DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278-0090

Regulatory Division February 26, 2026

SUBJECT: Permit Application Number NAN-2025-01009-MLO
by New York State Office of Resilient Homes and Communities

Devon Shumate
New York State RHC
641 Lexington Avenue
New York, NY 10022

Dear Ms. Shumate:

On November 13, 2025, the New York District of the U.S. Army Corps of Engineers received a request for Department of the Army authorization for the discharge of fill material into and/or the placement of structures in and over navigable waters of the United States. The proposed work includes the installation of approximately 4,494 seeded disks within 286 existing ecological concrete armor units. The armor units are located below the plane of Mean Higher High Water (MHHW) on Breakwaters D, F, G, and H. Additionally, three (3) in-situ trials of direct seeding of oyster larvae are proposed on the lee side of Breakwaters D, F, and G. The trials will involve the temporary use of turbidity curtains covering approximately 2,000 square feet per trial. Seeded droplock units, covering approximately 4,150 square feet below MHHW on Breakwaters F, G, and H, are proposed as a contingency option if the in-situ trials are canceled. The site is located in the Raritan Bay, along the Tottenville shoreline, Lat: 40.49399, Long: -74.246065, in Staten Island, Richmond County, New York.

Based on the information submitted to this office, and accomplishment of notification in accordance with the applicable federal requirements, our review of the project indicates that an individual permit is not required. It appears that the activities within the jurisdiction of this office could be accomplished under Department of the Army Nationwide General Permit Number(s) 27 AQUATIC HABITAT RESTORATION, ESTABLISHMENT, AND ENHANCEMENT ACTIVITIES. The nationwide permits are prescribed as a Reissuance and Modification of Nationwide Permits in the Federal Register dated December 27, 2021 (86 FR 73522). The work may be performed without further authorization from this office provided the activity complies with the permit conditions listed in Section B, No(s). 27 AQUATIC HABITAT RESTORATION, ESTABLISHMENT, AND ENHANCEMENT ACTIVITIES, Section C, any applicable New York District regional conditions, the following special condition(s), and any applicable regional conditions added by the State of New York, copies enclosed. The 2021 nationwide general permits in the State of New York, including their regional conditions, water quality certifications, and coastal zone management concurrence statements are

also available at: https://www.nan.usace.army.mil/Missions/Regulatory/Nationwide-Permits/.

Special Conditions

(A) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice form the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

This determination covers only the work described in the submitted material. Any major changes in the project may require additional authorizations from the New York District.

Care should be taken so that construction materials, including debris, do not enter any waterway to become drift or pollution hazards. You are to contact the appropriate state and local government officials to ensure that the subject work is performed in compliance with their requirements.

This verification is valid until March 14, 2026, unless the nationwide permit is modified, reissued, or revoked. This verification will remain valid until March 14, 2026, if the activity complies with the terms of any subsequent modifications of the nationwide permit authorization. If the nationwide permits are suspended, revoked, or modified in such a way that the activity would no longer comply with the terms and conditions of a nationwide permit, and the proposed activity has commenced, or is under contract to commence, the permittee shall have 12 months from the date of such action to complete the activity.

This authorization is conditional on the applicant's receipt of the required coastal zone management concurrence or waiver from the New York State Department of State (NYSDOS). No work may be accomplished until the required approval from NYSDOS has been obtained.

Within 30 days of the completion of the activity authorized by this permit and any mitigation required by this permit, you are to sign and submit the attached compliance certification form to this office.

In order for us to better serve you, please complete our Customer Service Survey located at https://www.nan.usace.army.mil/Missions/Regulatory/Customer-Survey/.

If any questions should arise concerning this matter, please contact Matthew Look, of my staff, at 917-790-8221

Sincerely,

Rosita Miranda Date: 2026.02.26 14:18:15 -05'00'

Rosita Miranda
Chief, Metro NY/NJ Branch

Enclosures

NATIONWIDE GENERAL PERMIT COMPLIANCE CERTIFICATION AND REPORT FORM

Permit File Number: NAN-2025-01009-MLO
Permittee: New York State Office of Resilient Homes and Communities
Location: Lat: 40.49399 Long: -74.246065, Tottenville Shoreline, Staten Island, Richmond County, New York

Date Permit Letter Issued: February 26, 2026

Within 30 days of the completion of the activity authorized by this nationwide general permit and any mitigation required in the verification letter, please sign this certification and return it to the address at the bottom of this form.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the permit's terms and conditions you are subject to permit suspension, modification or revocation.

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

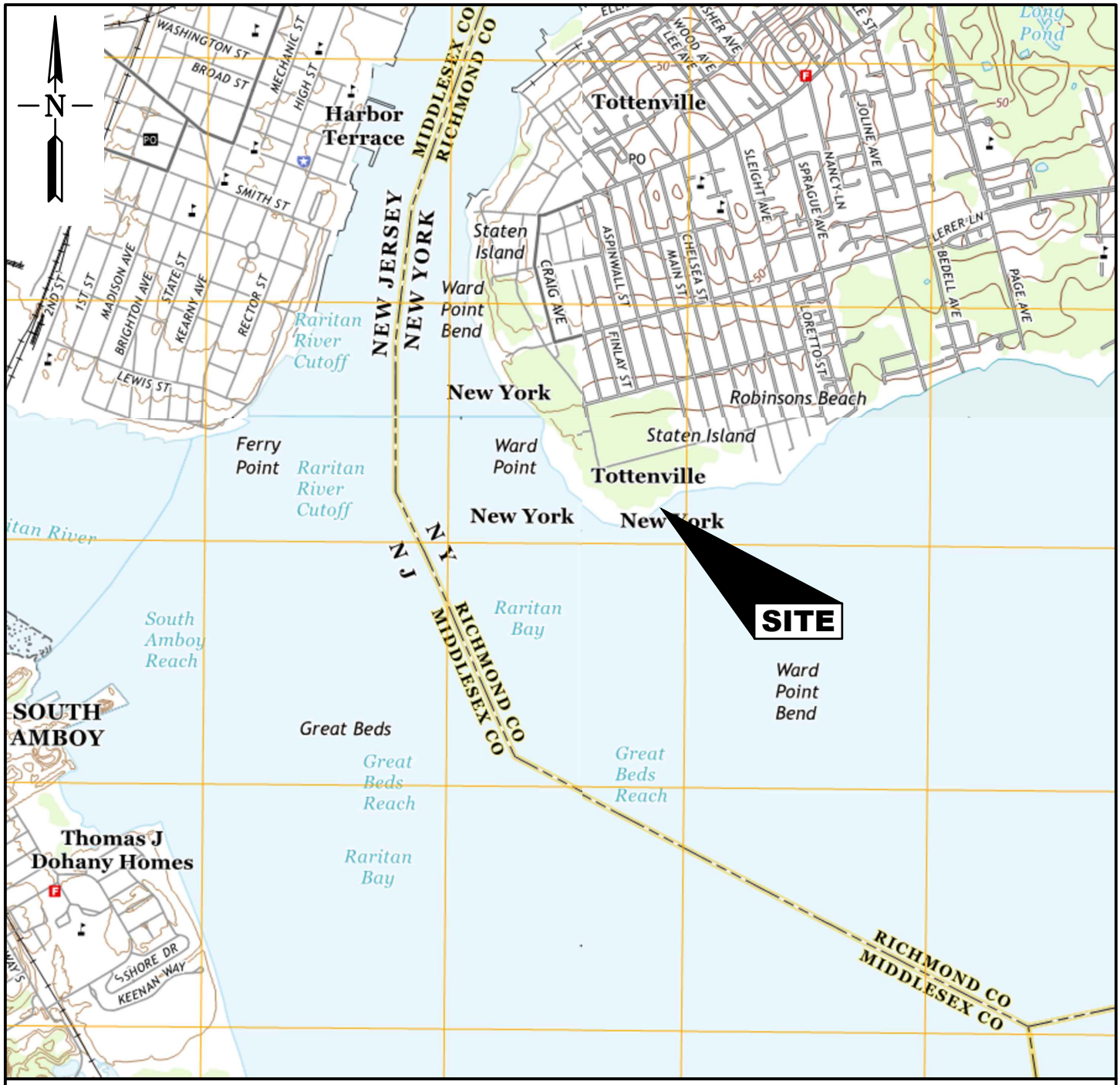
_____ _____
Signature of Permittee **Date**

FOLD THIS FORM INTO THIRDS, WITH THE BOTTOM THIRD FACING OUTWARD. TAPE IT TOGETHER AND MAIL TO THE ADDRESS BELOW OR EMAIL TO CENAN-R-PERMIT-APP@USACE.ARMY.MIL.

