

Rehabilitate Tidal Basin and West Potomac Park Seawall

National Park Service, National Mall and Memorial Parks

U.S. Commission of Fine Arts Concept Review February 16, 2023





AGENDA

1. PROJECT SCOPE
2. SEAWALL CONSTRUCTION
3. CONCEPT DESIGN
4. TIDAL BASIN
5. WEST POTOMAC PARK
6. SCHEDULE



01

PROJECT SCOPE



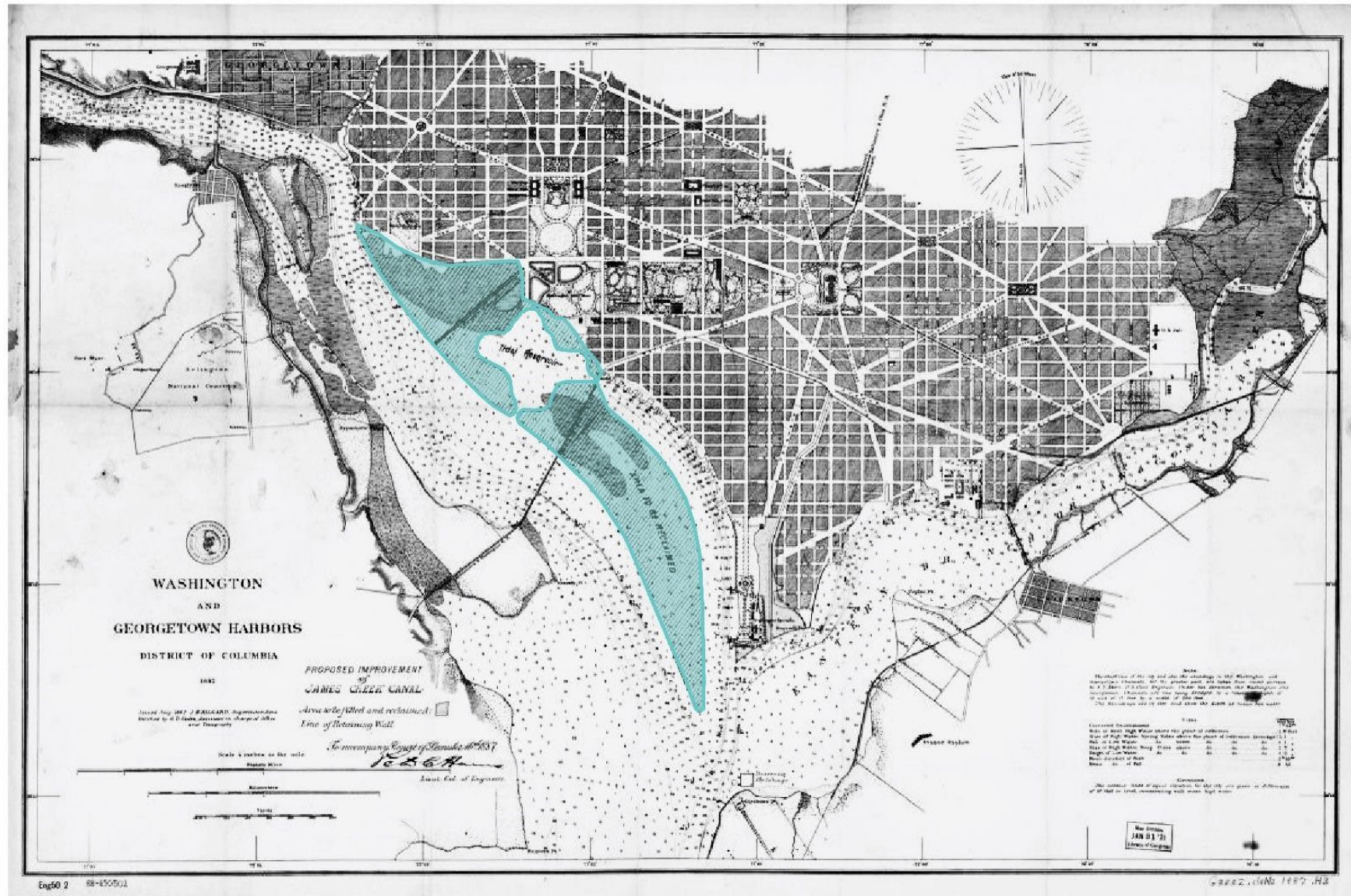
PROJECT SCOPE



To rehabilitate approximately 6,800 feet of seawall in Tidal Basin and West Potomac Park to its historic functional height. Their deteriorated condition, combined with land settlement and sea level rise, have created regular flooding in the Project Area, affecting park visitation and the landscape itself.



