

**From:** [Keegan, Michael F NAE](#)  
**To:** [Sneeringer, Paul J NAE](#)  
**Subject:** FW: Potential Hurricane Barrier Impact (UNCLASSIFIED)  
**Date:** Wednesday, May 16, 2012 6:40:49 AM  
**Attachments:** [Mitigation Location Overview.pdf](#)  
[Stormwater Drainage Swale.pdf](#)  
[OU-3 Capping Area.pdf](#)  
[Winter Flounder Mitigation Area.pdf](#)  
[Cross-Sections OU-3 and Winter Flounder Mitigation Areas.pdf](#)

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Classification: UNCLASSIFIED  
Caveats: NONE

FYI. Note that they indicate that they know that they still haven't resolved the flood storage mitigation issue.

Mike

-----Original Message-----

From: Chet Myers [<mailto:cmyers@apexc.com>]  
Sent: Monday, February 27, 2012 10:56 AM  
To: Keegan, Michael F NAE  
Cc: Jay Borkland; Michalak, Scott C NAE  
Subject: RE: Potential Hurricane Barrier Impact (UNCLASSIFIED)

Hi Mike,

I know that there are existing unresolved issues associated with the South Terminal construction (such as the flood storage mitigation issue). That issue has not yet been resolved; however, USEPA has requested mitigation measures associated with the proposed terminal.

The three mitigation measures on the table, currently are in the general vicinity of existing USACE projects, so we wanted to get them on your radar screen. They are:

- 1). Stormwater Drainage Swale Mitigation Area - Sediment removal and wetland mitigation project within the stormwater drainage swale that runs behind the USACE Hurricane Barrier between Cove and Gifford Streets in New Bedford Harbor. This mitigation measure had previously been discussed with USACE in 2007, and at the time, USACE had stated that as long as the hydraulic function of the drainage swale was not compromised, that the work would be acceptable. We believe that the proposed work with enhance, rather than compromise, the hydraulic function of the drainage swale, because it will increase the cross-sectional area of the channel.
- 2). Mitigation Area at OU-3 Pilot Cap Area - Capping of PCB contaminated sediment immediately outside of the USACE Hurricane Barrier for New Bedford Harbor. This is an expansion of a previously approved capping project (i.e. pilot capping of the OU-3 Hot Spot) that was completed by EPA in 2005, and was approved by USACE at that time. The proposed capping is anticipated to be below Mean High Water in all cases; however, some of the capping is anticipated to create new intertidal area adjacent to the Hurricane Barrier.

3). Winter Flounder Mitigation Area - Filling of a relative depression to the west of the New Bedford Federal Channel, immediately to the north of the Butler Flats lighthouse. The eastern edge of the area to be filled (the edge closest to the channel) is 90 feet from the western boundary of the Federal Channel.

None of these mitigation measures have been officially approved by EPA; however, they are currently on the table as proposed mitigation.

As we previously stated, EPA is currently reviewing this mitigation for suitability. Please let me know if you have any questions or comments regarding these proposed mitigation areas.

Thanks,

Chet Myers

Apex Companies, LLC

O) 617-728-0070 M) 617-908-5778

-----Original Message-----

From: Chet Myers

Sent: Monday, December 05, 2011 1:48 PM

To: 'Keegan, Michael F NAE'

Cc: Jay Borkland; Michalak, Scott C NAE

Subject: RE: Potential Hurricane Barrier Impact (UNCLASSIFIED)

Hi Mike,

We have not developed the flood storage reduction plan. USEPA has not yet issued a Draft Decision associated with this project, so the permitting side is running a little slow.

We have been moving forward on design, though, so we thought it would be good to get what information we could to you.

Chet Myers

Apex Companies, LLC

O) 617-728-0070 M) 617-908-5778

-----Original Message-----

From: Keegan, Michael F NAE [<mailto:Michael.F.Keegan@usace.army.mil> <<mailto:Michael.F.Keegan@usace.army.mil>> ]

Sent: Monday, December 05, 2011 12:59 PM

To: Chet Myers

Cc: Jay Borkland; Michalak, Scott C NAE

Subject: RE: Potential Hurricane Barrier Impact (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Chet,

Tony Firicano retired at the end of June. I have forwarded your message to Scott Michalak who has taken over for Tony.