_____
_____
_____

PLACE STAMP HERE

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
USACE OPERATIONS/REGULATORY 16-406
C/O PSC MAIL CENTER 26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278



TAKEN FROM MULTIPLE USGS MAPS:
ARTHUR KILL, PERTH AMBOY, SOUTH AMBOY, & KEYPORT QUADRANGLE
NEW JERSEY–NEW YORK
7.5 MINUTE SERIES

VICINITY MAP

0 2000 4000 FT.

SCALE 1"=2000'–0"

FOR PERMIT USE ONLY NOT FOR CONSTRUCTION
REVISIONS:
05/24/2024 JOINT APPLICATION
11/20/2025 NOCA

DATUM: N.A.V.D. 88
APPLICATION NO.:

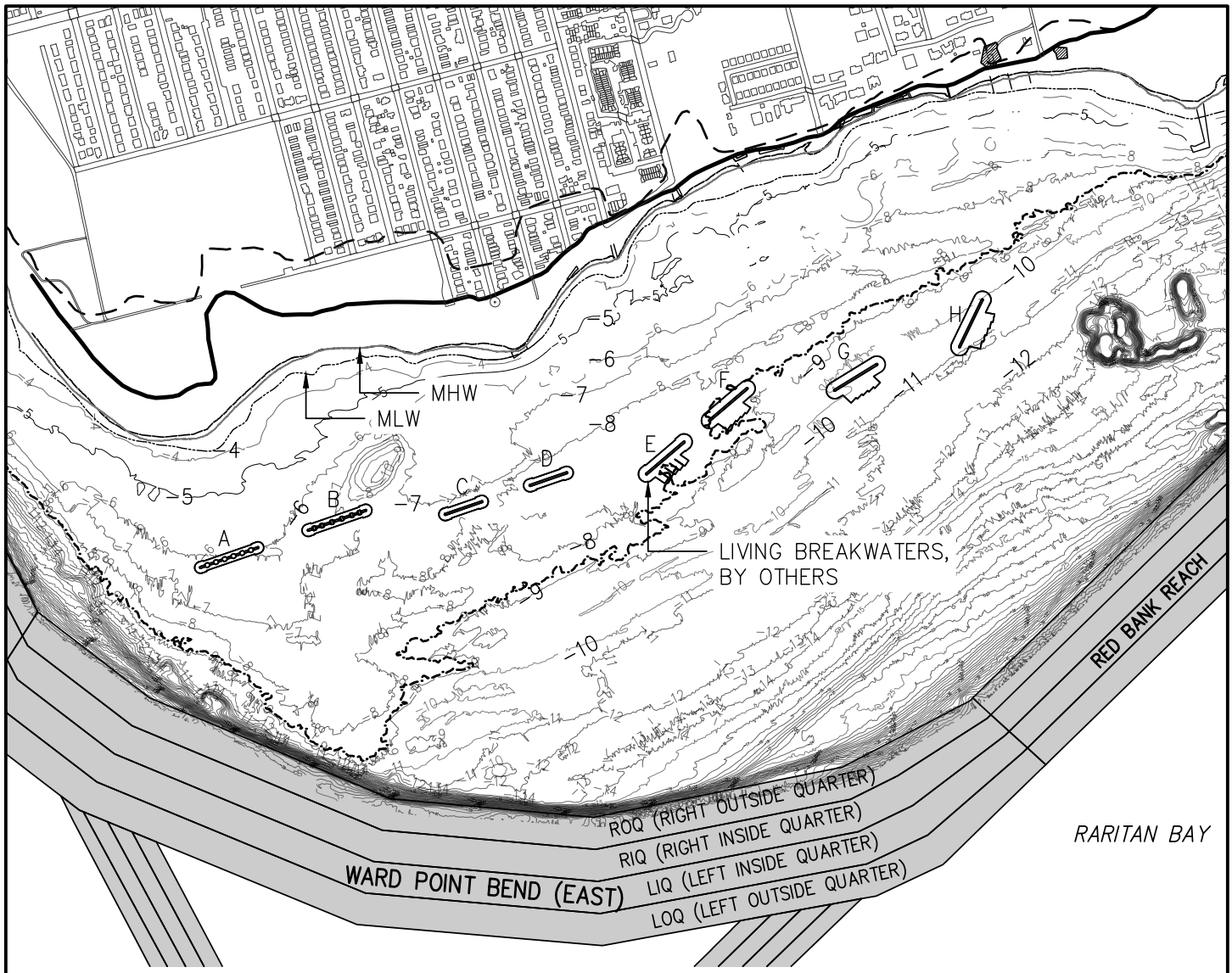
AGENT: NEW YORK OFFICE OF RESILIENT HOMES AND COMMUNITIES, FORMERLY KNOWN AS GOVERNOR'S OFFICE OF STORM RECOVERY.

PREPARED BY: SCAPE LANDSCAPE ARCHITECTURE DPC
SCAPE LANDSCAPE ARCHITECTURE DPC
277 BROADWAY NINTH FLOOR NEW YORK

PROPOSED OYSTER RESTORATION ON THE LIVING BREAKWATERS

WARD POINT BEND, RARITAN BAY
TOTTENVILLE, STATEN ISLAND
COUNTY OF RICHMOND
STATE OF NEW YORK

DATE: 12/09/2025



LEGEND

- MEAN HIGH WATER
- MEAN LOW WATER
- FEMA V-ZONE
- LiMWA
- -6' MLW (NAVD88 EL. -8.62)
- FEDERAL NAVIGATION CHANNEL

TIDAL ELEVATIONS NAVD88	
MEAN HIGHER HIGH WATER	2.41
MEAN HIGH WATER	2.08
MEAN LOW WATER	-2.62
MEAN LOWER LOW WATER	-2.82

*ALL ELEVATIONS ARE IN NAVD88

EXISTING OVERALL SITE PLAN

0 1200 2400 FT.

SCALE 1"=1200'-0"

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WARD POINT BEND, RARITAN BAY
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COUNTY OF RICHMOND
STATE OF NEW YORK

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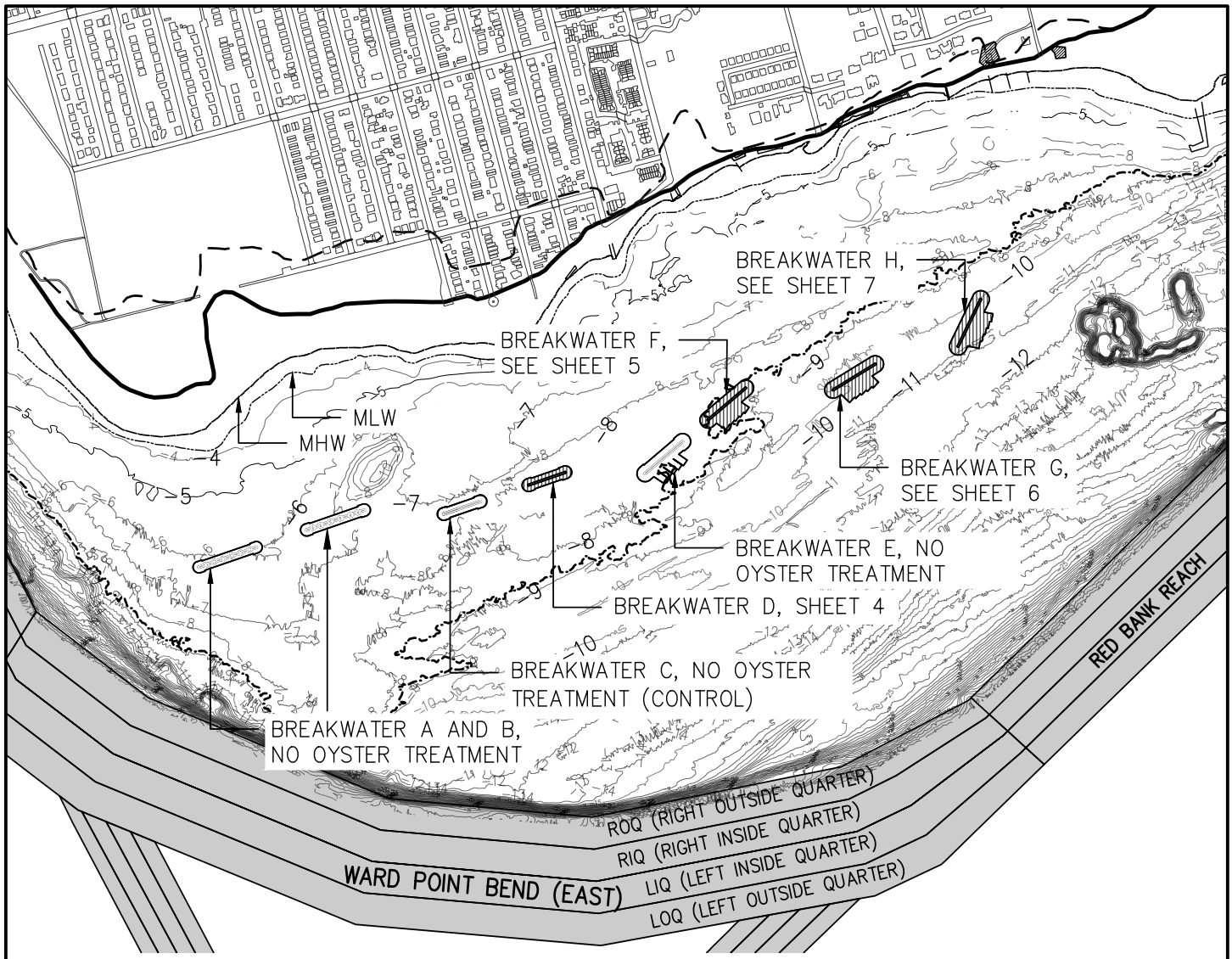

