



STAFFORD COUNTY CHESAPEAKE BAY BOARD
JUNE 17, 2024 MEETING PACKAGE



STAFFORD COUNTY CHESAPEAKE BAY BOARD

Agenda

Monday, June 17, 2024 at 6:00 pm

Board Chambers of the George L. Gordon, Jr. Government Center

- A. Call to Order
- B. Roll Call of Members
- C. Determination of a Quorum
- D. Approval of Meeting Minutes – January 22, 2024
- E. New Business

Public Hearing: AP24155700 – A Chesapeake Bay Special Exception Application (Resolution CBB24-03) for Mr. David Lynch, applicant, requesting a special exception under Sec. 27B-14 of the Stafford County Chesapeake Bay Preservation Area Ordinance (Chapter 27B) from the requirements of Sec. 27B-7 "Development Conditions" in order to construct three retaining walls within a portion of the Chesapeake Bay Resource Protection Area (CRPA) buffer located along Aquia Creek on Tax Map Parcel 40-59.

- F. Old Business
 - 1. Community outreach/website
 - 2. Available funds/account balances of the wetlands and Chesapeake Bay in-lieu-fees
- G. Chairman's Report
- H. Staff Report
- I. Adjournment

ROLL CALL



STAFFORD COUNTY CHESAPEAKE BAY BOARD

Roll Call

Monday, June 17, 2024 at 6:00 pm
Board Chambers of the George L. Gordon, Jr. Government
Center

CTO: _____ p.m.

<u>Members:</u>	Present	Absent
Sue Henderson	_____	_____
Mary Rust	_____	_____
Benjamin Rudasill	_____	_____
Anthony Pineau	_____	_____
Dan Adams	_____	_____
Robert Hayden	_____	_____
Zachary Harrison	_____	_____

<u>Staff:</u>	Present
Joe Fiorello	_____
Emily Torrey	_____
_____	_____
_____	_____
_____	_____
_____	_____

Adjourn: _____ p.m.

CHESAPEAKE BAY BOARD
JANUARY 22, 2024 DRAFT MEETING MINUTES



STAFFORD COUNTY CHESAPEAKE BAY BOARD

Meeting Minutes

Monday, January 22, 2024 at 6:00 p.m.

Board Chambers | George L. Gordon Government Center

A. Call to Order

The meeting was called to order at 6:00 p.m. by Paul Santay

B. Roll Call

Members Present: Sue Henderson (Chair), Mary Rust (Vice-Chair), Anthony Pineau, Dan Adams, and Benjamin Rudasill

Members Absent: Robert Hayden, Zachary Martinez

Staff Present: Paul Santay, Chief Director of Community Development; Joe Fiorello, Environmental Planner; and Savannah Wimbush, Development Services Administrative Manager

C. Determination of a Quorum

A quorum was established with 5 of the 7 members present.

D. Election of Officers

➤ Election of a Chairman

Mr. Santay called for the election of officers, starting with the nomination for the chair position. Ms. Rust nominated Ms. Henderson, which was seconded by Mr. Adams. After a brief discussion clarifying term limits, Ms. Henderson was unanimously elected as the chair.

➤ Election of a Vice-Chairman

Ms. Henderson called for nominations for the Vice Chair position. Mr. Pineau nominated Ms. Rust, and Mr. Rudasill seconded the nomination. Ms. Rust was elected as the Vice Chair unanimously.

E. Approval of Meeting Minutes

Mr. Rudasill made a motion to approve the January 30, 2023 Chesapeake Bay Board minutes.

Mr. Pineau seconded. The motion was unanimously approved.

F. New Business



Public Hearing #AP23155272 – Matan Crossroads requesting a special exception under Sec. 27B-14 of the Stafford County Chesapeake Bay Preservation Area Ordinance (Chapter 27B) from the requirements of Sec. 27B-7 "Development Conditions" in order to construct a second private entrance to the project site which will cross a perennial stream and impact a portion of the Chesapeake Bay Resource Protection Area (CRPA) buffer located on Tax Map Parcel 46-4.

Mr. Fiorello directed everyone's attention to the public hearing for CBB24-01, a resolution application concerning the Matan RPA crossing. He emphasized the criteria for special exceptions under Section 27B-14, detailing that the application should not confer special privileges, should not be based on self-created conditions, should be minimally necessary for relief, should align with the chapter's purpose, and should have reasonable conditions to prevent water quality degradation.

The proposed project involves impacting 20,834 square feet of RPA for a second entrance to the Matan Crossroads site. Mr. Fiorello provided details on the project location, tax map number, and background of the Crossroads Industrial project. He explained that the proposed mitigation includes revegetating side slopes, constructing BMPs for pollutant removal, and planting street trees along Richmond Highway to enhance water quality and stream protection. Matan Crossroads, LLC seeks approval for the proposed mitigation to compensate for the RPA loss.

During the presentation, Ms. Henderson inquired about the relevant attachment for the maps, which Mr. Fiorello clarified as Appendix B. He proceeded to elaborate on the proposed mitigation efforts, pointing out the BMP location, planting areas, and street trees. Despite technical difficulties with sharing visuals, Mr. Fiorello managed to convey the details effectively. He emphasized that the proposed mitigation aligns with county regulations and would sufficiently offset the RPA impacts.