One of the other comments that the Corps had was that you needed a mitigation plan to provide additional flood storage to offset the flood storage that would be lost when the bulkheads were constructed. The Corps indicated that there can be no reduction in the flood storage for the project. Have you developed that plan?

Mike

-----Original Message-----

From: Chet Myers [<mailto:cmyers@apexcos.com> <<mailto:cmyers@apexcos.com>> ]

Sent: Monday, December 05, 2011 12:35 PM

To: Firicano, Anthony J NAE

Cc: Jay Borkland; Keegan, Michael F NAE

Subject: Re: Potential Hurricane Barrier Impact

Hi Mr. Firicano,

Not sure if you remember this issue, but Apex contacted you approximately one year ago to discuss the proposed New Bedford Marine Commerce Terminal (which is an extension of the existing South Terminal in New Bedford) and the potential impact of a portion of the dredging on the New Bedford Hurricane Barrier.

At the time, Apex had forwarded to you the proposed dredge footprint and cross-section (attached as "South Terminal Expansion 9-20-10 W Cross-Sectionsred"). You had requested a slope-stability analysis to be performed on this footprint.

Since that time, the dredge footprint has changed slightly, and we have had a slope stability analysis performed by GZA on both the original and two versions of the altered dredge footprint.

The new dredge footprint is attached as "P-2.6red". This new footprint brings the dredging closer to the Hurricane Barrier, but is also slightly shallower (-14 MLLW vs. -20 MLLW in our 9-20-10 submission).

Although there are no plans to dredge deeper than -14 MLLW at this time, the future allowable dredge depth for the bulkhead extension in this area is -20 MLLW. Therefore GZA assumed that it was possible that the new footprint could also be dredged to -20 MLLW in the future.

Therefore, GZA conducted its slope-stability analysis on three different scenarios:

- 1). The original 9-20-10 footprint dredged to -20 MLLW.
- 2). The new footprint dredged to -14 MLLW.
- 3). The new footprint dredged to -20 MLLW.

GZA created cross-sections and ran the three scenarios through their slope-stability software. GZA's conclusion in their report ("33734.00 Hurricane Barrier Reportred") was that "all of the proposed dredge scenarios

have acceptable factors of safety".

We are more than happy to discuss the issue with you further, or to meet with you to discuss the reports and the dredge footprints. Finally, higher resolution files for the Hurricane Barrier Report are available (we just didn't want to overwhelm your servers).

Thanks,

Chet Myers

Apex Companies, LLC

O) 617-728-0070 M) 617-908-5778

-----Original Message-----

From: Keegan, Michael F NAE [<mailto:Michael.F.Keegan@usace.army.mil> <<mailto:Michael.F.Keegan@usace.army.mil>> ]

Sent: Wednesday, October 06, 2010 12:07 PM

To: Chet Myers

Cc: Jay Borkland; Firicano, Anthony J NAE

Subject: RE: Potential Hurricane Barrier Impact

Chet,

I did engage both Larry and John since they are the two individuals in charge of the Canal. However they asked me to coordinate with our Geotechnical folks since they have the expertise to determine if they felt that there would be an issue. Tony Firicano is the Chief of Geotech and I asked him to have someone from his shop take a look at things. Tony indicated that, based on a cursory review, we wouldn't expect any impact to the barrier given the proposed cross-section. Tony did indicate that typically in these situations, we require the Contractors to provide analysis or backup for their section design for our review, and that would be the preferred approach.

I've included Tony in this email. He can be reached at 978-318-8396. I'd prefer it if you two talk directly instead of me being the middleman here.