LEGEND

- BREAKWATERS WITH POTENTIAL OYSTER RESTORATION
- EXISTING BREAKWATERS
- FEDERAL NAVIGATION CHANNEL
- MEAN HIGH WATER
- MEAN LOW WATER
- FEMA V-ZONE
- LiMWA
- −6' MLW (NAVD88 EL. −8.62)

*ALL ELEVATIONS ARE IN NAVD88

TIDAL ELEVATIONS NAVD88	
MEAN HIGHER HIGH WATER	2.41
MEAN HIGH WATER	2.08
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PROPOSED OVERALL SITE PLAN

0 1200 2400 FT.

SCALE 1"=1200'−0"

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WARD POINT BEND, RARITAN BAY
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277 BROADWAY NINTH FLOOR NEW YORK

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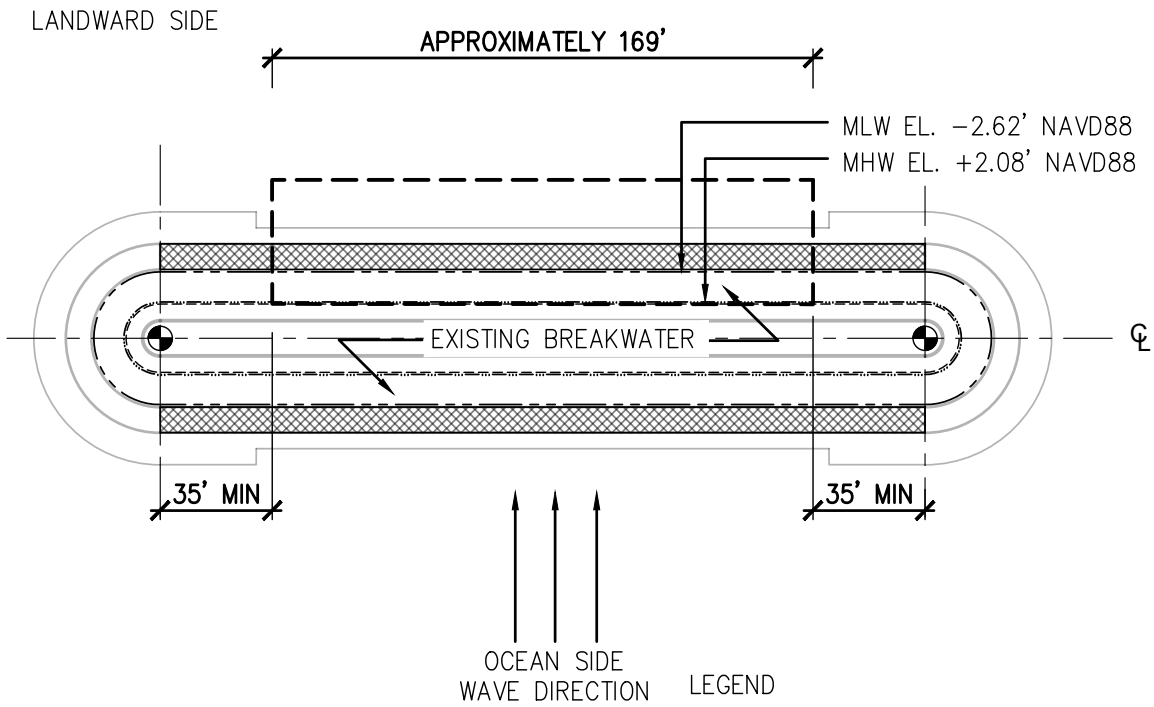

PROPOSED OYSTER DISK TREATMENTS	980
IN−SITU OYSTER LARVAE SETTING TREATMENT	1

TIDAL ELEVATIONS NAVD88	
MEAN HIGHER HIGH WATER	2.41
MEAN HIGH WATER	2.08
MEAN LOW WATER	−2.62
MEAN LOWER LOW WATER	−2.82

LEGEND

- MHW
- MLW
- MHW SPRING
- PROPOSED IN−SITU OYSTER LARVAE SETTING, SEE SHEET 13
- PROPOSED OYSTER TREATMENTS ON ECOLOGICAL CONCRETE UNITS, SEE SHEET 8, 9, AND 14

PROPOSED RESTORATION − BREAKWATER D

0 60 120 FT.

SCALE 1"=60'−0"

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12/09/2024 NOIA #2 REVISION
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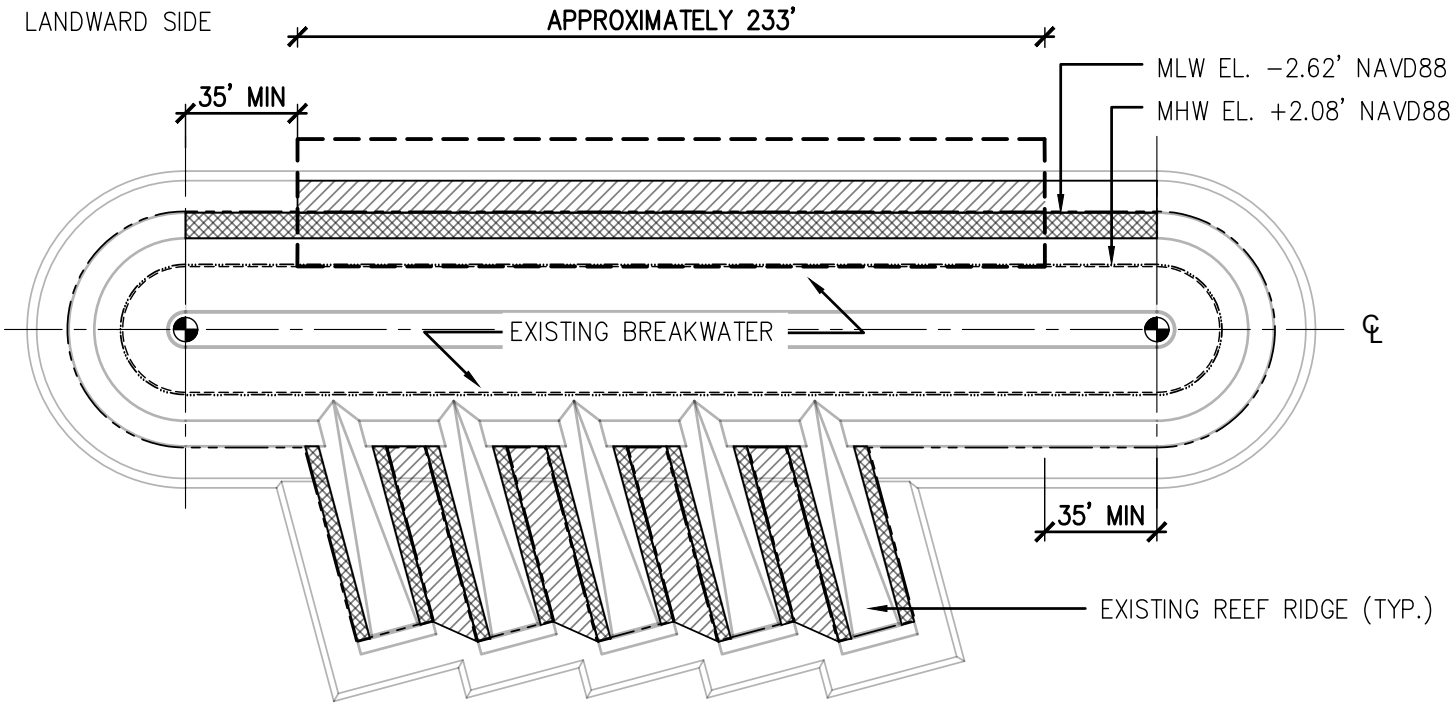

