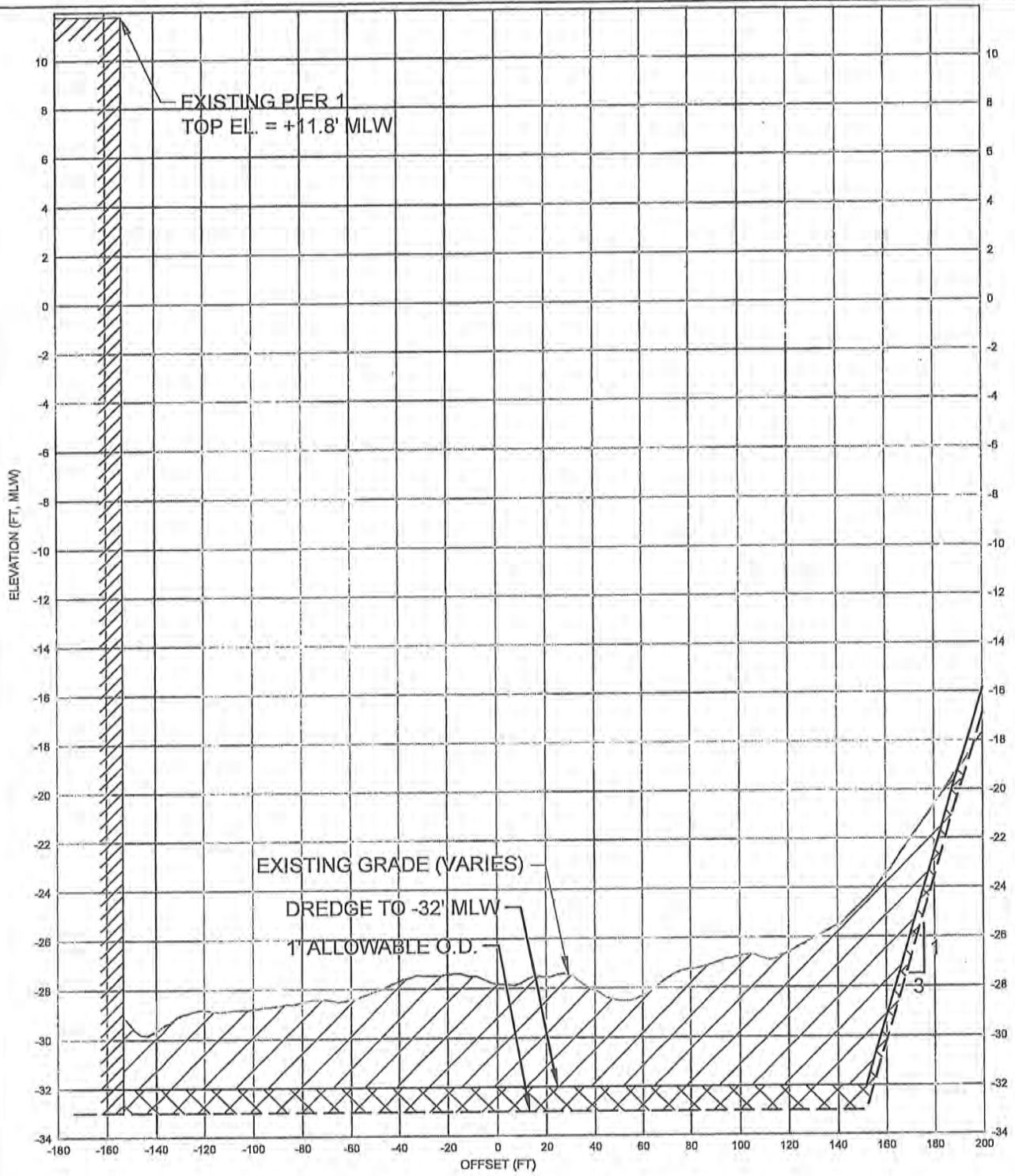
AT: PIER 1 & PIER 2
 COUNTY OF: WASHINGTON
 APPLICATION BY: QUONSET DEVELOPMENT
 CORPORATION
 DATE: MARCH 2019

SHEET 8 OF 12

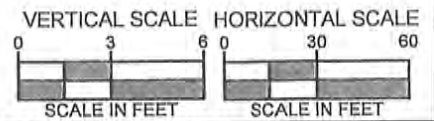


TYPICAL SECTION B-B' - PIER 2
 VERTICAL SCALE: 1"=10'
 HORIZONTAL SCALE: 1"=100'





TYPICAL SECTION C-C' - PIER 1 & CHANNEL APPROACH
 VERTICAL SCALE: 1"=6'
 HORIZONTAL SCALE: 1"=60'



PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT
 DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
 MLW = 0.0
 NAVD88 = +2.18'
 MHW = +3.81'

FOTH-CLE ENGINEERING GROUP
 15 CREEK ROAD, MARION MA, 02738

**CROSS SECTION C-C'
 PIER 1 & CHANNEL
 APPROACH**

PIER 1 & 2 DREDGE PLAN
 NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
 COUNTY OF: WASHINGTON
 APPLICATION BY: QUONSET DEVELOPMENT
 CORPORATION

DATE: MARCH 2019

PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT
DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:

MLW = 0.0
NAVD88 = +2.18'
MHW = +3.81'

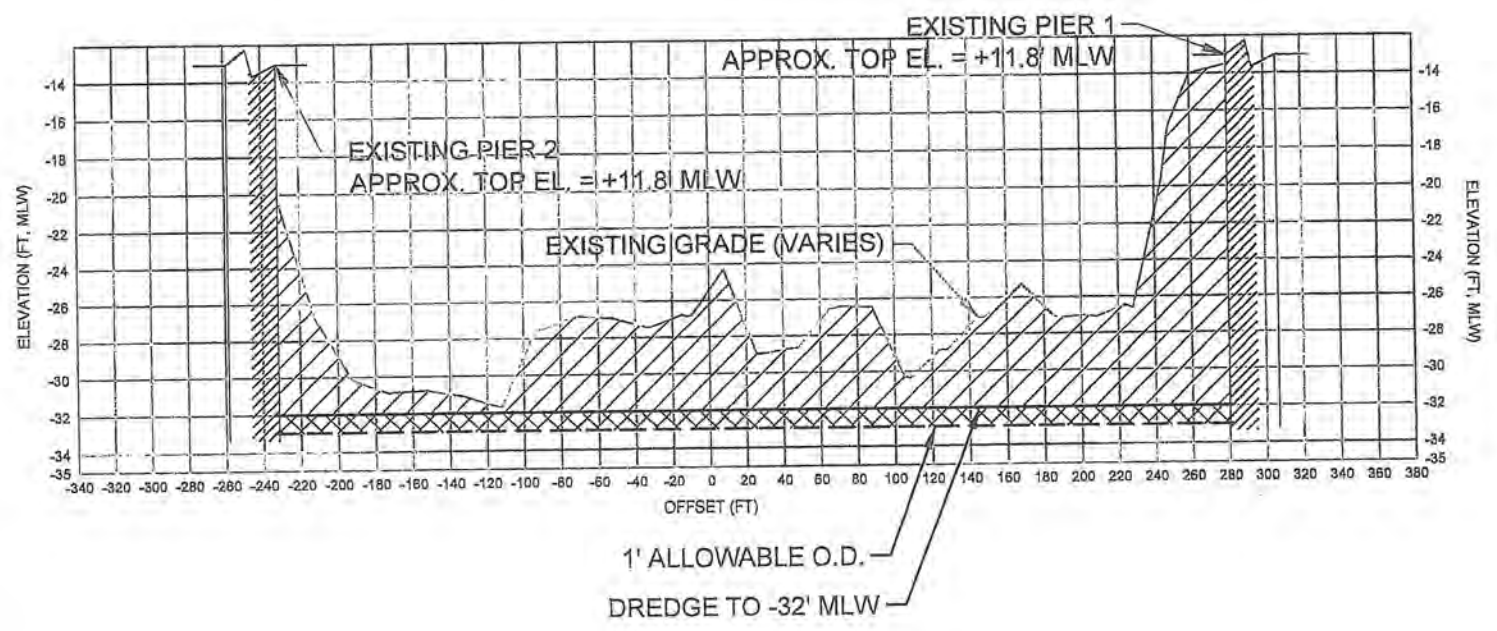
FOTH-CLE ENGINEERING GROUP
15 CREEK ROAD, MARION MA, 02738

CROSS SECTION E-E'
BASIN

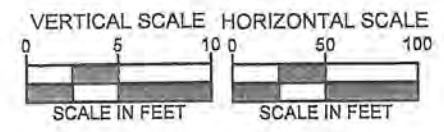
PIER 1 & 2 DREDGE PLAN
NORTH KINGSTOWN, RHODE ISLAND

AT: PIER 1 & PIER 2
COUNTY OF: WASHINGTON
APPLICATION BY: QUONSET DEVELOPMENT
CORPORATION
DATE: MARCH 2019

SHEET 11 OF 12



TYPICAL SECTION E-E' - BASIN
VERTICAL SCALE: 1"=10'
HORIZONTAL SCALE: 1"=100'



NOTES:

1. THE BATHYMETRIC DATA SHOWN ON THIS PLAN WAS GATHERED ON JANUARY 19, 2017 AND FEBRUARY 23, 2017 BY CLE ENGINEERING, AND ON AUGUST 27, 2013 BY STEELE ENGINEERING..
2. SOUNDINGS ARE IN FEET AND TENTHS AND REFER TO DEPTHS BELOW THE VERTICAL REFERENCE PLANE. THE VERTICAL REFERENCE PLANE FOR THIS PROJECT IS MLW
3. SOUNDINGS SHOWN AS NEGATIVE ARE ABOVE THE REFERENCE PLANE.
4. COORDINATES ARE BASED ON NAD 83 STATE PLANE RHODE ISLAND COORDINATE GRID.
5. CONTOURS ARE BASED ON 3'X3' AVERAGE VALUE DATA SET (CLE) AND 20'X20' MIN (STEELE)
6. BENCHMARK / RTK TIDES: TIDES ARE RECORDED USING RTK TIDES IN HYPACK. ELEVATIONS FROM ELLIPSOID TO ORTHOMETRIC NAVD88 USE GEOID 12A. THE OFFSET BETWEEN THE ORTHOMETRIC HEIGHT AND THE LOCAL TIDAL DATUM (NAVD88)(K) = 2.18'
7. RTK CORRECTIONS FOR THIS SURVEY PROVIDED BY KEYNET - VRS.
8. THE SOUNDING INFORMATION SHOWN ON THIS PLAN REPRESENTS THE MINIMUM SOUNDINGS OBTAINED FROM HYDROGRAPHIC SURVEYS. CONTOURS ARE GENERATED FROM A 3'X3' AVERAGE VALUE DATA SET.
9. THE SOUNDING INFORMATION DEPICTED ON THIS PLAN SHOULD NOT BE USED FOR THE DETERMINATION OF VOLUMES. VOLUMES ARE TO BE DETERMINED FROM A SEPARATE AVERAGE VALUE DATA SET.
10. SHORELINE, BRIDGES, PIERS, ETC. ARE SCALED FROM ORTHO-IMAGERY. ORTHO-IMAGERY AND SCALED DATA IS APPROXIMATE UNLESS OTHERWISE NOTED AND SHOULD BE USED AS A GENERAL REFERENCE ONLY.
11. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES SHOWN, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. INTERPOLATED INFORMATION FROM BETWEEN SOUNDING RUNS IS NOT GUARANTEED. SHOALS, OBSTRUCTIONS OR OTHER DIFFERING CONDITIONS MAY EXIST BETWEEN THESE RUNS. CONSULT WITH CLE ENGINEERING FOR MORE DETAILED INFORMATION.
12. POSSESSION AND USE OF THE MATERIAL CONTAINED ON THESE DRAWINGS IS GRANTED ONLY IN CONNECTION WITH ITS USE AS IT RELATES TO THE TITLED PROJECT, ANY OTHER USE, REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED HEREON IS EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF CLE ENGINEERING INC.

DREDGE VOLUMES

DREDGE AREA	DEPTH (FT. MLW)	VOLUME (CY)
PIER 2 EXT.	-22	25,178
	-23 (+1' OD)	28,474
PIER 2	-33	176,886
	-34 (+1' OD)	199,960
PIER 1 & CHANNEL	-32	357,444
	-33 (+1' OD)	418,910
BASIN	-32	26,735
	-33 (+1' OD)	31,577

DATUM OFFSETS

MLW	QVD	MHHW	MHW
4.06	4.93		
3.81	4.68		
2.18	3.05	NAVD88	
0.0	0.87	MLW	
-0.15	0.72	MLLW	
-0.87	0	QVD	

SURVEY NOTES:

1. PROJECT NUMBER: 16291.100
2. SURVEY DATE: JANUARY 19, 2017 & FEBRUARY 23, 2017
3. SURVEYOR: M.CAMPAGNONE, J.BARANELLO
4. VESSEL: OSCAR
5. TRANS./FATH.: 240KHZ, 150 DEGREE SWATH, MULTI-BEAM, RESON 7101
CODA F-180, RTK KEYNET CORRECTIONS
6. WEATHER COND: MOSTLY SUNNY 45 DEGREES, WIND 0-5, SEAS CALM
7. PROJECT DATUM: MLW
8. COOR. SYSTEM: NAD-83, RHODE ISLAND
9. DATA REDUCTION: DATA SORTED W/HYPACK MAPPER,
50'X50' MATRIX MINIMUM VALUE

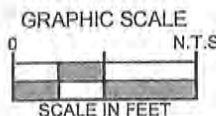
OFFSETS TAKEN FROM
VDATUM V3.4
© 41.614062 N, 71.401935 W

PURPOSE: PROPOSED MAINTENANCE & IMPROVEMENT
DREDGING WILL IMPROVE ACCESS TO NAVIGABLE WATERS

DATUM:
MLW = 0.0
NAVD88 = +2.18'
MHW = +3.81'

FOTH-CLE ENGINEERING GROUP
15 CREEK ROAD, MARION MA, 02738

NOTES



PIER 1 & 2 DREDGE PLAN
NORTH KINGSTOWN, RHODE ISLAND

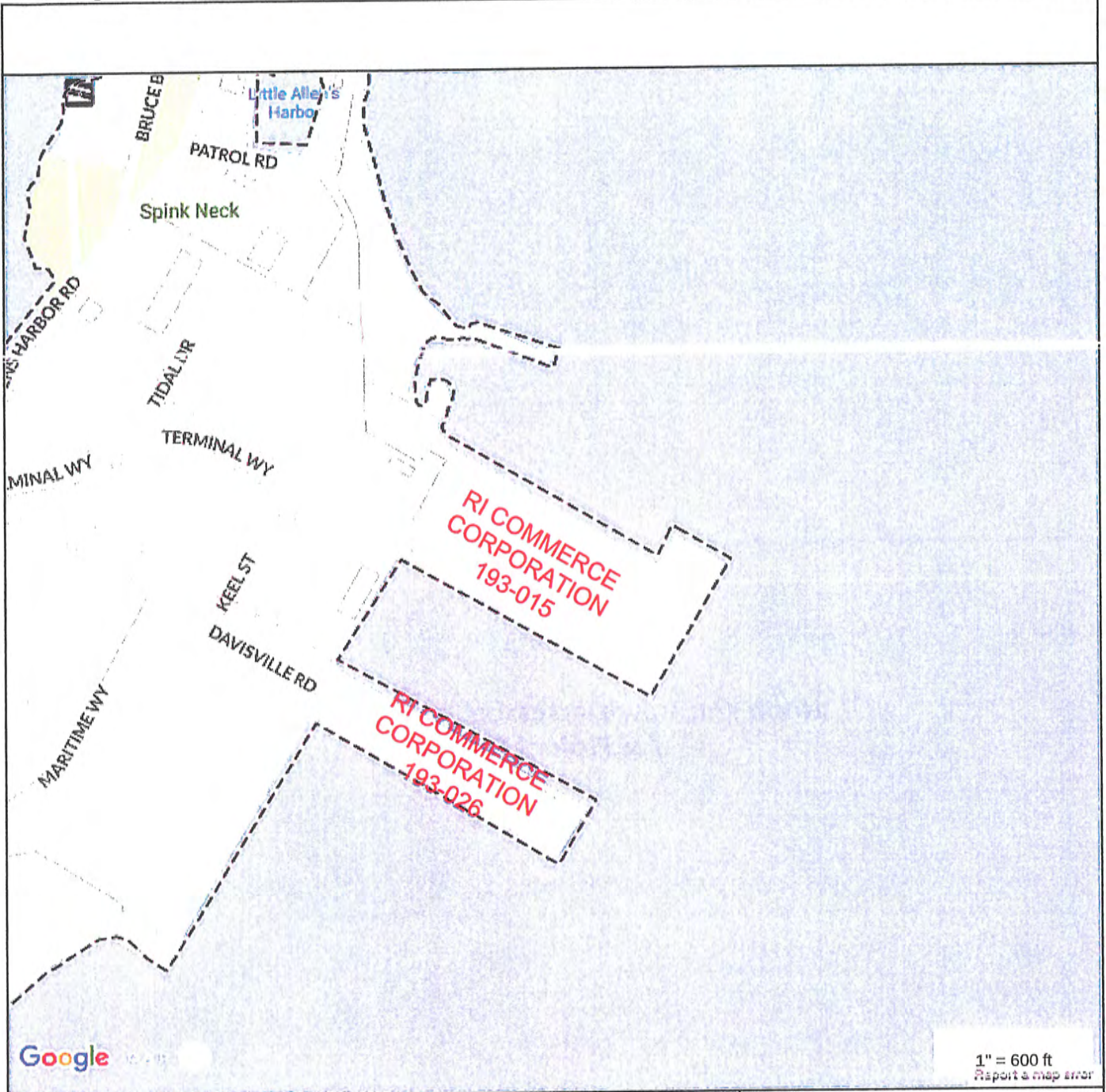
AT: PIER 1 & PIER 2
COUNTY OF: WASHINGTON
APPLICATION BY: QUONSET DEVELOPMENT
CORPORATION