However, please keep me in the loop so I can make sure that coordinate on the canal folks. Thanks

Mike

-----Original Message-----

From: Chet Myers [<mailto:cmyers@apexc.com> <<mailto:cmyers@apexc.com>> ]

Sent: Friday, October 01, 2010 5:09 PM

To: Keegan, Michael F NAE

Cc: Jay Borkland

Subject: Potential Hurricane Barrier Impact

Mike,

Just wanted to check with you regarding the review of the proposed dredging in front of the Hurricane Barrier.

My understanding is that you referred us to either Mr. Larry Davis or Mr.

John Macpherson at the Cape Cod Canal office, who are actually doing the review.

I will attempt to contact them, if it is OK with you. If you wouldn't mind letting them know that I will be calling to schedule a meeting, I would be grateful.

Thanks,

Chet Myers, PE, LSP

Apex Companies, LLC

184 High Street, Suite 502

Boston, MA 02110

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Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE



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## Mitigation Areas Locus Map

**NEW BEDFORD MARINE  
 COMMERCE TERMINAL  
 NEW BEDFORD, MA**

Scale: 1"=1500'



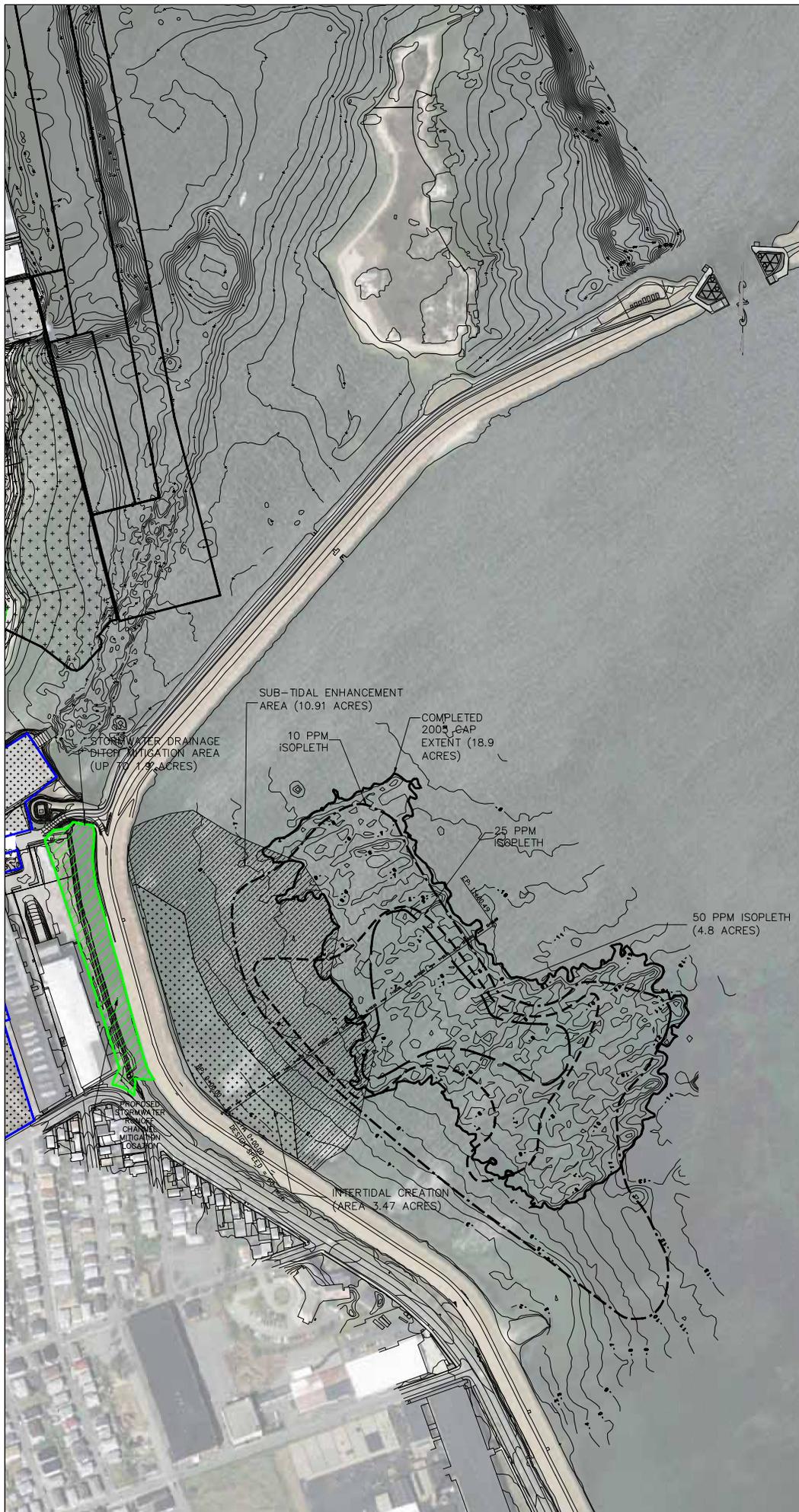


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REVISIONS

NO.	DATE	DESCRIPTION
1	11/22/10	MITIGATION AREAS
2	12/15/10	BATHY UPDATED