PROPOSED CONTINGENCY DROPLOCK WITH OYSTER SPATS	0
PROPOSED OYSTER DISK TREATMENTS	1,582
IN−SITU OYSTER LARVAE SETTING TREATMENT	1

TIDAL ELEVATIONS NAVD88	
MEAN HIGHER HIGH WATER	2.41
MEAN HIGH WATER	2.08
MEAN LOW WATER	−2.62
MEAN LOWER LOW WATER	−2.82

OCEAN SIDE
WAVE DIRECTION

LEGEND
- MHW
- MLW
- MHW SPRING
- PROPOSED IN−SITU OYSTER LARVAE SETTING, SEE SHEET 13
- PROPOSED CONTINGENCY DROPLOCK PLACEMENT AREA, SEE SHEET 10, 11, AND 12
- PROPOSED OYSTER TREATMENTS ON ECOLOGICAL CONCRETE UNITS, SEE SHEET 8, 9, AND 14

PROPOSED RESTORATION − BREAKWATER F

0 60 120 FT.

SCALE 1"=60'−0"

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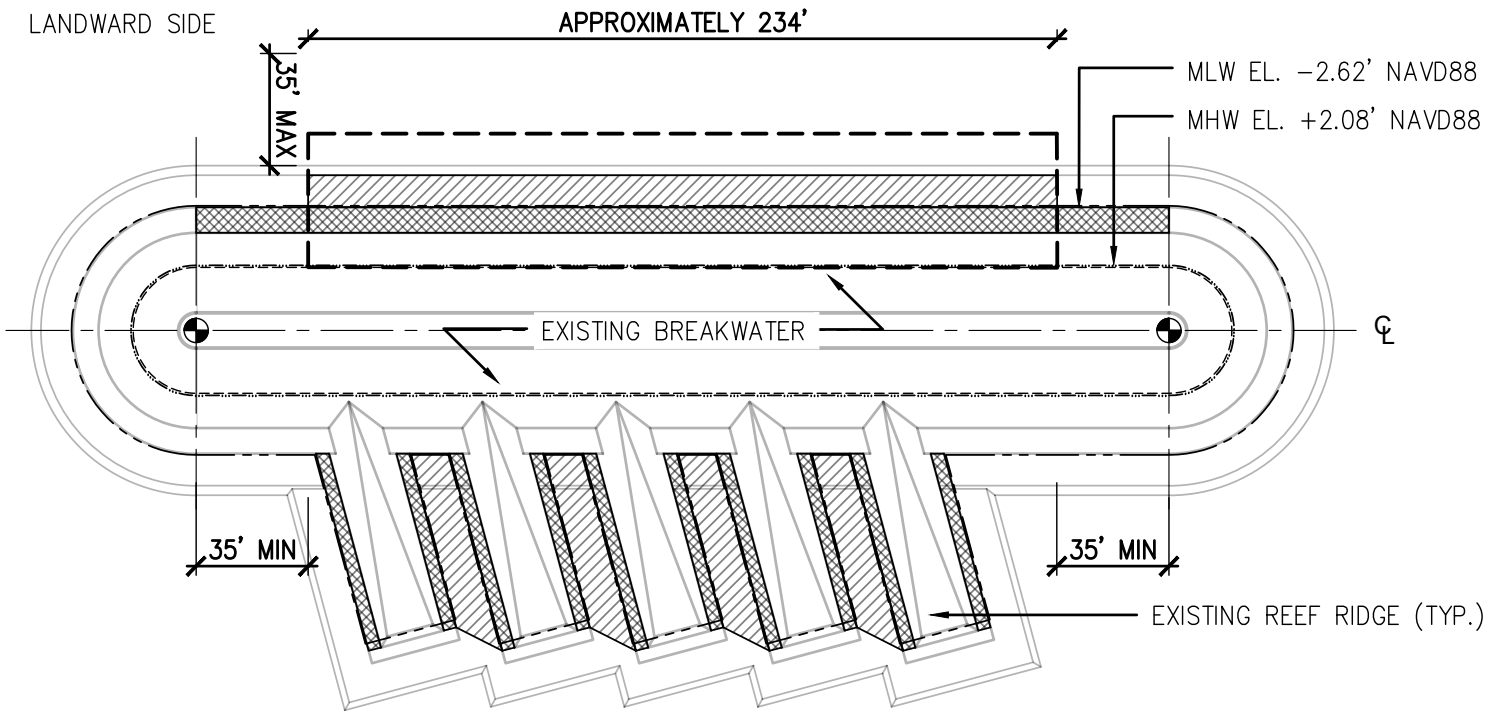

PROPOSED CONTINGENCY DROPLOCK WITH OYSTER SPATS (IF NEEDED, SEE SHEET 16)	0 TO 1387
PROPOSED OYSTER DISK TREATMENTS	938
IN−SITU OYSTER LARVAE SETTING TREATMENT	1

TIDAL ELEVATIONS NAVD88	
MEAN HIGHER HIGH WATER	2.41
MEAN HIGH WATER	2.08
MEAN LOW WATER	−2.62
MEAN LOWER LOW WATER	−2.82

OCEAN SIDE
WAVE DIRECTION

LEGEND
- MHW
- MLW
- MHW SPRING
- PROPOSED IN−SITU OYSTER LARVAE SETTING, SEE SHEET 13
- PROPOSED CONTINGENCY DROPLOCK PLACEMENT AREA, SEE SHEET 10, 11 AND 12
- PROPOSED OYSTER TREATMENTS ON ECOLOGICAL CONCRETE UNITS, SEE SHEET 8, 9, AND 14

PROPOSED RESTORATION − BREAKWATER G

0 60 120 FT.

SCALE 1"=60'−0"

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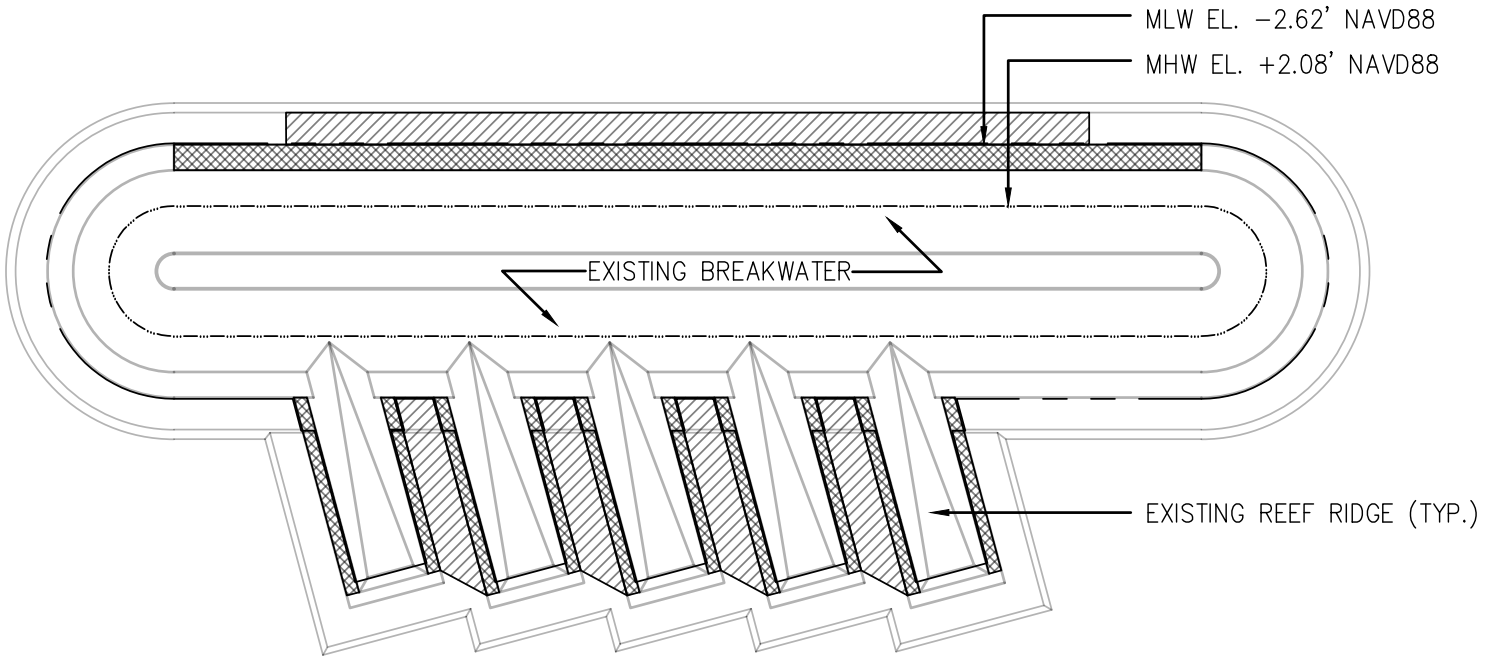
SHEET 7 OF 16