DATE: MARCH 2019

SHEET 12 OF 12

Exhibit B

***North Kingstown Assessors Information
For Project Site***



1" = 600 ft
Report a map error

Property Information

Property ID 191-061
 Location CROSS PARK AV
 Owner RHODE ISLAND COMMERCE CORPORATION



**MAP FOR REFERENCE ONLY
 NOT A LEGAL DOCUMENT**

North Kingstown, Rhode Island makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

DAVISVILLE RD

Location DAVISVILLE RD

Plat and Lot (M... 193/ 026/ / /

Owner R I COMMERCE CORPORATION

Assessment \$6,782,100

Appraisal \$6,782,100

PID 185580

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$6,000,000	\$782,100	\$6,782,100
Assessment			
Valuation Year	Improvements	Land	Total
2018	\$6,000,000	\$782,100	\$6,782,100

Owner of Record

Owner R I COMMERCE CORPORATION
Co-Owner
Address 95 CRIPE ST
 N KINGSTOWN, RI 02852

Sale Price \$0
Certificate
Book & Page 317/ 087
Sale Date 11/28/1978
Instrument MP

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
R I COMMERCE CORPORATION	\$0		317/ 087	MP	11/28/1978

Building Information

Building 1 : Section 1

Year Built:

Living Area: 0

Building Attributes	
Field	Description
Style	Vacant Land
Model	
Grade:	

Stories:	
Occupancy	
Exterior Wall	
Exterior Wall	
Roof Structure:	
Roof Cover	
Interior Wall	
Interior Wall	
Interior Flr	
Interior Flr	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Basement Rec	
Basement Fin	
Basement Gar	
Chimney Mason	
ExtraFPLOpen	
Chimney Metal	
Gas FPL/stove	

Building Photo



(<http://images.vgsi.com/photos/NorthKingstownRIPhotos//default>)

Building Layout

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 9010
Description STATE MDL- V
Zone QBPD
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 6.90
Depth 0
Assessed Value \$782,100
Appraised Value \$782,100

Outbuildings

Outbuildings

Legend

Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
DCK2	COM TYPE			240000 S.F.	\$6,000,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$6,000,000	\$782,100	\$6,782,100
2017	\$6,000,000	\$782,100	\$6,782,100
2016	\$6,000,000	\$782,100	\$6,782,100

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$6,000,000	\$782,100	\$6,782,100
2017	\$6,000,000	\$782,100	\$6,782,100
2016	\$6,000,000	\$782,100	\$6,782,100

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MODEL	Ind/Com
Grade	Average
Stories:	1
Occupancy	1
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Metal/Tin
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	None
Heating Type	None
AC Type	None
Bldg Use	STATE MDL-96
Total Rooms	
Total Bedrms	
Total Baths	
1st Floor Use:	
Heat/AC	NONE
Frame Type	STEEL
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	30
% Comn Wall	

Building Photo



(<http://images.vgsi.com/photos/NorthKingstownRIPhotos/\\00\0;>)

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	28,800	28,800
		28,800	28,800

4

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	9011
Description	STATE MDL-96
Zone	QBPD
Alt Land Appr	No

Land Line Valuation

Size (Acres)	18.70
Depth	0
Assessed Value	\$1,313,100
Appraised Value	\$1,313,100

Category

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
DCK2	COM TYPE			570000 S.F.	\$14,250,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$14,791,700	\$1,313,100	\$16,104,800
2017	\$14,791,700	\$1,313,100	\$16,104,800
2016	\$14,791,700	\$1,313,100	\$16,104,800

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$14,791,700	\$1,313,100	\$16,104,800
2017	\$14,791,700	\$1,313,100	\$16,104,800
2016	\$14,791,700	\$1,313,100	\$16,104,800

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15 Creek Road | Marion, Massachusetts 02738
t: 508.748.0937 | 800.668.3220 | f: 508.748.1363

Exhibit C

Regulated Resource Areas

Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2
Quonset Development Corporation – North Kingstown, RI
Permit Applications

Exhibit D

Volume Calculations

Pier 1 and 2 Dredging

Dredge Area	Side Slope	Area (±acres)	Dredge Depth (FT, MLW)	Volume (±CY)	Allowable 1' Overdredge (±CY)	Total Volume (±CY)
Pier 2 Extension	3:1	1.41	-22	25,178	3,296	28,474
Pier 2	3:1	15.76	-33	176,886	23,074	199,960
Basin	3:1	8.76	-32	26,735	4,842	31,577
Pier 1 and Channel Approach	3:1	45.69	-32	357,444	61,466	418,910
TOTAL		71.62		586,243	92,678	678,921

Exhibit E

Sediment Analyses- 'Suitability Determination for Quonset Development Corporation- South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI; Application No. NAE-2017-1086; dated October 23, 2018

Memorandum Thru:

Robert J. Desista, Chief, Policy and Technical Support Branch DESISTA.ROBER
T.J.1229271241

Digitized by DESISTA.ROBER
Date: 2018-10-23 10:23:41 -0400

For: Taylor Bell, Project Manager, CENAE-RDB

Subject: Suitability Determination for Quonset Development Corporation – South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI, File Number NAE-2017-1086.

1. References Cited

- a. US EPA Region I/USACE-NAE. 2014. Reference Memorandum for Evaluating Testing and Non-Testing Requirements of 40 C.F.R 227.6 and 227.27 Federal Navigation Dredging or Non-federal Dredging Projects, for Open Ocean Disposal at the Rhode Island Sound Disposal Site (RISDS).
- b. USEPA Region I/USACE-NAE. 2004. Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters. Environmental Protection Agency, Region 1, Boston, MA/US Army Corps of Engineers, New England District, Concord, MA. 54 pp.
- c. USACE-NAE. 2018. Environmental Assessment/Finding of No Significant Impact for the Quonset Development Corporation – South Berth and Davisville Channel. US Army Corps of Engineers (USACE), New England District, Concord, MA.

2. Summary:

This memorandum addresses compliance with the regulatory evaluation and testing requirements of the Marine Protection, Research and Sanctuaries Act (MPRSA, or Ocean Dumping Act) regulations at 40 CFR 227 as well as the issues outlined in RISDS Reference Memo (USEPA Region 1/USACE-NAE 2014) for unconfined open water disposal at an ocean disposal site. Based upon this review, the proposed dredged material from the Quonset Development Corporation – South Berth and Davisville Channel is suitable for unrestricted ocean disposal at RISDS. Detailed information pertaining to the regulatory issues associated with the evaluation of this project as well as the technical background of the analytical tests summarized herein is found in the RISDS Reference Memo (EPA, 2014). A copy of this memo can be obtained upon request from the EPA or USACE.

CENAE-RDP

SUBJECT: Suitability Determination for Quonset Development Corporation – South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI, File Number NAE-2017-1086.

2. Project Description:

The proposed dredging will be conducted in front of the existing bulkhead adjacent to the South Berth and the Davisville Channel. The proposed dredge footprint includes two turning basins needed by vessels and an extension into the navigational route leading to the Davisville Channel. The applicant is proposing to dredge three areas, two turning basins and a channel to various depths in North Kingstown, RI. The dredging footprint of the first turning basin will have an area of approximately 136,058 sq. ft. The dredging footprint of the second basin will have an area of approximately 574,866 sq. ft., and the channel's footprint will have an area of approximately 1,990,117 sq. ft. This will result in a total area of approximately 2,701,041 sq. ft. or 62 acres.

The first basin will be dredged to a depth of -23' MLW with a one-foot overdredge; approximately 27,740 cu. yd. will be removed. The second basin will be dredged to a depth of -33' MLW with a one-foot overdredge; approximately 140,649 cu. yd. will be removed. The channel will be dredged to a depth of -33' MLW with a one-foot overdredge; approximately 418,910 cu. yd. will be removed. This activity will produce a total volume of approximately 587,299 cu. yds. of silty material that will be disposed of at the Rhode Island Sound Disposal Site (RISDS). This part of this dredging was last dredged five years ago.

Site History: The Port of Davisville is an active maritime facility primarily used for the importation of foreign made automobiles. It is located in the Quonset Business Park within the Town of North Kingstown in the State of Rhode Island. The U.S. Navy constructed the Quonset and Davisville waterfront in the 1940's as a deep-water port and dredged channels and turning basins to support their operations and allow access to the Atlantic Ocean. The Quonset Development Corporation (QDC) proposes maintenance and improvement dredging of the South Berth in order to facilitate vessel traffic of this significant waterfront parcel.

The Port of Davisville was originally constructed by the US Navy in February 1942, under the name of Advance Base Depot (ABD) Davisville. Upon the acquisition of 1,200 acres, ABD facilities included fabrication and assembly areas, storage warehouses, repair and maintenance shops, administration buildings, cafeterias, barracks, ordnance magazines, and associated roads and utilities. The specific area for this project was constructed as an open storage area with a timber pier and a dredged channel.

After World War II, military activity at Davisville was reduced until it was reactivated during the Korean War and Vietnam conflict. A second pier

CENAE-RDP

SUBJECT: Suitability Determination for Quonset Development Corporation – South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI, File Number NAE-2017-1086.

was built around 1956 to support the over sea construction activities. The subject area continued to be used for open storage of construction material and equipment.

Realignment during the 1970s resulted in a reduction of manpower requirements at Davisville. The Naval Shore Establishment Realignment (SER) Plan provided for the phased reduction of Davisville, with much of the land at the project site being declared excess to the needs of the US Navy.

The immediate area is on the western shore of the West Passage of Narragansett Bay. Allen Harbor, a small municipal harbor is to the north of the project location. A small heavily altered freshwater creek named Hall Creek empties into the Bay.

Project History: The State of Rhode Island acquired the Davisville port area and began to operate it as a public maritime port operation. Since the early 1980's the port has operated as a public port. The principal port activity has been the importation of foreign made vehicles that uses the port area to off load and store vehicles. The Port has also been used to a lesser extent for fish and product cargo and for the construction of the Jamestown and I-way bridges. Thus, the use of the Davisville area has been relatively consistent over its site history, as being used as an open storage and assembly area to support maritime activities.

Disposal Site History: The Rhode Island Sound Disposal Site (RISDS) was designated in December 2004. This 3.24 km² (1 nautical mi²) site is centered at 41° 13.854' N, 71° 22.819' W (NAD 83) and lies approximately 21 km south of the entrance to Narragansett Bay, Rhode Island. It is situated within the Separation Zone for the Narragansett Bay Inbound and Outbound Traffic Lanes and lies within a topographic depression, with water depths from 36 to 39 m. Prior to its site designation, it was selected for temporary use and was employed during 2003-2004 for placement of over 3.4 million m³ (4.5 million yd³) of sediment from the Providence River (primarily from the Federal Navigation Project). The management strategy during the Providence project was to dispose at a carefully selected series of north-south-trending points in order to create a continuous ridge of sediment along the western edge of the site. This ridge created an artificial containment structure along the western boundary of the disposal site in order to minimize lateral spread of unconsolidated sediments deposited in the future. A total of 5,311,963 yd³ has been disposed of at this site since 2003.

RISDS is regularly monitored by the NAE Disposal Area Monitoring System (DAMOS) Program. The most recent DAMOS report on RISDS was a

CENAE-RDP

SUBJECT: Suitability Determination for Quonset Development Corporation – South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI, File Number NAE-2017-1086.

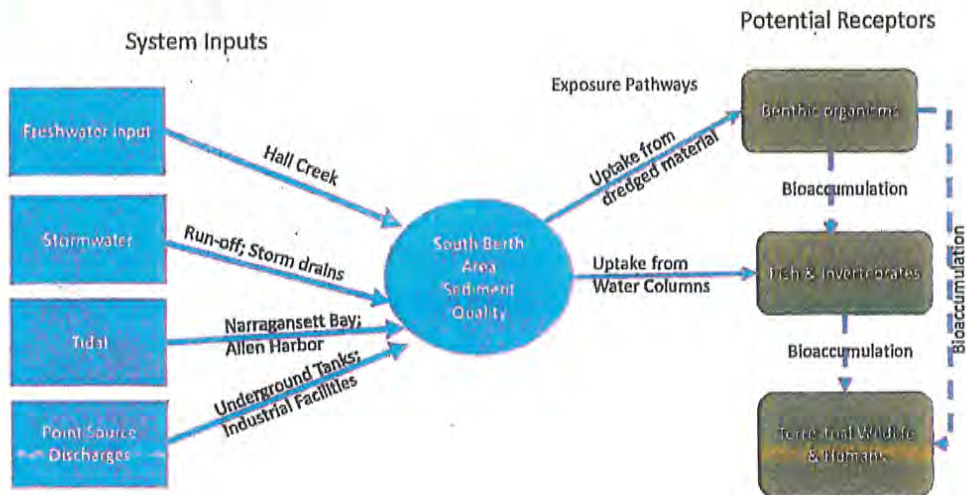
monitoring survey in 2009. Previous surveys were performed in 2005, 2004 and 2003.

Previous Dredging: In 2012, QDC was authorized to perform maintenance dredging to -32' MLW in the channel and 25' along the bulkhead (both areas with an allowable one-foot overdredge depth). This material was deemed suitable to be placed at the Rhode Island Sound Open Water Disposal Site (RISDS). Depending on the results of preliminary testing, some of the previous sampling may be used to evaluate this present proposed dredging project.

Spill History: There was one documented spill within the Davisville Pier area occurring at Pier 2 Davisville on April 17, 1996. The material spilled during the incident was 100 gallons of Diesel Fuel by a tug boat at the pier. The SPILL was reported by Providence Steamboat and is identified within the RIDEM database system as 96-88.

3. Conceptual Site Model:

NAE reviewed historic testing data, previous environmental assessments, land-use, and existing water quality data as well as interviewing local officials to develop a conceptual site model (CSM) for the dredging project (Figure 3). The CSM was used to characterize the system and identify potential sources of contamination, site-specific contaminants of concern, exposure pathways, and biological receptors in order to inform the sampling, testing, and analysis of the project's sediments.



CENAE-RDP

SUBJECT: Suitability Determination for Quonset Development Corporation – South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI, File Number NAE-2017-1086.

Following an initial review of the site characteristics, the possible sources of contamination, and the available recent and historical records, the Stockton Harbor Marina is given a **moderate** risk ranking according to the following matrix (adapted from USACE 2014):

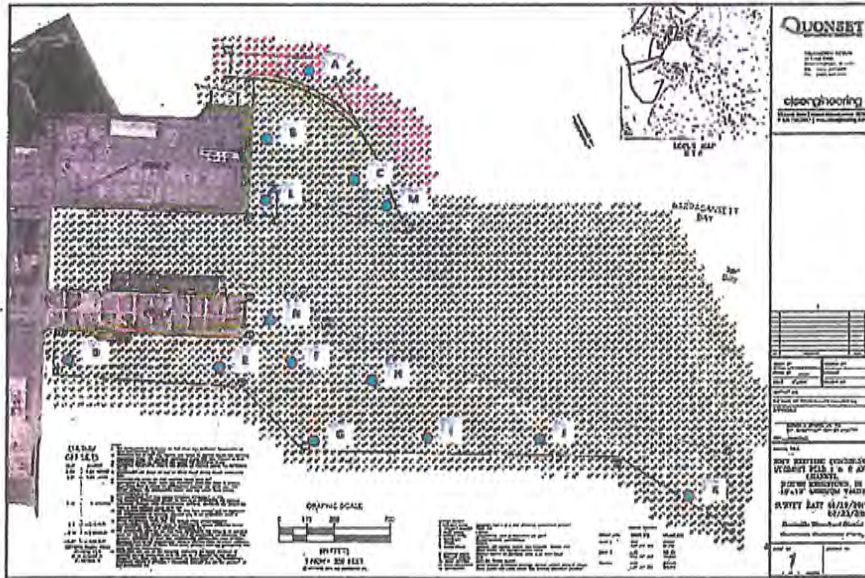
Rank	Guidelines
Low	Few or no sources of contamination. Data available to verify no significant potential for adverse biological effects.
Low-Moderate	Few or no sources of contamination but existing data is insufficient to confirm ranking.
Moderate	Contamination sources exist within the vicinity of the project with the potential to produce chemical concentrations that may cause adverse biological effects.
High	Known sources of contamination within the project area and historical data exists that has previously failed biological testing.

4. Sampling, Testing, and Analysis:

Based on the moderate ranking for the project, a sampling plan was developed by the Marine Analysis Section (MAS) for the analysis of physical, biological and chemical characteristics of the sediment proposed to be dredged. This sampling plan was written in accordance with the USEPA Region 1/USACE-NAE Regional Implementation Manual (RIM) guidelines (USEPA Region 1/USACE-NAE, 2004). The sampling plan received concurrence from the U.S. Environmental Protection Agency Region 1 (USEPA) and the Massachusetts Department of Environmental Protection (MADEP). The sampling plan called for fourteen cores (A to N) to be taken from the project area. Both agencies concurred with this plan. This determination evaluates the results of that biological testing. These cores were later composited based on their geographic location and grain size data.

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SUBJECT: Suitability Determination for Quonset Development Corporation – South Berth and Davisville Channel, Narragansett Bay, North Kingstown, RI, File Number NAE-2017-1086.



