



PUBLIC NOTICE

US Army Corps
of Engineers
New York District
Jacob K. Javits Federal Building
New York, N.Y. 10278-0090
ATTN: Regulatory Branch

In replying refer to:
Public Notice Number: **NAN-2022-00366-EMI**
Issue Date:
Expiration Date:

To Whom It May Concern:

The New York District, Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

APPLICANT: New York City Economic Development Corporation
One Liberty Plaza, 14th Floor
New York, New York 10006

ACTIVITY: Construction of a Living Shoreline

WATERWAY: Harlem River

LOCATION: 441 River Avenue, Borough of The Bronx, Bronx County, City of New York, New York

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING

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AND EMAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. Comments provided will become part of the public record for this permit application. All written comments, including contact information, will be made a part of the administrative record, available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof, may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by email is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

Our preliminary determination is that the activity for which authorization is sought herein is not likely to affect any Federally endangered or threatened species or their critical habitat. However, pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed work, fully described in the attached work description, could cause the disruption of habitat for various lifestages of some EFH-designated species as a result of a temporary increase in turbidity during construction. However, the New York District has made the preliminary determination that the site-specific adverse effects are not likely to be substantial because it is expected that fish populations would avoid the small area of disturbance. Further consultation with NOAA/FS regarding EFH impacts and conservation recommendations is being conducted and will be concluded prior to the final decision.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are

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requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occur. For activities within the coastal zone of New York State, the applicant's certification and accompanying information is available from the Consistency Coordinator, New York State Department of State, Division of Coastal Resources and Waterfront Revitalization, Coastal Zone Management Program, One Commerce Plaza, 99 Washington Avenue, Albany, New York 12231, Telephone (518) 474-6000. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

- New York State Department of Environmental Conservation

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. Please send all comments and questions concerning this application to Christopher.W.Minck@usace.army.mil.

In order for us to better serve you, please complete our Customer Service Survey located at <http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx>.

For more information on New York District Corps of Engineers programs, visit our website at <http://www.nan.usace.army.mil>.

FOR AND IN BEHALF OF
Stephan A. Ryba
Chief, Regulatory Branch

Enclosures

WORK DESCRIPTION

The permit applicant, New York City Economic Development Corporation, has requested Department of the Army (DA) authorization to construct a living shoreline in the Harlem River at 441 River Avenue, Borough of The Bronx, Bronx County, City of New York, New York.

The proposed work would involve the following:

Removal of the existing relieving platform, timber piles, timber cribbing and mooring bollards and approximately 1,024 cubic yards of existing debris and sediment to allow for the construction of an approximately 284-foot-long living shoreline along the Harlem River.

The living shoreline will consist of an approximately 13-foot-wide by 284-foot-long (3,630 square foot) stone breakwater that is continuous with an approximately 1,754 square foot riprap revetment. Approximately 171 cubic yards of riprap will be discharged below the plane of Spring High Water (SHW) over approximately 2,968 square feet for the breakwater and an additional 13 cubic yards of riprap will be discharged below SHW over approximately 915 square feet for the revetment. On the landward side of the breakwater, install approximately 2,111 square feet of 12-inch thick oyster reef matting (approximately 32 cubic yards). Two (2) approximately four-foot-wide by 2-foot-high by 22-foot-long box culverts will be installed through the breakwater to inundate the oyster reef area and create a tidepool. Landward of the oyster reef and tide pool, establish approximately 1,130 square feet of low marsh planted with *Spartina alternifolia* between elevations 0-2 feet NAVD88 and approximately 1,240 square feet of high marsh planted with *Limonium carolinianum*, *Juncus gerardii*, *Panicum virgatum*, *Distichilis spicata*, and *Spartina patens* between elevations 2-5 feet NAVD88. Approximately 249 cubic yards of clean fill will be discharged to establish the marsh areas.

Additionally, an approximately 18-inch diameter outfall will also be constructed.

The applicant has stated that they have avoided, minimized, and mitigated for potential impacts proposed, to the maximum extent practicable by working behind a turbidity curtain and by limiting to the proposed construction to be behind the existing CSX Oak Point Link rail line.

The purpose for the project is provide stabilize the shoreline with natural features.

LOWER CONCOURSE PARK

BOUNDED BY EXTERIOR STREET AND HARLEM RIVER

BLOCK 2349, LOT 101

BOROUGH OF BRONX, NEW YORK

NYCEDC CONTRACT NO. 61980003

PROJECT SITE

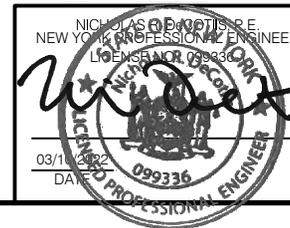


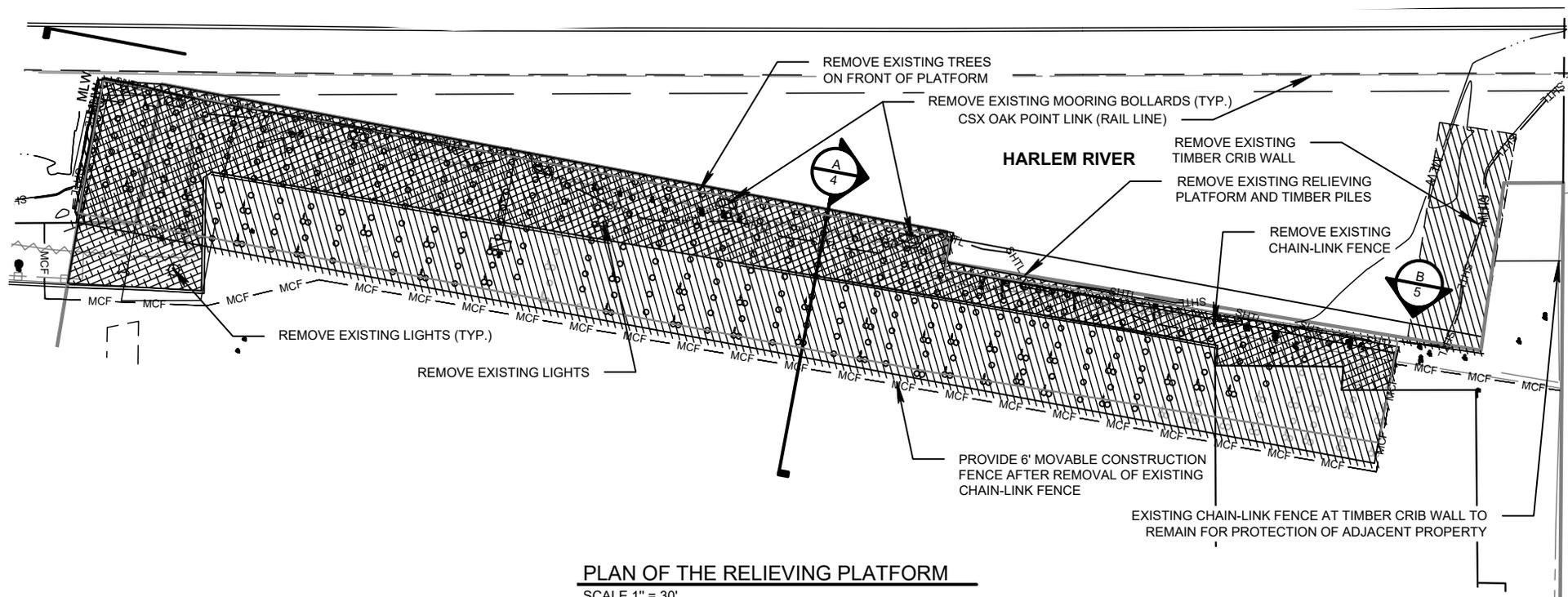
LOCATION PLAN

INDEX OF SHEETS

1. TITLE SHEET
2. REMOVALS PLAN-1
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4. REMOVALS PLAN-3
5. REMOVALS PLAN-4
6. LIVING SHORELINE SECTION 1
7. LIVING SHORELINE SECTION 2
8. LIVING SHORELINE SECTION 3
9. LIVING SHORELINE SECTION 4
10. ENLARGEMENT PLAN-WATERFRONT-1
11. ENLARGEMENT PLAN-WATERFRONT-2
12. BREAKWATER DETAILS-1
13. BREAKWATER DETAILS-2
14. MISCELLANEOUS MARINE DETAILS-1
15. MISCELLANEOUS MARINE DETAILS-2
16. MISCELLANEOUS MARINE DETAILS-3
17. MISCELLANEOUS MARINE DETAILS-4
18. PLANTING PLAN