PROJECT NEED



FOUR SEAWALL ZONES

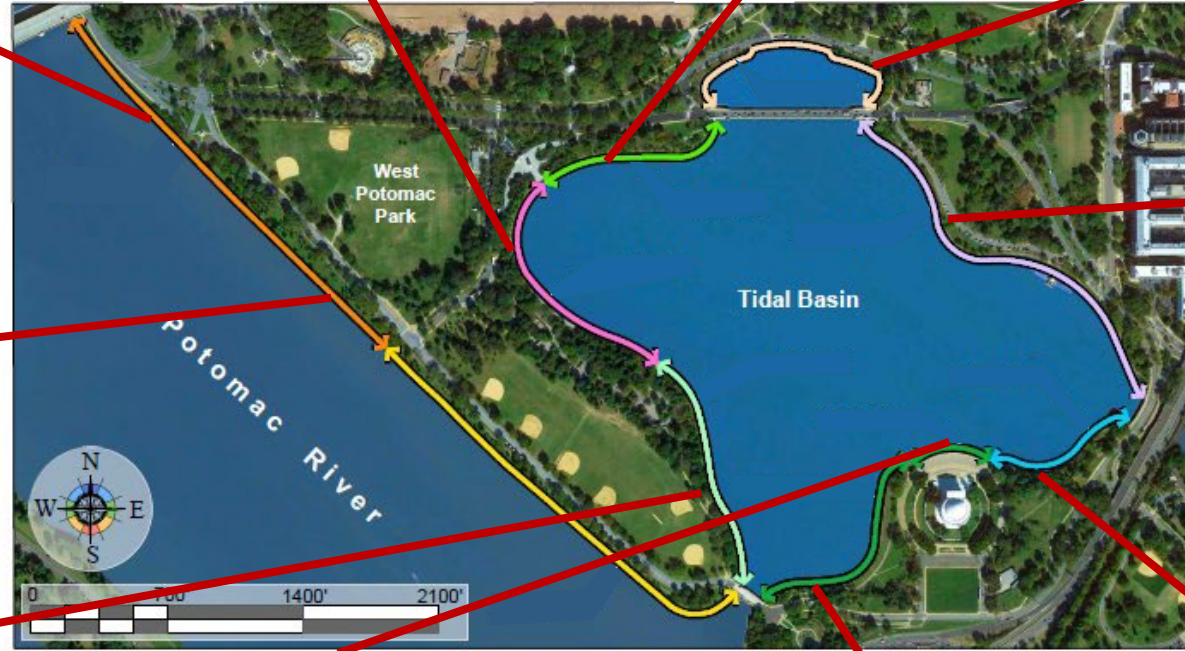


- Approximately 6,800 linear feet of seawall
- 4 distinctive sections



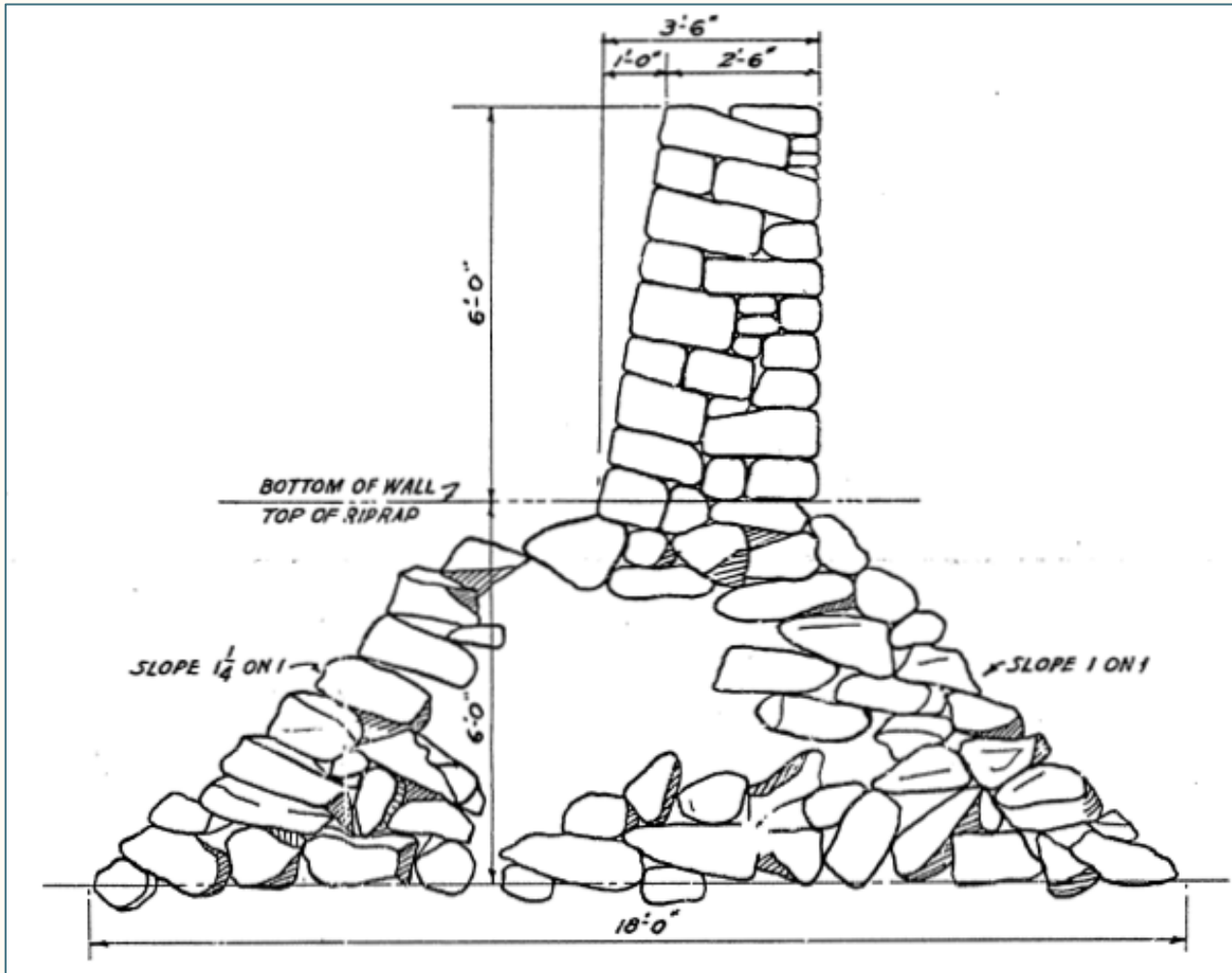
02

SEAWALL CONSTRUCTION



Dry Stacked Stone, Split Face – 1893 - 1896

Historic Design and Existing Condition Photos



Original Seawall Design Cross Section (NPS 1940)