Compositing plan: Fourteen cores (A to N) were taken from the areas to be dredged according to the attached plan. These samples were then combined into five composites I, II, III, IV and V and analyzed for the 10-day toxicity test. For the elutriate and bioaccumulation tests, the materials will be further composited into three composites. Composite I (aka composite 1) should be analyzed as constructed. Composites II and III will be combined into Composite A and Composites IV and V will be combined into Composite B.

Compositing plan

First stage – for 10-day toxicity test

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The plan called for five composited samples for use in a bioassay with amphipods and mysids. For the suspended particulate bioassay with fish, mysid shrimp, and pelagic larvae; and a bioaccumulation assay using bivalves and polychaetes. Composite 1 was repeated and two composites were formed with the remaining samples. The USEPA concurred with this plan.

As no project-specific contaminants of concern were identified in the CSM other than those required in the Regional Implementation Manual (RIM, EPA/USACE 2004), the composite samples were analyzed for the standard suite of contaminants as outlined in the RIM.

b. Preliminary evaluation of the 10-day toxicity test

A 10-day bioassay test was conducted on the two composite samples using two test animals: an amphipod (*Leptocheirus plumulosus*) and a mysid shrimp (*Americamysis bahia*). As the results indicated no toxic response, the suspended particulate and the bioaccumulations tests were conducted to completion.

c. Determining contaminants of concern

The composites were then analyzed for bulk sediment chemistry according to the contaminants outlined in the sampling plan for this project. The contaminants of concern were identified as the compounds found to be elevated in the project core samples relative to the RISDS reference site values. The contaminants of concern were all metals, PAHs, pesticides and PCBs.

5. Testing Results

a. 10-day bioassay and elutriate results

Mysid results: In the mysid 10-day bioassay test, performed on *Americamysis bahia*, two composites were analyzed for an acute response (see Table 1).

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Table 1. 10-day Toxicity Test Results for mysid shrimp

Sample	Mean survivorship	Mean mortality	Significant difference from Reference?	Survival Difference >20%
Lab. Control	92%	8%		
RISDS Reference	94%	6%		
Composite I	89%	11%	No	No
Composite II	92%	8%	No	No
Composite III	90%	10%	No	No
Composite IV	87%	13%	No	No
Composite V	94%	6%	No	No

Statistical analysis indicates that there is no significant difference between the survivorships of the mysids exposed to the reference sediment and the mysids exposed to any of the composite sediments. Therefore, the materials proposed to be dredged are not considered acutely toxic to the mysid shrimp used in the testing.

Amphipod results: In the amphipod 10-day bioassay test, performed on *Leptocheirus plumulosus*, one composite was analyzed for an acute response (see Table 2).

Table 2. 10-day Toxicity Test Results for amphipod

Sample	Mean survivorship	Mean mortality	Significant difference from Reference?	Survival Difference >20%
Lab. Control	97%	3%		
RISDS Reference	98%	2%		
Composite I	90%	10%	Yes	No
Composite II	92%	8%	Yes	No
Composite III	92%	8%	Yes	No
Composite IV	96%	4%	No	No
Composite V	89%	11%	Yes	No

There was no statistically significant difference between the survivorships of the amphipods exposed to the reference sediment and the amphipods exposed to the sediments represented by Composite IV. Therefore, the materials proposed to be dredged are not considered acutely toxic to the amphipods used in the testing.

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There was a statistically significant difference between the survivorships of the amphipods exposed to the reference sediment and the amphipods exposed to the Composite I, II, III and V sediments. However, the difference between the mean survivorship of the amphipods exposed to the reference and each of the Composite sediments is less than the 20% threshold allowed in the testing protocol. Therefore, the materials proposed to be dredged are not considered acutely toxic to the amphipods used in the testing.

b. Water Column (Suspended Phase) Toxicity Tests

In the Suspended Phase Acute Toxicity Tests, the mysid shrimp (*Americamysis bahia*), the inland silverside minnow (*Menidia beryllina*) and the sea urchin larvae (*Arbacia punctulata*) LC₅₀ values when exposed to elutriate from the sediments are summarized in Table 3. Reduced LC₅₀ values were demonstrated in the sea urchin larvae, mysid shrimp, inland minnow samples when exposed to elutriate from each of the project samples.

Table 3. Suspended Phase Evaluation

Sample	mysid shrimp LC ₅₀ Endpoint (Survival)	Inland minnow LC ₅₀ Endpoint (Survival)	Sea urchin larvae LC ₅₀ Endpoint (Survival)
Composite A Elutriate	>100%	>100%	22%
Composite B Elutriate	>100%	>100%	22%
Composite 1 Elutriate	>100%	>100%	22%

Since reduced LC₅₀ values for the sea urchin larvae, mysid shrimp, and the inland minnow were observed, an STFATE water quality evaluation was performed.

b. STFATE Water Quality Evaluation

The ADDAMS model was run using 1% of the lowest LC₅₀ value. The results show that there is rapid dilution of the water fraction such that the greatest LC₅₀ found, an LC₅₀ of 22% in the minnow, *M. berillina*, is diluted to below the 1/100th value (0.22%) within four hours following sediment disposal. This rapid dilution supports the conclusion that there should not be unacceptable adverse effects from the disposal of these sediments at the RISDS. The model was run using a 3000 cu. yds. disposal volume and based on prior experience with the model, disposal volumes larger than this (e.g.,

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4000 cu. yds.) should also be acceptable.

c. Bioaccumulation results

A set of 28-day bioaccumulation tests were conducted on the two project composite samples. Two species were used in the tests: the bivalve, *Macoma nasuta*, and the polychaete, *Nereis virens*. Both *M. nasuta* and *N. virens* significantly accumulated contaminants at a level greater than reference. *M. nasuta* showed significant accumulation of chromium, copper, lead, mercury, phenanthrene, and four PCB congeners. *N. virens* showed significant accumulation in four PCB congeners.

d. Risk assessment analysis results

Because of the presence of significant bioaccumulation, the EPA ran a risk-assessment model of the bioaccumulation results. For these compounds, the toxicological significance of bioaccumulation from the sediment into benthic organisms was evaluated.

The risk assessment includes the evaluation of the carcinogenic risk, noncarcinogenic risk, and any observed exceedances of FDA levels. All contaminants are assessed using trophic transfer levels for lobster, fish, and shellfish. For the carcinogenic risk assessment, all samples for all contaminants were below the EPA established value of 1×10^{-4} and therefore, acceptable. For the non-carcinogenic risk assessment, all samples for all contaminants were less than the EPA established hazard quotient ratio of 1, therefore, acceptable. There were no exceedances with the FDA Action Levels.

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5. If you have any questions or want further details on the procedure of project evaluation, please contact me at (978) 318-8336 or charles.n.farris@usace.army.mil.

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Jennifer L. McCarthy, Chief
Regulatory Division
New England District
U.S. Army Corps of Engineers

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10/24/18

Project name: Quonset Development Corporation - South Berth & Davisville Channel
 Project number:
 Model filename: QDC-SouthBerth.best
 Chemical filename: Chemical_List_for_EPA_Reg1_template (in progress).xlsx

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Selected Chemicals

Invertebrate Name Macoma nasuta

	Sample 1	Sample A	Sample B
101			
105			
118			
1234678 HpDD			
1234678-HpCDD			
1234678-HpCDF			
123478-HxCDD			
123478-HxCDF			
123478-HxDD			
1234789-HpCDF			
123678-HxCDD			
123678-HxCDF			
123678-HxDD			
12378 PeCDD			
12378-PeCDF			
123789-HxCDD			
123789-HxCDF			
123789-HxDD			
128			

	Sample 1	Sample A	Sample B
138			
153			
170			
18			
180			
187			
195			
206			
209			
234678-HxCDF			
23478-PeCDF			
2378 TCDD			
2378-TCDF			
28			
4,4'-DDD			
4,4'-DDE			
4,4'-DDT			
44			
52			
66			
8			
Acenaphthene			
Acenaphthylene			
Aldrin			
Aldrin+Dieldrin			
Anthracene			
Arsenic			
Benzo(a)anthracene			
Benzo(a)pyrene			
Benzo(a)pyrene TEQ			
Benzo(b)fluoranthene			
Benzo(g,h,i)perylene			
Benzo(k)fluoranthene			
Cadmium			
Chlordane+Heptachlo			
Chromium	X	X	X
Chrysene			
Copper	X	X	X

	Sample 1	Sample A	Sample B
DIOXINS/FURANS			
Dibenzo(a,h)			
Dieldrin			
Dioxin			
Endosulfans			
Endrin			
Fluoranthene			
Fluorene			
Heptachlor			
Heptachlor epoxide			
Heptachlor+Heptachlor			
Hexachlorobenzene			
Indeno(1,2,3-c,d)			
Lead	X	X	X
Lindane			
Lv - Phenanthrene			
METALS			
Mercury	X	X	X
Methoxychlor			
Mirex			
Naphthalene			
Nickel			
OCDD			
OCDF			
Oxychlorane			
PAH Total			
PAHS			
PCB 101			
PCB 105			
PCB 118			
PCB 128			
PCB 138			
PCB 153			
PCB 170			
PCB 18			
PCB 180			
PCB 187			
PCB 195			

	Sample 1	Sample A	Sample B
PCB 206			
PCB 209			
PCB 28			
PCB 44			
PCB 52			
PCB 66			
PCB 8			
PCB Congeners			
PCB-105			
PCB-114			
PCB-118			
PCB-123			
PCB-126			
PCB-156			
PCB-157			
PCB-167			
PCB-169			
PCB-189			
PCB-77			
PCB-81			
PESTICIDES			
Phenanthrene	X	X	X
Pyrene			
Silver			
Total Chlordanes			
Total DDT			
Total PCBs	X	X	X
Toxaphene			
Zinc	X	X	
alpha-Endosulfan			
beta-Endosulfan			
bis (2-ethylhexyl)			
cis-Chlordane			
cis-Nonachlor			
trans-Chlordane			
trans-Nonachlor			

Selected Chemicals

Invertebrate Name

Nereis virens

	Sample 1	Sample A	Sample B
101			
105			
118			
1234678 HpDD			
1234678-HpCDD			
1234678-HpCDF			
123478-HxCDD			
123478-HxCDF			
123478-HxDD			
1234789-HpCDF			
123678-HxCDD			
123678-HxCDF			
123678-HxDD			
12378 PeCDD			
12378-PeCDF			
123789-HxCDD			
123789-HxCDF			
123789-HxDD			
128			
138			
153			
170			
18			
180			
187			
195			
206			
209			
234678-HxCDF			
23478-PeCDF			
2378 TCDD			
2378-TCDF			
28			
4,4'-DDD			
4,4'-DDE			

	Sample 1	Sample A	Sample B
4,4'-DDT			
44			
52			
66			
8			
Acenaphthene			
Acenaphthylene			
Aldrin			
Aldrin+Dieldrin			
Anthracene			
Arsenic			
Benzo(a)anthracene			
Benzo(a)pyrene			
Benzo(a)pyrene TEQ			
Benzo(b)fluoranthene			
Benzo(g,h,i)perylene			
Benzo(k)fluoranthene			
Cadmium			
Chlordane+Heptachlo			
Chromium			
Chrysene			
Copper			
DIOXINS/FURANS			
Dibenzo(a,h)			
Dieldrin			
Dioxin			
Endosulfans			
Endrin			
Fluoranthene			
Fluorene			
Heptachlor			
Heptachlor epoxide			
Heptachlor+Heptachlo			
Hexachlorobenzene			
Indeno(1,2,3-c,d)			
Lead			
Lindane			
Lv - Phenanthrene			

	Sample 1	Sample A	Sample B
METALS			
Mercury			
Methoxychlor			
Mirex			
Naphthalene			
Nickel			
OCDD			
OCDF			
Oxychlorane			
PAH Total			
PAHS			
PCB 101			
PCB 105			
PCB 118			
PCB 128			
PCB 138			
PCB 153			
PCB 170			
PCB 18			
PCB 180			
PCB 187			
PCB 195			
PCB 206			
PCB 209			
PCB 28			
PCB 44			
PCB 52			
PCB 66			
PCB 8			
PCB Congeners			
PCB-105			
PCB-114			
PCB-118			
PCB-123			
PCB-126			
PCB-156			
PCB-157			
PCB-167			

	Sample 1	Sample A	Sample B
PCB-169			
PCB-189			
PCB-77			
PCB-81			
PESTICIDES			
Phenanthrene			
Pyrene			
Silver			
Total Chlordanes			
Total DDT			
Total PCBs	X	X	X
Toxaphene			
Zinc			
alpha-Endosulfan			
beta-Endosulfan			
bis (2-ethylhexyl)			
cis-Chlordane			
cis-Nonachlor			
trans-Chlordane			
trans-Nonachlor			

Human Subreport

Human:

Adult Angler

Total Estimated Risks From Organics(see EPA Table Xa)	
Receptor: Adult Angler	
Organism: Macoma nasuta	

		Cancer Risk	Non-Cancer Risk
Sample A		Fish Fillet	
	Test	1.96E-6	4.9E-2
	Reference	6.8E-7	1.7E-2
		Macoma nasuta	
	Test	2.02E-6	5.04E-2
	Reference	7E-7	1.75E-2
		Total Lobster	
	Test	1.01E-5	2.53E-1
	Reference	3.51E-6	8.77E-2

		Cancer Risk	Non-Cancer Risk
Sample B		Fish Fillet	
	Test	1.54E-6	3.84E-2
	Reference	6.8E-7	1.7E-2
		Macoma nasuta	
	Test	1.58E-6	3.96E-2
	Reference	7E-7	1.75E-2
		Total Lobster	
	Test	7.93E-6	1.98E-1
	Reference	3.51E-6	8.77E-2
Sample 1		Fish Fillet	
	Test	6.65E-7	1.66E-2
	Reference	6.8E-7	1.7E-2
		Macoma nasuta	
	Test	6.85E-7	1.71E-2
	Reference	7E-7	1.75E-2
		Total Lobster	
	Test	3.43E-6	8.58E-2
	Reference	3.51E-6	8.77E-2

Total Estimated Risks From Organics(see EPA Table Xa)

Receptor: Adult Angler

Organism: Nereis virens

		Cancer Risk	Non-Cancer Risk
Sample A		Fish Fillet	
	Test	4.83E-6	1.21E-1
	Reference	4.63E-6	1.16E-1
		Total Lobster	
	Test	2.49E-5	6.24E-1
	Reference	2.39E-5	5.98E-1
		Nereis virens	
	Test	5.86E-6	1.47E-1
	Reference	5.62E-6	1.4E-1
Sample B		Fish Fillet	
	Test	4.13E-6	1.03E-1
	Reference	4.63E-6	1.16E-1
		Total Lobster	
	Test	2.13E-5	5.33E-1
	Reference	2.39E-5	5.98E-1
		Nereis virens	
	Test	5.01E-6	1.25E-1
	Reference	5.62E-6	1.4E-1
Sample 1		Fish Fillet	
	Test	4.72E-6	1.18E-1
	Reference	4.63E-6	1.16E-1
		Total Lobster	
	Test	2.43E-5	6.08E-1
	Reference	2.39E-5	5.98E-1
		Nereis virens	
	Test	5.72E-6	1.43E-1
	Reference	5.62E-6	1.4E-1

Seafood Non-Cancer Risks (see EPA Table 6a, Columns F & G)

Receptor: Adult Angler

Organism: *Macoma nasuta*

			Non-Cancer Risk
Sample A	Chromium	Test	1.11E-2
		Reference	6.53E-3
	Mercury	Test	5.06E-3
		Reference	4.41E-3
	Zinc	Test	3.62E-3
		Reference	3.18E-3
Sample B	Chromium	Test	1.3E-2
		Reference	6.53E-3
	Mercury	Test	6.03E-3
		Reference	4.41E-3
Sample 1	Chromium	Test	1.21E-2
		Reference	6.53E-3
	Mercury	Test	5.31E-3
		Reference	4.41E-3
	Zinc	Test	3.81E-3
		Reference	3.18E-3

Seafood Non-Cancer Risks (see EPA Table 6a, Columns F & G)

Receptor: Adult Angler

Organism: *Nereis virens*

			Non-Cancer Risk
--	--	--	-----------------

FDA Action Limit/Tolerance (see EPA Table 3, Columns D & E)

Receptor: Adult Angler

Organism: *Macoma nasuta*

	Contaminant	FDA Action Level (mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample A	Total PCBs	2E3	1.04E1
Sample A	Mercury	1E0	5.9E-3
Sample A	Total DDT	5E3	1.73E0
Sample A	Total Chlordanes	3E2	7.19E-1
Sample B	Total PCBs	2E3	8.09E0
Sample B	Mercury	1E0	7.04E-3
Sample B	Total DDT	5E3	3.12E0
Sample B	Total Chlordanes	3E2	9.5E-2
Sample 1	Total PCBs	2E3	3.41E0
Sample 1	Mercury	1E0	6.2E-3
Sample 1	Total DDT	5E3	1.56E0
Sample 1	Total Chlordanes	3E2	9.5E-2

FDA Action Limit/Tolerance (see EPA Table 3, Columns D & E)

Receptor: Adult Angler

Organism: *Nereis virens*

	Contaminant	FDA Action Level (mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample A	Total PCBs	2E3	3.15E1
Sample A	Mercury	1E0	1.15E-2
Sample A	Total DDT	5E3	1.13E0
Sample A	Total Chlordanes	3E2	1.1E0
Sample B	Total PCBs	2E3	2.27E1
Sample B	Mercury	1E0	1.19E-2
Sample B	Total DDT	5E3	4.23E-1
Sample B	Total Chlordanes	3E2	9.5E-2
Sample 1	Total PCBs	2E3	2.05E1
Sample 1	Mercury	1E0	9.74E-3
Sample 1	Total DDT	5E3	4.23E-1
Sample 1	Total Chlordanes	3E2	9.5E-2