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PREPARED FOR:

COMMONWEALTH  
OF  
MASSACHUSETTS

DRAWING TITLE:

NEW BEDFORD MARINE  
COMMERCE TERMINAL  
SUBTIDAL/INTERTIDAL  
MITIGATION AREAS

Scale: 1"=150'



Date	6/5/10	Drawing No.
Proj. Mgr.	JAS	
Design	GCD	
Check	CM	
Drawn	GCD	
Job. No.	6690.002	
Last Rev.	6/5/10	



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EXISTING LAND USE AREA	
RIP-RAP	13,476 S.F.
SPARTINA GROWTH	4,276 S.F.
GLASSWORT GROWTH	347 S.F.
CONTAMINATED SEDIMENT	54,367 S.F.
UPLAND	36,789 S.F.

EXISTING UPLAND AREA

EXISTING RIP-RAP SLOPE

AREA OF EXISTING SPARTINA GROWTH

AREA OF EXISTING GLASSWORT GROWTH

EXISTING CONTAMINATED SEDIMENT

EXISTING FENCE

EXISTING BUILDING

48"X45" OUTFALL

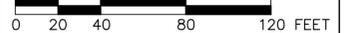
**PREPARED FOR:**

COMMONWEALTH OF MASSACHUSETTS

**DRAWING TITLE:**

NEW BEDFORD MARINE COMMERCIAL HURRICANE BARRIER SWALE MITIGATION AREA  
EXISTING CONDITIONS

Scale: 1"=40'



Date 1/05/11	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CHM	
Drawn GCD	
Job. No. 6690	
Last Rev. 9/21/11	



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PROPOSED LAND USE AREA	
PEDESTRIAN WALKWAY	9,358 S.F.
WETLAND TRANSITION PLANTINGS	11,278 S.F.
HIGH MARSH SPECIES PLANTINGS	14,962 S.F.
LOW MARSH SPECIES PLANTINGS	32,362 S.F.
REMEDIAED CHANNEL	29,245 S.F.
UNMODIFIED UPLAND	12,050 S.F.