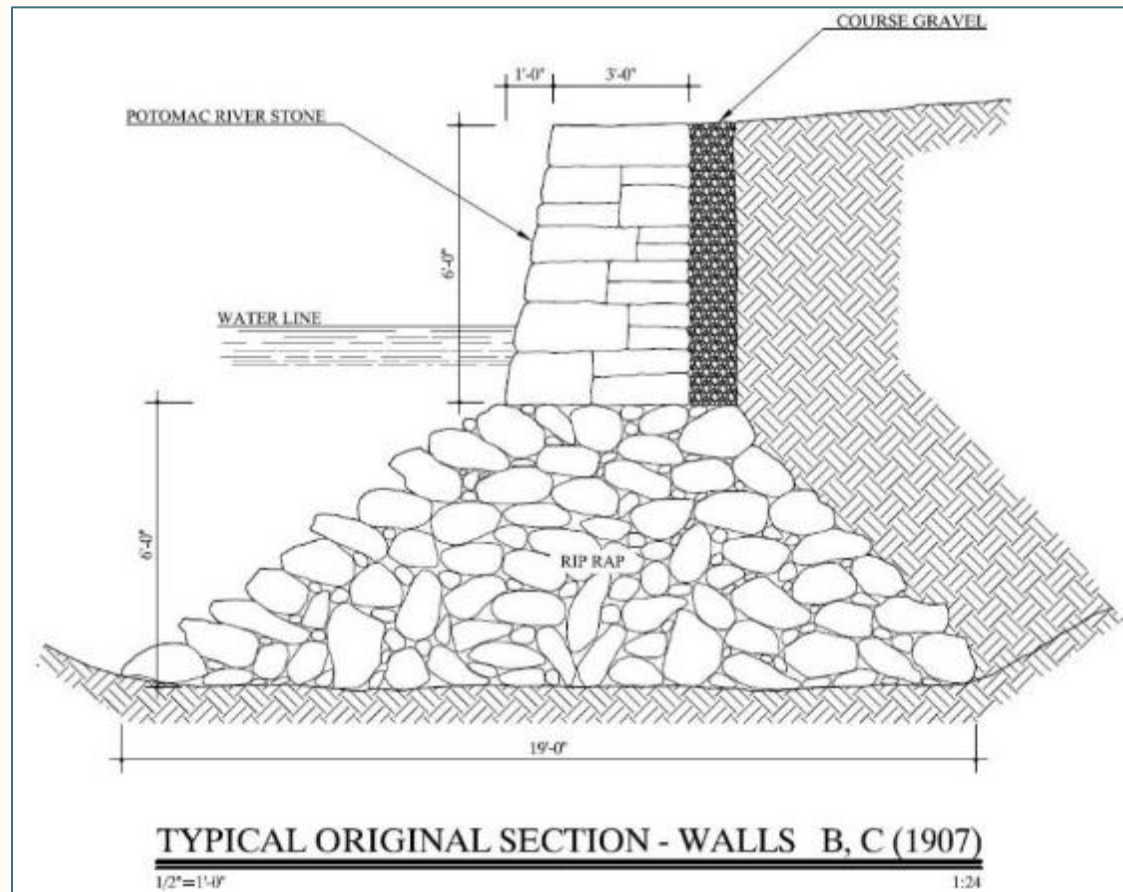


West Potomac Park South – Looking Northeast

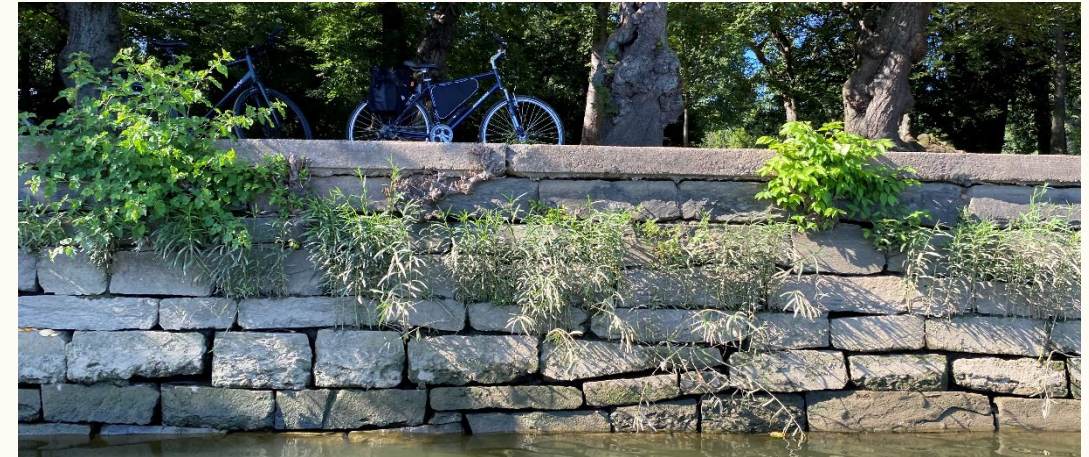


West Potomac Park South – Looking Northeast

Mortared Upper Stones – 1896+ Historic Design and Existing Condition Photos



*Original 1907 Design Cross Section
(NPS Cultural Landscape Report, June 2020)*



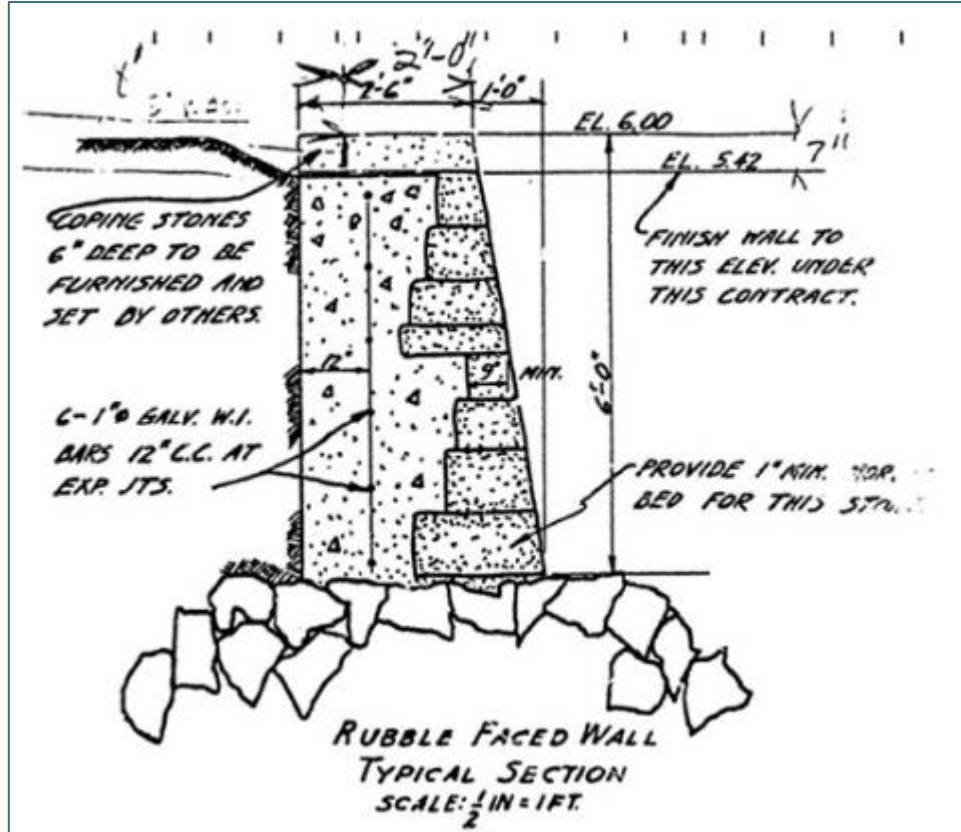
Tidal Basin West (NIC) – Looking North



Tidal Basin West – Looking West

JFM Concrete Backed Wall - 1941

Historic Design and Existing Condition Photos



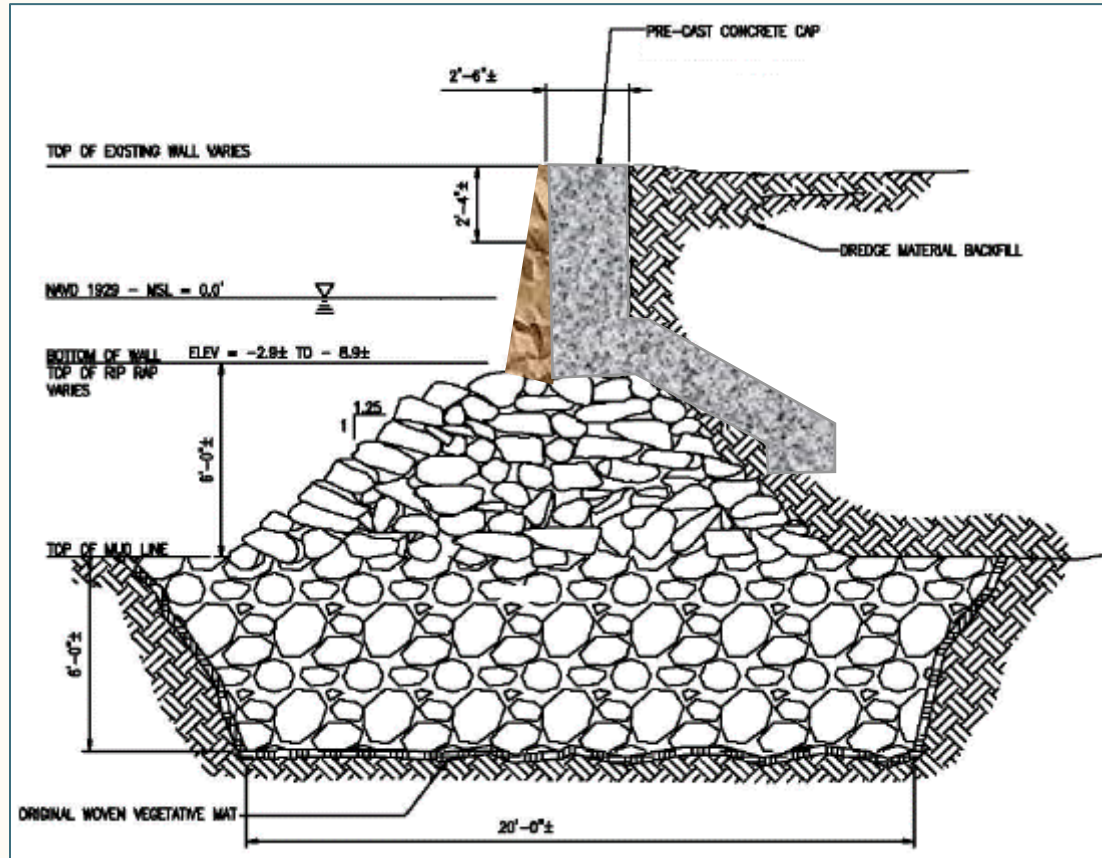
Typical 1940s Tidal Basin East Seawall section



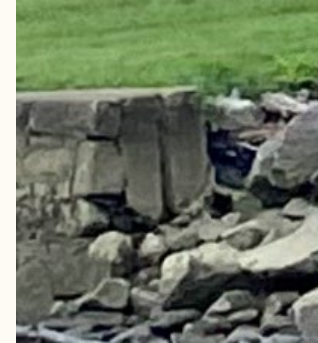
Tidal Basin East – Looking East

WPP-N CIP Concrete, Stone Veneer – 1958

Historic Design and Existing Condition Photos



Assumed Concrete Repair (Dewberry 2011, modified)