PROPOSED CONTINGENCY DROPLOCK WITH OYSTER SPATS (IF NEEDED, SEE SHEET 16)	0 TO 1388
PROPOSED OYSTER DISK TREATMENTS	994
IN−SITU OYSTER LARVAE SETTING TREATMENT	0

TIDAL ELEVATIONS NAVD88	
MEAN HIGHER HIGH WATER	2.41
MEAN HIGH WATER	2.08
MEAN LOW WATER	−2.62
MEAN LOWER LOW WATER	−2.82

OCEAN SIDE
WAVE DIRECTION

LEGEND
- MHW
- MLW
- MHW SPRING
- PROPOSED CONTINGENCY DROPLOCK PLACEMENT AREA, SEE SHEET 10, 11 AND 12
- PROPOSED OYSTER TREATMENTS ON ECOLOGICAL CONCRETE UNITS, SEE SHEET 8, 9, AND 14

PROPOSED RESTORATION − BREAKWATER H

0 60 120 FT.

SCALE 1"=60'−0"

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REVISIONS:
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11/20/2025 NOCA

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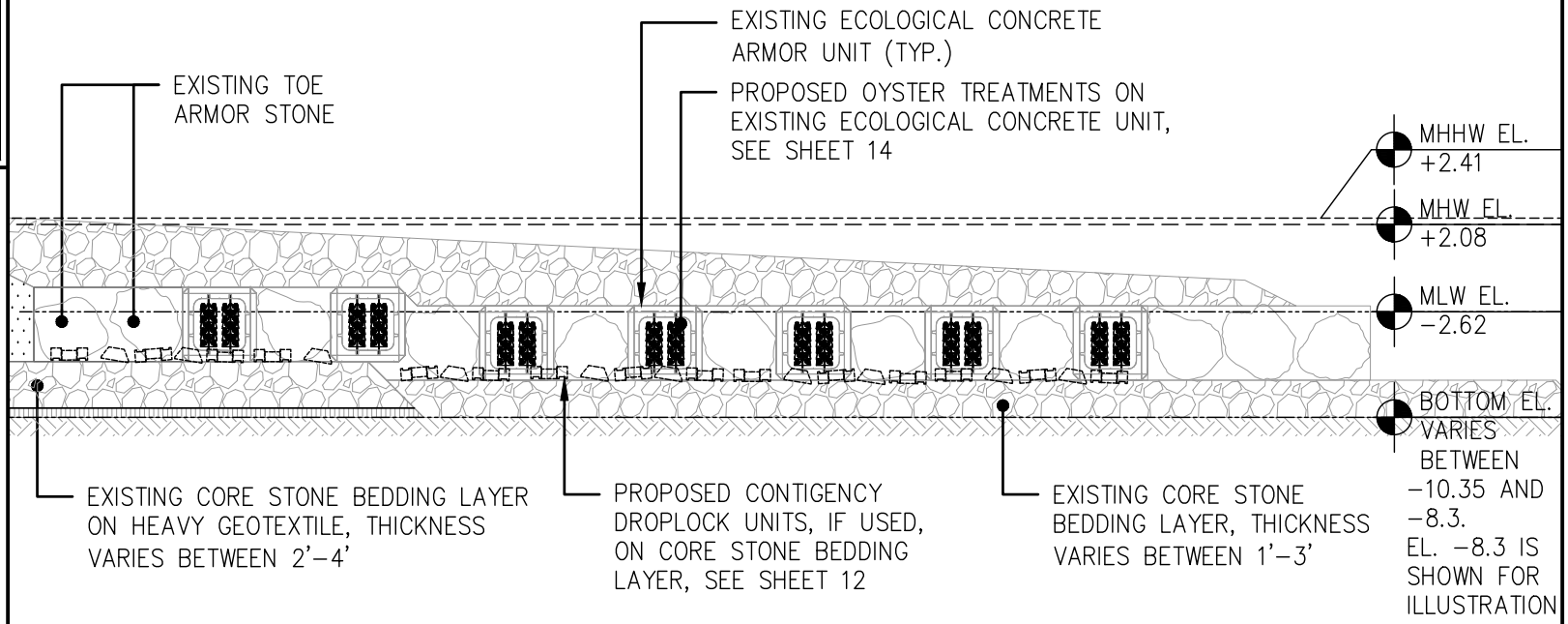

NOTE:
1. LOCATION OF OYSTER TREATMENTS IN ECOLOGICAL CONCRETE UNITS IS REPRESENTATIVE, SPECIFIC UNITS RECEIVING TREATMENT MAY VARY.
2. ELEVATION OF PROPOSED OYSTER TREATMENTS VARIES BASED ON SEABED DEPTH AND BUILT CONDITION OF BREAKWATERS, BUT THE TREATMENTS ARE ALWAYS LOCATED BELOW −0.2 NAVD88

TYPICAL REEF RIDGE ELEVATION WITH OYSTER TREATMENTS

0 10 20 FT.

SCALE 1"=10'−0"

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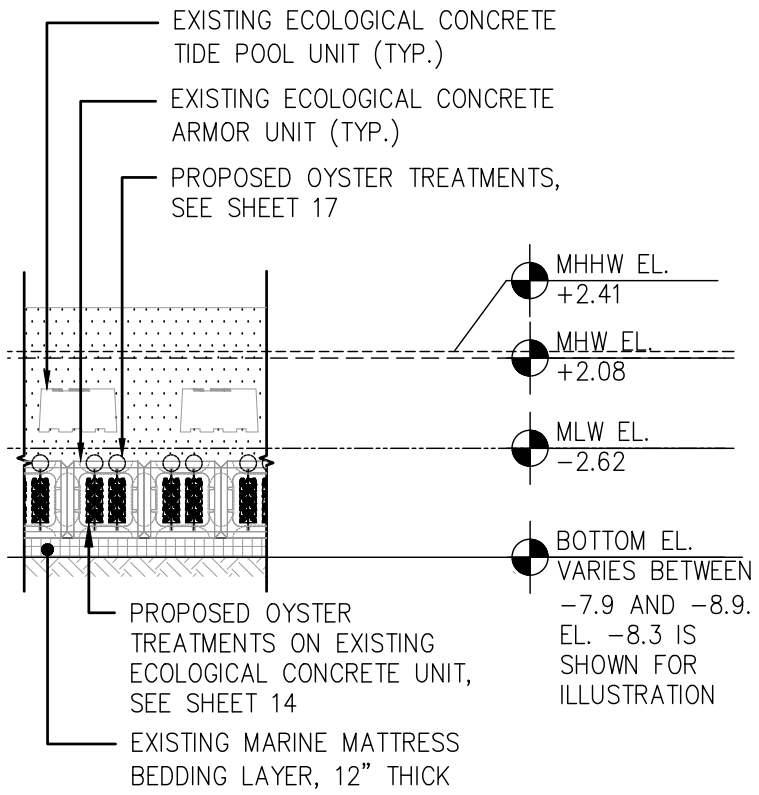
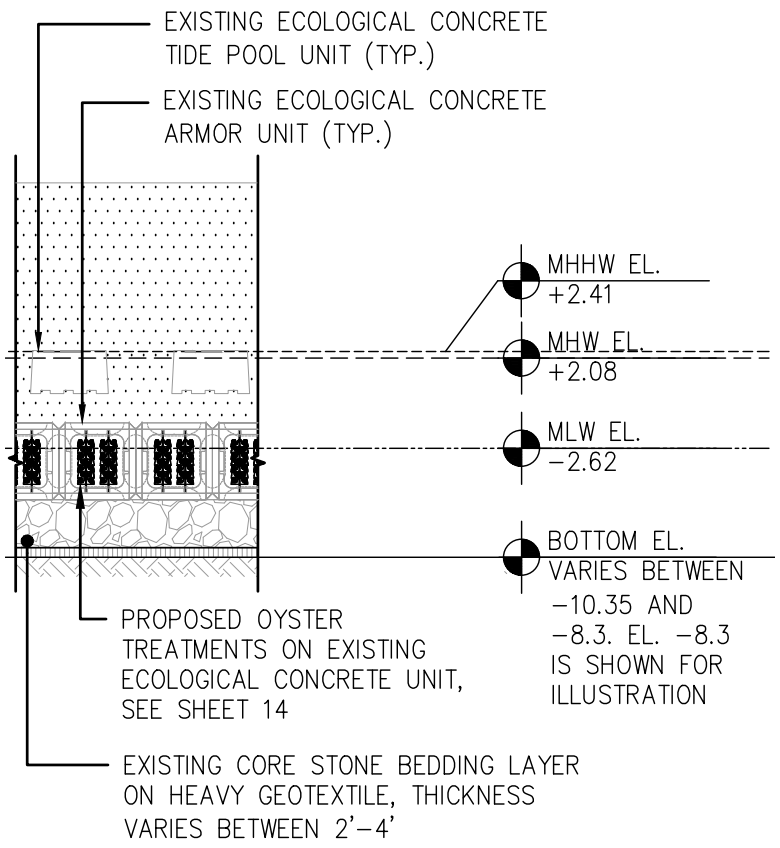