Ecological Effects Level (see EPA Table 8a.1, Columns D & E)

Receptor: Adult Angler

Organism: *Macoma nasuta*

	Contaminant	Ecological Effect Level (mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample A	Anthracene	3.75E3	7.88E0
Sample A	PAH Total	1E4	4.01E2
Sample A	Total PCBs	4E3	1.04E1
Sample A	Aldrin	2.99E2	1E-2
Sample A	Dieldrin	4.37E0	9.45E-2
Sample A	Endosulfans	2.86E0	3.5E-2
Sample A	Arsenic	1.26E1	1.33E0
Sample A	Cadmium	3.03E0	1.38E-2
Sample A	Chromium	1.18E1	3.9E-1
Sample A	Copper	9.6E0	2.45E0
Sample A	Lead	1.19E1	5.53E-1
Sample A	Mercury	2E-1	5.9E-3
Sample A	Nickel	3.8E0	4.21E-1
Sample A	Zinc	1.52E3	1.27E1
Sample A	Total DDT	3E3	1.73E0
Sample B	Anthracene	3.75E3	1.5E0
Sample B	PAH Total	1E4	6.91E1
Sample B	Total PCBs	4E3	8.09E0
Sample B	Aldrin	2.99E2	1E-2
Sample B	Dieldrin	4.37E0	9.45E-2
Sample B	Endosulfans	2.86E0	2.38E-1
Sample B	Arsenic	1.26E1	1.26E0
Sample B	Cadmium	3.03E0	3.13E-2
Sample B	Chromium	1.18E1	4.53E-1
Sample B	Copper	9.6E0	2.82E0
Sample B	Lead	1.19E1	5.55E-1
Sample B	Mercury	2E-1	7.04E-3
Sample B	Nickel	3.8E0	4.17E-1
Sample B	Zinc	1.52E3	1.28E1
Sample B	Total DDT	3E3	3.12E0
Sample 1	Anthracene	3.75E3	1.5E0
Sample 1	PAH Total	1E4	7.39E1
Sample 1	Total PCBs	4E3	3.41E0
Sample 1	Aldrin	2.99E2	1E-2

	Contaminant	Ecological Effect Level (mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample 1	Dieldrin	4.37E0	9.45E-2
Sample 1	Endosulfans	2.86E0	1.15E-1
Sample 1	Arsenic	1.26E1	1.08E0
Sample 1	Cadmium	3.03E0	1.96E-2
Sample 1	Chromium	1.18E1	4.23E-1
Sample 1	Copper	9.6E0	2.46E0
Sample 1	Lead	1.19E1	4.93E-1
Sample 1	Mercury	2E-1	6.2E-3
Sample 1	Nickel	3.8E0	4.08E-1
Sample 1	Zinc	1.52E3	1.33E1
Sample 1	Total DDT	3E3	1.56E0

Ecological Effects Level (see EPA Table 8a.1, Columns D & E)

Receptor: Adult Angler

Organism: Nereis virens

	Contaminant	Ecological Effect Level (mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample A	Anthracene	3.75E3	1.5E0
Sample A	PAH Total	1E4	9.37E1
Sample A	Total PCBs	4E3	3.15E1
Sample A	Aldrin	2.99E2	1E-2
Sample A	Dieldrin	4.37E0	9.45E-2
Sample A	Endosulfans	2.86E0	3.5E-2
Sample A	Arsenic	1.26E1	1.92E0
Sample A	Cadmium	3.03E0	6.12E-2
Sample A	Chromium	1.18E1	1.23E-1
Sample A	Copper	9.6E0	1.73E0
Sample A	Lead	1.19E1	6.03E-1
Sample A	Mercury	2E-1	1.15E-2
Sample A	Nickel	3.8E0	2.47E-1
Sample A	Zinc	1.52E3	1.73E1
Sample A	Total DDT	3E3	1.13E0
Sample B	Anthracene	3.75E3	1.5E0
Sample B	PAH Total	1E4	3.49E1
Sample B	Total PCBs	4E3	2.27E1
Sample B	Aldrin	2.99E2	1E-2
Sample B	Dieldrin	4.37E0	9.45E-2
Sample B	Endosulfans	2.86E0	3.5E-2
Sample B	Arsenic	1.26E1	1.4E0
Sample B	Cadmium	3.03E0	4.49E-2
Sample B	Chromium	1.18E1	7.59E-2
Sample B	Copper	9.6E0	1.48E0
Sample B	Lead	1.19E1	5.06E-1
Sample B	Mercury	2E-1	1.19E-2
Sample B	Nickel	3.8E0	2.97E-1
Sample B	Zinc	1.52E3	1.05E1
Sample B	Total DDT	3E3	4.23E-1
Sample 1	Anthracene	3.75E3	1.5E0
Sample 1	PAH Total	1E4	2.77E1
Sample 1	Total PCBs	4E3	2.05E1
Sample 1	Aldrin	2.99E2	1E-2

	Contaminant	Ecological Effect Level (mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample 1	Dieldrin	4.37E0	9.45E-2
Sample 1	Endosulfans	2.86E0	3.5E-2
Sample 1	Arsenic	1.26E1	1.57E0
Sample 1	Cadmium	3.03E0	5.26E-2
Sample 1	Chromium	1.18E1	1.71E-1
Sample 1	Copper	9.6E0	1.4E0
Sample 1	Lead	1.19E1	4.34E-1
Sample 1	Mercury	2E-1	9.74E-3
Sample 1	Nickel	3.8E0	2.95E-1
Sample 1	Zinc	1.52E3	1E1
Sample 1	Total DDT	3E3	4.23E-1

FDA Level of Concern (see EPA Table 7a, Columns B & D)

Receptor: Adult Angler

Organism: *Macoma nasuta*

	Contaminant	FDA Level of Concern(mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample A	Arsenic	8.6E1	1.33E0
Sample A	Cadmium	3.7E0	1.38E-2
Sample A	Chromium	1.3E1	3.9E-1
Sample A	Lead	1.7E0	5.53E-1
Sample A	Nickel	8E1	4.21E-1
Sample B	Arsenic	8.6E1	1.26E0
Sample B	Cadmium	3.7E0	3.13E-2
Sample B	Chromium	1.3E1	4.53E-1
Sample B	Lead	1.7E0	5.55E-1
Sample B	Nickel	8E1	4.17E-1
Sample 1	Arsenic	8.6E1	1.08E0
Sample 1	Cadmium	3.7E0	1.96E-2
Sample 1	Chromium	1.3E1	4.23E-1
Sample 1	Lead	1.7E0	4.93E-1
Sample 1	Nickel	8E1	4.08E-1

FDA Level of Concern (see EPA Table 7a, Columns B & D)

Receptor: Adult Angler

Organism: Nereis virens

	Contaminant	FDA Level of Concern(mg/kg)	Steady State Corrected Mean Tissue Concentration (mg/kg)
Sample A	Arsenic	8.6E1	1.92E0
Sample A	Cadmium	3.7E0	6.12E-2
Sample A	Chromium	1.3E1	1.23E-1
Sample A	Lead	1.7E0	6.03E-1
Sample A	Nickel	8E1	2.47E-1
Sample B	Arsenic	8.6E1	1.4E0
Sample B	Cadmium	3.7E0	4.49E-2
Sample B	Chromium	1.3E1	7.59E-2
Sample B	Lead	1.7E0	5.06E-1
Sample B	Nickel	8E1	2.97E-1
Sample 1	Arsenic	8.6E1	1.57E0
Sample 1	Cadmium	3.7E0	5.26E-2
Sample 1	Chromium	1.3E1	1.71E-1
Sample 1	Lead	1.7E0	4.34E-1
Sample 1	Nickel	8E1	2.95E-1

Software version: BEST 4.0

Last date: 10/04/2018

User name: Margaret

Exhibit F

'Marine Structural Dredging, Davisville Pier No. 1- Fitness of Purpose, #33645.02'; (Performed by GZA, dated March 5, 2012, revised March 22, 2012)

'Pier 2- Fitness of Purpose Evaluation of Pier 2 Cellular Cofferdam for Proposed Dredging, Port of Davisville, Rhode Island' (Performed by Moffatt & Nichol, dated October 7, 2011)

Memo



To: Edward J. Spinard, Jr., P.E.
From: Alison Steere, Dino Fiscaletti, P.E.
Reviewed: Russ Morgan, P.E.
File No: 33645.02
Date: March 5, 2012 (Rev. 3/22/12)
Re: Marine Structural Engineering
Davisville Pier No. 1 - Fitness of Purpose (Proposed North Berth Dredging)

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide this memorandum presenting the results of our Fitness of Purpose evaluation of Davisville Pier No. 1 for the proposed dredging to be performed along the north side of the pier. The parameters used in the evaluation are based upon information previously provided by Quonset Development Corporation (QDC); recent discussions between GZA and QDC; recent limited condition surveys performed by GZA and diver observations made during pile wrap removal under QDC Contract No. 2011-005.

Executive Summary

This memo specifically addresses the axial capacity of the existing timber piles supporting the outer 40 foot section on the north side of the pier. The piles within this section will have an increased, exposed and unsupported length due to the proposed dredging to elevation -32.0. The attached Figure 1 illustrates the estimated pre-dredge and post dredge conditions that were evaluated. A second impact of the proposed dredging will be the removal of several feet of overburden along the north face of Pier No. 1, which may affect the axial capacity of these piles. This memo follows a memo dated February 10, 2012: Pier 1 Timber Pile Evaluation and Recommendations which presents the results of a similar pile analysis, performed to evaluate existing conditions.

A proposed dredge depth to elevation -32.0 was one of the parameters used in the design of the fender system that is to be installed under QDC Contract No. 2011-005 therefore; by design, the dredging is not expected to adversely impact the performance of the fender system and further evaluation of the fender system is not warranted.

For this Fitness of Purpose three cases were analyzed:

- Case 1: Assuming no missing piles with all piles in good condition
- Case 2: Representing conditions recently observed between bents 61 – 79 and deleting missing or severely deteriorated piles
- Case 3: Representing conditions recently observed between bents 61 – 79 with additional timber batter piles installed at the front row, (Row 1), of intermediate bents as currently programmed by QDC.

The results of the evaluation indicate that for Case 1, with all original piles in place, and for Case 3, where additional batter piles are installed, no batter piles are stressed beyond their allowable axial structural capacity when the pier is subject to anticipated berthing loads. For Case 2, observed conditions, a number of batter piles in the front two rows of batters (Rows 1 and 5) are stressed beyond their allowable axial structural capacities when subject to anticipated berthing loads.

When a uniform live load of 500 psf was applied to the pier deck, imposed loads on vertical piles were found to exceed the piles' allowable axial capacity at several locations. This occurred in all three of the study cases. With an applied uniform live deck load of 300 psf, only in Case 2 did any vertical piles exceed their allowable axial capacity. For Case 3, where additional batter piles are added, no piles are stressed beyond allowable limits under the 300 psf uniform live load.

The results of our evaluation indicate that the proposed dredging to elevation -32.0 (MLW datum), with an approximate one (1) foot over-dredge to elevation -33.0, will not adversely impact the structural adequacy of Pier No. 1 provided the programmed batter pile installation is completed before dredging and provided that the deck live load is limited to 300 psf.

Facility Description

Pier 1 is under the jurisdiction of QDC and is used primarily as a RO/RO facility for automobiles. The pier is approximately 250 feet wide and 1200 feet long. Reference drawings provided by QDC indicate that Pier 1 was constructed for the United States Navy in 1942. It was originally constructed completely of timber (deck, superstructure and foundation piles). Around 1950, the superstructure (deck, framing and pile caps) was replaced with reinforced concrete. The timber piles remain. The original design of the pier included timber cross bracing that extended down to roughly elevation +1.0 (MLW Datum). This bracing is no longer in place.

Fendering along the north face currently consists of a series of timber piles and rubber tires. A new fender system, currently under construction, will consist of rubber leg elements and steel contact panels supported partially by 16 inch diameter steel pipe piles. The pipe piles are programmed to be installed to a tip elevation of -44.0. Standoff of the new fenders is expected to be 5 feet. Four pairs of rail tracks, two on the North side and two on the South side, were

part of the original construction but have since been abandoned. The rails have been removed and the rail slots filled with asphalt. Under QDC Contract No. 2011-005, the asphalt in the rail slots along the north face of Pier No. 1 is being removed and replaced with concrete.

This memo specifically addresses the outer 40 foot portion of the north side of Pier 1. The timber piles supporting this portion of the pier consist of 14" nominal diameter piles with varying spacing along the length of the pile caps. Throughout the pier, pile bents extending across its width are spaced at roughly 10 feet on center. At each face of the pier, intermediate bents, 40 feet in length run between and parallel to, the primary, full width bents. This results in a five foot bent spacing within the 40 foot portion. These bents supported the now abandoned rail tracks. Along each of these bents within this 40 foot length are 13 vertical piles. Each full bent has 3 additional piles that are battered. The intermediate bents include no batter piles.

Proposed Dredging and Assumed Profile

GZA understands that QDC proposes to dredge the north berth and other areas adjacent to Pier No. 1. The proposed design dredge depth, as provided by QDC, is elevation -32.0, with an allowable 1 foot overdredge. Per discussions with QDC, the dredge depth is anticipated to be held to elevation -30 feet at the face of the new fender support piles, and to transition to the berth depth of elevation -32.0 at a 3:1 slope (3 horizontal to 1 vertical). Elevation -32.0 will be realized roughly 8 feet outboard of the fenders (13 feet from the face of the pier). The dredge profile used for this analysis is illustrated in the attached Figure 1. Subsurface explorations performed between February 18, 2011 and February 22, 2011 indicate that the upper soil strata in the area under the pier consists of loose organic silt. We therefore have assumed that the 3H:1V slope will continue back under the pier until intersecting the existing mudline at elevation -10± feet. Existing mudline elevations are based on lead-line soundings performed by GZA on February 22, 2011.

Evaluation Methods and Assumptions

During the design phase of the current pier improvement project, a model was created using RISA 3D to evaluate the load distribution under the design berthing, lateral berthing, and varying uniform live load conditions. The purpose of the model was to check the distribution of axial loads in the piles under various conditions, with the unbraced length of the piles corresponding to the proposed dredge conditions at the face of the pier. The axial loads in both the batter and vertical piles under the various loading conditions were analyzed. The results from this model were used to compare with the calculated axial structural capacities of the piles for varying unbraced lengths.

Within the 40 foot wide portion along the north face of Pier 1, construction divers recently unwrapped all batter piles and all vertical piles at batter locations between bent 36 and bent 114. Of the 474 piles that were unwrapped, the divers identified 71 piles that are deteriorated to such an extent that the divers did not apply replacement wraps.

The original RISA model, a 180' x 40' portion of the pier (Case 1), was revised to replicate the "found" conditions of the piles (Case 2). The area selected for the revised model is between pile bents 61 and 79. This portion of the pier was found to have the highest number of deteriorated or missing piles, based on the recent found conditions. This model (representing current conditions) was again revised to include additional batter piles in the front row at each of the intermediate bents (Case 3). The pier was modeled for these three conditions in order to evaluate changes in pile axial load due to the loss of the deteriorated piles that were observed during recent pier inspections.

Four loading conditions were applied to the model, varying the uniform live load on the pier. The four loading conditions are as follows:

- LC 1: Dead Load + Berthing + Lateral Berthing + 500 psf Live Load
DL + Be + Be(lat) + 500 psf LL
- LC 2: DL + Be + Be(lat) + 300 psf LL
- LC 3: DL + Be + Be(lat) + 50 psf LL
- LC 4: DL + Be + Be(lat) + no LL

The variable value between loading conditions is the uniform live load applied vertically to the pier deck. Loading Condition 1 (LC 1) combines the original design loading condition of the pier, at 500 psf uniform live load, with the berthing load used for the recent fender design. Loading Condition 2 is similar to LC1, with a reduced live load. Loading Condition 3 approximates the typical loading the pier sees with the cars parked on the deck. Finally, Loading Condition 4 replicates an empty pier during berthing operations. This case was used to check for any uplift in the piles.

In the previous pile capacity analysis, mudline elevations for the model were based off the soundings performed by GZA on February 22, 2011. However, for this analysis the mudline elevations correspond to the proposed estimated dredge depths along the north side of the pier.

The pile diameter used for analysis purposes was based on the allowed taper of a 14" diameter Class A timber pile that meets the requirements of ASTM D25: *Standard Specification for Round Timber Piles*. The cross section used for structural calculations is the diameter found at 1/3 height of the exposed pile, (between mudline and the top of pile) per the *American Institute of Timber Construction*, 3rd Edition. For the studied piles, this was found to be approximately 9.5 inches in diameter. A one half inch loss of section around the perimeter of the pile was assumed to account for 70 years of service in the marine environment and in consideration of recently observed conditions. This resulted in an 8.5" diameter pile (Refer to attached Figure 1).

Unbraced lengths for the vertical piles were assumed to be the length from elevation +9.0 (underside of the pile caps) to a point of equivalent fixity, calculated to be 7 feet below mudline, (see Gaythwaite, *Design of Marine Facilities*, 2nd Edition). The unbraced lengths for the batter

piles were assumed to be the length from elevation +7.0 (underside of the timber blocking) to the point of equivalent fixity (7 feet below mudline).