West Potomac Park North – Looking North

The top 6.5' of the wall



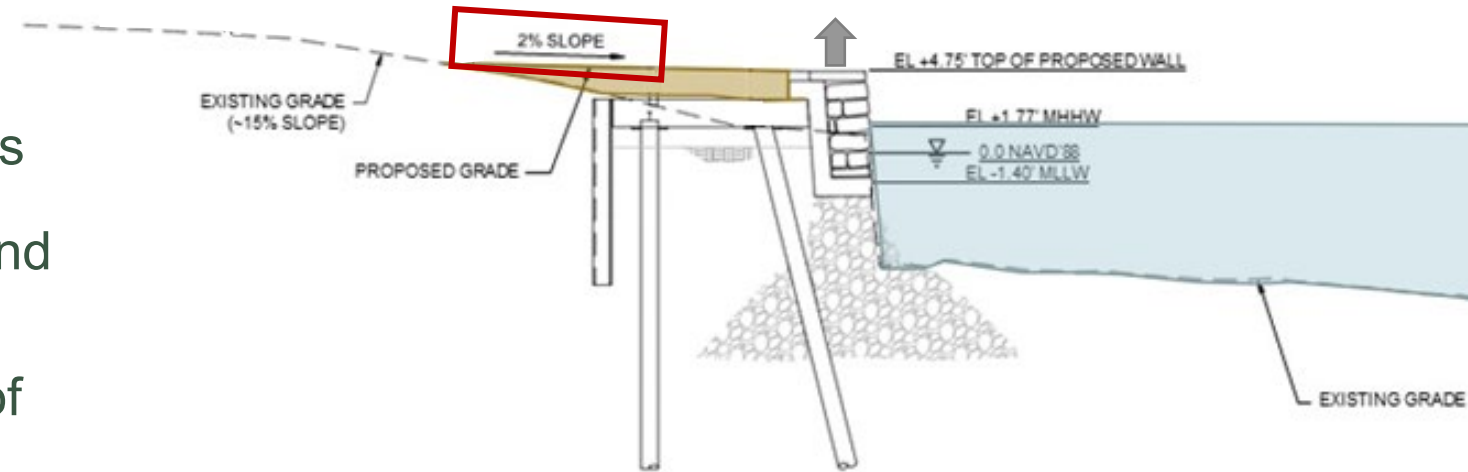


03

CONCEPT DESIGN

PROJECT GOALS

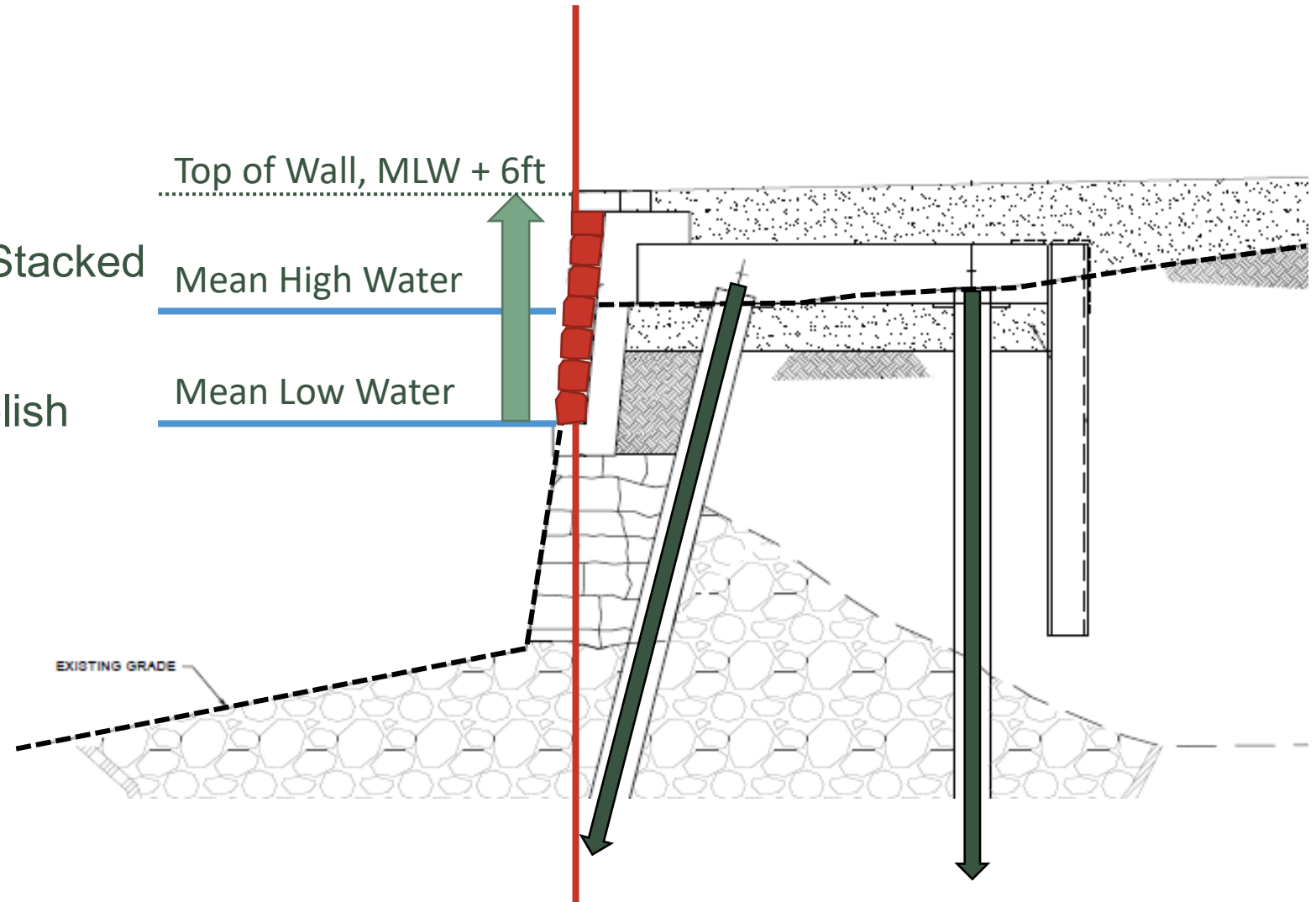
- Provide a sustainable solution that:
 - Rehabilitates the seawalls
 - Provides sheet flow stormwater drainage
 - Restores cultural landscape
 - Extends the lifecycle of the seawalls
 - Allows for future additions to wall and landscape to respond to changing climate patterns, including storms of greater intensity and frequency



DESIGN DIRECTIVES & TYPICAL SECTION

- Main Design Requirements

- Maintain Historic Alignment
- Maintain Historic Look – Dry Stacked Stone
- Elevate Seawalls to Re-Establish Historic Functional Height
- Prevent Future Settlement

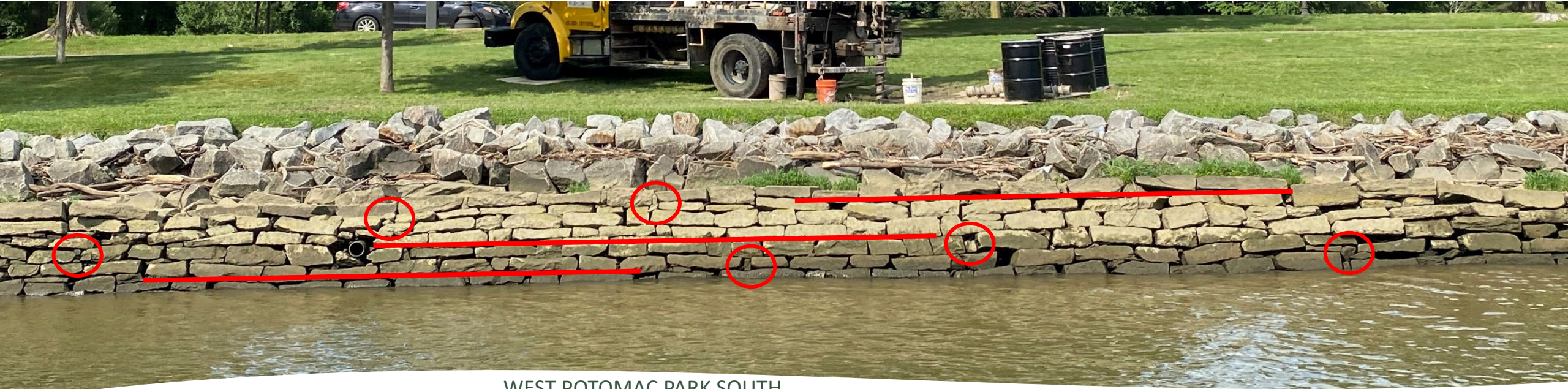


SEAWALL CHARACTERIZATION





SEAWALL CHARACTERIZATION



WEST POTOMAC PARK SOUTH

- MOSTLY-RECTANGULAR STONES – RATIO 1:1 – 6:1
- UNIFORM COLOR
- ROUGH EXPOSED FACE
- POSSIBLE TOOLED/CHISELED SIDES (CUT) – SOME ROUGH OR SPLIT FACES
- SMALL TO MEDIUM HEIGHT ~ 4" – 6" (AVG)
- NO MORTAR – STONES WELL DEFINED
- MINOR PINNING/CHINKING – SMALL STONES PLACED INTO VOIDS TO HOLD LARGER STONES
- GOOD COURSING – CONTINUOUS HORIZONTAL JOINTS

SEAWALL CHARACTER OPTIONS



1.



2.



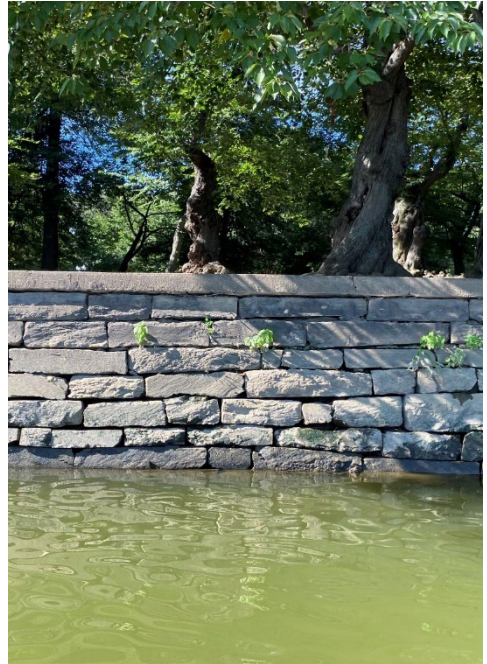
3.



4.



5.