CONDITION 1: ARMOR UNITS ON MARINE MATTRESS (BW 'D')



CONDITION 2: ARMOR UNITS ON CORE STONE BEDDING LAYER (BW 'F', 'G', AND 'H')

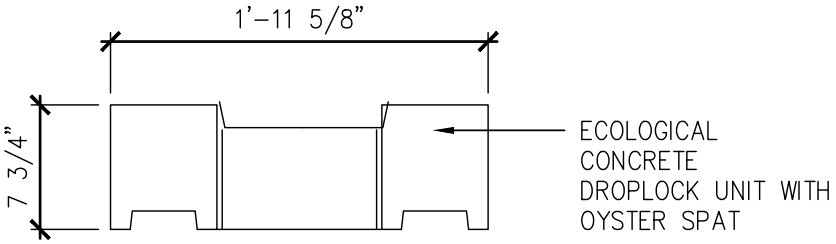
NOTE:

1. LOCATION OF OYSTER TREATMENTS IN ECOLOGICAL CONCRETE UNITS IS REPRESENTATIVE, SPECIFIC UNITS RECEIVING TREATMENT MAY VARY.
2. ELEVATION OF PROPOSED OYSTER TREATMENTS VARIES BASED ON SEABED DEPTH AND BUILT CONDITION OF BREAKWATERS, BUT THE TREATMENTS ARE ALWAYS LOCATED BELOW −0.2 NAVD88
3. WHERE ECOLOGICAL CONCRETE ARMOR UNITS SIT ENTIRELY UNDER MLW, OYSTER DISK TREATMENT WILL BE INSTALLED ON TOP FACE OF THE UNITS.

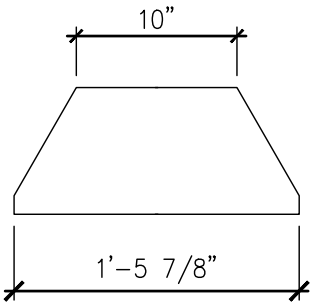
TYPICAL BREAKWATER LANDWARD SIDE ELEVATION WITH OYSTER TREATMENTS

0 10 20 FT.

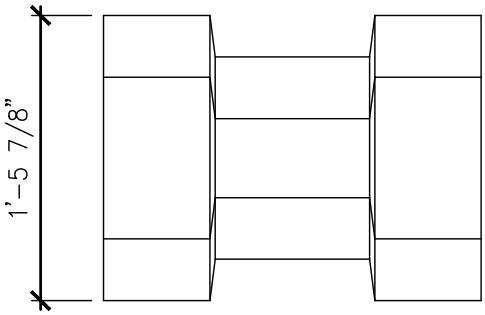
SCALE 1"=10'−0"



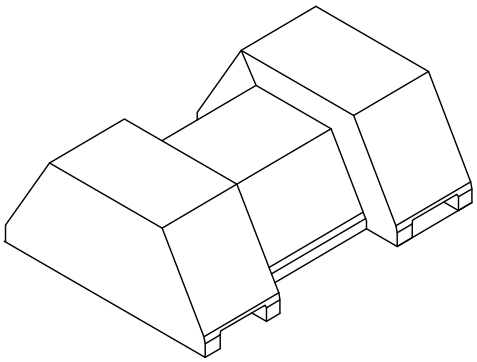
FRONT ELEVATION



SIDE ELEVATION



PLAN



AXON

NOTES: DROPLOCK UNIT PROPERTIES (INFORMATION IS APPROXIMATE):
WEIGHT: 64–70 KG (140–155 LBS)
VOLUME: 0.033 M^3 (0.043 YD^3)

PROPOSED CONTINGENCY DROPLOCK ECOLOGICAL CONCRETE UNIT

SCALE: 1" = 1'

FOR PERMIT USE ONLY NOT FOR CONSTRUCTION
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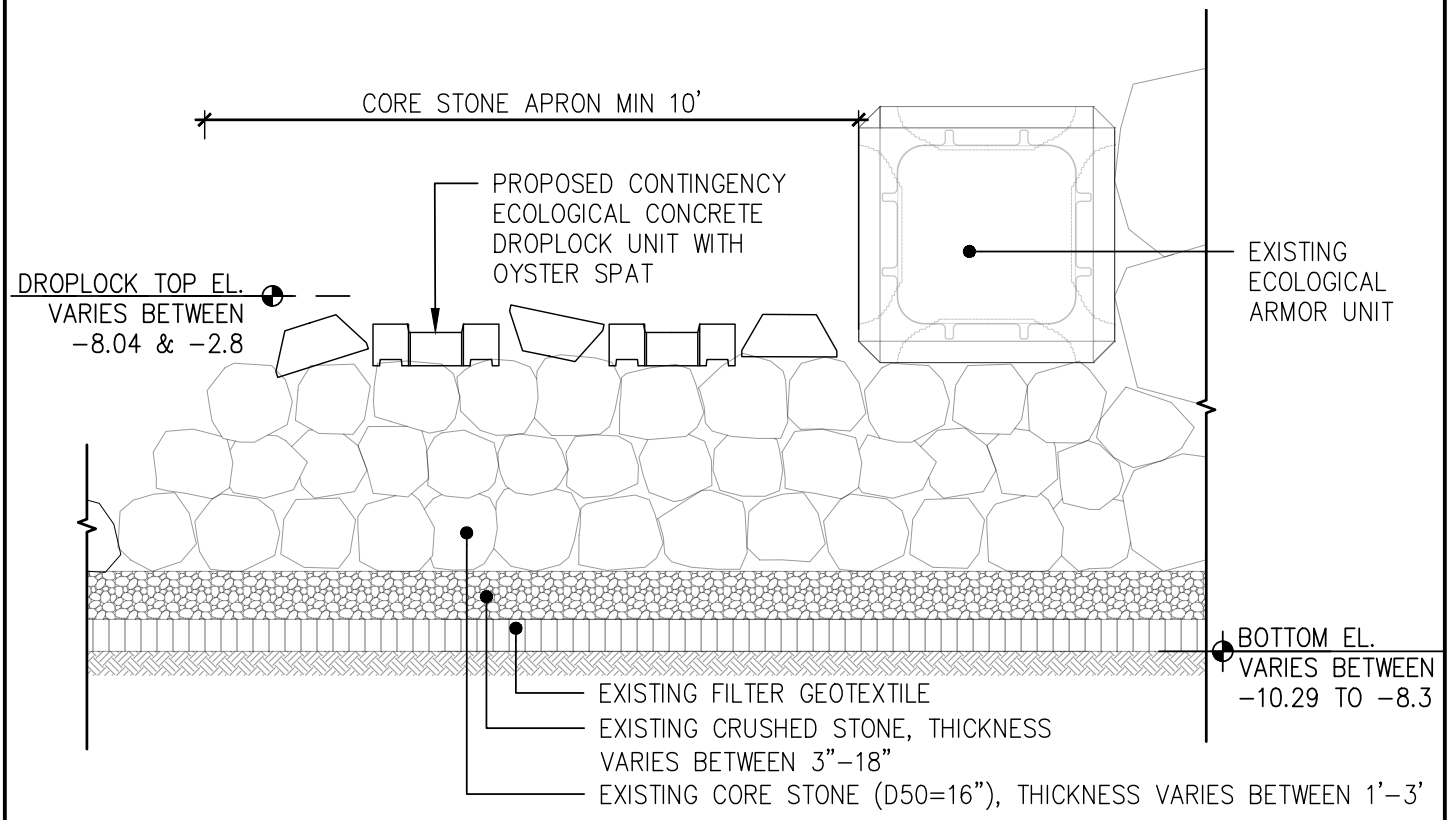
SCAPE LANDSCAPE ARCHITECTURE DPC
277 BROADWAY NINTH FLOOR NEW YORK