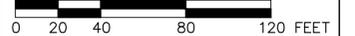
**PREPARED FOR:**

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MASSACHUSETTS

**DRAWING TITLE:**

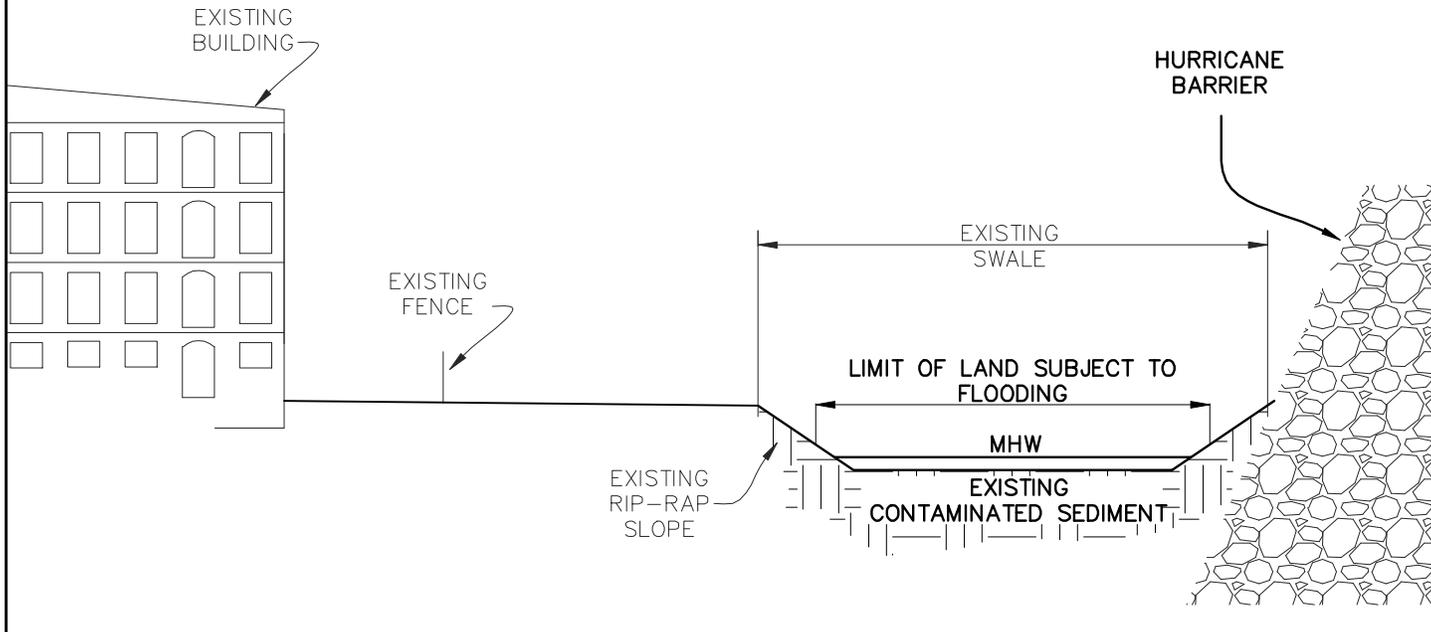
NEW BEDFORD MARINE  
COMMERCIAL TERMINAL  
HURRICANE BARRIER  
SWALE MITIGATION  
AREA  
PROPOSED CONDITIONS

Scale: 1"=40'