NEW CUT STONE



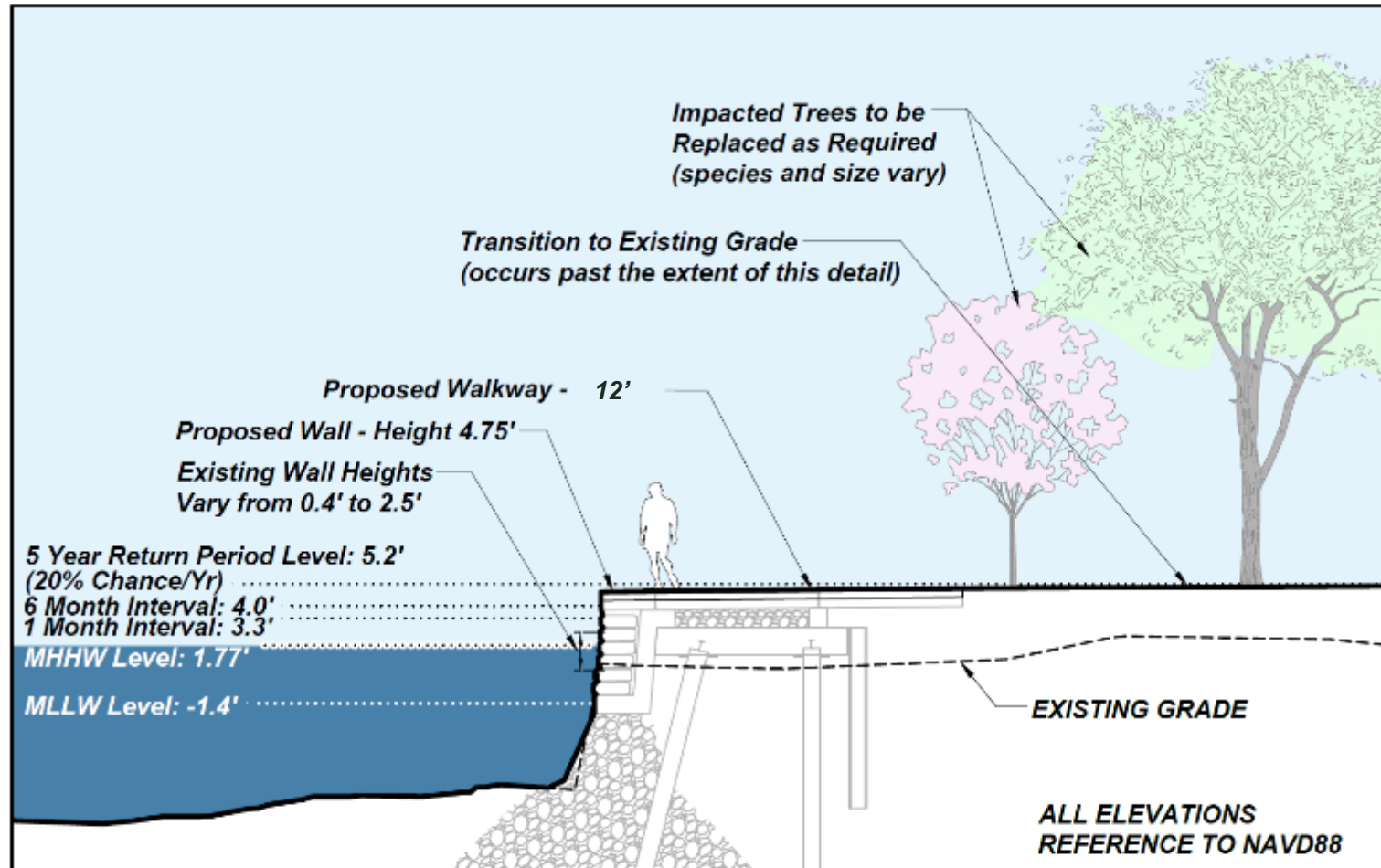


04

TIDAL BASIN



TIDAL BASIN EAST – PROPOSED



SECTION 2

PROPOSED CONDITIONS (TYPICAL)

Tidal Basin - East

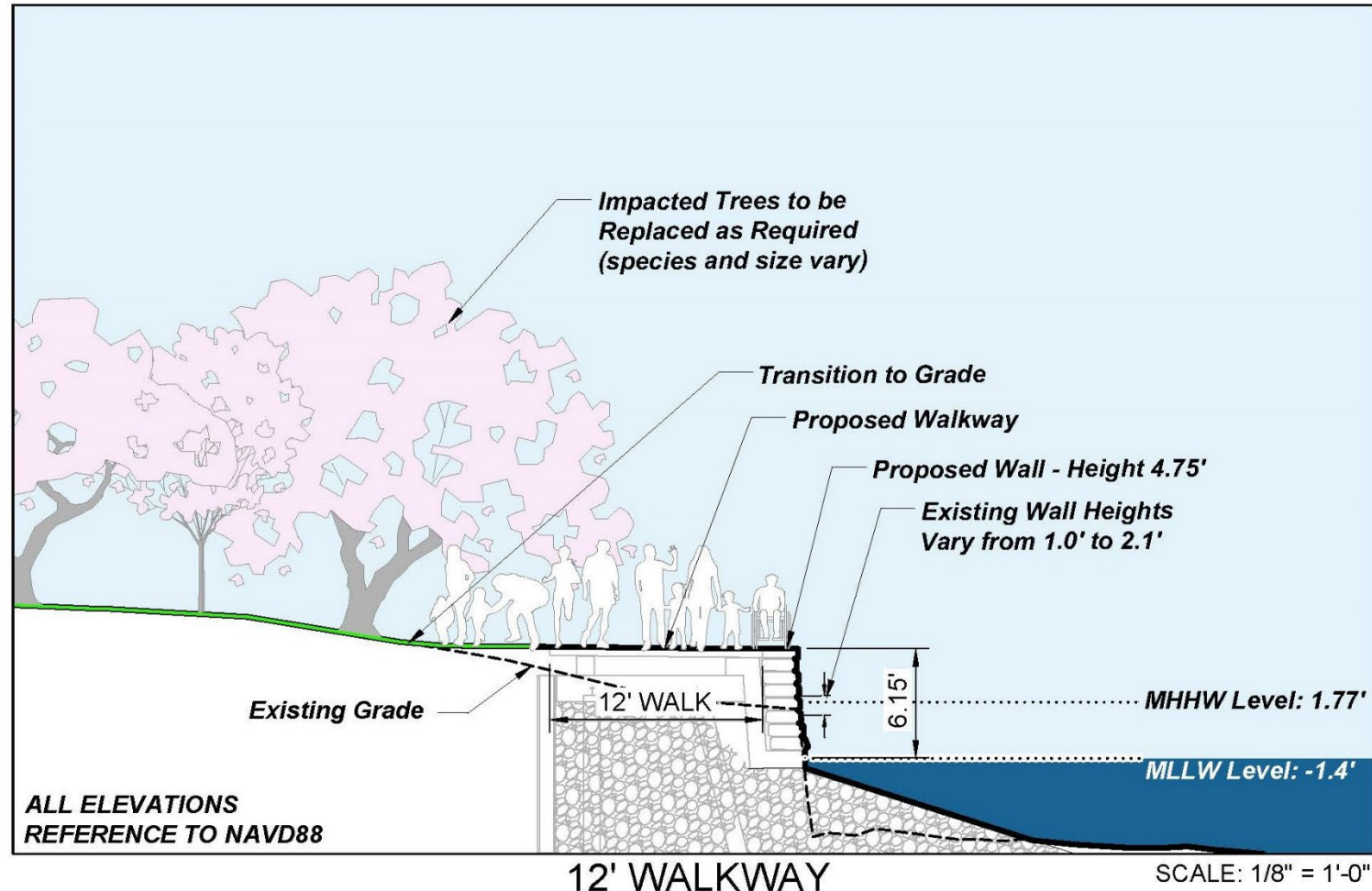
(Visualization for Planning Purposes Only)

MHHW = Mean Higher High Water

MLLW = Mean Lower Low Water



TIDAL BASIN WEST - PROPOSED



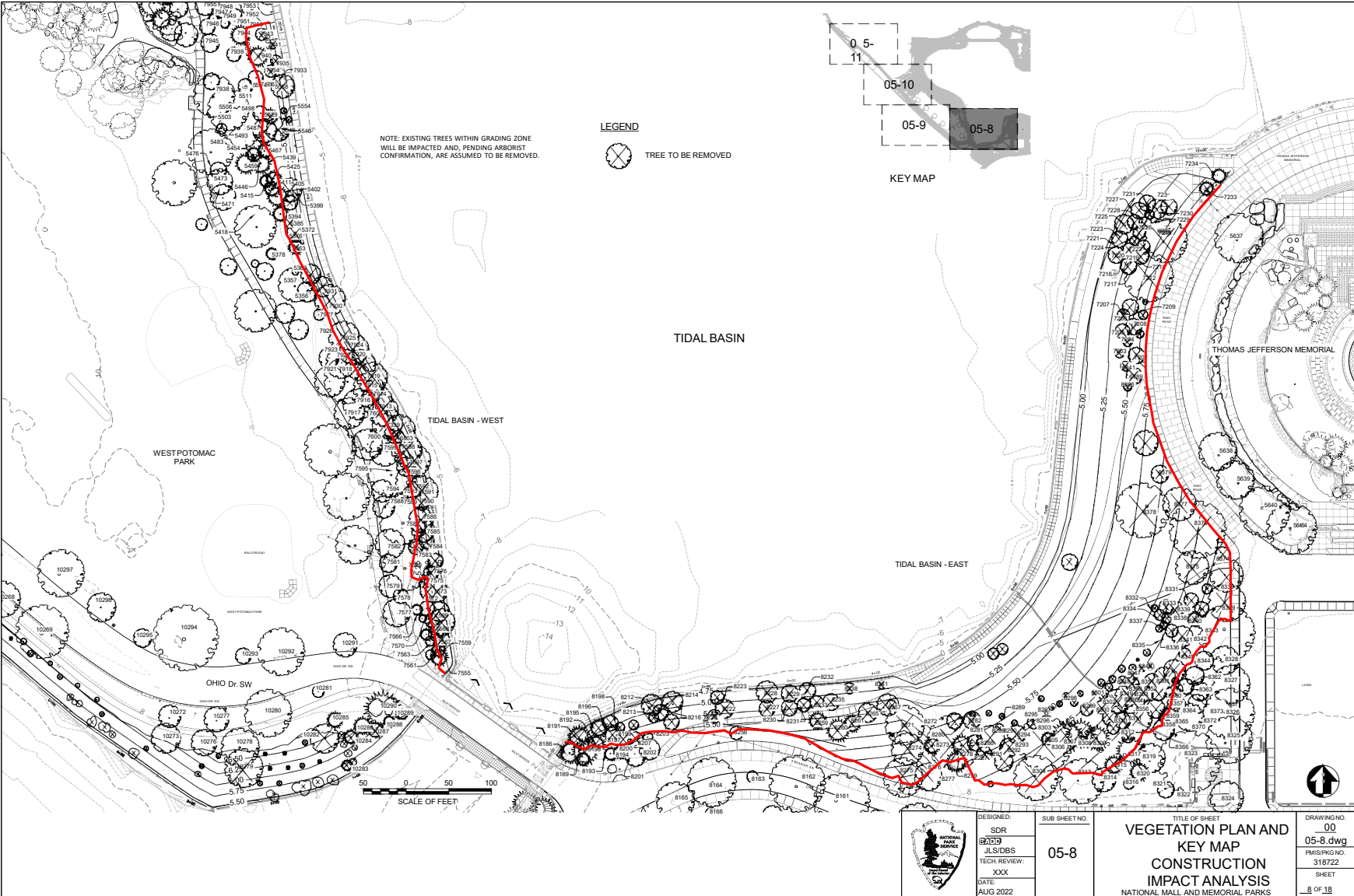
12' WALKWAY
PROPOSED CONDITIONS (TYPICAL)
Tidal Basin - West