PROPOSED OYSTER RESTORATION ON THE LIVING BREAKWATERS

WARD POINT BEND, RARITAN BAY
TOTTENVILLE, STATEN ISLAND
COUNTY OF RICHMOND
STATE OF NEW YORK

DATE: 12/09/2025



PROPOSED CONTINGENCY DROPLOCK ECOLOGICAL CONCRETE UNIT ON SCOUR APRON

SCALE: 1" = 3'

FOR PERMIT USE ONLY NOT FOR CONSTRUCTION
REVISIONS:
05/24/2024 JOINT APPLICATION
09/19/2024 REV 1
12/09/2024 NOIA #2 REVISION
11/20/2025 NOCA

DATUM: N.A.V.D. 88
APPLICATION NO.:

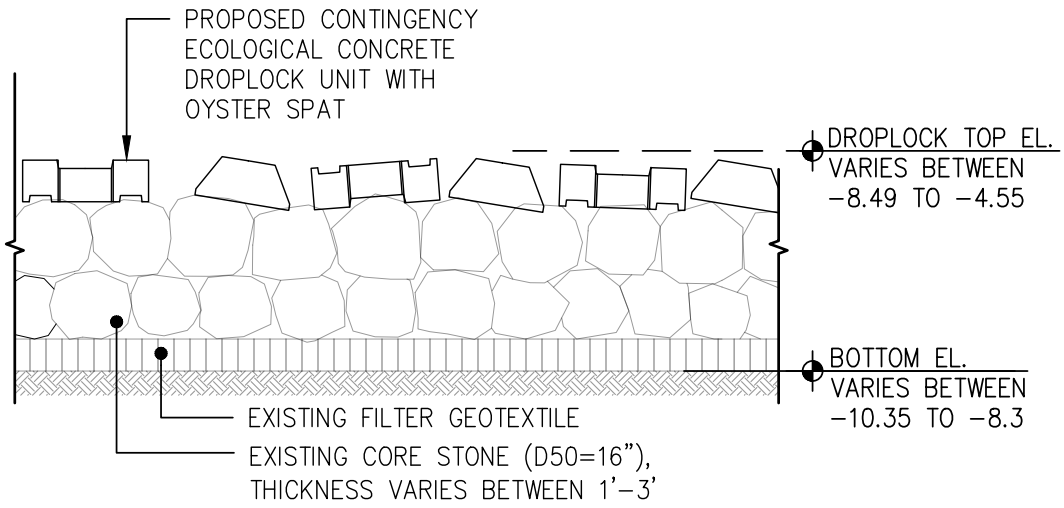
AGENT: NEW YORK OFFICE OF RESILIENT HOMES AND COMMUNITIES, FORMERLY KNOWN AS GOVERNOR'S OFFICE OF STORM RECOVERY.

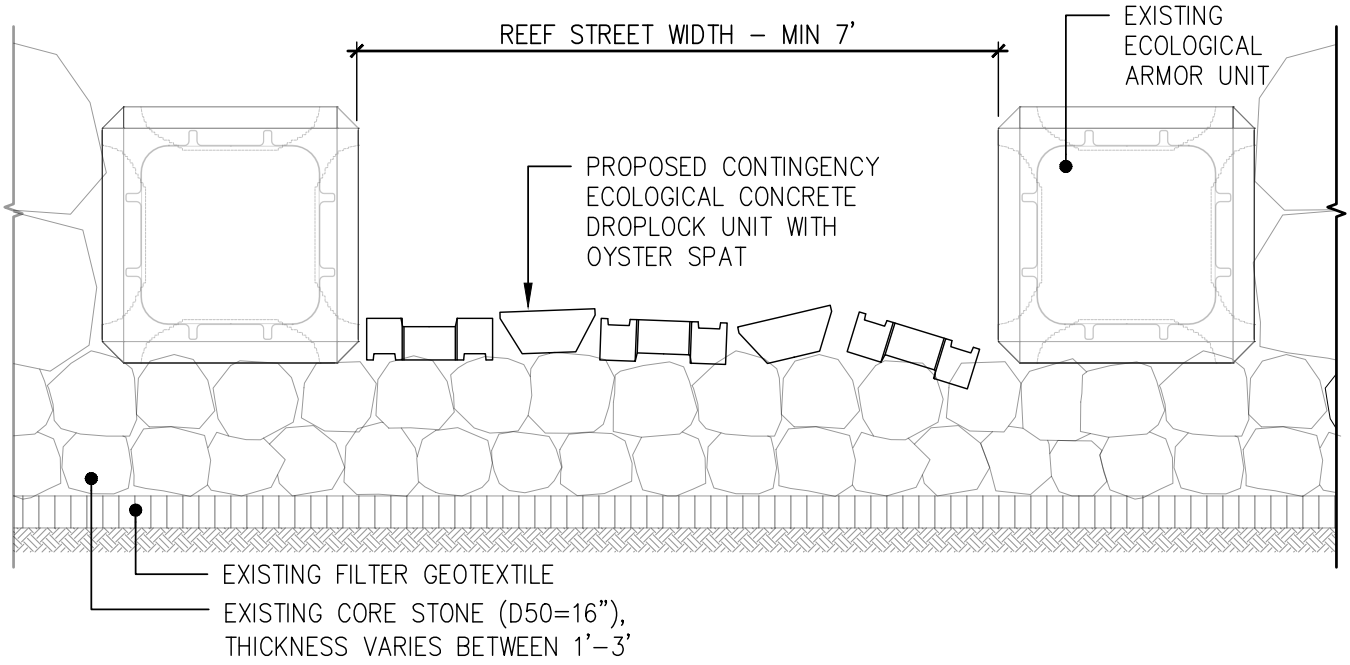
PREPARED BY: SCAPE LANDSCAPE ARCHITECTURE DPC
SCAPE LANDSCAPE ARCHITECTURE DPC
277 BROADWAY NINTH FLOOR NEW YORK

PROPOSED OYSTER RESTORATION ON THE LIVING BREAKWATERS

WARD POINT BEND, RARITAN BAY
TOTTENVILLE, STATEN ISLAND
COUNTY OF RICHMOND
STATE OF NEW YORK

DATE: 12/09/2025





ON BW 'F', 'G', AND 'H'
BETWEEN REEF RIDGES, OCEAN SIDE ON 1'−3' OF CORE STONE (D50=16")

PROPOSED CONTINGENCY DROPLOCK ECOLOGICAL CONCRETE UNIT ON REEF STREET

SCALE: 1" = 3'