OWNER: CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368	
IN: HARLEM RIVER	AT: LOWER CONCOURSE PARK
TOWN: BRONX	STATE: N.Y.
APPLICATION BY: NYC EDC	
WATERWAY: HARLEM RIVER	DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER	
DATE: 03/10/2022	REV: 06/07/2022
SHEET NO. 1 OF 18	
TITLE SHEET	



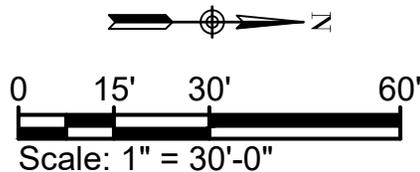


PLAN OF THE RELIEVING PLATFORM
SCALE 1" = 30'

PROJECT SITE TIDAL ELEVATION

REFERS TO NAVD88 AS FOLLOWS:

SPRING HIGH WATER	2.35'
MEAN HIGH WATER	2.07'
NAVD 88	0.0'
MEAN TIDE LEVEL	-0.005'
MEAN SEA LEVEL	-0.11'
MEAN LOW WATER	-2.36'
MEAN LOWER LOW WATER	-2.53'

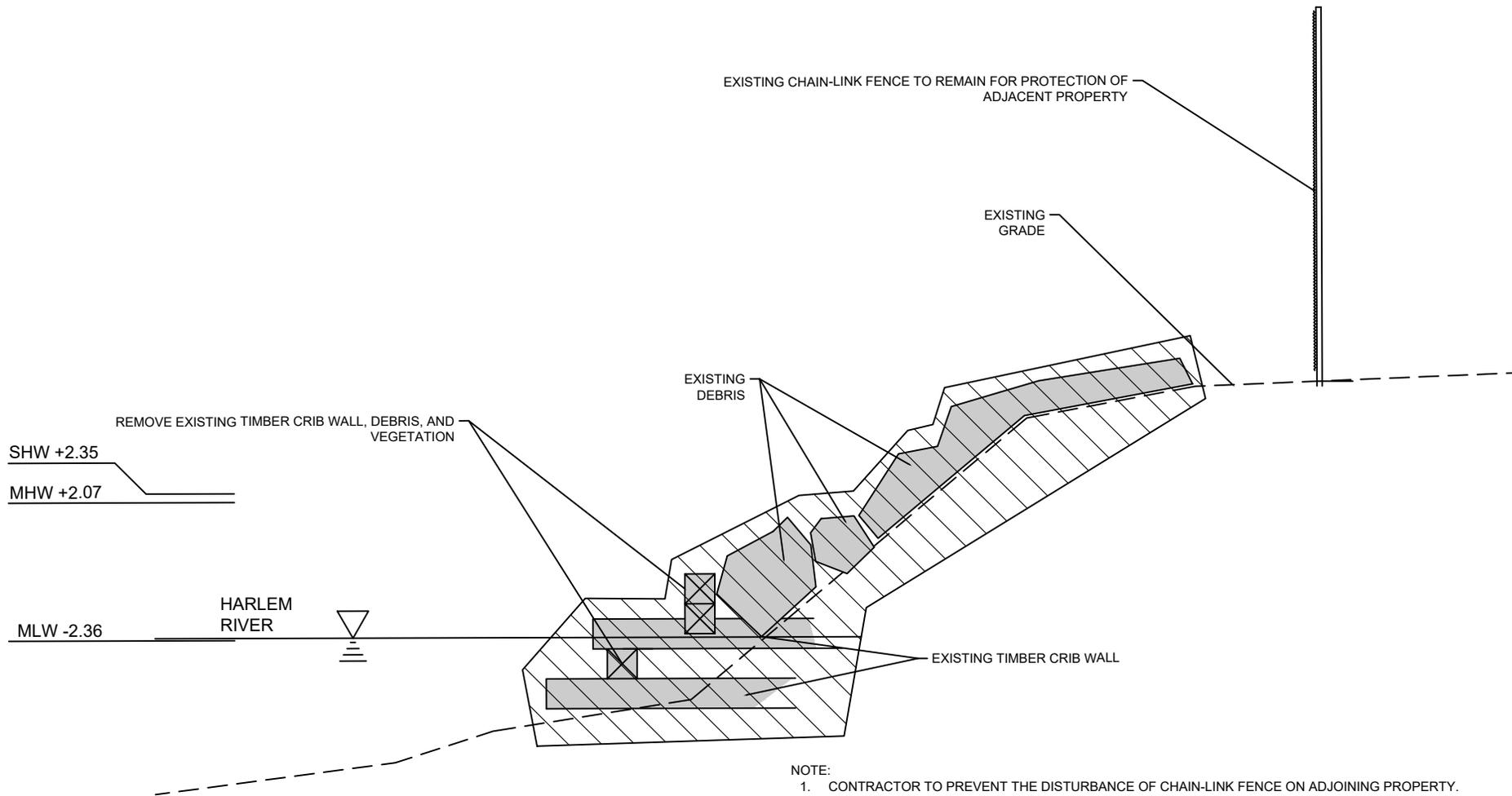


DEMOLITION NOTES:

- ALL DEMOLISHED MATERIALS SHALL BE DISPOSED OF LEGALLY AT A PROPERLY LICENSED FACILITY FOR THE MATERIALS BEING REMOVED. THE CONTRACTOR SHALL SUBMIT DOCUMENTATION FOR THE DISPOSAL FACILITY.
- TURBIDITY CURTAIN TO BE INSTALLED PRIOR TO DEMOLITION ACTIVITIES AND MAINTAINED FOR FULL DURATION OF IN-WATER CONSTRUCTION. CONTRACTOR REQUIRED TO HAVE CHASE BOAT IN SITUATION WHERE MATERIAL GOES PAST CURTAIN.
- ALL PILES TO BE REMOVED SHALL BE CUT AT EXISTING MUD LINE.
- CONTRACTOR TO ADHERE TO PROJECT RAP.



OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368	
IN: HARLEM RIVER	AT: LOWER CONCOURSE PARK		
TOWN: BRONX	STATE: N.Y.		
APPLICATION BY: NYC EDC			
WATERWAY: HARLEM RIVER	DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88		
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER			
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 2 OF 18	
REMOVALS PLAN-1			



NOTE:
 1. CONTRACTOR TO PREVENT THE DISTURBANCE OF CHAIN-LINK FENCE ON ADJOINING PROPERTY. PROVIDE EXCAVATION SUPPORT AS NECESSARY TO FACILITATE THE REMOVAL OF THE TIMBER CRIB WALL.