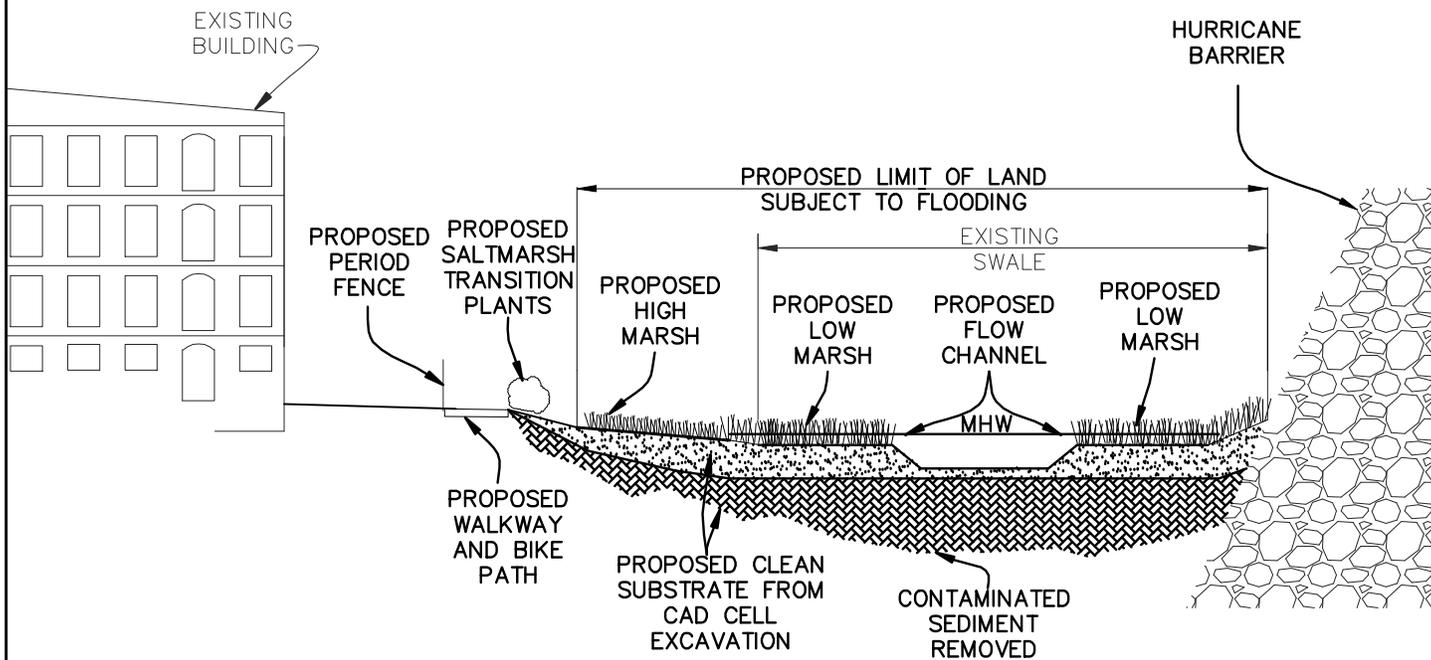


Date 1/05/11	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CHM	
Drawn GCD	
Job. No. 6690	
Last Rev. 9/21/11	

EXISTING



PROPOSED



Scale: 1"=30'