Following the presentation, Mr. Pineau raised questions regarding the existing driveway's compliance with RPA regulations and the timing of mitigation efforts. Mr. Fiorello explained the historical context of the site, highlighting the stream's relocation by VDOT and the subsequent RPA designation. He clarified that the first crossing was always within the RPA, while the second crossing only came under RPA regulations after the stream relocation. Ms. Rust sought clarification on the project's timeline and the presence of a perennial stream, which Mr. Fiorello confirmed based on the 2011 approval documents.



Following the presentations by Mr. Wrisley from Matan Companies and Mr. Gagnon from Bowman Consulting, Ms. Henderson sought confirmation on the consistency between the current proposal and the 2011 approved plan for the second crossing, which Mr. Fiorello acknowledged. With no further questions for him, Ms. Henderson invited any additional comments from the presenters. Mr. Gagnon expressed their readiness to provide a brief presentation, which was followed by Mr. Wrisley's introduction of Matan Companies and their development objectives.

Mr. Wrisley provided an overview of Matan Companies' extensive experience in real estate investment and development, emphasizing their family-owned structure and focus on industrial and life science properties. He explained the necessity of a second entrance for the safety and efficiency of site circulation, especially for potential tenants in logistics, warehousing, and manufacturing. Additionally, Mr. Wrisley highlighted the impact of the second entrance on adjacent parcels, emphasizing the need for maximized development potential and enhanced emergency response capabilities.

After Mr. Wrisley's presentation, Mr. Gagnon from Bowman Consulting elaborated on the project's compliance with regulatory requirements. He outlined how the proposed second entrance aligns with previous approvals, meets the minimum necessary criteria for relief, and includes appropriate mitigation measures to prevent degradation of water quality. Mr. Duncanson further explained the design features of the proposed BMP bioretention facility and addressed concerns regarding floodplain proximity.

Board members engaged in a brief Q&A session seeking clarification on various aspects of the project, including easements, traffic management, and floodplain considerations. Mr. Duncanson provided detailed responses, confirming the design specifications and addressing concerns raised by Ms. Rust regarding floodplain proximity.

Ms. Henderson extended the opportunity for any additional comments or questions from attendees, ensuring inclusive participation in the discussion. Mr. Rhyne indicated he was present for a separate issue, and will address it at the conclusion of the hearing.

After Ms. Henderson clarified the options available to the board regarding the resolution, she read aloud a statement on behalf of Mr. Zack Martinez, who was unable to attend the meeting due to unforeseen travel delays. Mr. Martinez expressed concerns regarding the special exception request, specifically



citing that it appeared to arise from conditions related to adjacent parcels rather than being self-created or self-imposed. He referenced an excerpt from the applicant's statement regarding changes made by VDOT, indicating that the request stemmed from activities on the subject parcel rather than those of adjacent properties. Mr. Martinez's statement urged the board to consider this information during deliberations.

After the reading and discussion of Mr. Martinez's comments, Ms. Henderson proceeded to clarify the options available to the board regarding the resolution: either to approve (CBB24-01), deny (CBB24-02), or defer the decision. Mr. Fiorello clarified the timeline for making a decision, noting the requirement to determine within 30 days if deferring.

During the discussion, Ms. Rust raised a question regarding the application conditions, which Mr. Fiorello clarified were written into the resolution. Mr. Pineau inquired about addressing Mr. Martinez's concerns, prompting Mr. Gagnon to explain that the request did not arise from self-imposed conditions but rather from activities on the subject parcel.

Following this, Ms. Henderson sought a motion to accept either resolution CBB24-01 or CBB24-02. However, she first expressed a question regarding pedestrian safety, to which Mr. Wrisley clarified that the concern was primarily about employee traffic rather than pedestrians on Route One.

After some additional clarifications, Ms. Henderson proceeded to read and amend resolution CBB24-01, making corrections to dates and wording based on input from the board members. Upon completion of the amendments, Mr. Pineau motioned to approve CBB24-01, which was seconded by Ms. Rust.

After a brief discussion and no further comments, Ms. Henderson called for a vote, which resulted in unanimous approval of the resolution. She then thanked the attendees for their participation and attendance, concluding the discussion on the special exception permit application.

Public Comment – Peter Rhyne of 85 Clift Farm Road

Prior to moving to Old Business, Mr. Santay requested an amendment to the agenda to allow for a public comment portion, specifically to accommodate Mr. Rhyne's request to address the board. This addition to the agenda was proposed due to the unusual circumstance of public attendance and interest



in the meeting. Mr. Pineau motioned to amend the agenda accordingly, and Ms. Rust seconded the motion. The board then voted unanimously in favor of the amendment.