TIMBER CRIB WALL DETAIL

NTS

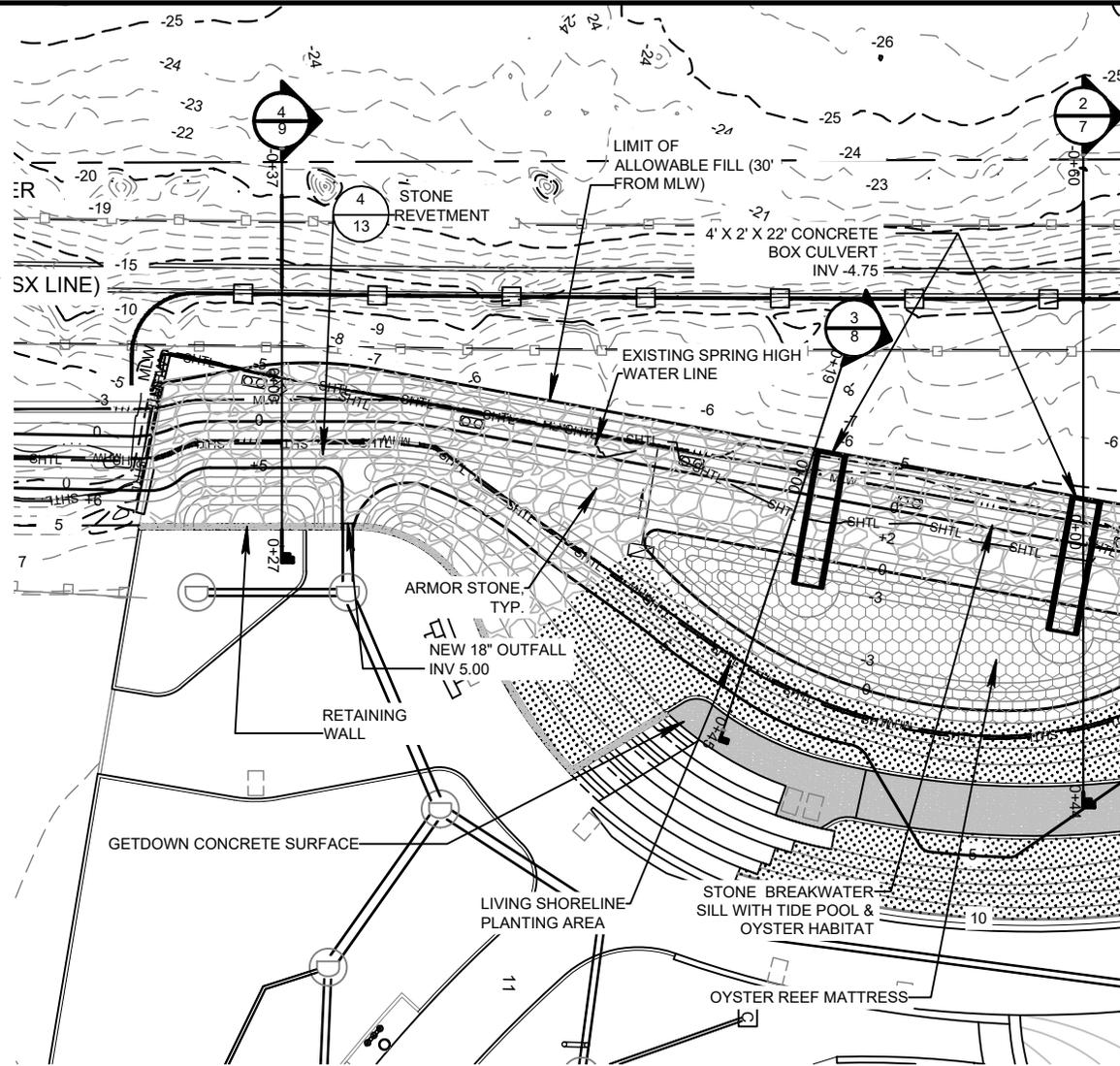
PROJECT SITE TIDAL ELEVATION

REFERS TO NAVD88 AS FOLLOWS:	
SPRING HIGH WATER	2.35'
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IN: HARLEM RIVER	AT:	LOWER CONCOURSE PARK	
TOWN: BRONX	STATE:	N.Y.	
APPLICATION BY: NYC EDC			
WATERWAY:		HARLEM RIVER	DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER			
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 3 OF 18	
REMOVALS PLAN-2			

-  ARMOR STONE
-  WETLAND PLANTINGS
-  OYSTER REEF
-  RETAINING WALL



LEGEND

-  MLW
-  PROPOSED MEAN LOW WATER LINE
-  MHW
-  PROPOSED MEAN HIGH WATER LINE
-  SHTL
-  PROPOSED SPRING HIGH WATER LINE
-  SHTL
-  EXISTING SPRING HIGH WATER LINE
-  (23)
-  EXISTING 1' CONTOUR
-  22
-  PROPOSED 1' CONTOUR
- 
-  TURBIDITY BARRIER

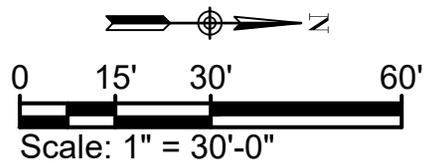


TABLE 1 IMPACT AREA OF PROPOSED ACTIVITIES

PROPOSED ACTIVITY*	ANTICIPATED IMPACT BELOW THE PROPOSED SHW (SF)	TOTAL ANTICIPATED IMPACT (SF)
WETLAND PLANTINGS	1,090	5,786
BREAKWATER	2,968	3,630
REVTMENT	915	1,754
OYSTER REEF	2,111	2,111

TABLE 2 ANTICIPATED CUT AND FILL VOLUMES BELOW SHW

ANTICIPATED IMPACT	WETL AND PLANT INGS	BREA KWAT ER	REVE TMEN T	OYST ER REEF	TOTAL
CUT(CY)* below Proposed SHW	108	211	169	536	1,024
FILL(CY) below Proposed SHW	95	171	13	32	311

*ARTIFICIAL FILL AND DEBRIS REMOVAL **CLEAN SAND, ARMOR AND CORE STONE, REINFORCED CONCRETE PIPE, AND GEOTEXTILE SEPARATION PLACEMENT

OWNER: CITY OF NEW YORK
PARKS & RECREATION
OLMSTED CENTER
FLUSHING MEADOWS - CORONA PARK
FLUSHING, NEW YORK 11368



IN: HARLEM RIVER **AT:** LOWER CONCOURSE PARK
TOWN: BRONX **STATE:** N.Y.