(Visualization for Planning Purposes Only)

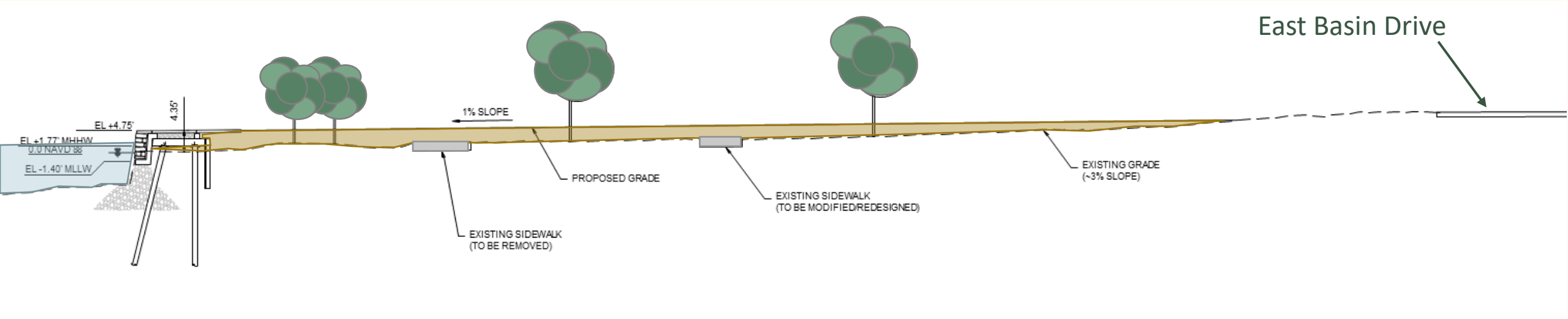
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TIDAL BASIN - LIMITS OF GRADING



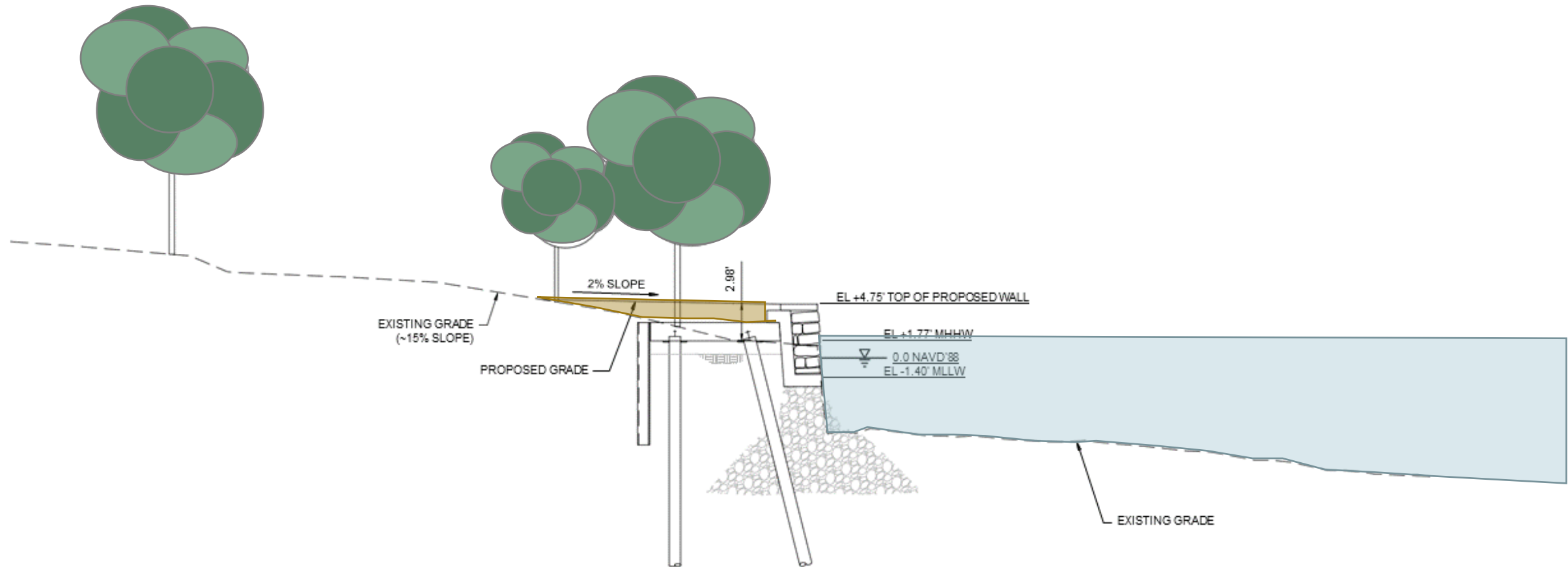
TIDAL BASIN EAST – INLAND GRADING*



*Cross sectional view of grading/fill to maintain 1% slope to top of wall



TIDAL BASIN WEST – INLAND GRADING*



*Cross sectional view of grading/fill to maintain 2% slope to top of wall



TIDAL BASIN WEST - RENDERING



EXISTING



PROPOSED – HIGH TIDE

PROPOSED – LOW TIDE

TIDAL BASIN EAST TRANSITION - RENDERING



VIEW OF WEST STEPS OF JEFFERSON MEMORIAL PLAZA



EXISTING



PROPOSED

TIDAL BASIN WEST TRANSITION - RENDERING



VIEW FROM FDR MEMORIAL WALKWAY TO INLET BRIDGE



EXISTING



PROPOSED

**Renderings do not include planting plan*



TIDAL BASIN EAST - RENDERING

VIEW OF TIDAL BASIN EAST



EXISTING



PROPOSED

**Renderings do not include planting plan*



TIDAL BASIN EAST & WEST - RENDERING

VIEW FROM PADDLE BOAT AREA TO TIDAL BASIN EAST AND TIDAL BASIN WEST



EXISTING



EXISTING VEGETATION PLAN – TIDAL BASIN



ESTIMATED # OF TREES TO BE REMOVED

Section	Cherry	Deciduous	Evergreen	Unknown	Total
TB - East	108	29	26	5	168
TB - West	52	4	12	2	70
TOTAL	160	33	38	7	238