Mr. Rhyne expressed concerns about a proposed subdivision's potential impact on the environment, particularly due to its proximity to a critical resource protection area (RPA) housing a perennial stream. He highlighted the risks of urbanization on water quality and wildlife habitats, citing expert opinions and urging the board to scrutinize the development's environmental impact. Mr. Rhyne emphasized the need for measures to mitigate stormwater runoff and chemical pollution, suggesting exploration of options like the Purchase of Development Rights (PDR) program. Despite limitations on immediate action, the exchange underscored the importance of considering environmental concerns in future deliberations on the proposed development.

Ms. Henderson sought clarification on the location of the proposed development, ensuring that it was southeast of Crow's Nest, and prompted Mr. Rhyne to elaborate on discussions with the Historic Commission. Mr. Santay provided insights into the potential eligibility of the property for the Purchase of Development Rights (PDR) program, suggesting further discussions with the relevant county authorities.

Despite the limitations on the board's immediate action, Ms. Henderson expressed appreciation for the proactive approach and advance notice provided by Mr. Rhyne, acknowledging the importance of considering environmental concerns in future deliberations on the proposed development.

G. Old Business

The meeting proceeded to discuss old business, starting with an inquiry from Ms. Henderson about updates on community outreach and website development. Mr. Fiorello and Ms. Wimbush indicated they had no new information. Ms. Henderson expressed frustration with the lack of progress, suggesting that the matter needs to be prioritized.

Mr. Santay interjected, acknowledging the board's efforts but emphasizing resource constraints within Development Services and the County. He suggested that while the county is supportive, current priorities lie elsewhere due to staffing limitations. Ms. Henderson responded by encouraging board members to reach out to their representatives to elevate the issue's priority.



The discussion then shifted to available funds from Wetlands and Chesapeake Bay in-lieu fees. Mr. Santay provided details on the Tidal Wetlands Fund, which contains approximately \$180,000. Ms. Rust shared insights from discussions with Ken Benson from DCR, highlighting the success of a similar project in Prince William County funded by in-lieu fees.

Ms. Henderson clarified the permissible use of these funds, which include projects within the locality aimed at the creation or restoration of environmentally beneficial initiatives. She suggested potential projects such as living shorelines at Aquia Landing, Crow's Nest, or Falmouth Beach. Mr. Santay agreed to explore these options further.

Subsequently, Mr. Fiorello reported on compliance plan applications submitted in the past year, noting 19 applications and 19 approved perennial flow determinations. Ms. Henderson expressed gratitude for the detailed tracking of these numbers and requested a formal report.

H. Chairman's Report

None

I. Staff Report

None

J. Adjournment

With no further business to discuss, Mr. Rudasill made a motion to adjourn. The motion was seconded by Mr. Pineau. The Chesapeake Bay Board meeting adjourned at 7:26 p.m.

**NEW BUISNESS:
LYNCH RETAINING WALLS
CRPA SPECIAL EXCEPTION
APPLICATION AND STAFF REPORT**



STAFFORD COUNTY
DEPARTMENT OF PLANNING AND ZONING
1300 Courthouse Road, Stafford VA 22554
Phone: 540-658-8668 Fax: 540-658-6824
www.staffordcountyva.gov

CHESAPEAKE BAY BOARD SPECIAL EXCEPTION APPLICATION PACKET

- The following items are included within this packet:
 1. Pre-Application Conference Sheet
 2. Chesapeake Bay Board Application Question and Answers
 3. Stafford County Code Section 27B-14
 4. Application
 5. Owners Consent Form
 6. Water Quality Impact Assessment Form & Stafford County Code Section 27B-10
- Please be advised that applicants are required to schedule a pre-application meeting with the Environmental Planning staff prior to submitting their application. The applicant would then need to schedule a second meeting to officially submit their application. ***Failure to comply with the application requirements, including providing all of the required information, may result in the matter being delayed until such time as all requirements have been fulfilled.*** Appointments may be scheduled by calling the office of Planning and Zoning at 540-658-8668.
- If an application is withdrawn prior to the first public hearing, fifty (50) percent of the amount of the application fee may be refunded to the applicant.

Fees are as follows: ***Individual Residential \$600.00 per Special exception***
Other \$1,375.00 per Special exception

A 2.75% technology fee will be assessed and collected on the total fees.
- The Chesapeake Bay Board meets the third Monday of every month. Due to required public notice, complete applications must be received by the third Monday one month prior to the scheduled meeting.



STAFFORD COUNTY
DEPARTMENT OF PLANNING AND ZONING

1300 Courthouse Road, Stafford VA 22554

Phone: 540-658-8668 Fax: 540-658-6824

www.staffordcountyva.gov

Pre-Application Conference – Checklist (to be completed by staff)

Pre-application conference date: Site meeting with Joe Fiorello on 5/3/2024

Owner and/or applicant: David and Karin Lynch

Application for: *Special Exception* COMMERCIAL ☐ RESIDENTIAL ☒

The following information must be submitted with the completed application and fee:

Completed Application

Owner's Consent form (*Provide if applicant is not the owner of the property.*)

Site Plans(including wetlands and CRPA buffer)

A Major Water Quality Impact Assessment

Other:

Applications must be completed and returned no later than _____ in order to be heard at the meeting scheduled for _____. **Meetings are held at 7:00 p.m. in the Board of Supervisor's Chambers and you or a representative must be present.**

NOTE: This form must be submitted with the completed application, affidavit, all of the above and fee of \$_____.