APPLICATION BY: NYC EDC

WATERWAY: HARLEM RIVER **DATUM:** (NAVD88) NORTH AMERICAN VERTICAL DATUM-88

LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER

DATE: 03/10/2022 **REV:** 06/07/2022 **SHEET NO.** 10 OF 18

ENLARGEMENT PLAN-WATERFRONT-1

NICHOLAS P. POCOCKI, P.E.
NEW YORK PROFESSIONAL ENGINEER
LICENSE NO. 999336



03/10/2022
DATE

-  ARMOR STONE
-  WETLAND PLANTINGS
-  OYSTER REEF
-  RETAINING WALL

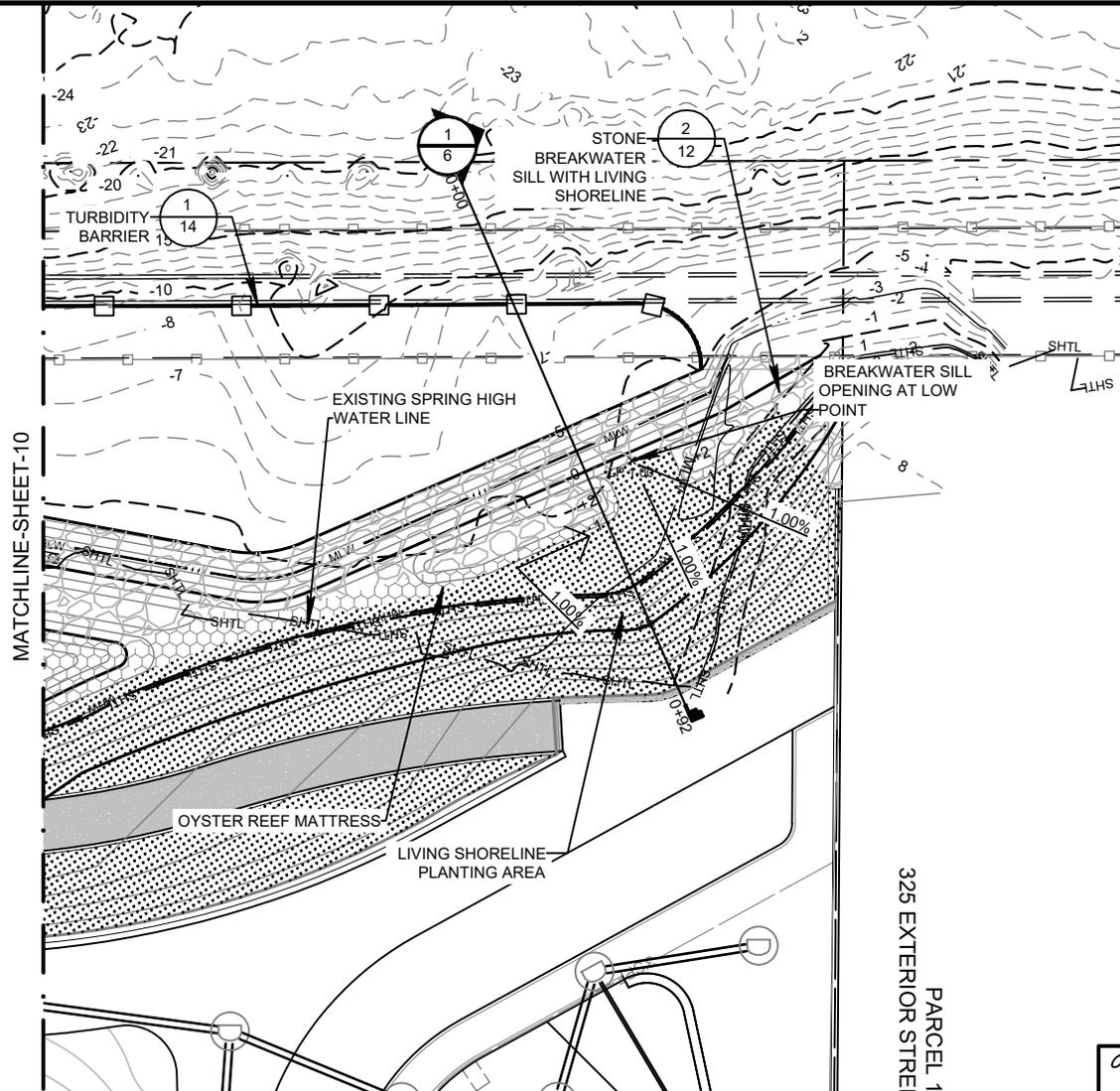


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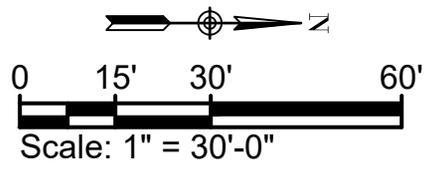
*ARTIFICIAL FILL AND DEBRIS REMOVAL **CLEAN SAND, ARMOR AND CORE STONE, REINFORCED CONCRETE PIPE, AND GEOTEXTILE SEPARATION PLACEMENT

LEGEND

-  MLW ——— PROPOSED MEAN LOW WATER LINE
-  MHW ——— PROPOSED MEAN HIGH WATER LINE
-  SHTL ——— SHTL ——— SHTL ——— PROPOSED SPRING HIGH WATER LINE
-  SHTL ——— SHTL ——— SHTL ——— EXISTING SPRING HIGH WATER LINE
-  (23) ——— EXISTING 1' CONTOUR
-  22 ——— PROPOSED 1' CONTOUR
-  ——— TURBIDITY BARRIER

PROJECT SITE TIDAL ELEVATION
REFERS TO NAVD88 AS FOLLOWS:

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NAVD 88	0.0'
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NICHOLAS P. POCOCKI, P.E.
NEW YORK PROFESSIONAL ENGINEER
LICENSE NO. 099336
03/10/2022
DATE

PARCEL 1
325 EXTERIOR STREET

OWNER: CITY OF NEW YORK
PARKS & RECREATION
OLMSTED CENTER
FLUSHING MEADOWS - CORONA PARK
FLUSHING, NEW YORK 11368



IN: HARLEM RIVER **AT:** LOWER CONCOURSE PARK

TOWN: BRONX **STATE:** N.Y.

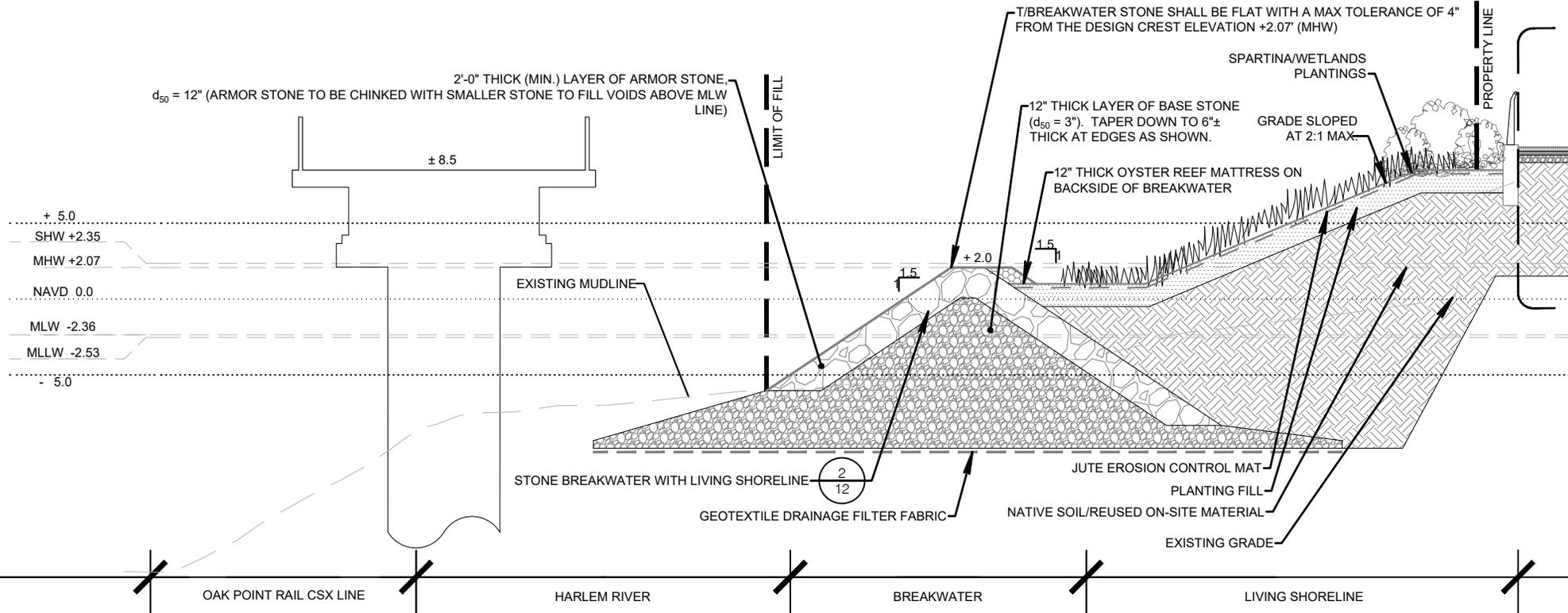
APPLICATION BY: NYC EDC

WATERWAY: HARLEM RIVER **DATUM:** (NAVD88) NORTH AMERICAN VERTICAL DATUM-88

LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER

DATE: 03/10/2022 **REV:** 06/07/2022 **SHEET NO.** 11 OF 18

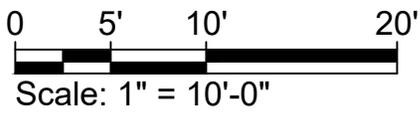
ENLARGEMENT PLAN-WATERFRONT-2



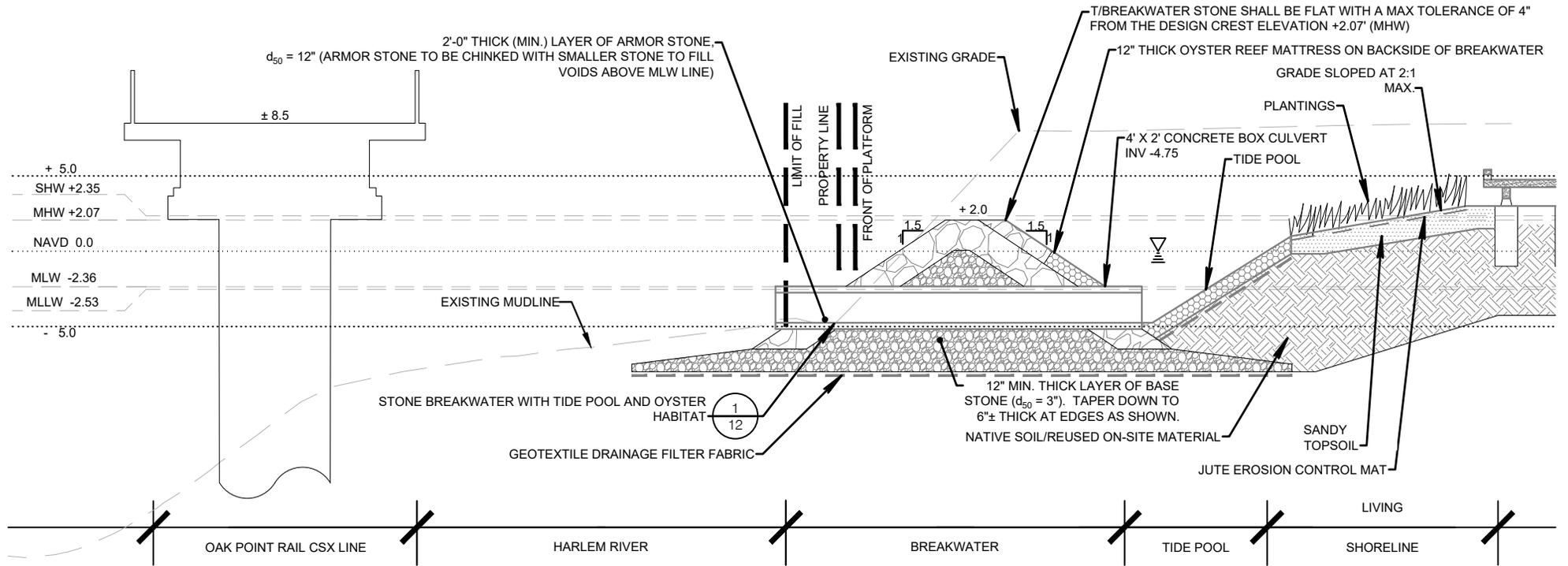
1 LIVING SHORELINE SECTION
SCALE 1" = 10'