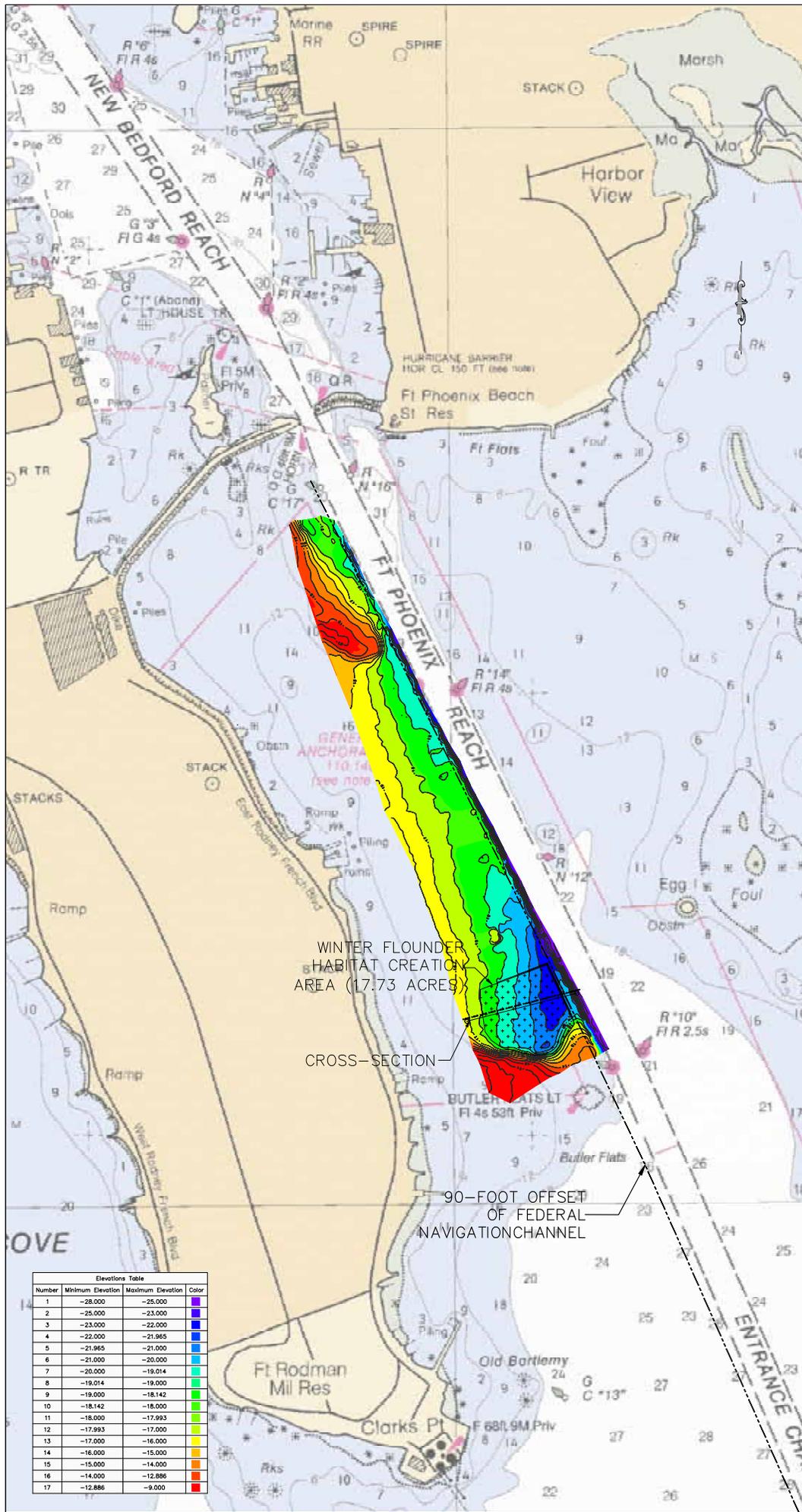
STORMWATER DRAINAGE  
SWALE MITIGATION  
AREA CROSS-SECTION

COMMONWEALTH  
OF  
MASSACHUSETTS



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NEW BEDFORD MARINE  
COMMERCE TERMINAL



Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-28.000	-25.000	Red
2	-25.000	-23.000	Orange
3	-23.000	-22.000	Yellow
4	-22.000	-21.965	Light Green
5	-21.965	-21.000	Green
6	-21.000	-20.000	Light Blue
7	-20.000	-19.014	Blue
8	-19.014	-19.000	Dark Blue
9	-19.000	-18.142	Very Dark Blue
10	-18.142	-18.000	Black
11	-18.000	-17.993	Black
12	-17.993	-17.000	Black
13	-17.000	-16.000	Black
14	-16.000	-15.000	Black
15	-15.000	-14.000	Black
16	-14.000	-12.886	Black
17	-12.886	-9.000	Black



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REVISIONS

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2	12/15/10	BATHY UPDATED

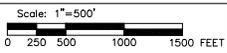
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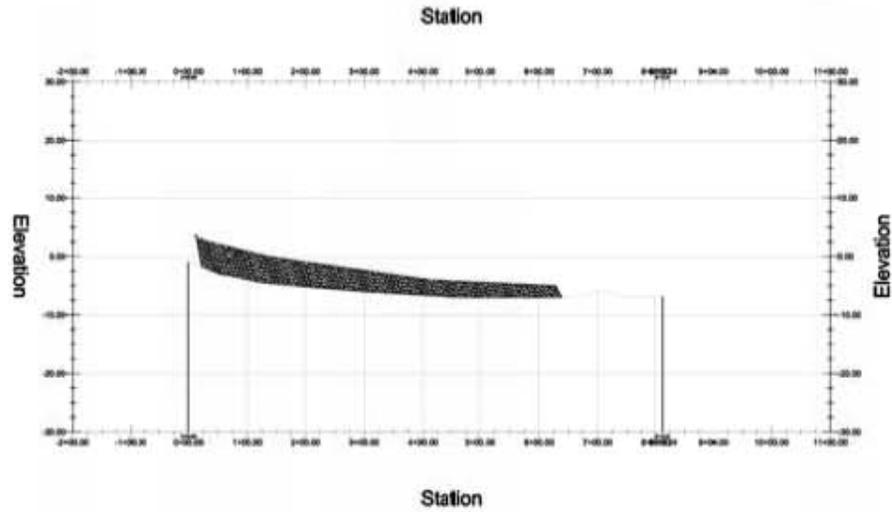
DRAWING TITLE:

NEW BEDFORD MARINE COMMERCE TERMINAL WINTER FLOUNDER MITIGATION AREA

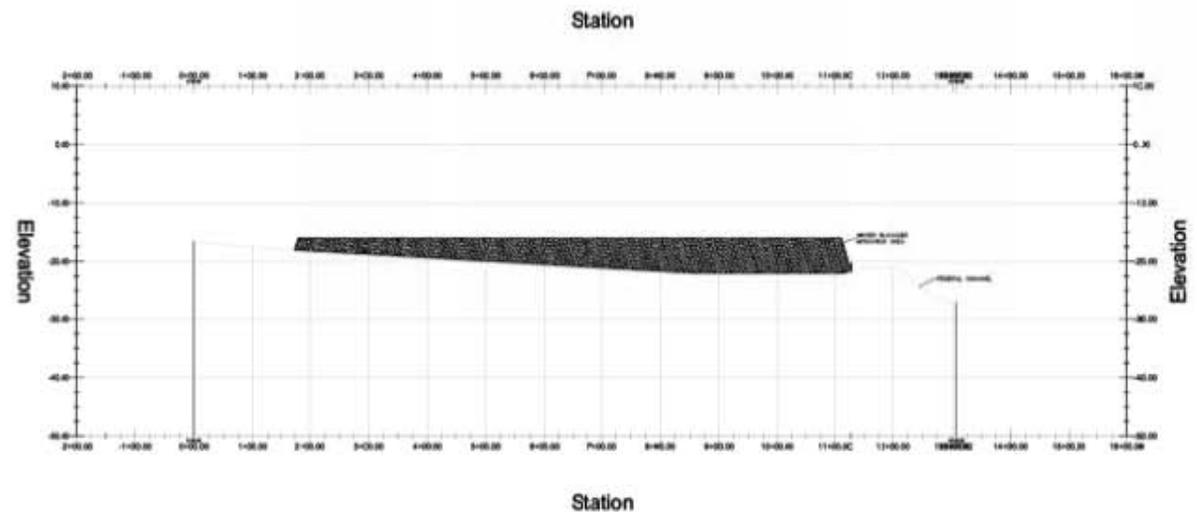


Date	6/5/10	Drawing No.
Proj. Mgr.	JAB	
Design	GCD	
Check	CM	
Drawn	GCD	
Job No.	6690.002	
Last Rev.	9/20/11	

# PROFILE VIEW OF PROPOSED MITIGATION AREA AT OU#3 PILOT CAP AREA



# WINTER FLOUNDER MITIGATION AREA CROSS SECTION



100% DESIGN FOR REVIEW  
SET  
NOT FOR CONSTRUCTION

PROJECT  
**NEW BEDFORD  
MARINE COMMERCE  
TERMINAL**

OWNER  
**MASSACHUSETTS CLEAN ENERGY CENTER  
55 SUMNER STREET, 8TH FLOOR  
BOSTON, MA**

NO.	DATE	DESCRIPTION	BY

PROJECT NO.	888
CADD FILE	MIT_OU3_FLNDR
DESIGNED BY	DM
DRAWN BY	DM
CHECKED BY	DM
DATE	8-8-11
DRAWING SCALE	N/A
GRAPHIC SCALE	

SHEET TITLE  
**OU-3  
CAPPING  
AREA  
CROSS SECTIONS**

DRAWING NO.  
**X-5**

PLOT SCALE 1"=1'