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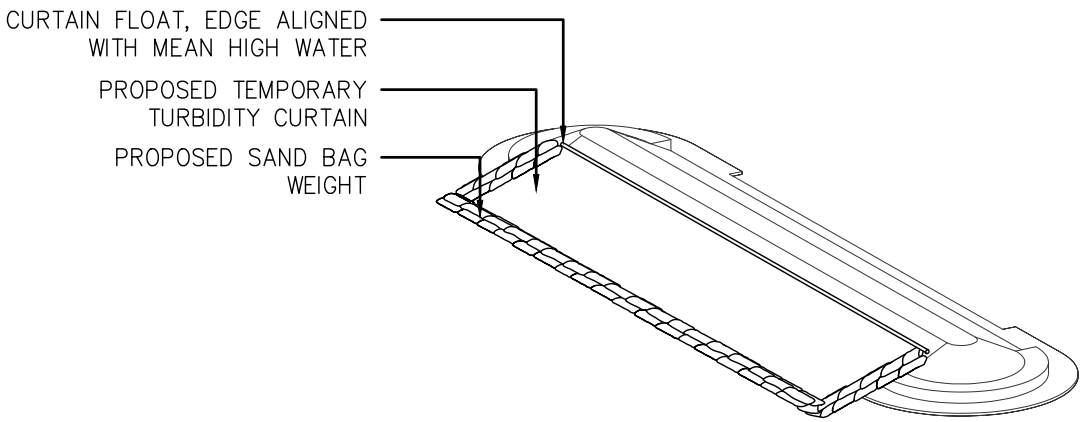
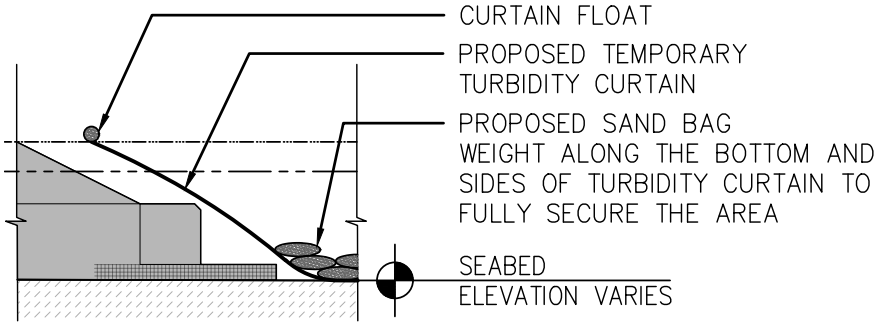


PROPOSED IN-SITU OYSTER LARVAE SETTING TREATMENT

NOT TO SCALE



PROPOSED IN-SITU OYSTER LARVAE SETTING TREATMENT BARRIER ANCHORING TECHNIQUES

1"= 5'

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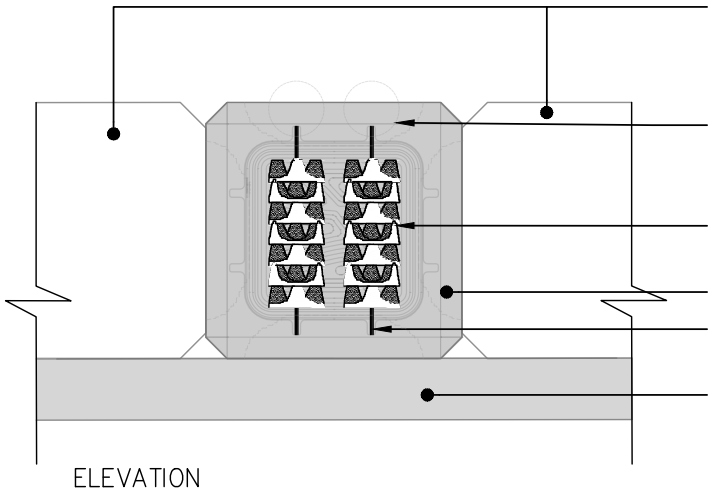
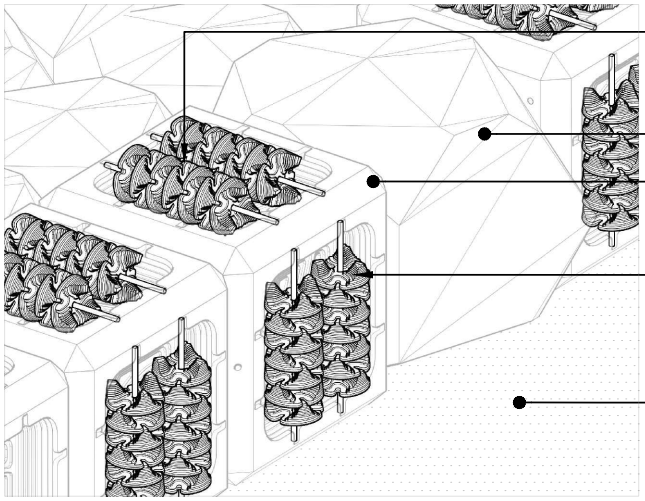


ELEVATION
(NUMBER OF DISKS PER FACE VARIES, MAXIMUM 14 DISKS)



AXON

PROPOSED OYSTER DISK TREATMENT ON EXISTING ECOLOGICAL CONCRETE ARMOR UNITS

SCALE: 1" = 3'

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OVERALL SUMMARY OF TREATMENTS, OYSTER QUANTITIES, FOOTPRINT, AND VOLUME WITHIN THE PROJECT AREA (BASE CASE)

TREATMENT	BREAKWATERS	TOTAL UNITS	SPAT PER UNIT	TOTAL SPATS	FOOTPRINT (SQFT)	VOLUME (CUBIC YARD)
ARMOR UNIT: OYSTER DISK TREATMENT	D, F, G, H	4,494 DISKS (286 ARMOR UNITS)	2,150	9,662,100	NA	12.48
IN-SITU OYSTER LARVAE SETTING TREATMENTS	D, F, G	3	7,200,847	30,860,773	NA	NA
			11,829,963			
			11,829,963			
TOTAL				40,522,873	NA	12.48

CONTINGENCY ONLY FOR CANCELED TRIALS

SEEDED DROPLOCK UNIT	F, G, H	2,775	11,121	30,860,775	NA	NA

NOTE:

- NO STRUCTURE IS ON THE BAY BOTTOM. ALL PROPOSED TREATMENTS ARE ATTACHED TO OR PLACED ON TOP OF EXISTING STRUCTURES.
- PLACEMENT OF APPROXIMATELY 12.48 CYS FOR THE 4,494 DISKS AND 57.04 CYS FOR THE 1,426 ECO-CONCRETE DROPLOCK UNITS. IF USED, CONTINGENCY SEEDED DROPLOCK UNITS WOULD IMPACT ADDITIONAL VOLUME WITHIN THE WATER COLUMN. SEE SHEET 16 FOR CONTIGENCY DROPLOCK QUANTITIES
- THE DROPLOCK UNITS HAVE A FOOTPRINT AREA OF 2.91 SQUARE FEET (SF) EACH, RESULTING IN A TOTAL PROJECT FOOTPRINT OF 4,150 SF ON THE EXISTING BREAKWATERS, IF THE CONTINGENCY DROPLOCKS ARE USED.

SUMMARY OF QUANTITIES AND FOOTPRINTS OF PROPOSED OYSTER RESTORATION

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ALT 1: TWO IN-SITU TREATMENTS, ONE CONTINGENCY DROPLOCK DEPLOYMENT						
TREATMENT	BREAKWATERS	TOTAL UNITS	SPAT PER UNIT	TOTAL SPATS	FOOTPRINT (SQFT)	VOLUME (CUBIC YARD)
ARMOR UNIT: OYSTER DISK TREATMENT	D, F, G, H	4,494 DISKS (286 ARMOR UNITS)	2,150	9,662,100	*N/A	12.48
IN-SITU OYSTER LARVAE SETTING TREATMENTS	D, F	2	7,200,847 11,829,963	19,030,810	*N/A	*N/A
CONTINGENCY SEEDED DROPLOCK UNIT	G, H	1,063	11,121	11,821,623	*N/A	*N/A
TOTAL				40,514,533	0	12.48

ALT 2: ONE IN-SITU TREATMENTS, TWO CONTINGENCY DROPLOCK DEPLOYMENT						
TREATMENT	BREAKWATERS	TOTAL UNITS	SPAT PER UNIT	TOTAL SPATS	FOOTPRINT (SQFT)	VOLUME (CUBIC YARD)
ARMOR UNIT: OYSTER DISK TREATMENT	D, F, G, H	4,494 DISKS (286 ARMOR UNITS)	2,150	9,662,100	*N/A	12.48
IN-SITU OYSTER LARVAE SETTING TREATMENTS	D	1	7,200,847	7,200,847	*N/A	*N/A
CONTINGENCY SEEDED DROPLOCK UNIT	G, H	2,127	11,121	23,654,367	*N/A	*N/A
TOTAL				40,517,314	0	12.48

SUMMARY OF QUANTITIES OF CONTINGENCY DROPLOCK UNITS

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