Staff Member Signature



STAFFORD COUNTY
DEPARTMENT OF PLANNING AND ZONING

CBB SPECIAL EXCEPTION APPLICATION

1. **What is a special exception?** – A reasonable deviation from those provisions in the Chesapeake Bay Protection Area (CBPA) ordinance in cases where a development proposal cannot meet the regulatory requirements due to a unique set of circumstances and conditions. Such a need for a special exception would not be shared generally by other properties, and provided such special exception is not contrary to the intended spirit and purpose of Chapter 27B.
2. **Who can grant a special exception to the Chesapeake Bay Protection Area (CBPA) ordinance?** – The Chesapeake Bay Board has the authority to grant special exceptions in cases where strict application of the CBPA Ordinance would result in unnecessary hardship for the property owner.
3. **What is the Chesapeake Bay Board** – The CBB is a five-member board comprised of the Wetlands Board. The Wetlands Board/CBB members are at-large County residents appointed by the Board of Supervisors. The CBB will hear and consider requests for special exceptions to the Stafford County CBPA Ordinance.
4. **What is the basis for a special exception to the CBPA ordinance?** – The CBB must make the following five findings in order to approve a request for a special exception, as set forth in Section 27B-14(d):
 - Granting the special exception will not confer upon the applicant(s) any special privileges denied by this chapter to other property owners who are subject to its provisions and who are similarly situated;
 - The special exception request is not based on any conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or non-conforming that are related to adjacent parcels;
 - The special exception request is the minimum necessary to afford relief;
 - The special exception request will be consistent with the purpose and intent of this chapter, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and
 - Reasonable and appropriate conditions are imposed which will prevent the special exception request from causing a degradation of water quality.
5. **What is a water quality impact assessment?** The exception process is intended to identify the minimum relief necessary to permit the proposed use. To assist in this determination, a Water Quality Impact Assessment (WQIA) which meets the requirements found in Section 27B-10 is to be used in evaluating the site of the proposed exception, the potential effects of the exception, and for identifying mitigation measures that are appropriate to counteract those effects.

6. **What is the application process?** – Special exception applications must be filed with the Department of Planning and Zoning.
- A pre-application conference is held between the applicant and a staff member from the Planning and Zoning Department. A solution may be discovered without the need for a special exception.
 - A complete special exception application with original signatures, all associated materials and the application fee by the established deadline.
 - The Department of Planning and Zoning will advertise the special exception request as a notice of public hearing once a week for two consecutive weeks prior to the hearing date in the local newspaper. The notice will specify the date, time and place of the hearing so persons affected may appear and present their views. In addition, the Planning and Zoning Department will notify adjacent property owners of the requested special exception and hearing date.
 - A member of the Planning and Zoning Department will prepare a staff report that will accompany the special exception application and both will be forwarded to the members of the CBB for their review before the meeting date.
 - At the public hearing the CBB will approve, deny or defer the special exception request until a later date after hearing the applicant and all interested parties.
7. **How long does a typical special exception process take?** – The average special exception process is approximately four weeks from submission of a complete application to action.
8. **What if I want to appeal the decision of the CBB?** – Any one aggrieved by a decision of the CBB has thirty (30) days to appeal the decision to the Stafford County Board of Supervisors.



CHESAPEAKE BAY PRESERVATION AREA ORDINANCE

Sec. 27B-14. - Special exceptions.

- (a) The board shall be comprised of all of the members of the county's wetlands board.
- (b) A request for a special exception to the requirements of [section 27B-7](#) and subsection [27B-8\(b\)](#) of this chapter shall be made in writing to the board. The request shall identify the impacts of the proposed exception on water quality and on lands within the CRPA through the performance of a water quality impact assessment which complies with the provisions of [section 27B-10](#) of this chapter.
- (c) No later than sixty (60) days after receipt of a complete special exception request, the board shall hold a public hearing on the request. The board shall hold a public hearing in accordance with Code of Virginia § 15.2-2204, except that only one hearing shall be required. The board shall cause notice of the hearing to be published at least once a week for two (2) weeks prior to such hearing in a newspaper of general circulation in this county. When giving any notice to the owner(s), their agent(s), or the occupant(s) of abutting property and property immediately across the street or road from the property affected, the notice shall be given by first-class mail to the last known address as shown on the current real estate tax assessment book or records. The board shall mail these notices not less than twenty (20) days prior to the date set for the hearing.
- (d) The board shall review the request for a special exception and the water quality impact assessment. The board may grant the special exception, with such conditions and safeguards as deemed necessary to further the purpose and intent of this chapter, if the board finds:
 - (1) Granting the special exception will not confer upon the applicant(s) any special privileges denied by this chapter to other property owners who are subject to its provisions and who are similarly situated;
 - (2) The special exception request is not based on any conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or nonconforming that are related to adjacent parcels;
 - (3) The special exception request is the minimum necessary to afford relief;
 - (4) The special exception request will be consistent with the purpose and intent of this chapter, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and
 - (5) Reasonable and appropriate conditions are imposed which will prevent the special exception request from causing a degradation of water quality.
- (e) The board shall make its determination within thirty (30) days of the public hearing. If the board fails to act within that time, the application shall be deemed approved.
- (f) If the board denies the special exception, the board shall provide the applicant(s) with the board's written decision, including its rationale.