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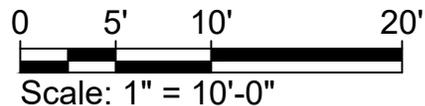
OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368		
IN:	HARLEM RIVER	AT:	LOWER CONCOURSE PARK	
TOWN:	BRONX	STATE:	N.Y.	
APPLICATION BY: NYC EDC				
WATERWAY:	HARLEM RIVER	DATUM:	(NAVD88) NORTH AMERICAN VERTICAL DATUM-88	
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DATE:	03/10/2022	REV:	06/07/2022	SHEET NO. 6 OF 18
LIVING SHORELINE SECTION-1				



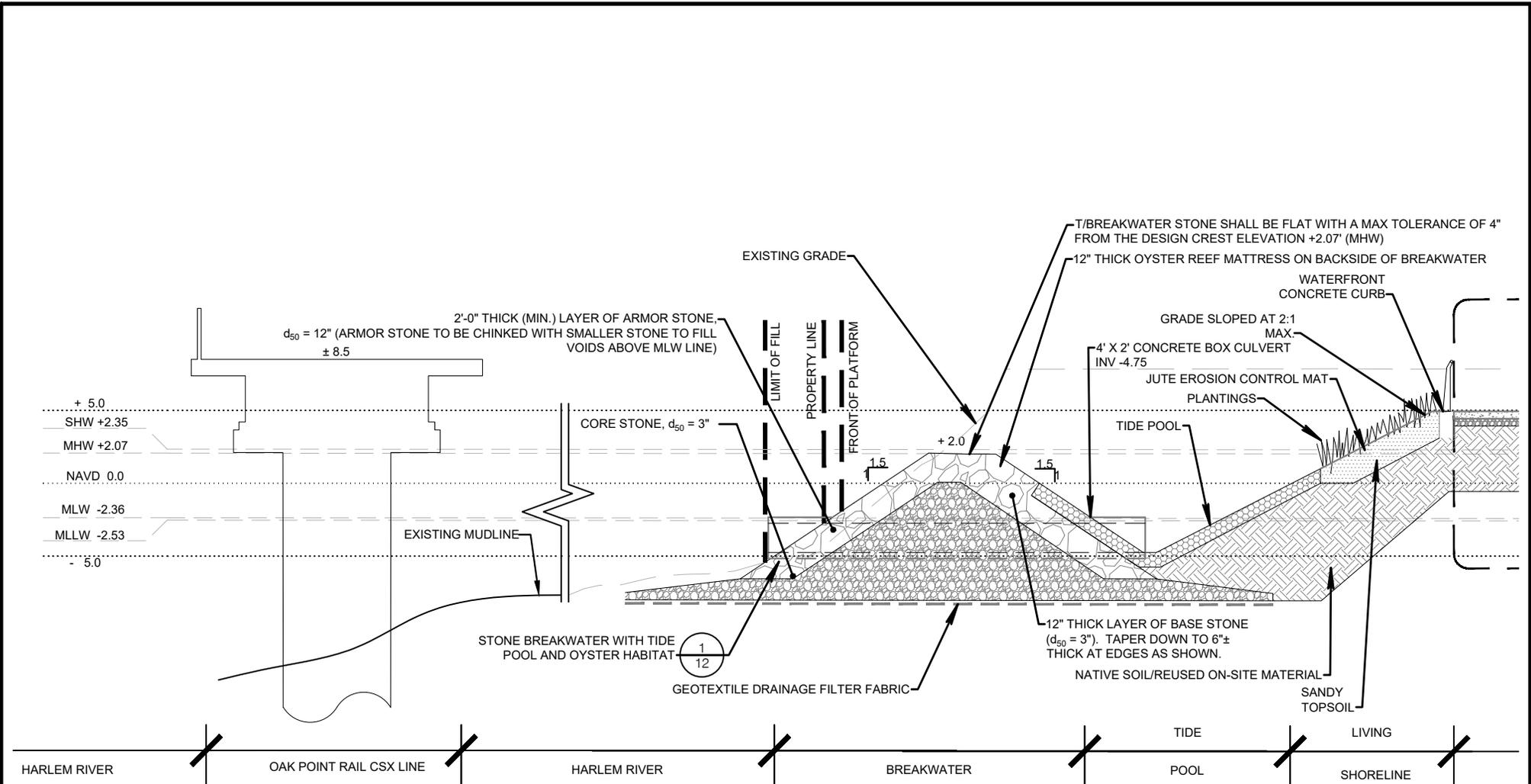
2 LIVING SHORELINE SECTION
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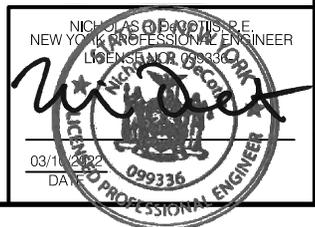
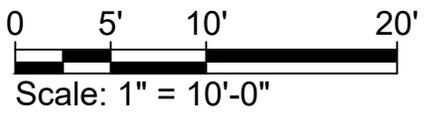
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IN: HARLEM RIVER	AT:	LOWER CONCOURSE PARK	
TOWN: BRONX	STATE:	N.Y.	
APPLICATION BY: NYC EDC			
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LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER			
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 7 OF 18	
LIVING SHORELINE SECTION-2			



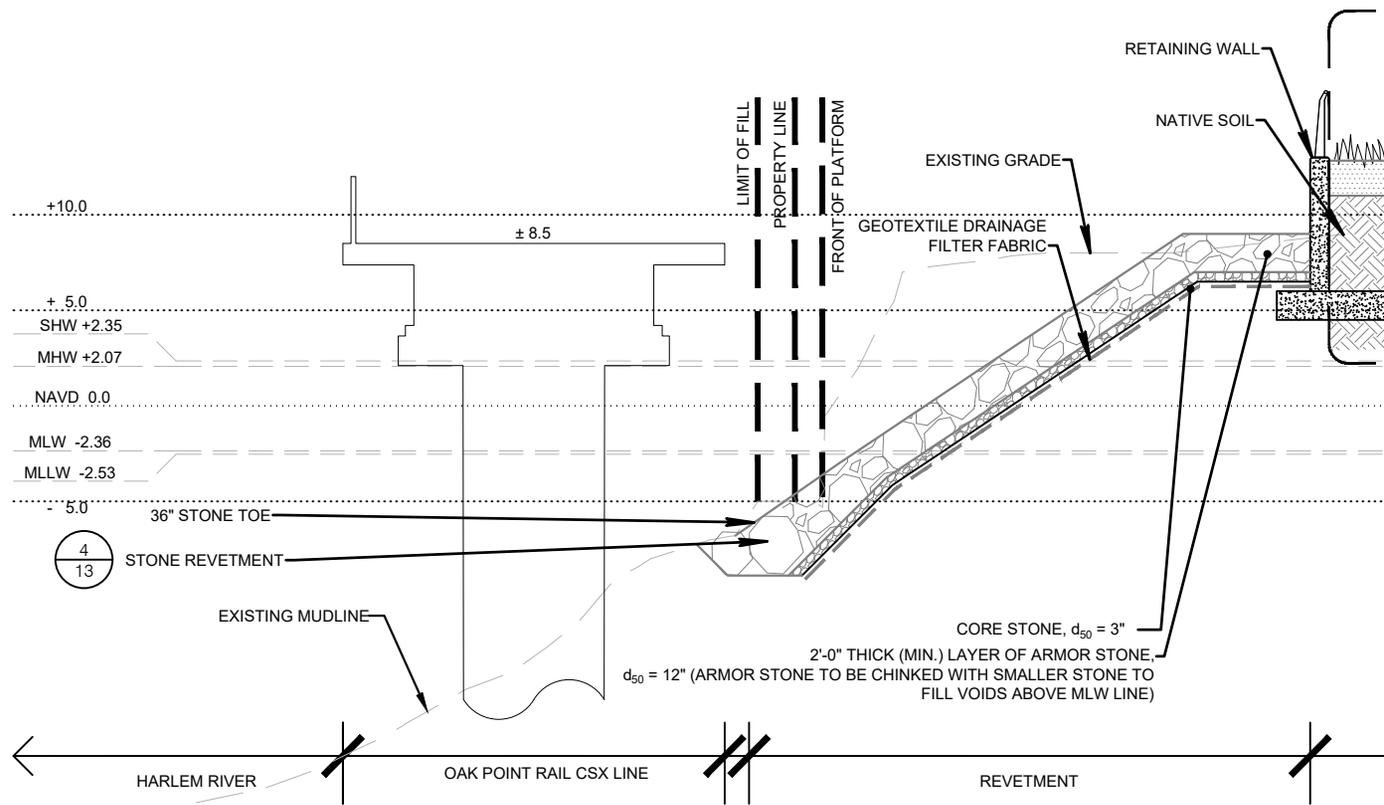
3 LIVING SHORELINE SECTION
SCALE 1" = 10'