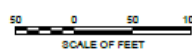


PROPOSED PLANTING PLAN – TIDAL BASIN



**Concept will develop further, and full tree assessment will be conducted by project team and NPS arborist*

**CONCEPT DESIGN PROPOSED CONDITIONS
TIDAL BASIN**



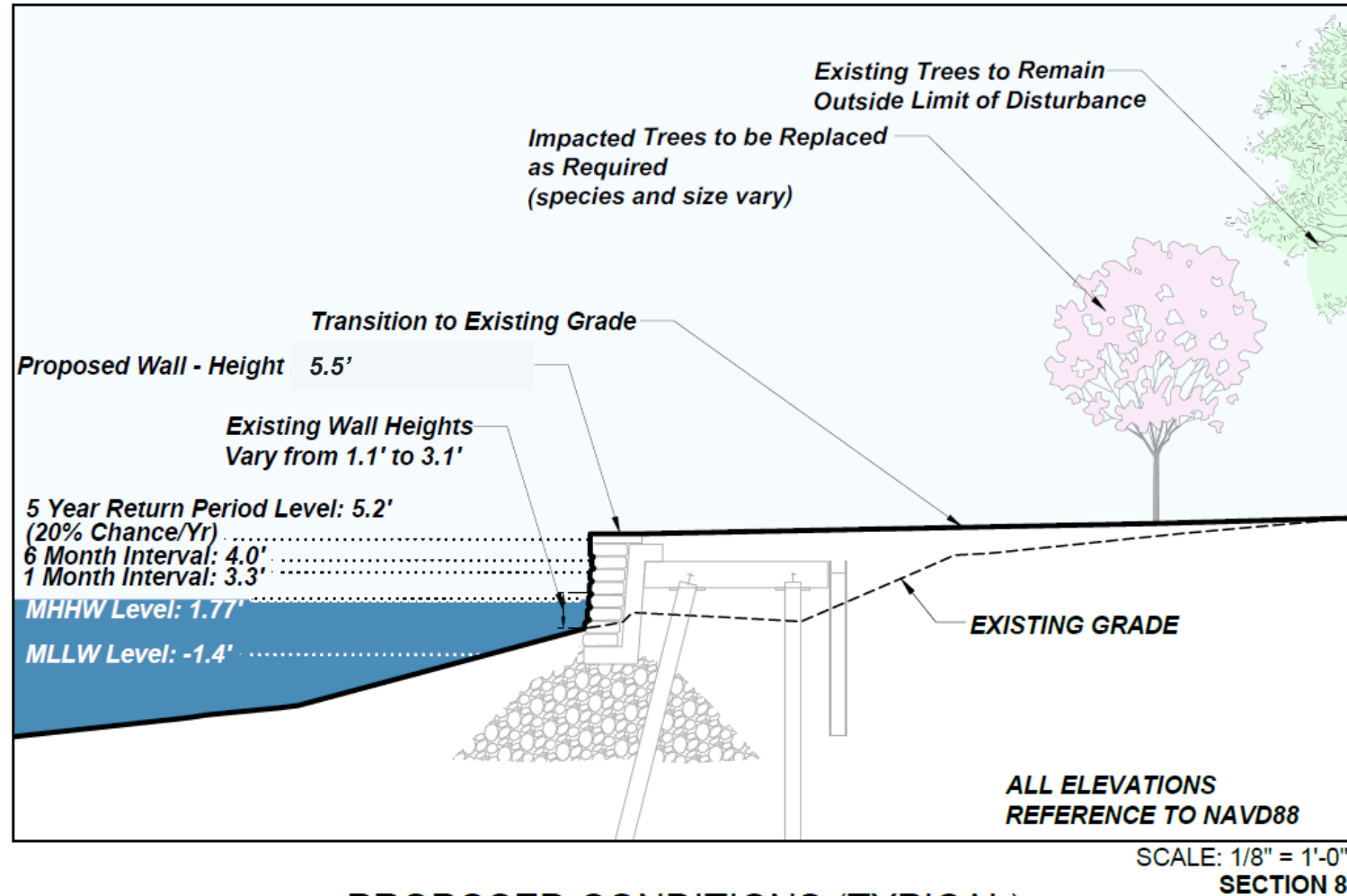


05

WEST POTOMAC PARK



WEST POTOMAC PARK - PROPOSED

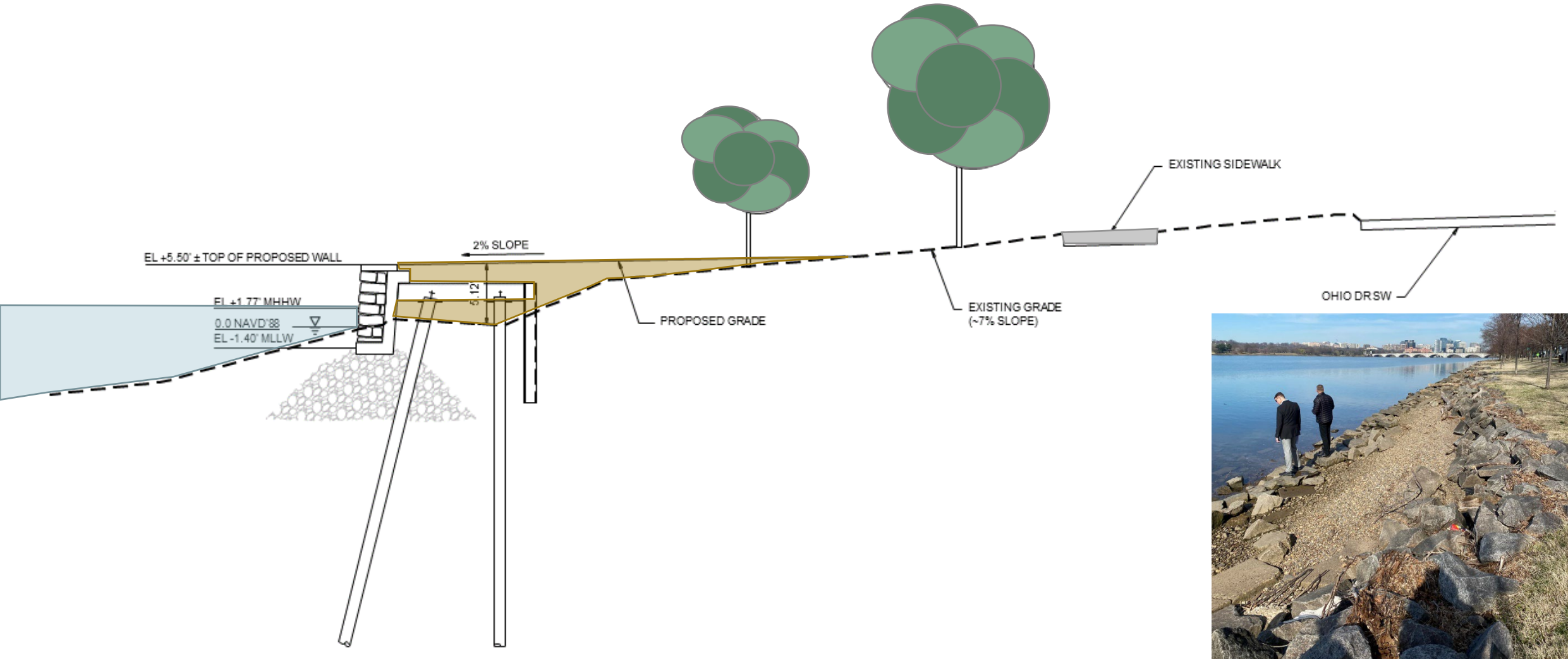


PROPOSED CONDITIONS (TYPICAL)

West Potomac Park
(Visualization for Planning Purposes Only)



WEST POTOMAC PARK- INLAND GRADING



*Cross sectional view of grading/fill to maintain 2% slope to top of wall

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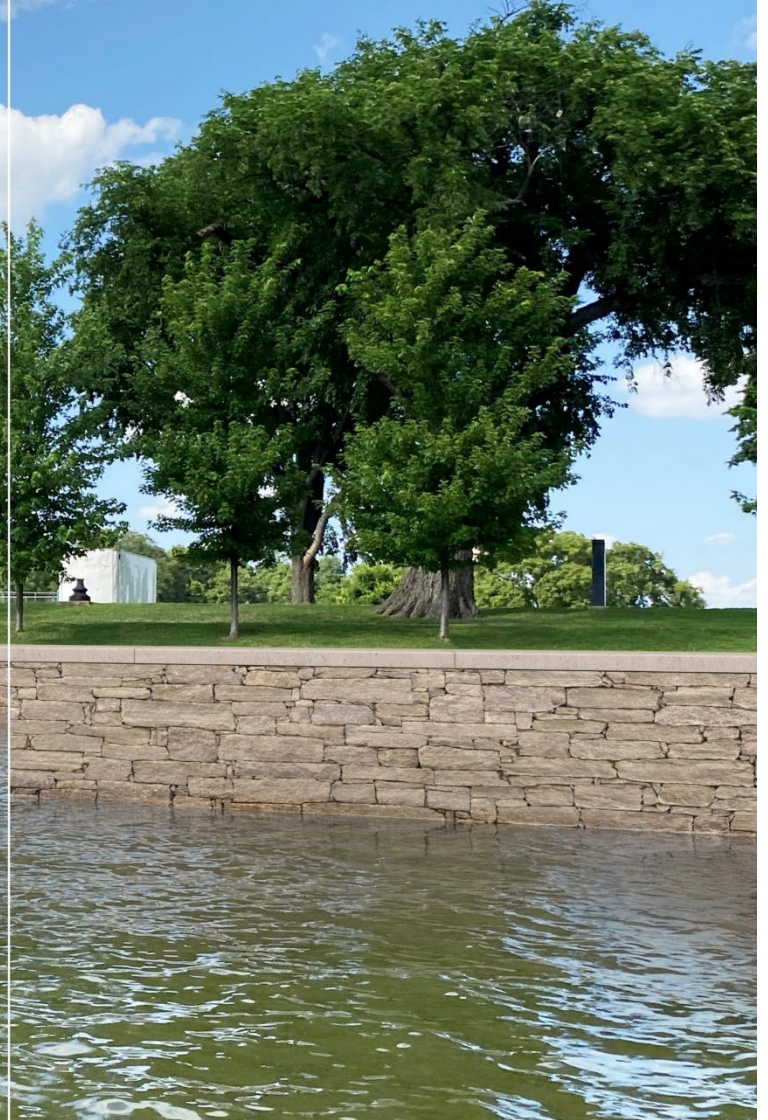
WEST POTOMAC PARK- RENDERING