Structural Analysis Results – Batter Piles

It was found that the change in uniform live load for the four load conditions has a negligible effect on the axial load in the batter piles. Table 1 summarizes the maximum axial load taken from analysis results (from the model) for the batter piles in each batter pile row (Rows 1, 5 and 9). Pile row numbers indicate the pile location in number of rows from the face of the pier. The results presented in Table 1 reveal that either repairing all batter piles or adding additional batter piles would sufficiently reduce the axial load in the batters which experience the highest axial load. Note that the allowable axial capacity of a pile decreases with an increase in its unsupported length therefore, pile capacity varies with the mudline elevation and varies between rows. It should also be noted that the greatest unsupported length would be experienced by the piles in the front row, with dredge effects being less as you move away from the face of the pier.

TABLE 1 – Maximum Axial Load (Batter Piles)

Pile Row No.	Case 1 – All Piles			Case 2 – Missing Piles			Case 3 – Missing Piles w/ New Batters Installed		
	Axial Load (kips)	Actual Length (ft) ¹	Analysis ² Length (ft)	Axial Load (kips)	Actual ¹ Length (ft)	Analysis ² Length (ft)	Axial Load (kips)	Actual ¹ Length (ft)	Analysis ² Length (ft)
1	10.2	33.2	40.5	15.6 ³	33.2	40.5	10.2	33.2	40.5
5	10.1	28.8	36.1	17.4 ³	28.8	36.1	13.5	28.8	36.1
9	10.1	24.4	31.7	16.4	24.4	31.7	12.1	24.4	31.7

¹ Actual length indicates the exposed length of pile from pile cap to mudline. ² Analysis length indicates the equivalent unsupported length (actual length plus depth to fixity) of pile used in calculations. ³ Piles that exceed their maximum allowable axial capacity are indicated by bold text.

Table 2 summarizes the axial load in the worst case batter piles for each row of batters within the model. The worst case batter piles were found in Case 2, the recently observed pile conditions. The table shows the pile row where the worst case piles were found, the equivalent length to fixity, and the maximum capacity of an 8.5" diameter pile for that length. For the two piles locations where maximum allowable load has been exceeded, a required pile diameter to support that applied load was also calculated. It can be seen that the pile diameter does not need to increase by much to adequately support the load.

TABLE 2 – Allowable Structural Capacity vs. Maximum Applied Load (Batter Piles – Case 2)

Pile Row No.	Analysis Length (ft) ¹	Maximum Capacity for 8.5" Dia. Pile (kips)	Maximum Applied Axial Load (kips)	Minimum Required Dia. (inches) ³
1	40.5	11.0	15.6 ²	9.3
5	36.1	13.8	17.4 ²	9.1
9	31.7	17.8	16.4	<8.5

¹ Analysis length indicates the equivalent unsupported length of pile used in calculations. ² Piles that exceed their maximum allowable axial capacity. ³ Pile diameter required to increase allowable capacity to equal maximum applied load at that pile.

Table 3 summarizes the axial load in the worst case batters for each row of batters for Case 3.

TABLE 3 – Allowable Structural Capacity vs. Maximum Applied Load (Batter Piles – Case 3)

Pile Row No.	Analysis Length (ft) ¹	Maximum Capacity for 8.5" dia. Pile (kips)	Maximum Applied Axial Load (kips)	Minimum Required Dia. (inches) ³
1	40.5	11.0	10.2	<8.5
5	36.1	13.8	13.5	<8.5
9	31.7	17.8	12.1	<8.5

¹ Analysis length indicates the equivalent unsupported length of pile used in calculations. ³ Pile diameter required to increase allowable capacity to equal maximum applied load at that pile.

Structural Analysis Results – Vertical Piles

The vertical piles were affected primarily by a change in the applied live deck load. All four previously described loading conditions were applied. Table 4 summarizes the maximum axial loads for vertical piles. It can be seen by comparison of Cases 2 and 3 that, except for Row 1, the addition of intermediate batter piles has only a marginal effect on the axial load in the vertical piles.

TABLE 4 – Maximum Axial Load (Vertical Piles)

Load Combination DL+Be+Be(lat)	Pile Row No.	Case 1			Case 2			Case 3		
		Axial Load (kips)	Actual ¹ Length (ft)	Analysis ² Length (ft)	Axial Load (kips)	Actual ¹ Length (ft)	Analysis ² Length (ft)	Axial Load (kips)	Actual ¹ Length (ft)	Analysis ² Length (ft)
+500psf LL	1	13.6³	37.0	44.3	13.5³	37.0	44.3	12.8³	37.0	44.3
	4	-	-	-	14.4³	33.5	40.8	14.6³	33.5	40.8
	5	14.0³	32.6	39.9	-	-	-	-	-	-
	7	-	-	-	17.4³	30.0	37.3	17.5³	30.0	37.3
+300psf LL	1	-	-	-	10.0³	37.0	44.3	9.2	37.0	44.3
	4	-	-	-	10.5	33.5	40.8	10.4	33.5	40.8
	7	-	-	-	13.0	30.0	37.3	13.1	30.0	37.3
+50psf LL	1	-	-	-	5.7	37.0	44.3	5.0	37.0	44.3
	4	-	-	-	5.7	33.5	40.8	5.7	33.5	40.8
	7	-	-	-	7.4	30.0	37.3	7.5	30.0	37.3
+ 0 LL	1	-	-	-	4.8	37.0	44.3	4.1	37.0	44.3
	4	-	-	-	4.8	33.5	40.8	4.7	33.5	40.8
	7	-	-	-	6.3	30.0	37.3	6.4	30.0	37.3

*Analysis was not run for Case 1 with all four load combinations; ¹ Actual length indicates the length (actual length plus depth to fixity) of pile to mudline; ² Analysis length indicates the equivalent unsupported length of pile. ³ Piles that exceed their maximum allowable axial capacity are indicate by bold text.

Table 5 summarizes the worst case axially loaded vertical piles found in various pile rows for Case 2. Similar to the batter piles, the required diameter to support the applied load is not much greater than the 8.5 inch assumed pile diameter.

TABLE 5 - Allowable Structural Capacity vs. Maximum Applied Load (Vertical Piles – Case 2)

Pile Row No.	Analysis Length (ft) ¹	Maximum Capacity for 8.5" dia. Pile (kips)	Maximum Applied Axial Load (kips)	Minimum Required Diameter (inches) ³
1	44.3	9.3	13.5 ²	9.4
4	40.8	10.9	14.4 ²	9.2
7	37.3	13.5	17.4 ²	9.2

¹ Analysis length indicates the equivalent unsupported length of pile used in calculations. ² Piles that exceed their maximum allowable axial capacity are indicated by bold text. ³ Pile diameter required to increase allowable capacity to equal maximum applied load at that pile.

Table 6 summarizes the worst case axially loaded vertical piles in the various pile rows for Case 3.

TABLE 6 - Allowable Structural Capacity vs. Maximum Applied Load (Vertical Piles – Case 3)

Pile Row No.	Analysis Length (ft) ¹	Maximum Capacity for 8.5" dia. Pile (kips)	Maximum Applied Axial Load (kips)	Minimum Required Diameter (inches) ³
1	44.3	9.3	12.8 ²	9.3
4	40.8	10.9	14.6 ²	9.2
7	37.3	13.5	17.5 ²	9.2

¹ Analysis length indicates the equivalent unsupported length of pile used in calculations. ² Piles that exceed their maximum allowable axial capacity. ³ Pile diameter required to increase allowable capacity to equal maximum applied load at that pile.

Geotechnical Analysis Results

A static pile analysis was performed to evaluate the geotechnical capacity of the timber piles with respect to end bearing and skin friction. A pile tip elevation of -51.0 for existing piles was provided by QDC. This evaluation found that all piles in the dredge area can support the calculated axial pile load with an acceptable factor of safety. Table 7 summarizes the worst case vertical piles checked for geotechnical capacity.

TABLE 7 – Ultimate Geotechnical Pile Capacity vs. Maximum Applied Load (Vertical Piles)

Pile Row No.	Actual Length (ft) ¹	Ultimate Pile Capacity (kips)	Maximum Applied Axial Load (kips)	Factor of Safety
1	44.3	40.5	13.6	3.0
7	37.3	67.1	17.5	3.8

¹ Actual length indicates the length of pile to mudline

Fitness of Purpose Evaluation

The analysis results for Case 2, Current Conditions, show the axial load in a select number of batter piles exceeds the allowable limit under the design loading. Alternatively, where additional batter piles are driven in the front row, (Case 3) no batter piles exceed the allowable limit for axial load. The analysis results also indicate that the load in vertical piles exceed the calculated allowable value for all model Cases under a 500 psf uniform live load, while for a 300 psf uniform live load, only Case 2 shows vertical piles that exceed the allowable limits.

The evaluations presented above are based on limited observation of the pier superstructure and support piles. No testing of any kind has been performed as part of this evaluation.

Davisville Pier No. 1
Fitness of Purpose
March 5, 2012 (Rev. 3/22/12)

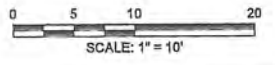
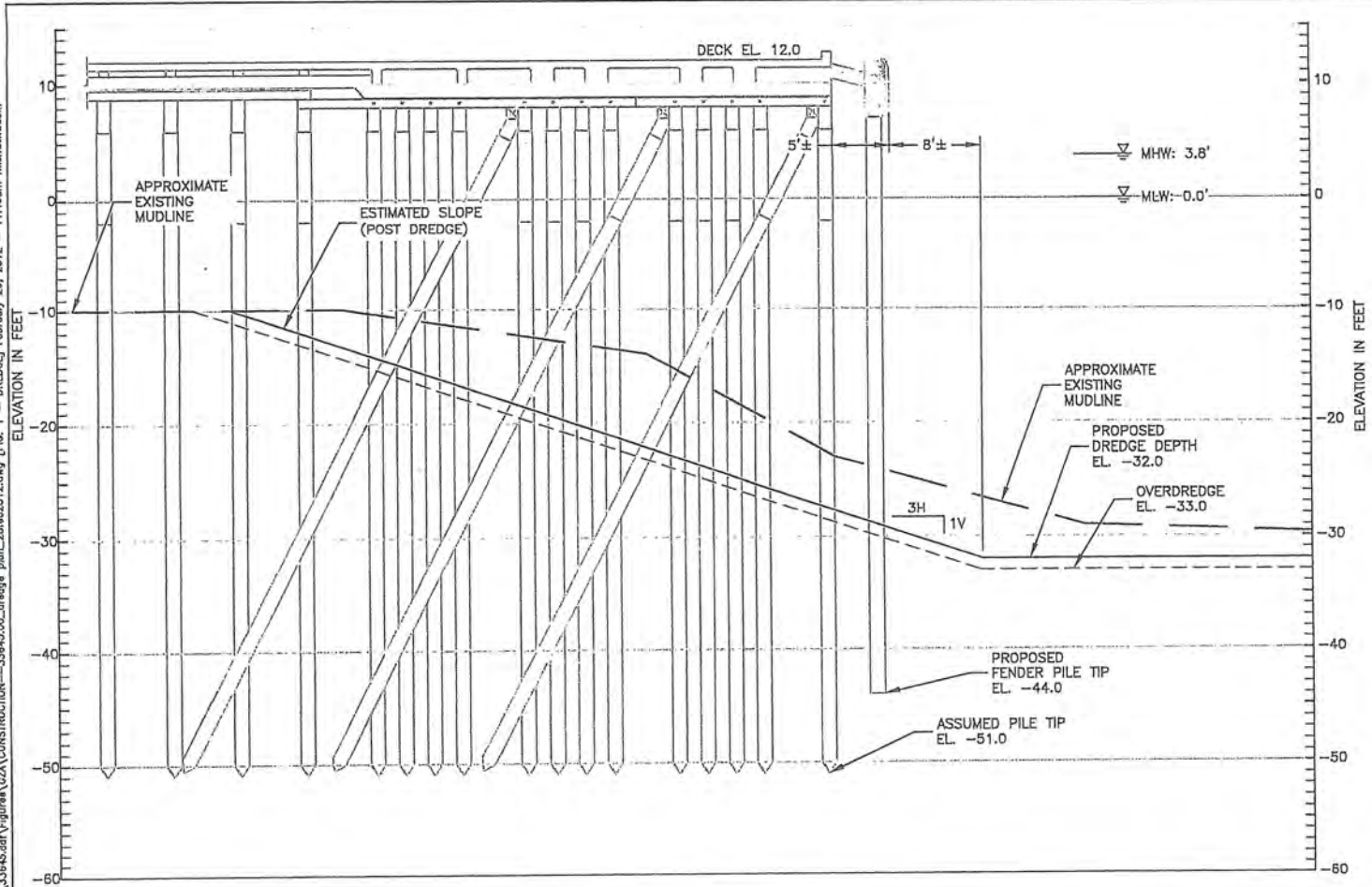
Results are based on the assumption that piles that have not been observed are in a condition leaving them capable of supporting the design loading, that the integrity of the pier superstructure has not been compromised by deterioration and that the scheduled repairs under Contract No. 2011-005 are completed as programmed.

From the analysis results, it may be concluded that the proposed dredging to elevation -32.0 (MLW datum), with an approximate one (1) foot over-dredge to elevation -33.0, will not adversely impact the structural adequacy of Pier No. 1 provided the programmed batter pile installation is completed before dredging and provided that the deck live load is limited to 300 psf.

We trust that this memo sufficiently presents the information required for QDC to continue with pier improvements to the timber piles, and we look forward to discussing our future recommendations. If you have any further questions, please contact us at (401) 421-4140.

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©2011 - OZA GeoEnvironmental, Inc. OZA - GeoEnvironmental, Inc. OZA\CONSTRUCTION\33645\00\dredge plan_281e2012.dwg [FIG. 1 - DREDGE] February 29, 2012 - 11:46am michael.lubin



TYPICAL SECTION - PROPOSED DREDGE DEPTH - NORTH FACE PIER NO. 1

NO.		ISSUE/DESCRIPTION		BY	DATE
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QUONSET DEVELOPMENT CORPORATION DAVISVILLE PIER NO. 1 NORTH KINGSTOWN, RHODE ISLAND					
FITNESS OF PURPOSE					
PREPARED BY: OZA GeoEn Ironmental, Inc. Engineers and Scientists www.oza.com			PREPARED FOR: QUONSET POINT DEVELOPMENT CORP.		
PROJ. MOR: DESIGNED BY: ALS DATE: MARCH 2012	DOP: DRAWN BY: MEA PROJECT NO.: 33645.02	REVIEWED BY: RJM CHECKED BY: MEA SCALE: AS NOTED REVISION NO.: 0	FIGURE 1	SHEET NO. 1 OF 1	



moffatt & nichol

104 West 40th Street
14th Floor
New York, New York 10018

(212) 768-7454
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October 7, 2011

Mr. Edward Spinard
Quonset Development Corporation
95 Cripe Street
North Kingstown, RI 02852

**RE: Pier 2 - Fitness of Purpose Evaluation of Pier 2 Cellular Cofferdam for Proposed Dredging,
Port of Davisville, Rhode Island**

Dear Mr. Spinard,

At the request of Quonset Development Corporation (QDC), Moffatt & Nichol (M&N) has evaluated the existing Pier 2 cellular cofferdam structure and associated fender system at the Port of Davisville and determined that the proposed dredging, as illustrated in the attached Figure No. 1 (provided by QDC), will not adversely impact the stability or structural adequacy of the existing structures.

Facility Description

Pier 2 was constructed in 1956 by the United States Navy and was originally part of the Naval Construction Battalion Center Davisville. Today, Pier 2 is under the operational jurisdiction of QDC and is utilized primarily as a RO/RO facility for automobiles. The pier is approximately 1200 ft long by 650 ft wide and consists of earth fill which is retained by steel cellular cofferdams on the south and east sides and a riprap revetment on the north side. In the area of the proposed dredging, Pier 2 consists of steel cellular cofferdams which are composed of SA23 and SA28 steel sheet piles. The SA23 sheet piles make up the diaphragms and the landside arc of each cell and the SA28 sheet piles comprise the waterside arc of the cell. Both sheets are 16 in. wide, with the SA23 sheets having an original thickness of 3/8 in. and the SA28 sheets having an original thickness of 1/2 in. The SA28 sheets have a tip elevation typically of approximately -45 ft MLW.

The fender system at Pier 2 consists of rubber fender elements and steel contact panels which are attached to the pier structure, and also supported by three 16 in. dia. by 3/16 in. wall thickness, concrete filled steel pipe piles. The pipe piles were driven to a tip elevation of approximately -43 ft MLW.

In 2010, M&N performed a comprehensive condition assessment of the pier to document its current condition. During the inspection, moderate corrosion was observed on the exposed steel sheet piles and ultrasonic thickness measurements taken on the SA28 sheet piles indicated that the approximate average thickness of the sheets is approximately 0.4 in. The steel pipe piles for the fender system were in good condition overall, with no notable deterioration.

Proposed Dredging

M&N understands that QDC is proposing to perform maintenance dredging at the south berth of Pier 2 as shown in the attached Figure 1 (provided by QDC). Specifically, QDC is proposing to dredge to a depth of -32 ft. MLW with an allowable over-dredge of up to 1 ft. Along the face of the cofferdam a 'bench' (offset) of at least 5 ft will be provided where the mudline will not be deeper than -30 ft MLW. From the

offshore edge of the bench, a maximum side slope of 3H:1V will be maintained until reaching the proposed dredge depth of -32 ft.

Fitness of Purpose Evaluation

M&N evaluated the Pier 2 structure in the area of the proposed dredging in order to ensure that the proposed dredging will not adversely impact the stability or structural adequacy of the existing structure. Figure 2 provides the cell geometry and dredge profile which were utilized for the evaluation.