STAFFORD COUNTY
Department of Planning and Zoning



CHESAPEAKE BAY BOARD
SPECIAL EXCEPTION APPLICATION

RECEIVED BUT NOT OFFICIALLY SUBMITTED
DATE: _____ INITIALS _____

OFFICIALLY SUBMITTED

DATE: _____ INITIALS _____

TYPE OF APPLICATION

INDIVIDUAL RESIDENTIAL ☒ **OTHER** ☐

APPLICATION NUMBER _____

APPLICANT INFORMATION

David Lynch

NAME

7308 Mallory Circle

STREET ADDRESS

Alexandria

VA

22315

CITY

STATE

ZIP

703-304-7552

PHONE

CELL

FAX

David.Lynch@cpeworldwide.com

EMAIL

OWNER INFORMATION (If different from the Applicant)

David Lynch

NAME

7308 Mallory Circle

Alexandria

VA

22315

ADDRESS

CITY

STATE

ZIP

703-304-7552

PHONE NUMBER

CELL

FAX NUMBER

David.Lynch@cpeworldwide.com

EMAIL ADDRESS

PROPERTY INFORMATION

40-59

3

1.2779 ACRES

TAX MAP

SECTION

PARCEL/LOT#

LOT SIZE

Widewater Beach / Part of Arkendale

A-1

SUBDIVISION

ZONING DISTRICT

Single Family Residential

Single Family Residential

EXISTING USE

PROPOSED USE

Agricultural / Rural

Griffis-Widewater

COMPREHENSIVE PLAN DESIGNATION

MAGISTERIAL DISTRICT

FOR OFFICE USE ONLY

APPLICATION APPROVED BY _____

DATE _____

RESOLUTION # _____

APPLICATION # _____

FEES PAID:

☐ YES

☐ NO

GENERAL INFORMATION

- ❖ What code section of the Chesapeake Bay Protection Area ordinance is the applicant seeking relief from as a result of a special exception?

Chapter 27B, Section 3 (1) a.4 which pertains to CRPA

- ❖ Are there any special zoning conditions applicable to the property (including a conditional use permit, special exception, variance, development proffers, vesting determination)? ☐ Yes ☒ No

If yes, please specify _____

- ❖ Is the subject property located within a flood district? ☐ Yes ☒ No

If yes, please specify which one _____

- ❖ County Water & Sewer? ☐ Private Well & Septic? ☒

SPECIAL EXCEPTION JUSTIFICATION

Please provide a statement of justification for the requested special exception. Be aware that the Board must make the following five findings in order to approve a request for a special exception, as set forth in Section 27B-14(d):

- (1) Granting the special exception will not confer upon the applicant(s) any special privileges denied by this chapter to other property owners who are subject to its provisions and who are similarly situated;
- (2) The special exception request is not based on any conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or nonconforming that are related to adjacent parcels;
- (3) The special exception request is the minimum necessary to afford relief;
- (4) The special exception request will be consistent with the purpose and intent of this chapter, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and
- (5) Reasonable and appropriate conditions are imposed which will prevent the special exception request from causing a degradation of water quality.

The purpose of this application is to request permission to construct a tiered retaining wall system as part of a shoreline stabilization project on the subject property. The tiered wall system consists of three walls, spaced at fifteen feet, between 30" and 36" in height. The walls are roughly 330 feet in length along the existing steep slope at the waters edge. The wall blocks are 12" thick, Keystone or similar mechanically stabilized earth (MSE) system. The addition of the walls has been interpreted by staff as an increase in impervious area.

The existing slope from the toe near the waterline to the top of slope is at roughly a 1.5H:1V slope and exhibits signs of shear failure in several area. This project will flatten the slope to a 3H:1V between the walls, thus reducing runoff velocity and stabilizing the slope. The area will be planted with native vegetation in accordance with the Virginia RPA manual.

An existing timber stairway leading down the slope will be replaced with stone pavers.

The total area within the RPA that is disturbed is 11,740 SF.

The existing impervious area (to be removed) within the RPA is 132 SF.

The proposed impervious area within the RPA is 969 SF (258 SF stairway and 711 SF wall blocks)

There is therefore a net increase in impervious area of 837 SF.