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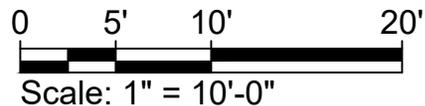
OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368		
IN: HARLEM RIVER	AT: LOWER CONCOURSE PARK			
TOWN: BRONX	STATE: N.Y.			
APPLICATION BY: NYC EDC				
WATERWAY: HARLEM RIVER		DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88		
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER				
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 8 OF 18		
LIVING SHORELINE SECTION-3				



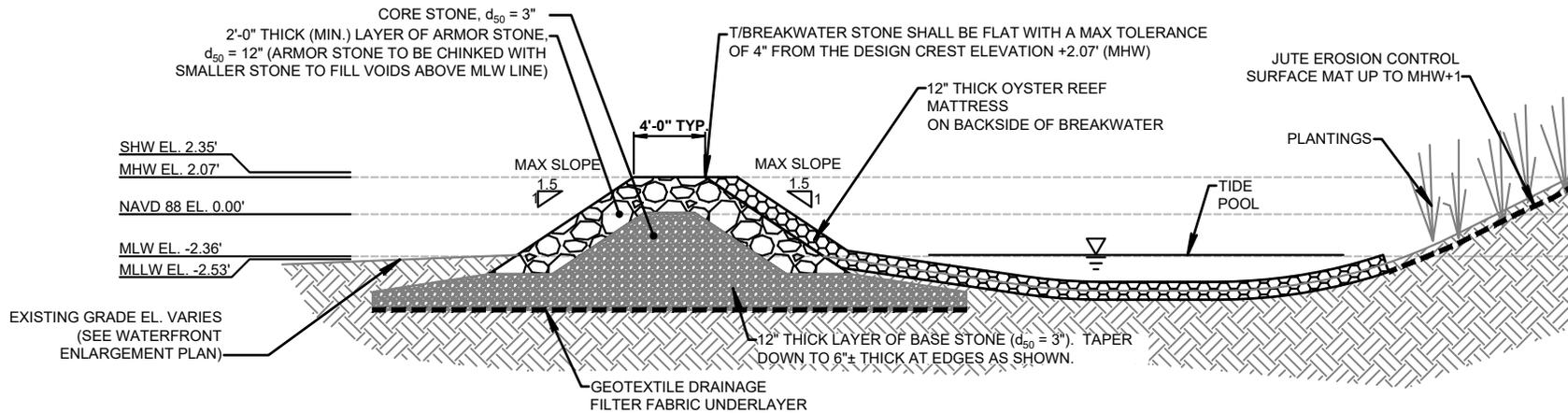
4 **LIVING SHORELINE SECTION**
SCALE 1" = 10'

PROJECT SITE TIDAL ELEVATION

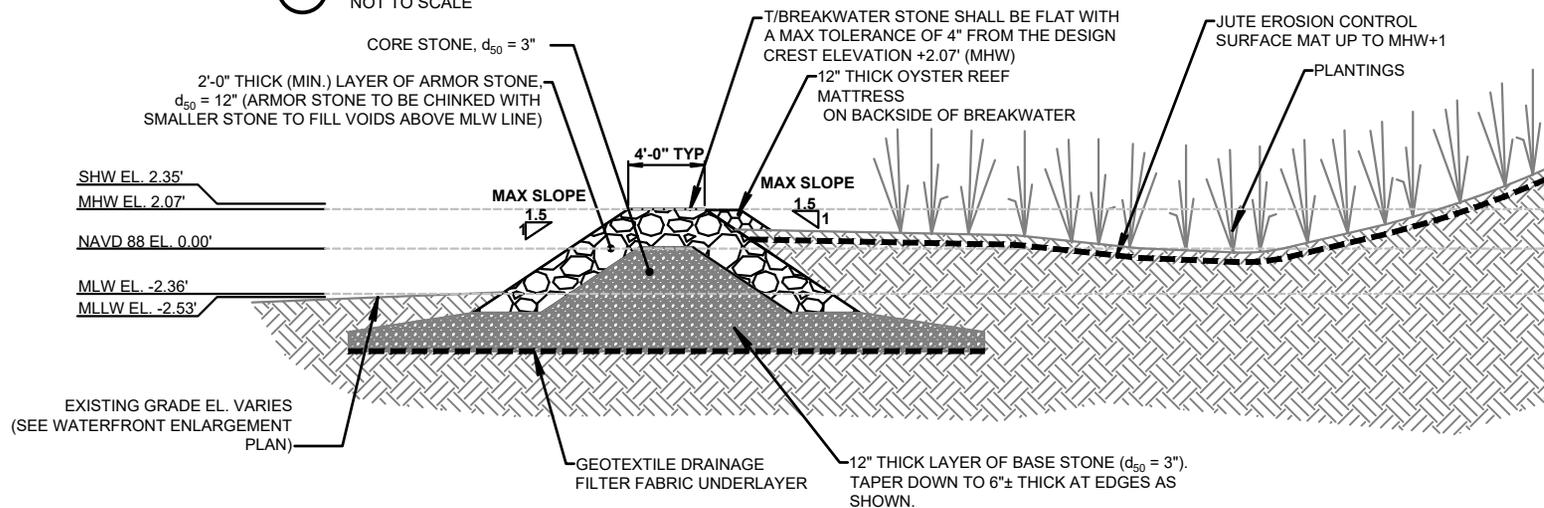
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OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368	 NYC Parks
IN: HARLEM RIVER	AT:	LOWER CONCOURSE PARK	
TOWN: BRONX	STATE:	N.Y.	
APPLICATION BY: NYC EDC			
WATERWAY:		HARLEM RIVER	DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER			
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 9 OF 18	
LIVING SHORELINE SECTION-4			



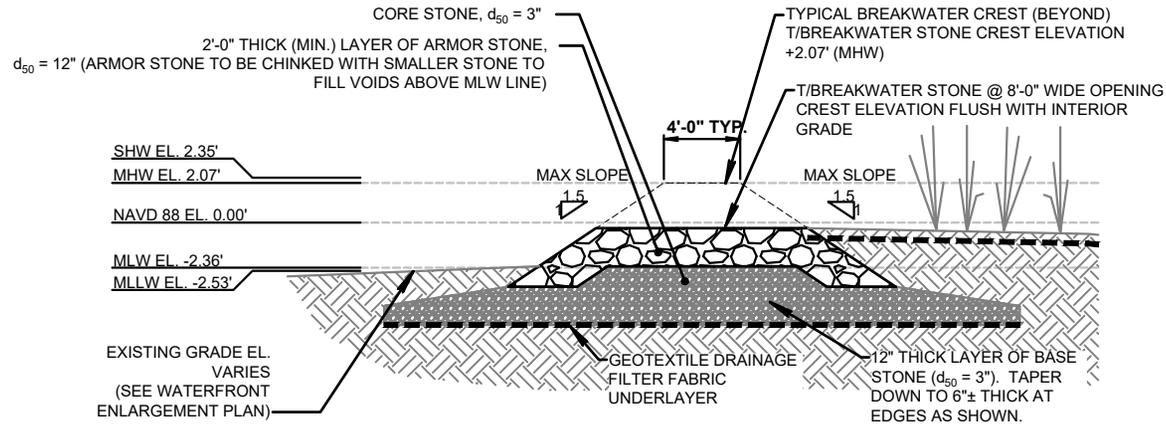
1 TYPICAL STONE BREAKWATER WITH TIDE POOL AND OYSTER HABITAT DETAIL
NOT TO SCALE