EXISTING



PROPOSED – HIGH TIDE



PROPOSED – LOW TIDE



WEST POTOMAC PARK - RENDERING

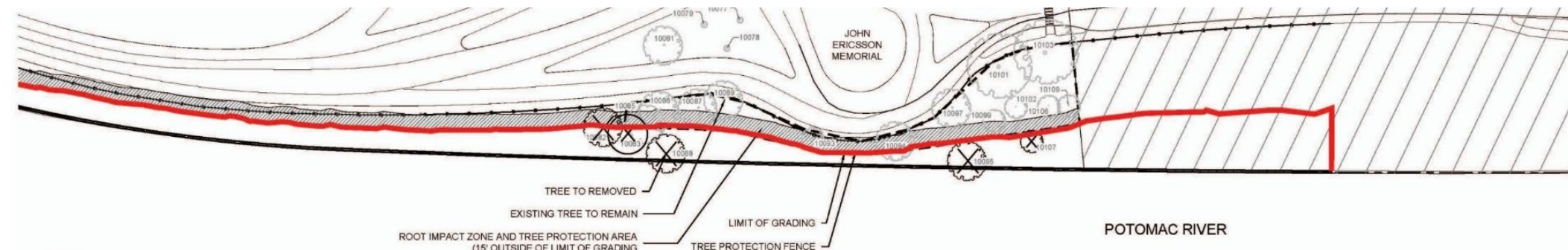
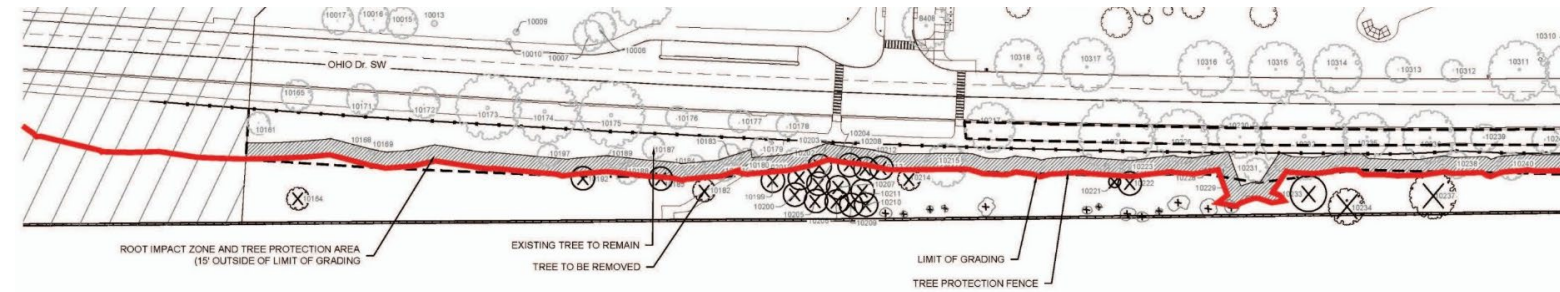
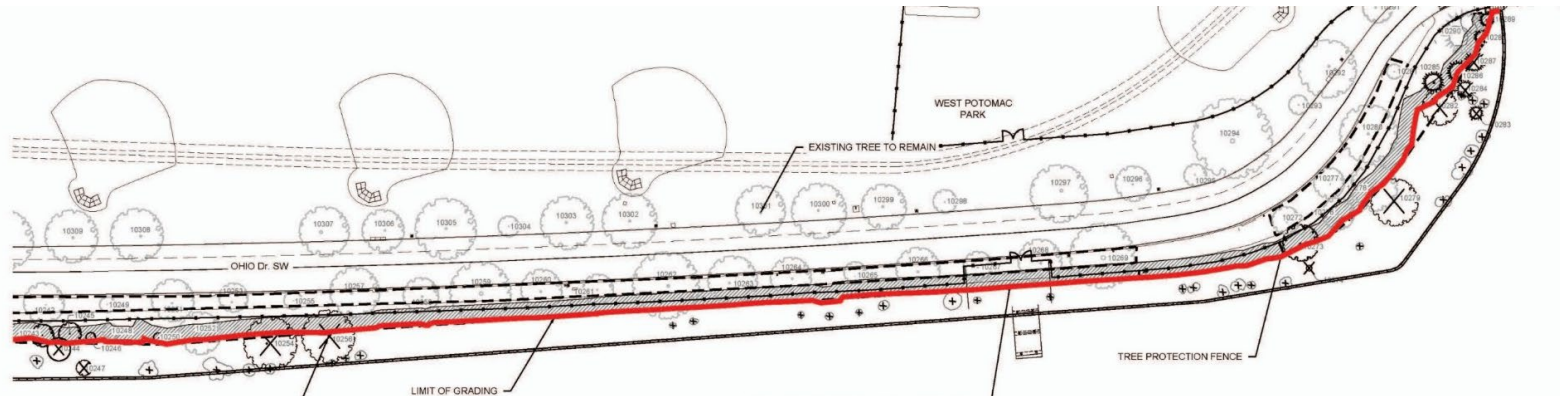
VIEW FROM VIRGINIA SHORELINE TO WEST POTOMAC PARK



EXISTING



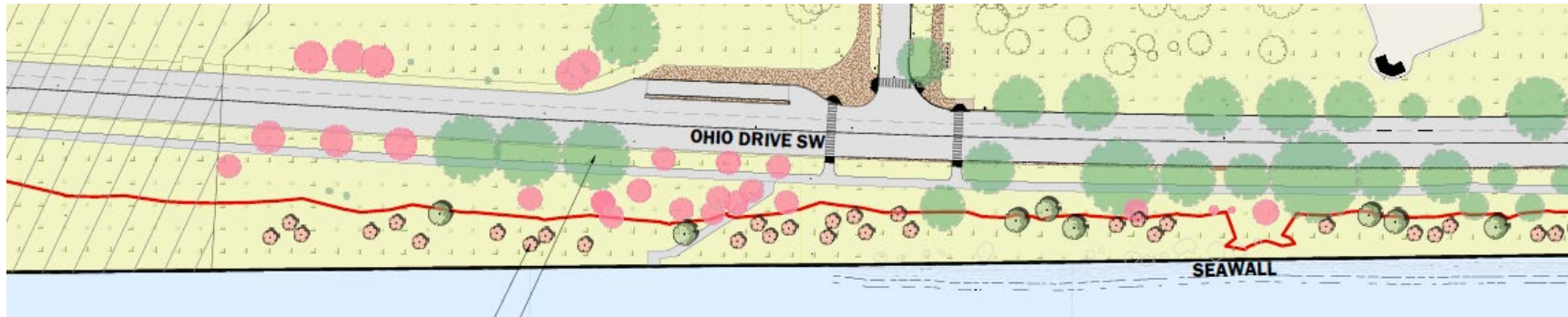
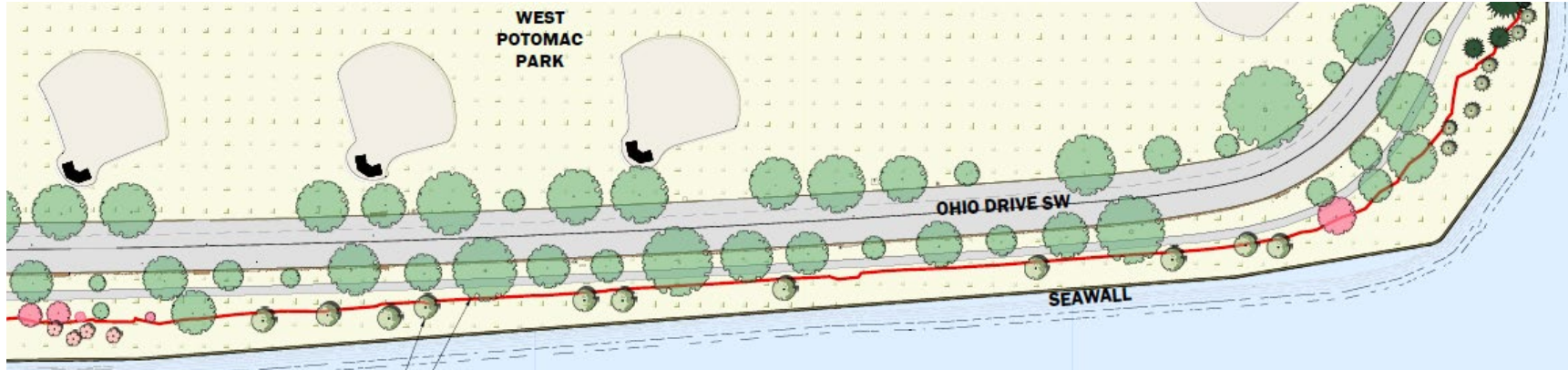
EXISTING VEGETATION PLAN – WPP



Totals for West Potomac Park

TYPE	# REMOVED	# PLANTED
Cherry	22	39
Deciduous	15	28
Evergreen	4	7
Unknown	1	0
TOTAL	42	74

PROPOSED PLANTING PLAN – WPP



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06

SCHEDULE



SCHEDULE

- Environmental Assessment Schedule
 - February 2023 – Publish
 - 30-day public comment period
- Commission Meeting Schedule
 - NCPC
 - Comments on Concept
 - 1/5/23 – NCPC Meeting - *Approved*
 - Preliminary Review
 - 3/2/23 – NCPC Meeting
 - CFA
 - Final Review
 - TBD



END OF PRESENTATION

In the bottom right corner, there are two parallel diagonal stripes. The top stripe is a dark blue color, and the bottom stripe is a light blue color. They extend from the bottom right towards the center of the slide.