AUTHORIZATION

- ❖ *The undersigns declares that the above statements and those contained in any exhibits transmitted to the Chesapeake Bay Board are true.*
- ❖ *The applicant or a representative for the applicant must attend the meeting.*

David Lynch

Digitally signed by David Lynch
Date: 2024.05.14 06:35:18 -04'00'

May 14, 2024

Owner/Applicant's Signature (Circle One)

Date

- ❖ Was an Owner's Consent form provided? ☐ Yes ☐ No ☐ Not Required



STAFFORD COUNTY

DEPARTMENT OF PLANNING AND ZONING

WATER QUALITY IMPACT ASSESSMENT

A scaled site drawing, which shows the following, must be attached to this water quality impact assessment:

1. Location of the components of the RPA, including the 100-foot buffer area;
2. Location and nature of any proposed encroachment into the buffer area, including, type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; sewage disposal systems or reserve drainfield sites; and wells.
3. Type and location of proposed best management practices to mitigate the proposed encroachment;
4. Location of existing vegetation onsite, including the number, type of trees, caliper and other vegetation to be removed in the buffer to accommodate the encroachment or modification; and
5. Type, size, and location of replacement vegetation.

Site Conditions (of site and adjacent lands):

Existing Topography: Steep in area of applicability Hydrology: Pre and post areas are pervious, adding 969 SF of wall and stairs
Soils Map Unit/Name: c % Slope: 45 Geology: Tetotum fine sandy loam
Fill Material (source and composition): There is no proposed fill for this project. A geotechnical engineer has been retained for QC.
Total Amount of Disturbed Area (ft²): 11,740 Total Amount of Cleared Area(ft²): 11,740
Estimation of Pre and Post Development Pollutant Loads: Pre-devel TP = 0.11 lb/yr; Post-devel TP = 0.06 lb/yr
Other By reducing slope between walls, runoff and erosion will be reduced

Existing Vegetation:

Total Underbrush / Grass Removed (ft²): 11,740 Types: Grass and juniper
Number of Healthy Trees Removed: 2 Types: Gum
Number of Trees Limbed or Pruned: 0 Types: _____
Number of Dead/Dying/Diseased Trees Removed: _____ Types: _____
Other: _____

Proposed Landscaping / Vegetation Mitigation Measures (App. D, CBLAD Buffer Modification Manual)

Number of New Canopy Trees Proposed: 30 Types: Various native - see plan
Number of New Understory Trees Proposed: 60 Types: Various native - see plan
Number of New Shrubs Proposed: 90 Types: Various native - see plan
Other: _____

Proposed Erosion and Sedimentation Control Practices:

- ☒ Silt Fencing ☒ Temporary Construction Entrance ☐ Straw Bale Barrier(s)
☐ Inlet Protection ☐ Temporary/Permanent Seeding Mulching
☒ Tree Protection Sediment Trap
☐ Other: _____

Proposed Best Management Practices:

- ☐ Dry Well(s) ☐ Infiltration Trench(es) ☐ Vegetated Filter Strip(s) ☐ Grass Swale(s)
Other: _____

BMP design dimensions: _____

Wastewater (Septic) Element (if needed):

Attach legible, clean copy of Health Department Approval Information- to include calculations and dimensions.

Description of potential impacts of the proposed wastewater systems including any proposed mitigation measures for the impacts:

Septic system is not impacted by this project. Existing and proposed fields are in the front yard.



CHESAPEAKE BAY PRESERVATION AREA ORDINANCE

Sec. 27B-10. - Water quality impact assessment.

- (a) Purpose and intent. The purpose of the water quality impact assessment is to:
 - (1) Identify the impacts of proposed land disturbance, development, or redevelopment on water quality and lands within the county;
 - (2) Provide for administrative relief from the terms of this chapter when warranted and in accordance with the requirements contained herein; and
 - (3) Specify mitigation which will address water quality protection.
- (b) When required. A water quality impact assessment is required for:
 - (1) Any proposed land disturbance, development, or redevelopment within a CRPA, including any buffer area encroachment;
 - (2) Any land disturbance, development, or redevelopment in a LRMA as deemed necessary by the administrator due to the unique characteristics of the site or intensity of the proposed development. When requested by the applicant proposing to construct a single-family residence in the CRPA, the administrator shall perform a water quality impact assessment;
 - (3) The water quality impact assessment shall not be required prior to submission of a site plan or application for a single-family residence building permit; and
 - (4) There shall be two (2) levels of water quality impact assessments: a minor assessment and a major assessment.
- (c) Minor water quality impact assessment. A minor water quality impact assessment pertains only to land disturbance, development or redevelopment within CRPAs which causes no more than five thousand (5,000) square feet of land disturbance and requires any encroachment into the landward fifty (50) feet of the one hundred-foot buffer area. A minor assessment must demonstrate through acceptable calculations that the remaining buffer and necessary BMPs will result in removal of no less than seventy-five (75) percent of sediments and forty (40) percent of nutrients from post-development stormwater runoff. A minor assessment shall include a site drawing to scale which shows the following:
 - (1) Location of the components of the CRPA, including the one hundred-foot buffer area;
 - (2) Location and nature of the proposed encroachment into the buffer area, including: type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; and sewage disposal systems or reserve drain field sites;
 - (3) Type and location of proposed BMPs to mitigate the proposed encroachment;
 - (4) Location of existing on-site vegetation, including the number and type of trees and other vegetation to be removed in the buffer area to accommodate the encroachment or modification; and

- (5) A re-vegetation plan that supplements the existing buffer area vegetation in a manner that provides for pollutant removal, erosion and runoff control.
- (d) Major water quality impact assessment. A major water quality impact assessment shall be required for any land disturbance, development or redevelopment which exceeds five thousand (5,000) square feet of land disturbance within CRPAs and requires any encroachment into the landward fifty (50) feet of the one hundred-foot buffer area, or disturbs any portion of the seaward fifty (50) feet of the one hundred-foot buffer area or any other components of an CRPA, or is located in an LRMA and is deemed necessary by the administrator. The information required in this section shall be considered a minimum, unless the administrator determines that some of the elements are unnecessary due to the scope and nature of the proposed use and development of land.