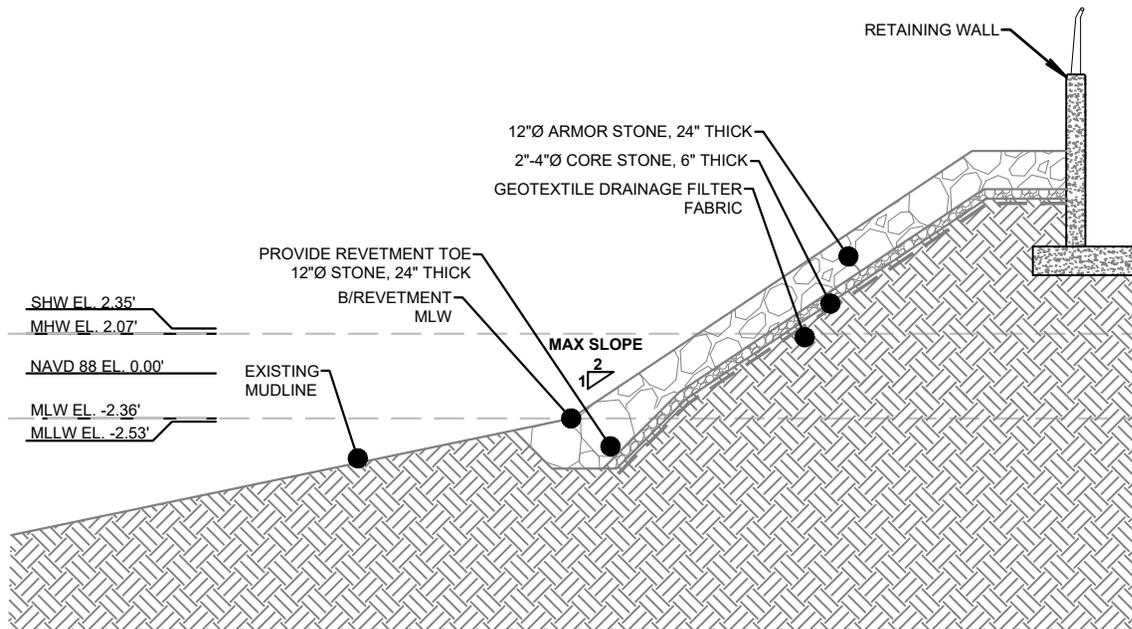
2 TYPICAL STONE BREAKWATER WITH LIVING SHORELINE DETAIL
NOT TO SCALE

OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368		
IN: HARLEM RIVER	AT: LOWER CONCOURSE PARK			
TOWN: BRONX	STATE: N.Y.			
APPLICATION BY: NYC EDC				
WATERWAY: HARLEM RIVER		DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88		
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER				
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 12 OF 18		
BREAKWATER DETAILS-1				





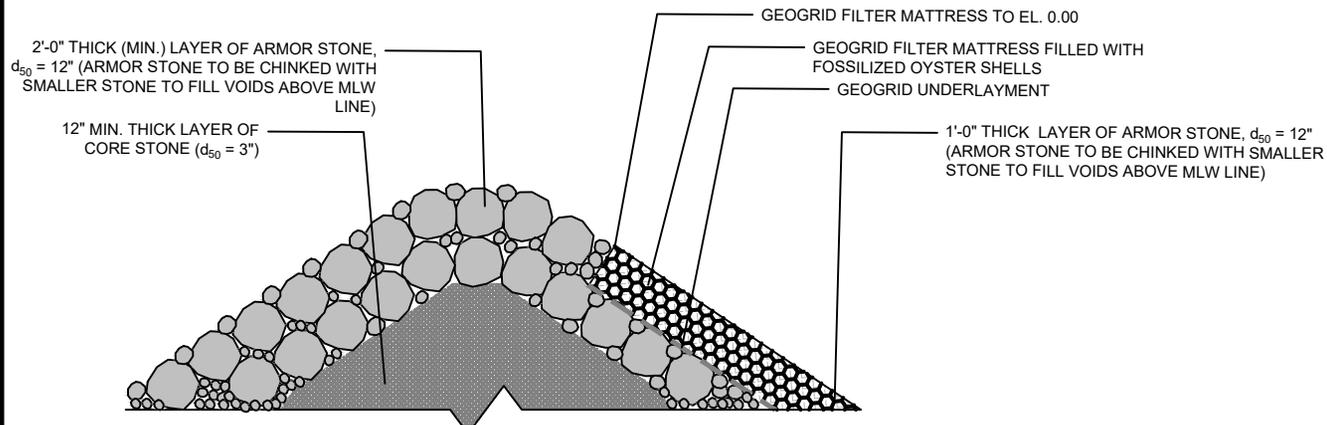
3 TYPICAL STONE BREAKWATER AT BREAKWATER OPENING DETAIL
NOT TO SCALE



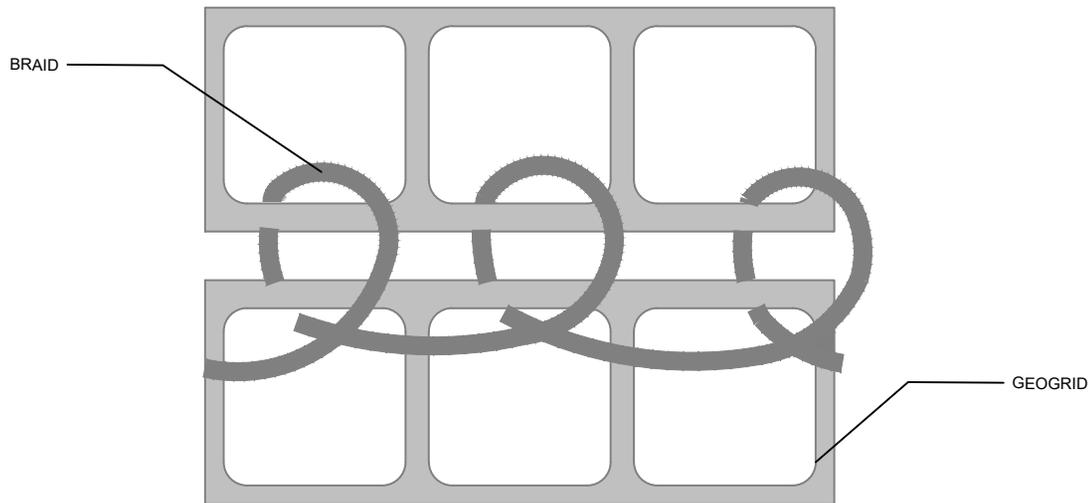
4 TYPICAL STONE REVETMENT DETAIL
NOT TO SCALE

NICHOLAS P. POCOCKI, P.E.
NEW YORK PROFESSIONAL ENGINEER
LICENSE NO. 099336
03/10/2022
DATE

OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368	
IN: HARLEM RIVER	AT:	LOWER CONCOURSE PARK	
TOWN: BRONX	STATE:	N.Y.	
APPLICATION BY: NYC EDC			
WATERWAY:		HARLEM RIVER	DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER			
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 13 OF 18	
BREAKWATER DETAILS-2			