M&N analyzed the following failure modes for the cofferdam structure:

- Sliding Stability
- Overturning Stability
- Centerline Shear
- Interlock Tension

Additionally, M&N compared the design tip elevation of the fender piles to the proposed dredge profile to ensure the piles still would have a reasonable embedment.

Observations collected by M&N during the 2010 condition assessment, such as the reduced thickness of the cofferdam sheet pile, were incorporated into the Fitness of Purpose evaluation in order to ensure that current condition of the pier were properly accounted for. Additionally, geotechnical information as obtained during a 2011 subsurface investigation at Pier 2 was utilized to characterize the soils inside the cofferdam cells.

Based on the results of these analyses, it has been determined that the proposed dredging (as shown in Figure 1) does not adversely impact the structural adequacy of the existing Pier 2 cofferdam structure.

Please do not hesitate to contact me with any questions.

Kind regards,

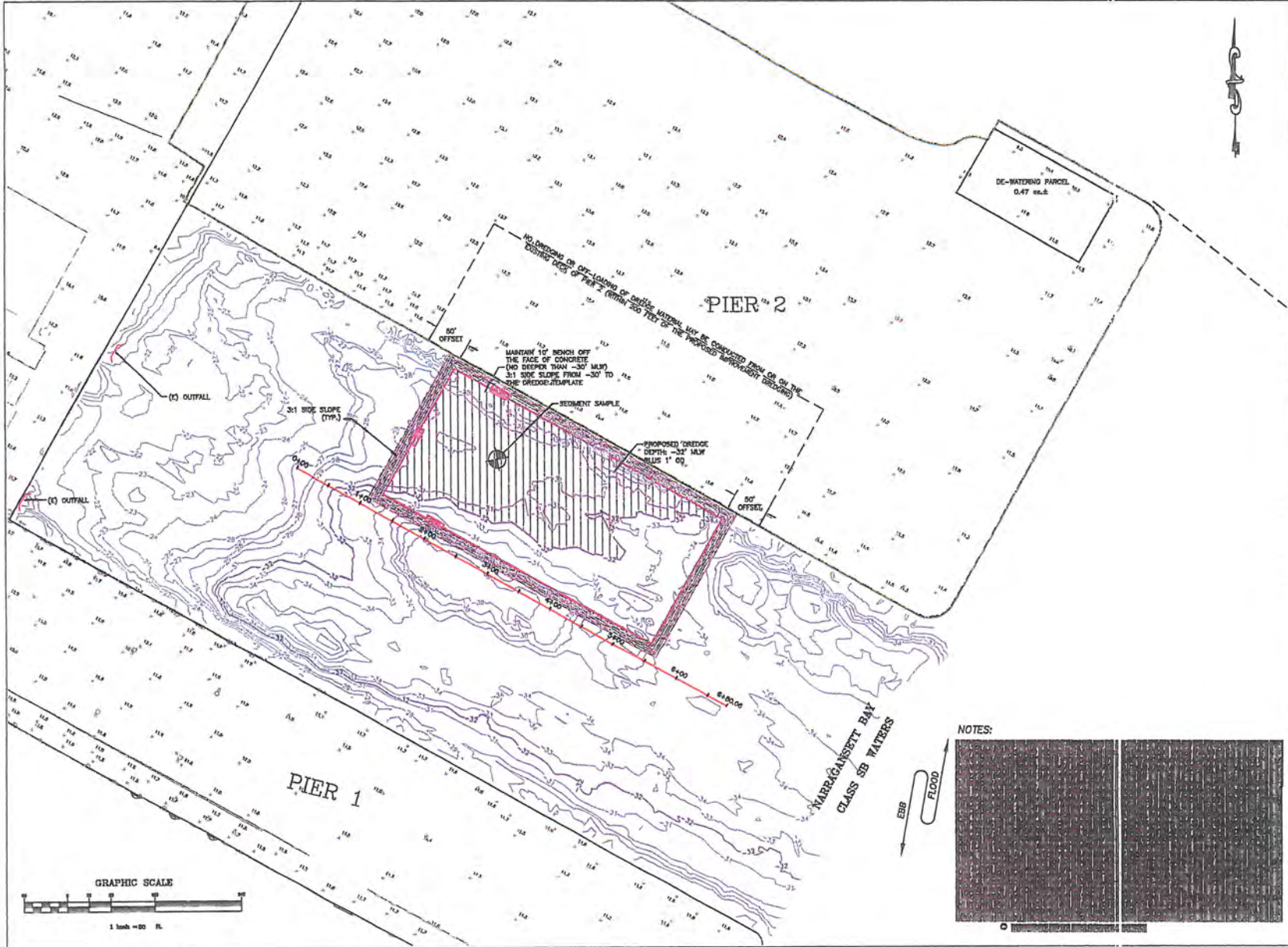
MOFFATT & NICHOL



William M. Shute, PE
Project Manager

Attachment

P102



Development Services
 99 Cypre Street
 North Kingstown, RI 02882
 TEL: (401) 709-0844
 FAX: (401) 768-9885



PIER 2
 Port of Davisville Dredging
 &
 De-watering and Stockpile Areas

DRAFT

NO.	REVISION	DATE	APP.

DESIGN BY: JOR/AVD CHECKED BY:

DRAWN BY: JOR/AVS/WH ENGINEER: JOR

SCALE: 1"=80' PROJECT NO. 00652.100

CONTRACT NO. 2006-010

FILE NAME: 00652.100\QUONSET\DWG\PIER2_000211.DWG

APPROVED

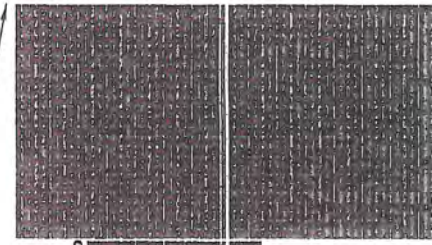
EDWARD J. SPINALE, JR., P.E.
 ODC DEVELOPMENT SERVICES DIRECTOR
 DATE: 8-8-11

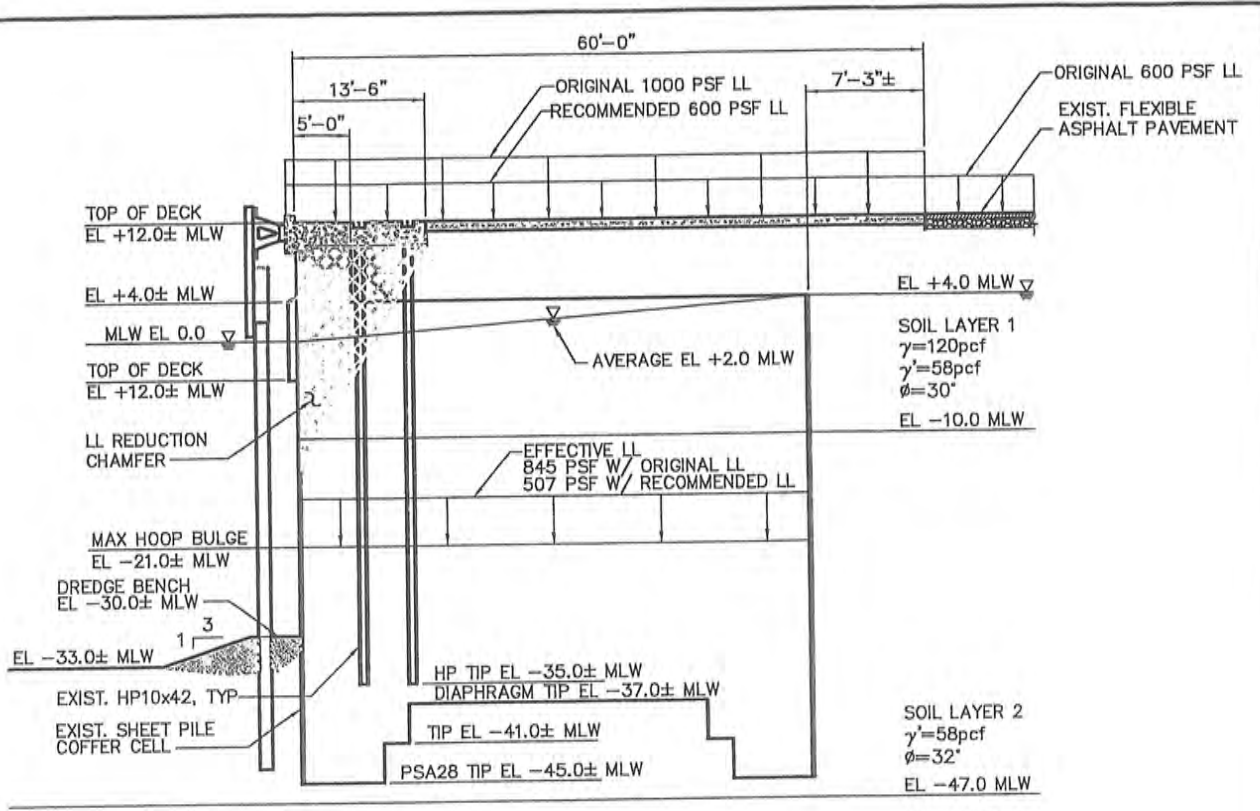
DRAWING TITLE
PIER 2
 Port of Davisville Dredging

Quonset Business Park

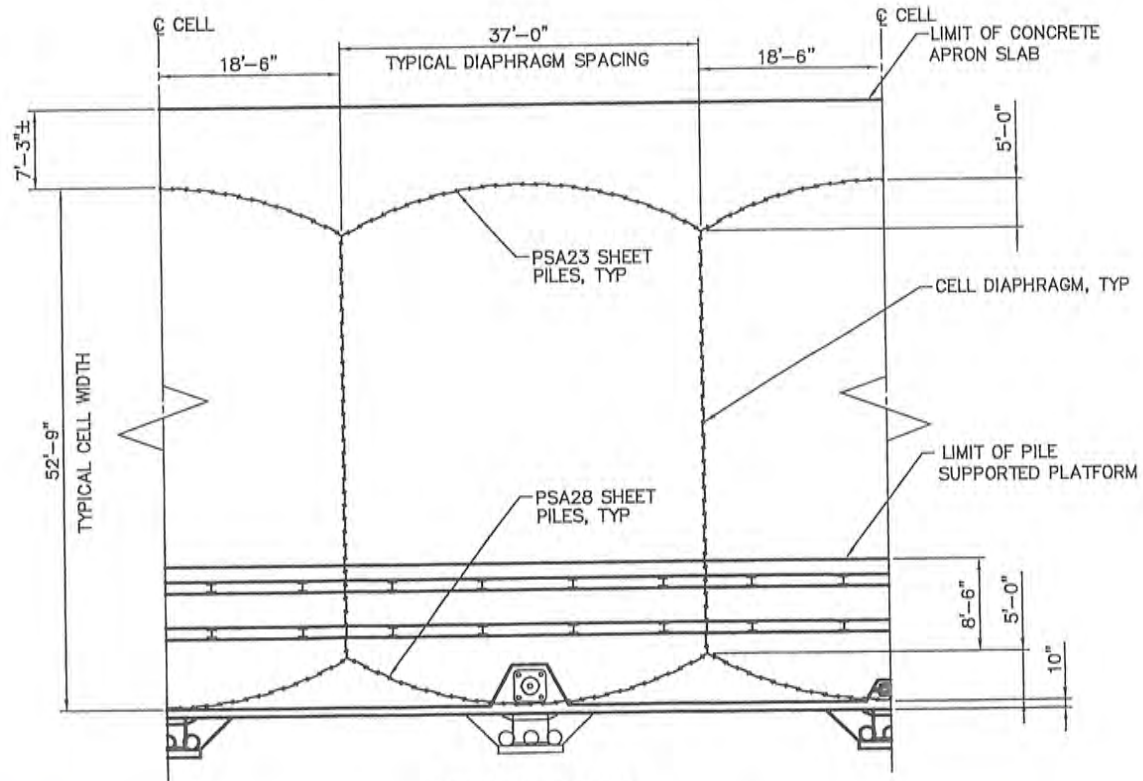
SHEET NO. **1**
 OF 3 SHEETS

NOTES:





TYPICAL CELL SECTION
NTS



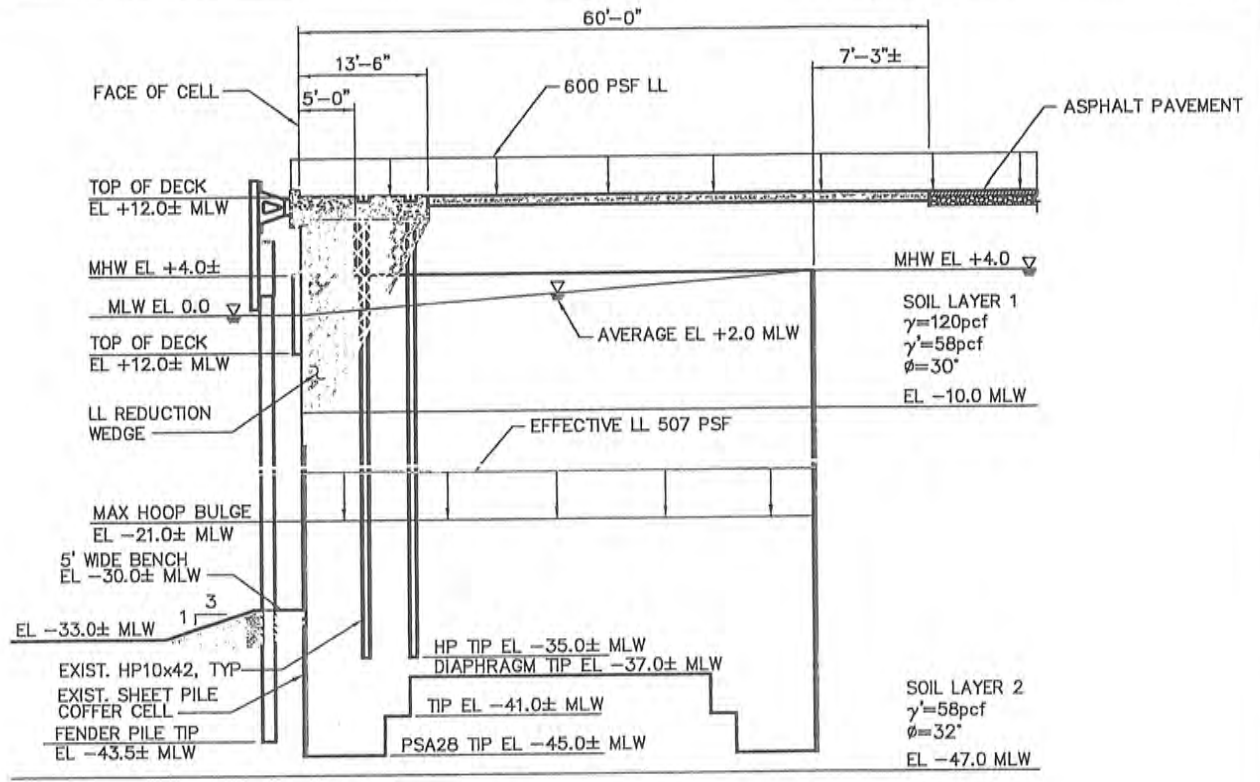
TYPICAL CELL PLAN
NTS



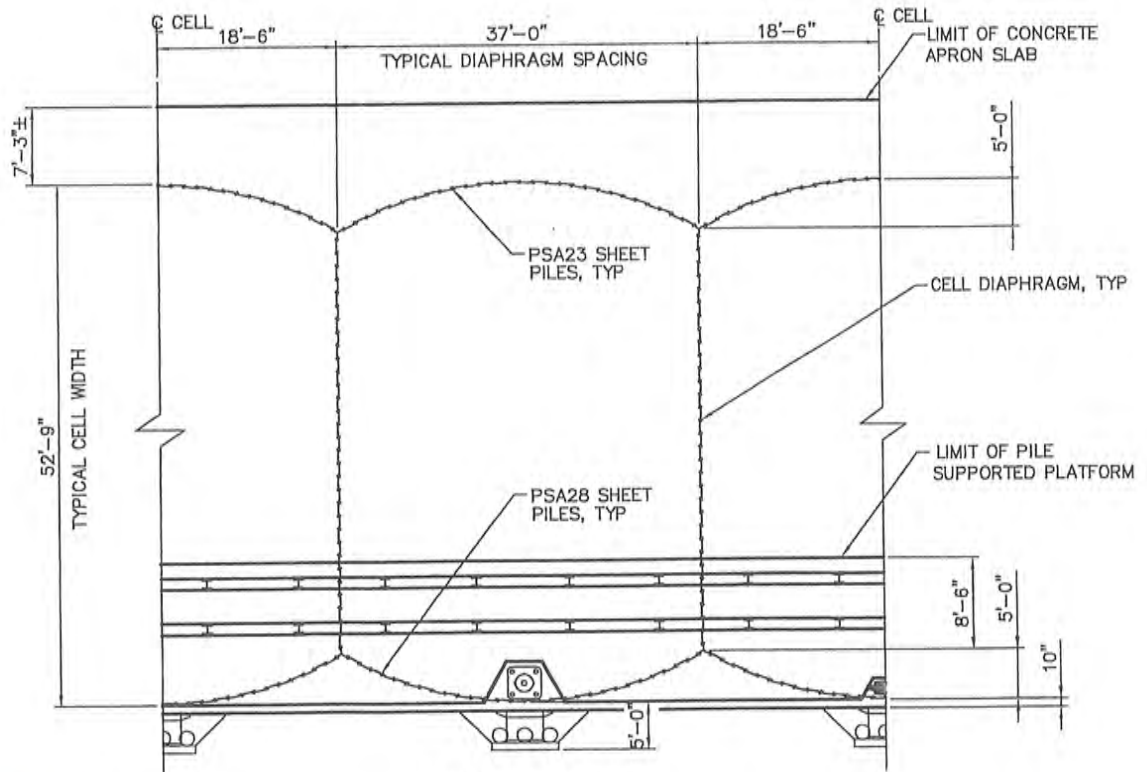
INFRASTRUCTURE IMPROVEMENTS AT PIER 2

Figure 1 - CELL GEOMETRY AND ASSUMPTIONS





TYPICAL CELL SECTION
NTS



TYPICAL CELL PLAN
NTS

Client:	Quonset Point	Job No.:	7168-01		
Project:	Deepening Study (-30.0, 1:3, to -33.0)	Designer:	CMA	Date:	Oct-11
Subject:	Results Summary	Checker:		Date:	