A water quality impact assessment shall not be required for commercial or industrial uses that disturb less than twenty thousand (20,000) square feet of land or individual single-family lots, located within the LRMA and outside the CRPA. The following elements shall be included in the preparation and submission of a major water quality assessment:

- (1) All of the information required in a minor water quality impact statement, as specified in subsection 27B-10(c) of this chapter;
- (2) A hydrogeological element which shall:
 - a. Describe the existing topography, soils, hydrology, and geology of the site and adjacent lands;
 - b. Describe the impacts of the proposed development on topography, soils, hydrology and geology on the site and adjacent lands; and
 - c. Indicate the following:
 1. Disturbance or destruction of wetlands in CRPAs and justification for such action;
 2. Disruptions or reductions in the supply of water to wetlands, streams, lakes, rivers, or other water bodies;
 3. Disruptions to existing hydrology, including wetland and stream circulation patterns;
 4. Description of proposed fill material;
 5. Location of dredge material and location of dumping area for such material;
 6. Estimation of pre-development and post-development pollutant loads in runoff;
 7. Estimation of percent increase in impervious surface on-site and types of surfacing materials used;
 8. Percent of the site to be cleared for the project;
 9. Anticipated duration and phasing schedule of construction project;
 10. List of all requisite permits from all applicable agencies necessary to develop project; and
 11. Descriptions of the proposed mitigation measures for the potential hydrogeological impacts. Potential mitigation measures may include, but are not limited to:
 - (i) Proposed erosion and sediment control concepts. Concepts may include minimizing the extent of the cleared area, perimeter controls, reduction of runoff velocities, measures to stabilize disturbed areas, and schedule and personnel for site inspection;
 - (ii) Proposed stormwater management system; and
 - (iii) Minimizing excavation and fill.
- (3) A landscape element for areas within CBPAs that:

- a. Identifies the general location of all significant onsite plant material. Where there are groups of trees, stands may be outlined;
 - b. Describes the impacts the development or use will have on the existing vegetation. Information shall include:
 1. General limits of any clearing, based on all anticipated improvements including buildings, drives and utilities;
 2. Clear delineation of all trees which will be removed; and
 3. General description of any plant material to be disturbed or removed.
 - c. Describes the potential measures for mitigation. Possible mitigation measures may include, but are not limited to:
 1. Replanting schedule for vegetation removed for construction, including a list of possible planting materials to be used;
 2. Demonstration that the design of the plan will preserve any significant vegetation on the site to the greatest extent possible; and
 3. Demonstration that indigenous plants are to be used to the greatest extent possible.
- (4) A wastewater element, where applicable, that:
- a. Includes calculations and locations of anticipated drainfield or wastewater irrigation areas;
 - b. Provides justification for sewer line locations in CBPAs, where applicable, and describes construction techniques and standards;
 - c. Addresses any proposed on-site collection and treatment systems, their treatment levels, and impacts on receiving watercourses; and
 - d. Describes the potential impacts of the proposed wastewater systems, including the proposed mitigation measures for these impacts.
- (5) Identification of the existing characteristics and conditions of sensitive lands included as components of CRPAs, as defined in this chapter.
- (6) A general identification of the natural processes and ecological relationships inherent in the site, and an assessment of the impact of the proposed use and development of land on these processes and relationships.
- (e) Submission and review requirements.
- (1) One paper copy and one digital copy of all site drawings and other applicable information as required by subsections (c) and (d) of this section shall be submitted to the administrative authority for review.
 - (2) All information required in this section shall be certified as complete and accurate by a professional practicing in his field of competence.
 - (3) A major or minor water quality impact assessment shall be prepared and submitted to and reviewed by the administrative authority in conjunction with plan submission.
 - (4) As part of any major water quality impact assessment submittal, the administrator may require review by DEQ Water Division-Office of Local Government Programs staff. Upon receipt of a major water quality impact assessment, the administrator will determine if such review is warranted and may request DEQ staff to review the assessment and respond with written comments. Comments by DEQ staff will be incorporated into the final review by the administrator, provided that such comments are provided by DEQ staff within ninety (90) days of the date of the administrator's request.

(f) Evaluation procedure.