4 OYSTER REEF MATTRESS BREAKWATER CONNECTION DETAIL
NOT TO SCALE



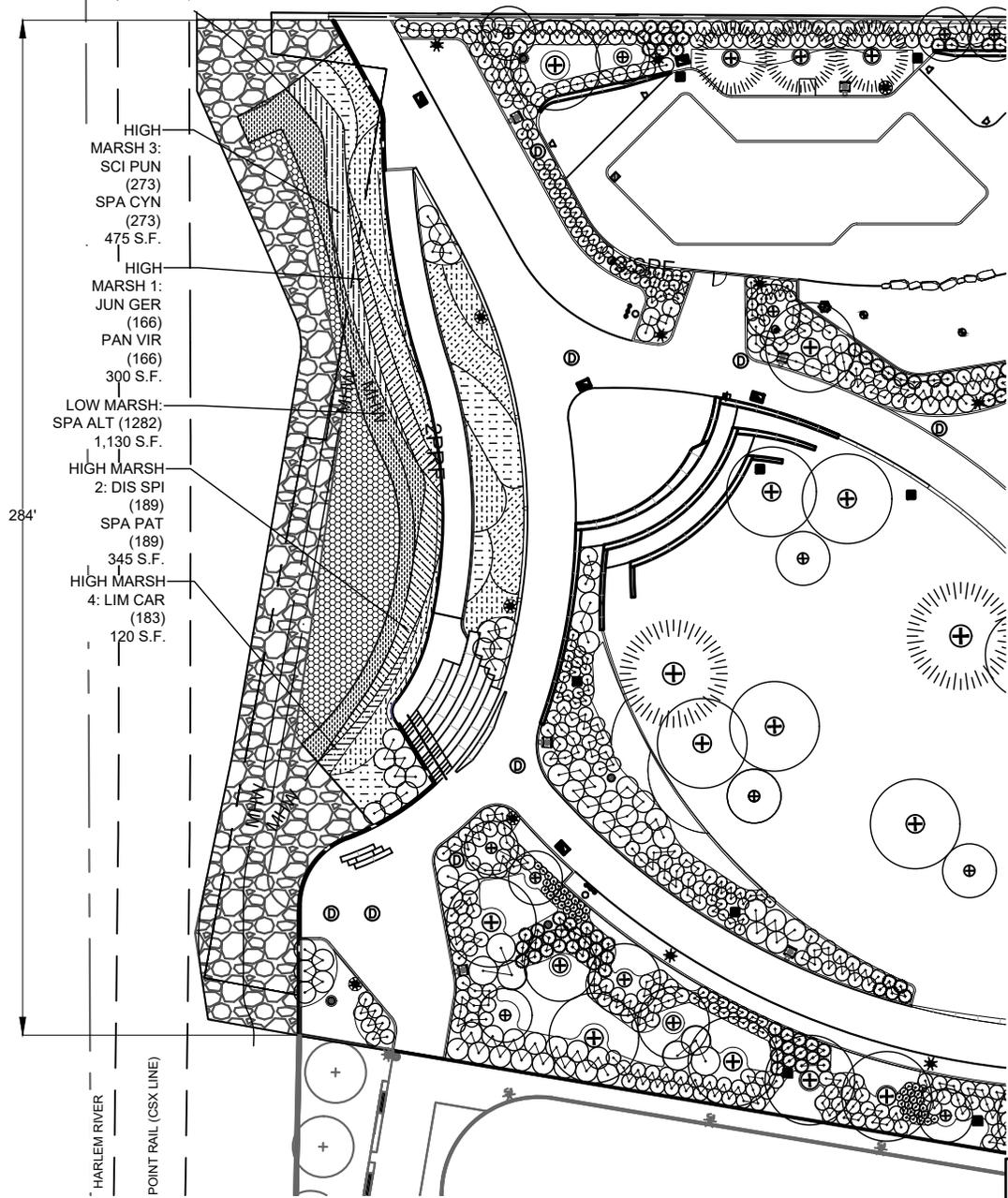
- NOTES:**
1. ALL CUT ENDS OF BRAID MATERIAL SHALL BE KNOTTED WITHIN ½" TO 2" OF THE END TO PREVENT RAVELING OF BRAID.
 2. AT ALL ENDS OF ALL BRAIDED SEAMS THE BRAID SHALL BE SECURELY KNOTTED TO THE GEOGRID.
 3. AT ALL ENDS OF ALL PIECES OF BRAID MATERIAL USED, THE BRAID SHALL BE KNOTTED TO SPLICE IT TO THE NEXT PIECE OF BRAID, OR TO SECURE IT TO THE GEOGRID. EACH BRAIDED SEAM SHALL BE CONTINUOUS, WITH SECURELY KNOTTED SPLICES ALLOWED. THE BRAID SHALL BE SECURELY KNOTTED TO THE GEOGRID AT A SPACING NOT TO EXCEED 6 FT ALONG ANY SEAM.
 4. THE BRAID SHALL BE STITCHED THROUGH EACH PAIR OF APERTURES ALONG THE SEAM AT LEAST ONCE, AND THE MINIMUM NUMBER OF STITCHES PER FOOT ALONG THE SEAM SHALL BE SIX. THE SPACING OF STITCHES ALONG EACH SEAM SHALL BE REASONABLY UNIFORM. ALL KNOTS SHALL BE TIED IN A MANNER TO PREVENT SLIPPING AND CINCHING.
 5. THE WRAPS ALONG THE SEAM SHALL BE SUFFICIENTLY TIGHT TO CLOSE THE GAP BETWEEN THE ADJACENT PIECES OF GEOGRID, BUT SHALL NOT BE OVER-TIGHTENED SUCH THAT THE GEOGRID BINDS ALONG THE SEAM.
 6. SEAM PATTERN TO BE USED FOR THE CLOSURE OF ALL MATTRESSES AND SECUREMENT OF CUSTOM SHAPE MATTRESSES.

5 OYSTER REEF MATTRESS STITCHED SEAM DETAIL
NOT TO SCALE



OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368		 NYC Parks
IN: HARLEM RIVER	AT: LOWER CONCOURSE PARK			
TOWN: BRONX	STATE: N.Y.			
APPLICATION BY: NYC EDC				
WATERWAY: HARLEM RIVER		DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88		
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER				
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 17 OF 18		
MISCELLANEOUS MARINE DETAILS-4				

PARCEL 1 ADJACENT SITE
325 EXTERIOR STREET / FUTURE DEVELOPMENT



HIGH MARSH 3:
SCI PUN (273)
SPA CYN (273)
475 S.F.

HIGH MARSH 1:
JUN GER (166)
PAN VIR (166)
300 S.F.

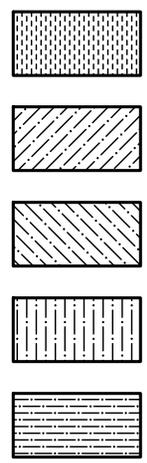
LOW MARSH:
SPA ALT (1282)
1,130 S.F.

HIGH MARSH 2:
DIS SPI (189)
SPA PAT (189)
345 S.F.

HIGH MARSH 4:
LIM CAR (183)
120 S.F.

LOW MARSH
EL. 0 TO EL. +2

HIGH MARSH
EL. +2 TO EL. +5



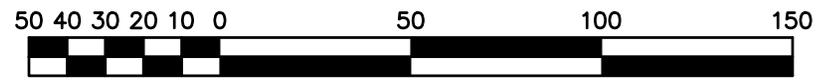
SPA ALT:
SPARTINA ALTERNIFOLIA

HIGH MARSH 1:
50% JUN GER: JUNCUS GERARDII
50% PAN VIR: PANICUM VIRGATUM

HIGH MARSH 2:
50% DIS SPI: DISTICHLIS SPICATA
50% SPA PAT: SPARTINA PATENS

HIGH MARSH 3:
50% SCI PUN: SCIRPUS PUNGENS
50% SPA CYN:
SPARTINA CYNOSUROIDES

HIGH MARSH 4:
LIM CAR: LIMONIUM CAROLINIANUM



GRAPHIC SCALE
1 inch=50 feet

OWNER:		CITY OF NEW YORK PARKS & RECREATION OLMSTED CENTER FLUSHING MEADOWS - CORONA PARK FLUSHING, NEW YORK 11368		
IN: HARLEM RIVER	AT: LOWER CONCOURSE PARK			
TOWN: BRONX	STATE: N.Y.			
APPLICATION BY: NYC EDC				
WATERWAY: HARLEM RIVER	DATUM: (NAVD88) NORTH AMERICAN VERTICAL DATUM-88			
LOWER CONCOURSE PARK SITE BOUNDED BY EXTERIOR STREET & HARLEM RIVER				
DATE: 03/10/2022	REV: 06/07/2022	SHEET NO. 18 OF 18		
PLANTING PLAN				

NICHOLAS P. POCOCKI, P.E.
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03/10/2022
DATE