Results Summary

Table 1: M&N Analysis Results - Interlock Tension

Interlock Tension

Analysis Type	Analysis Run Designation	Dredgeline Bench EL MLW (ft)	Max Hoop Bulge EL MLW (ft)	CONC. APRON LL		Interlock Tension (pli)	FACTOR OF SAFETY		Percent OverStress	
				Effective Live Load (psf)	Actual Live Load (psf)		Full Section Thickness	80% Section Thickness	Full Section Thickness	80% Section Thickness
<i>Original Design Condition</i>	T1	-30.0	-21.0	845	1000	3600	3.33	2.67	20.0	50.0
<i>Dredge Depth Sensitivity</i>	T2	<u>-31.0</u>	-22.5	845	1000	3630	3.31	2.64	21.0	51.3
	T3	<u>-32.0</u>	-23.3	845	1000	3670	3.27	2.62	22.3	52.9
<i>Allowable LL FS=4.0</i>	T1.1	-30.0	-21.0	200	<u>236</u>	3000	4.00	3.20	0.0	25.0
<i>Allowable LL FS=4.0, Dredge Sensitivity</i>	T2.1	<u>-31.0</u>	-22.5	180	<u>212</u>	3000	4.00	3.20	0.0	25.0
<i>Recommended Dredge Depth and Allowable LL</i>	Recommended	-30.0	-21.0	507	600	3286	3.65	2.92	9.5	36.9

Notes:

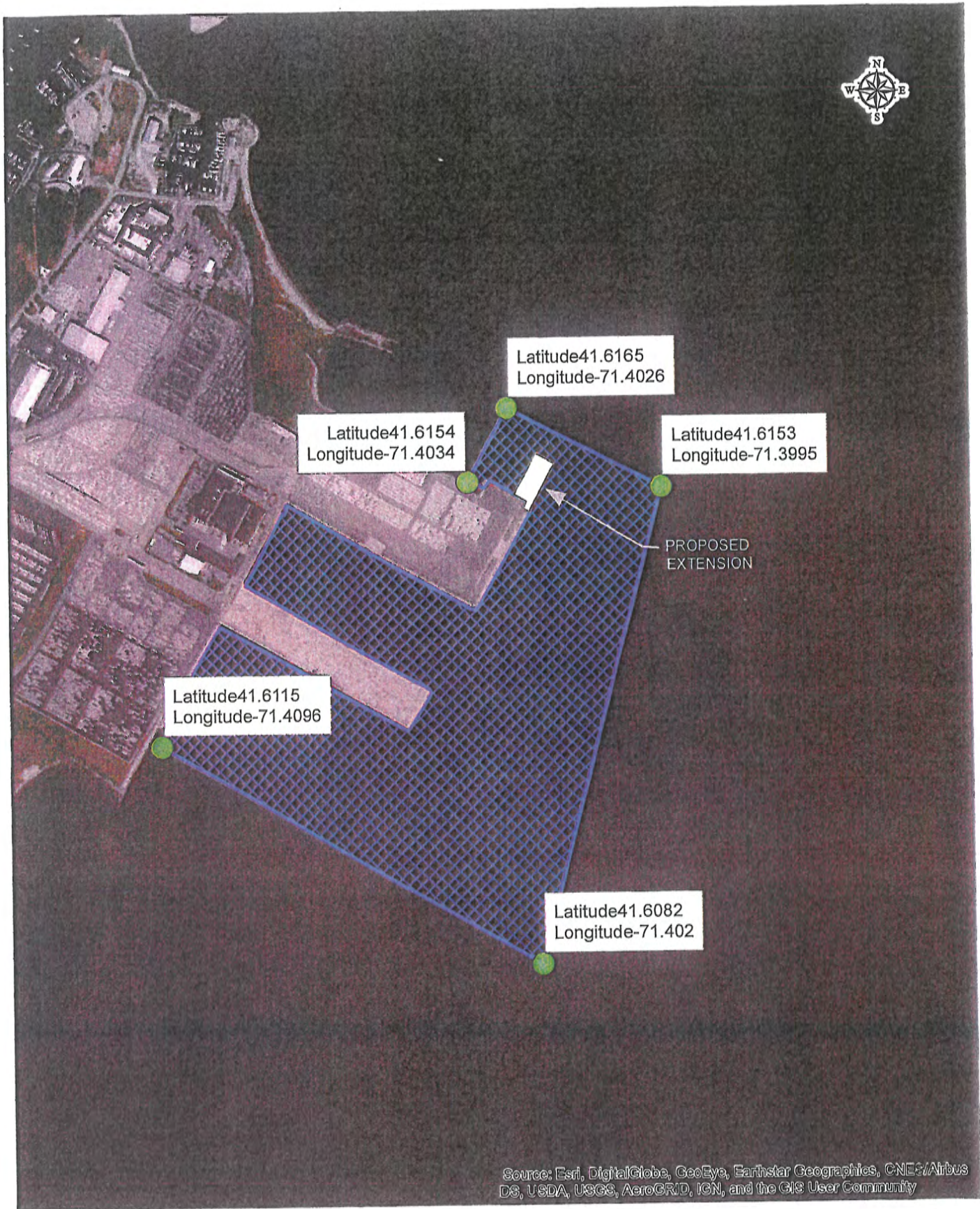
- 1 Dredgeline Bench is at EL -30.0 with a 1 on 3 slope to -33.0. Profile shape is typical for all Dredge Bench Depths. i.e. If Bench at -31.0, then slope 1 on 3 to -34.0.
- 2 Concrete Apron Live Load (LL) is located directly over top the coffer cells and is relevant to interlock tension.
- 3 The effective Concrete Apron LL is determined by the ratio $(1.0 \text{ ksf})(60' - 13.5') / [(60' - 13.5') + 8.5']$.
- 4 It appears web yielding does not control. i.e. $A328 \text{ steel allowable stress } 0.65(f_y=39\text{ksi})(0.375" \text{ min thickness}) = 9.5 \text{ pli}$.
- 5 80% sheet thickness reduction is based on the M&N Inspection Report UT readings of approximately 0.4" and PSA 28 thickness of 0.5".



15 Creek Road | Marion, Massachusetts 02738
t: 508.748.0937 | 800.668.3220 | f: 508.748.1363

Exhibit G
Water Classification

Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2
Quonset Development Corporation – North Kingstown, RI
Permit Applications





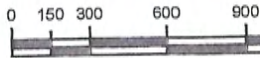
Legend	
Proposed SB Points	
 RIDEM	
 Revised SB	

EXHIBIT H



ANTONIO AMBROSIO
DATE: JANUARY 2019



15 Creek Road | Marion, Massachusetts 02738
t: 508.748.0937 | 800.668.3220 | f: 508.748.1363

Exhibit H
Aquaculture Areas

Proposed Maintenance and Improvement Dredging
Port of Davisville- Pier 1 and Pier 2
Quonset Development Corporation – North Kingstown, RI
Permit Applications



<p>Legend</p> <p>Aquaculture Area</p> <p>■ Current</p> <p>■ Temporary</p>	<p>EXHIBIT I</p> <p>0 150 300 600 900 1,200 Feet</p>	<p>QUONSET DEVELOPMENT CORPORATION</p> <p>ANTONIO AMBROSIO</p> <p>DATE: FEBRUARY 2018</p>
--	---	--

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL

ENFORCEMENT REPORT

June 11, 2019

RE: CRMC Enforcement File 17-0106

LOCATION: Plat 11, Lots 38, 134 Battery Lane, Jamestown

OWNERS: Kristan P. Hamlin and Geoffrey Hamlin TE

FILE SUMMARY

- On August 17, 2017, CRMC enforcement staff inspected the above-referenced site and found significant clearing of natural vegetation within 200' of the coastal feature. CRMC Cease and Desist Order number 17-0106 and Notice of Administrative Fine (\$2,500) issued on August 18, 2017.
- On August 28, 2017, Ms. Hamlin was emailed restoration plan requirements. On November 13, 2018, a proposed restoration plan was conditionally approved.
- On March 22, 2019, a proposed Consent Agreement was mailed to M/M Hamlin. The proposed Consent Agreement was unacceptable to M/M Hamlin. To date, the CRMC and M/M Hamlin have not been able to come to an agreement on an acceptable resolution of this violation.

RECOMMENDATIONS

- Enforcement staff recommends that the Council issue an Order to Restore in accordance with the approved restoration plan ("Proposed Buffer Zone Restoration Plan", dated 10/30/18) and that restoration be completed no later than October 1, 2019.
- Enforcement staff recommends that a Final Order of Administrative Fine in the amount of \$2,500 be issued.

ATTACHMENTS

- A. CRMC Cease and Desist Order number 17-0106 dated August 18, 2017
- B. CRMC Notice of Administrative Fine (\$2,500) dated August 18, 2017
- C. RIDEM Onsite Wastewater Treatment System Program Inspection Report Part B dated May 14, 2013
- D. "Proposed Buffer Zone Restoration Plan", dated 10/30/18
- E. Proposed revised Consent Agreement dated June 6, 2019

PHOTOS

1. Photo of site looking southwest taken August 17, 2017 by Laura Miguel
2. Photo of site looking southeast taken August 17, 2017 by Laura Miguel
3. Photo of site looking west taken August 25, 2017 by Laura Miguel
4. Photo of site looking southwest taken August 25, 2017 by Laura Miguel
5. Photo of site looking north taken August 25, 2017 by Laura Miguel
6. Photo of site looking southwest taken May 31, 2018 by Laura Miguel
7. Google Earth photo of site dated August 22, 2016
8. Google Earth photo of site dated February 26, 2018

Attachments



State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

August 21, 2017

Kristan Peters and Geoffrey Hamlin
21 Compo Parkway
Westport, CT 06880

Cease and Desist Order

Dear Mr. and Mrs. Peters:

Under the regulations of the Rhode Island Coastal Resources Management Program (RICRMP), any construction, grading, or filling activities or other alterations within 200 feet of coastal feature associated with tidal waters or coastal ponds of the state or in CRMC's freshwater wetlands in the vicinity of the coast jurisdiction, requires plans for the proposed work be submitted to the Coastal Resources Management Council (CRMC) for review, evaluation, and comment prior to the proposed activity. Failure to do so is a violation of the RICRMP. After evaluation of the plans by CRMC staff, their comments and the requirements for the proposed activities are forwarded to the applicant.

It has come to the attention of the CRMC that you or your agent have undertaken clearing of natural vegetation within 200 feet of a coastal feature at your property located at Plat 11, Lot 38, Battery Lane, Jamestown without benefit of a CRMC assent or in violation of a Council order.

This activity is in violation of the Rhode Island Coastal Resources Management Program. You are hereby issued a Cease and Desist Order Number 17-0106, dated August 18, 2017, and ordered to cease all activity at this site and to contact this office within 10 days of the date of this letter. Please be advised that a verbal Cease and Desist Order was issued to North-Eastern Tree Service on-site on August 17, 2017.

Failure to comply with this order shall be a violation of a duly adopted Council regulation, and subject to all fines and penalties established by law. Each day of noncompliance shall be deemed a separate and distinct violation in accordance with Section 46-23-7, G.L.R.I.

Sincerely yours,

Laura Miguel, Enforcement
Coastal Resources Management Council

/ajt
Certified Receipt Requested



State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

August 21, 2017

Kristan Peters and Geoffrey Hamlin
21 Compo Parkway
Westport, CT 06880

Notice of Administrative Fine

Violation Site: Battery Lane, Jamestown
Plat 11, Lot 38
Violation File No. 17-0106

Dear Mr. and Mrs. Hamlin:

On August 17, 2017, CRMC staff visited Plat 11, Lot 38, Town of Jamestown, and discovered that you or your agent had undertaken unauthorized clearing of natural vegetation within 200 feet of the coastal feature.

In accordance with per Rhode Island General Laws Sections 46-23-7 and 46-23-7.1, you are hereby assessed an Administrative Fine of \$2,500. In addition, a per diem fine of \$500 for each day can be assessed during which this violation continues.

You have the right to file an appeal for an Administrative Hearing, within 21 days from the receipt of this notice. The request for an Administrative Hearing must be delivered to the Council at the above address, in writing within this 21 day period. This request shall specify in detail the statements contested by you. Additionally, this request must contain a valid phone number or e-mail address where we can contact you when necessary. If no hearing is requested after the expiration of 21 day period, the Council shall issue a final order assessing the penalties specified in the notice. The penalty is due when the final order is issued.

Please be advised that the levy of this fine does not preclude any further Council action regarding this violation. In addition, should the Council determine there are other violations on said property, you may be assessed additional administrative fines. This notice of administrative fine will be filed in the land evidence records.



Jeffrey M. Willis, Deputy Director
Coastal Resources Management Council

/ajt
Certified Receipt Requested



Rhode Island Department of Environmental Management
Onsite Wastewater Treatment System Program

Phone: 401-222-6820
Fax: 401-222-6177

INSPECTION REPORT

APPLICATION NUMBER: 9815-0154		INSPECTOR: DeKiso
STREET: Battery Lane (So. end)		INSPECTION DATE: 05/14/2013
CITY/TOWN: Jamestown	POLE NO: 05/14/2013	ARRIVAL TIME:
PLAT/LOT: 11 38	OWTS INSTALLER: No Installer XXXXX	WEATHER CONDITIONS:
PHONE NO: No Installer XXXXX	INSPECTION NUMBER: Designer: LS1771	
TYPE OF INSPECTION: 2		

Dry Season Inspection for Soil

FINDINGS/COMMENTS

scheduled @ 11:00 AM

TH1 - OK ON 24" ESTHENT, LOGS > 50% @ 84"

TH2 - OK ON 30" ESTHENT, LOGS > 50% @ 60"

SOIL EVAL CONCUR
SUBMIT SOIL LOG -

LT 1 - LOGS > 50% @ 36"

LT 2 - LOGS > 50% @ 60"

LT 3 - LOGS > 50% @ 75"

RESULTS OF INSPECTION/ACTION REQUIRED

<p><input type="checkbox"/> CONSTRUCTION - DESIGNER MUST INSPECT/APPROVE PRIOR TO DEM INSPECTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bottom inspected <input type="checkbox"/> Cover inspected <input type="checkbox"/> Correct items listed <input type="checkbox"/> (RFA) Address Items listed and call for re-inspection. <input type="checkbox"/> (ASB) Designer must submit As-Builts <input type="checkbox"/> (RPREQ) Redesign required. Submit new application. <input type="checkbox"/> (RFAD) Stop Construction. Contact OWTS office. DO NOT CONTINUE. <input type="checkbox"/> (COC) Designer submit COC <input type="checkbox"/> (O&M) O&M agreement and permit must be recorded in Land Evidence Records. <input type="checkbox"/> (Fee) A \$100.00 fee is required before re-inspection. <input type="checkbox"/> Inspection waived <p>Signature of Inspector: <u>Andrew Shaw</u></p>	<p><input checked="" type="checkbox"/> SITE TESTING</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Soil Evaluation - Concur <input type="checkbox"/> Soil Evaluation - Do not concur <input type="checkbox"/> Soil Evaluation - Inconclusive <input type="checkbox"/> Alteration Test Hole - Verified <input type="checkbox"/> Alteration Test Hole - Unacceptable <input type="checkbox"/> Ledge Test <input type="checkbox"/> Fill Tests <input type="checkbox"/> Repair Test Hole
--	---

Part B

Site Evaluation - to be completed by Class II or III Designer or Soil Evaluator
Please use the area below to locate:

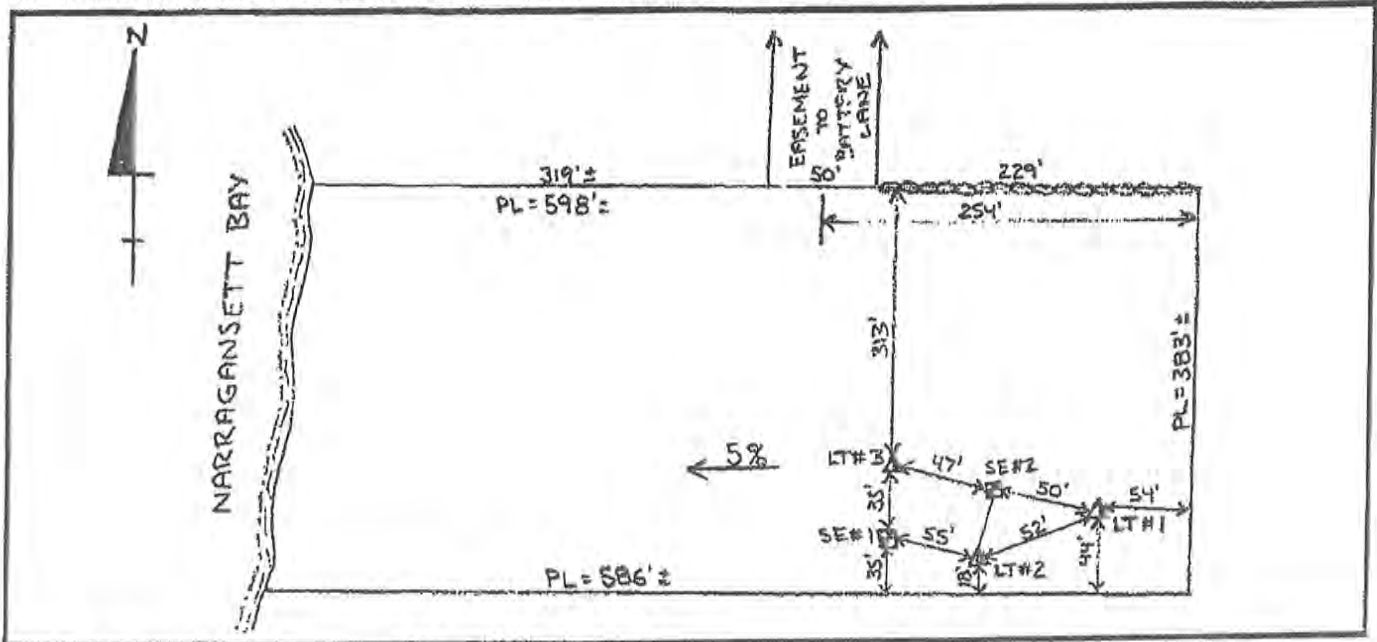
1. Test holes
2. Approximate direction of due north
3. Offsets from test holes to fixed points such as street, utility pole, or other permanent, marked object

Key:

Approximate location of test holes

Estimated gradient and direction of slope

Approximate direction of due north



1. Relief and Slope: approximately 3-5%
2. Presence of any watercourse, wetlands or surface water bodies, within 200 feet of test holes: YES NO If yes, locate on above sketch.
3. Presence of existing or proposed private drinking water wells within 200 feet of test holes: YES NO If yes, locate on above sketch.
4. Public drinking water wells within 500 feet of test holes: YES NO If yes, locate on above sketch.
5. Is site within the watershed of a public drinking water reservoir or other critical area defined in SD 19.00? YES NO
6. Has soil been excavated from or fill deposited on site? YES NO If yes, locate on above sketch.
7. Site's potential for flooding or ponding: NONE SLIGHT MODERATED SEVERE
8. Landscape position: Shoulder
9. Vegetation: forested with oaks, Maples, Cherry, Arrow wood, Honeysuckle, Smilax
10. Indicate approximate location of property lines and roadways. see sketch
11. Additional comments, site constraints or additional information regarding site: _____

Certification

The undersigned hereby certifies that all information on this application and accompanying forms, submittals and sketches are true and accurate and that I have been authorized by the owner(s) to conduct these necessary field investigations and submit this request.

Part A prepared by: Edward J. Avizianis

 Signature License # D4083

Part B prepared by: [Signature] CLS 1978 / D 2116
 Signature License # _____

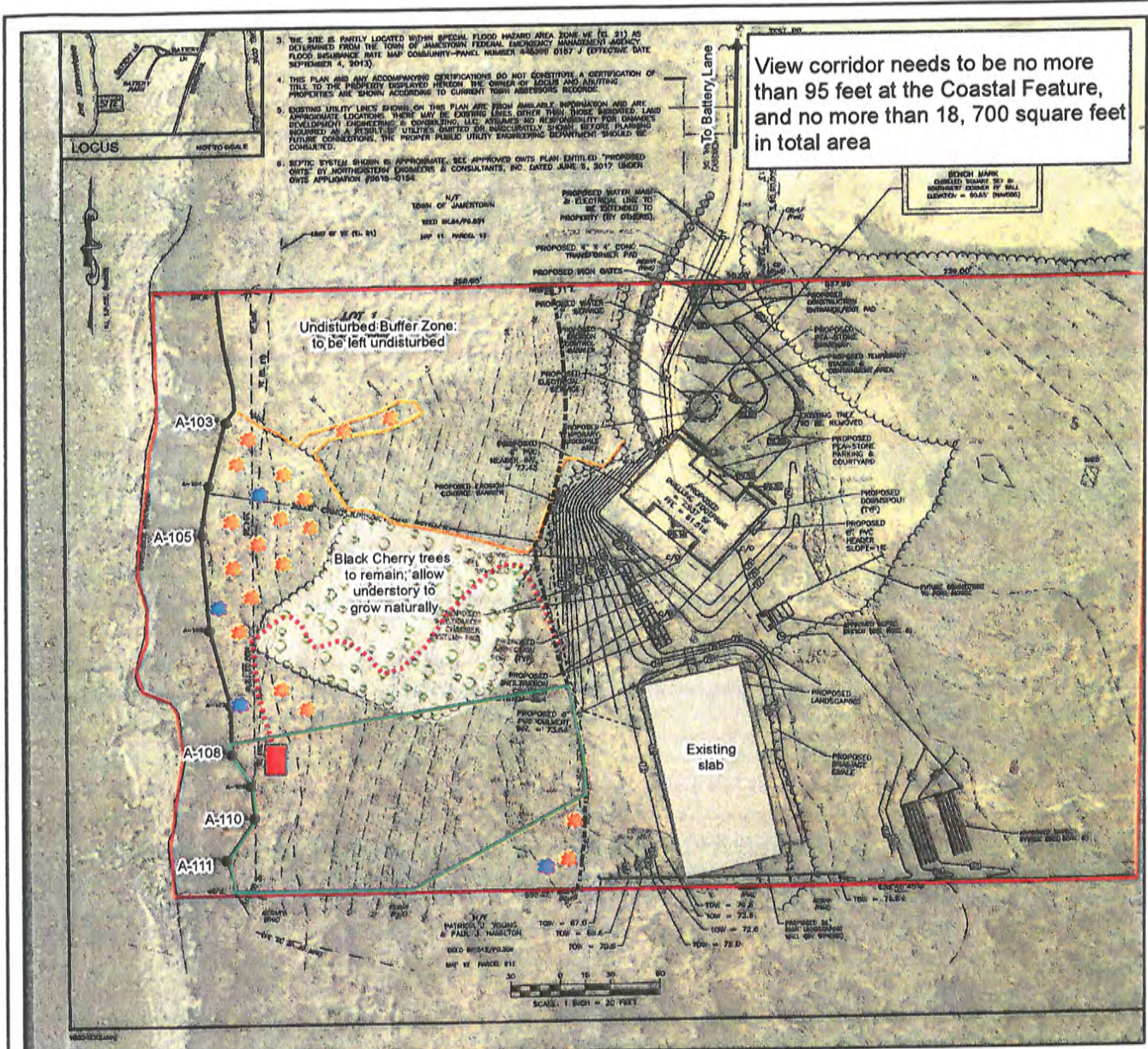
FOR OFFICE USE ONLY

Decision: Approved (SD 26.00(f)(1)) Not in compliance, or more information required (SD 26.00(f)(2)) * Disclaimed (SD 27.00(f)(3))

Comments: _____

Signature Authorized Agent _____

Date _____

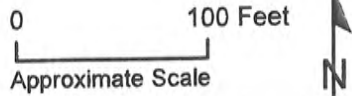


Sources: RIGIS 2014 Digital Color Orthophotography

Approximate Location:

- Site
- Top of Bluff
- Buffer Zone
- Stone Wall
- ✿ Proposed Tree
- ✿ Existing Tree

- View Corridor (see Sheet 2 notes)
- ⋯ Proposed Path
- 200 s.f. Recreation Area



0 Battery Lane Jamestown, Rhode Island	PROPOSED BUFFER ZONE RESTORATION PLAN	
10/30/18	Project No. 180406	SHEET 1

BUFFER ZONE PLANTING NOTES:

1. Shrubs: Pursuant to the October 2, 2018 CRM Enforcement letter (File 17-0106), "The regrowth of ground cover and shrubby vegetation is adequate. Full restoration requires that trees be planted".

2. Proposed Tree Restoration Zone Planting Plan 

The following trees are native tree species from the RI Coastal Plant Guide; trees will be planted approximately 4 - 6' high after planting in the locations shown on Sheet 1:

Red Maple (*Acer rubrum*)

Black Cherry(*Prunus serotina*)

3. Proposed View Corridor, Shoreline Access Path and Recreation Area

Pursuant to the October 2, 2018 CRMC Enforcement letter (File 17-0106), "This plan may propose a view corridor and shoreline access path".

A View Corridor, Path and Recreation Area is proposed. The total area of the onsite buffer zone is approximately 74,830 s.f. and the total length of the onsite Coastal Feature is 38 l.f.; Therefore, the View Corridor is proposed at the permissible 25% of the total buffer zone area and Coastal Feature length.

Pursuant to the CRMC Coastal Buffer Zone Management Guidance (Dec. 2012), vegetation in the View Corridor will be maintained at 5 feet high. No trees are proposed within the view corridor. However, nor will any trees be cut down, even if those that slightly impinge on the view corridor.

The access path has been proposed just outside of the proposed view corridor. Section 1.1.11.D.2.b of the CRMP notes "Shoreline access paths shall be located within a view corridor to the maximum extent practicable...". The access path is proposed in its location due to the steep grades within the proposed view corridor. It is utilizing a previously existing path layout. The path's location within the black cherry grove, where these trees will remain and vegetation allowed to grow naturally, is a practical location to accommodate a sinuous layout to prevent erosion. It will also hold aesthetic value. The access path will be 6 feet wide and made of grass. The access path is designed to meander through a canopy of trees. No bushes or trees will be removed or cut in order to create the access path. In contrast, if the access path were in the view corridor, a large portion would have to be impervious or stone steps, because of the steepness. The proposed location will not require stone steps and is therefore preferred from a conservation perspective because it reduces impervious surface.

The Recreation Area has been proposed within the view corridor and at least 10 feet from the Coastal Feature. The recreation area will be grass or pervious stones.

<p>0 Battery Lane Jamestown, Rhode Island</p>	<p>PROPOSED BUFFER ZONE RESTORATION PLAN - NOTES</p>	
<p>10/30/18</p>		



State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

Revised Consent Agreement

Kristan Peters Hamlin and Geoffrey Hamlin
21 Compo Parkway
Westport, CT 06880

Violation Site: South Battery Road, Jamestown; Plat: 11 Lot: 38
Violation File No.: 17-0106

1. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree that we are the owners of Plat 11, Lot 38, South Battery Lane, Jamestown, RI (property).
2. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree that the area within 200' of the coastal feature on the property was cleared without prior authorization from the CRMC.
3. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree that this clearing is a violation of the Rhode Island Coastal Resources Management Program (RICRMP).
4. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree to restore this site in accordance with the approved restoration plan entitled "Proposed Buffer Zone Restoration Plan", dated 10/30/18. Authorized restoration shall be limited to that proposed in Sheet 2, "BUFFER ZONE PLANTING NOTES, 2. Proposed Tree Restoration Zone Planting Plan", and restoration shall be completed no later than October 1st, 2019.
5. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree that clearing undertaken to plant the 18 trees will be limited to the minimum necessary. Mulch may be applied at a depth no greater than 2" and in a diameter no greater than 3'. Invasive plants encroaching on the trees may be hand pruned for one year following planting to allow the trees to become established. Any other invasive plant management shall be subject to prior approval by the CRMC.
6. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree to permanently demarcate the inland edge of the buffer no later than June 15, 2019. Acceptable permanent-type markers include 4" x 4" pressure treated timber posts, galvanized fence posts with cap, or concrete bounds. Markers shall be installed at each property boundary and at points in between which represent angle points necessary to delineate the full limit of the buffer zone by line-of-sight between markers.
7. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree to replace any trees that do not survive the first growing season by October 1st, 2020.
8. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree that the CRMC may inspect the property without prior notice.
9. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree that, unless otherwise authorized by the CRMC, the buffer will be allowed to grow in a completely undisturbed condition. No alterations, with the exception of those authorized in item 5 of this agreement, are allowed without prior

Kristan Peters and Geoffrey Hamlin

CRMC Violation No.: 17-0106

Page Two

CRMC approval.

- 10. We Kristan and Geoffrey Hamlin do acknowledge that, in accordance with R.I.G.L. §46-23-7.1(1), the CRMC may seek to impose a fee of not less than \$500.00 per day up to an aggregate not to exceed \$10,000, for each day of noncompliance with this consent agreement. However, nothing herein amounts to a waiver of the rights of Kristan and Geoffrey Hamlin to contest the accuracy of, or the facts underlying, any future alleged violation, or to contest the amount of the fine imposed.
- 11. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree to pay an administrative fee of \$500 due on the day of delivery of this agreement.
- 12. We, Kristin Peters Hamlin and Geoffrey Hamlin, do hereby consent and agree that the terms and conditions of this Consent Agreement shall supersede all prior communications and agreements between the parties.
- 13. Compliance with the terms of this Consent Agreement shall in all respects satisfy the requirements of Cease and Desist Order 17-0106 issued by the CRMC dated August 18, 2017 and Notice of Administrative Fine (\$2,500) issued by the CRMC dated August 21, 2017.

Kristan Peters Hamlin and Geoffrey Peters

Date

Signed and sworn to before me on this _____ day of _____, 2019.

Notary Public

Jeffrey M. Willis, Deputy Director
Coastal Resources Management Council

/ajt-LM

Photos

Photo
1



Photo
2



Photo
3



Photo
4



Photo
5

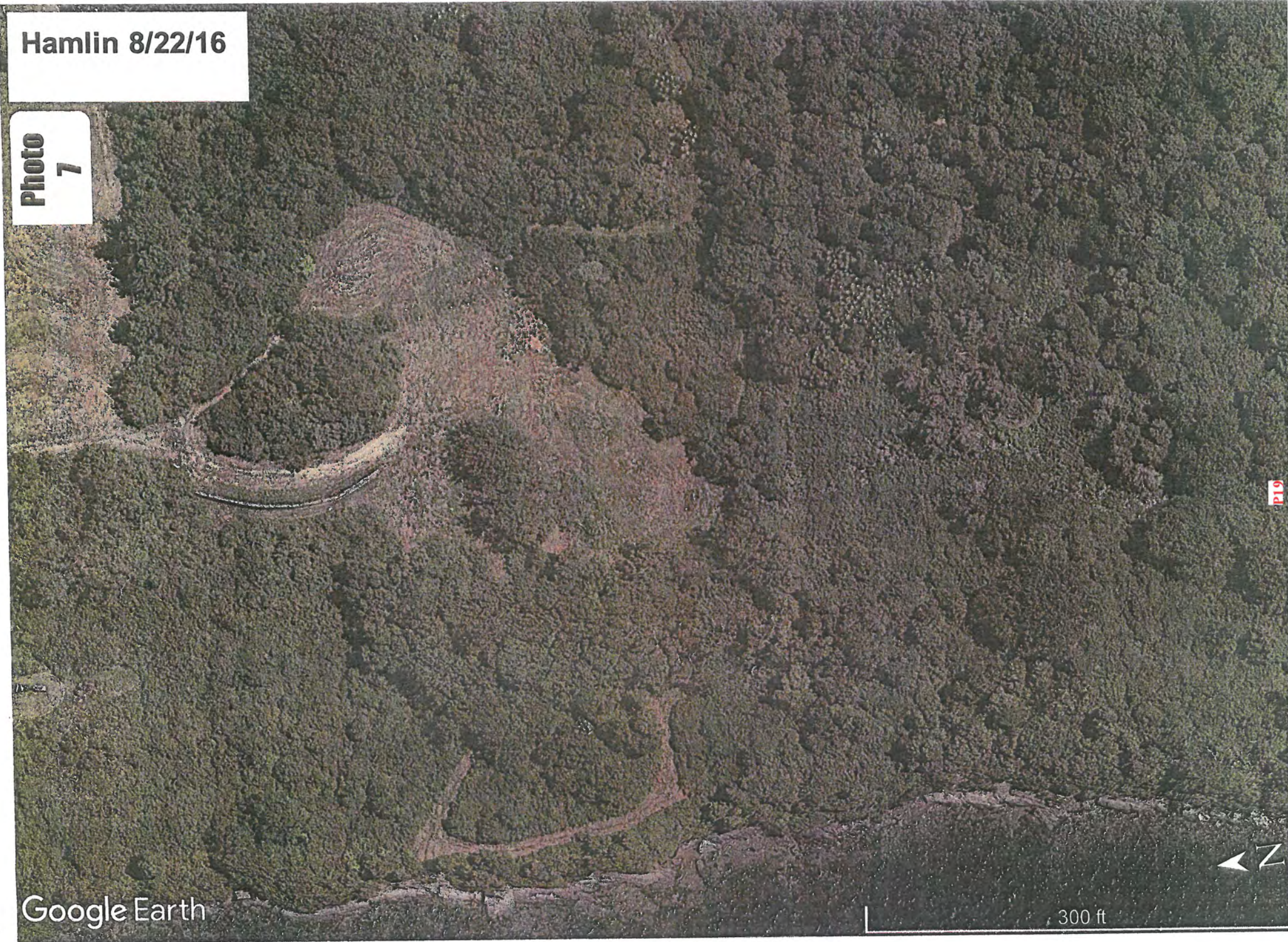


Photo
6



Hamlin 8/22/16

Photo
7



P19

Google Earth

300 ft



Hamlin 2/26/18

Photo
8



Google Earth

© 2018 Google

P20



300 ft