- (1) Upon the completed review of a minor water quality impact assessment, the administrator will determine if any proposed modification or reduction to the buffer area is consistent with the provisions of this chapter and make a finding based upon the following criteria:
 - a. The justification for the proposed encroachment and the ability to place improvements elsewhere on the site to avoid disturbance of the buffer area;
 - b. Minimization of impervious surface;
 - c. The extent to which proposed BMPs achieve the requisite reductions in pollutant loadings;
 - d. The extent which the development proposal meets the purpose and intent of this chapter; and
 - e. The cumulative impacts (degradation) on water quality of the proposed development, when considered in relation to other existing and proposed development in the vicinity.
- (2) Upon the completed review of a major water quality impact assessment, the administrator will determine if the proposed development is consistent with the purpose and intent of this chapter and make a finding based upon the following criteria:
 - a. Within any CRPA, the proposed development is water-dependent;
 - b. The disturbance of any wetlands in CRPAs will be minimized;
 - c. The development will not result in significant disruption of the hydrology of the site;
 - d. The development will not result in significant degradation to aquatic vegetation or life;
 - e. The development will not result in unnecessary destruction of plant materials on-site;
 - f. Proposed erosion and sediment control concepts are adequate to achieve the reductions in erosion and prevent off-site sedimentation;
 - g. Proposed stormwater management concepts are adequate to control the stormwater runoff to achieve water quality control in accordance with county Code chapter 21.5;
 - h. Proposed revegetation of disturbed areas will provide adequate erosion and sediment control benefits;
 - i. The design and location of any proposed drainfield will be in accordance of this chapter;
 - j. The development, as proposed, is consistent with the purpose and intent of this chapter; and
 - k. The cumulative impact of the proposed development, when considered in relation to other development in the vicinity, both existing and proposed, will not result in a significant degradation of water quality.
- (3) The administrator shall require additional information where it is determined that potential impacts have not been adequately addressed. The administrator may require additional mitigation measures based on the criteria listed in subsections (f)(2)a. and (f)(2)b. of this section.
- (4) The administrator shall find the proposal to be inconsistent with the purpose and intent of this chapter when the impacts created by the proposal cannot be mitigated. Evaluation of the impacts will be made by the administrator based on the criteria listed in subsections (f)(1) and (f)(2) of this section.



MEMORANDUM TO: Stafford County Chesapeake Bay Board

**SUBJECT: AP# 24155700; Special Exception Application Staff Report;
CBB24-03; Lynch Retaining Walls**

1. Water Quality Impact Assessment
2. Wetlands Joint Permit Application
3. Site Maps
4. Adjacent Property Owners Notification
5. Proposed Resolutions
6. Power Point Presentation
7. Old Business; Chairman's Report; Staff Report

The applicant requests permission to construct a tiered retaining wall system as part of a shoreline stabilization project (AP24155700). The tiered wall system will consist of 3 walls spaced 15 feet apart at a height between 30 to 36 inches. The proposed walls are roughly 330 linear feet at a width of 12 inches. The blocks used in constructing the walls will be Keystone or similar mechanically stabilized earth (MSE) system. The construction of the retaining walls will require disturbing approximately 11,740 square feet of Chesapeake Bay Resource Protection Area (CRPA) buffer. The proposed disturbance of the CRPA area will involve grading, construction of the three walls, and replanting of the CRPA based on the Riparian Buffers Modification and Mitigation Guidance Manual, 2006.

The proposed retaining walls are part of a larger project involving a Virginia Marine Resources Commission (VMRC) wetlands permit application (VMRC# 20241042) for bulkhead repairs and a Group II living shoreline. The repairs to the bulkhead do not require a wetlands board hearing since the work to be conducted is entirely within VMRC jurisdiction. The construction of a Group



If living shoreline requires the wetlands board and VMRC to review the application concurrently to determine the following.

- The application is sufficiently complete to allow evaluation.
- The project satisfactorily meets the general permit criteria.
- The adjoining property owners to the proposed project have been notified and expressed no opposition to the project.
- The general permit process is appropriate to use for the specific project

BACKGROUND:

The property is located on Tax Map Parcel 40-59 within the Griffis-Widewater Election District. The property is zoned A1; was platted prior to the adoption of the Chesapeake Bay Act ordinances, contains a single-family residential structure; a partial bulkhead; and a pier. Based on aerial photographs the house was built sometime between 1937 – 1954, and is readily visible in the 1983 aerial photograph of the area. The pier shows up in the 1954 aerial photograph of the area and was replaced in 2015 under wetlands permit application VMRC#20150496. The 2015 wetland permit application for the replacement of the pier showed that the bulkhead was in existence at that time. The 2022 aerial shows the majority of the CRPA to be void of woody vegetation.

Mr. David Lynch and his wife Karin purchased the property in February of 2019 with the visions of creating their dream home by renovating and expanding the existing home outside of the CRPA buffer. Part of this task involves the revitalization of the shoreline and is the focus of this Special Exception request.

PROPOSED CRPA IMPACTS and MITIGATION:

The proposed grading, construction of the three retaining walls, and replanting within the CRPA of the property will involve disturbing 11,740 sq. ft. of the seaward 50 feet of the CRPA located on site. Replanting will also occur in some areas of the property that are located outside of the CRPA as mitigation for the void of vegetation within the landward 50-foot portion of the CRPA originally used for the residential structure and a small backyard. This is a normal practice to accommodate a residential structure on a pre-Chesapeake Bay lot while still providing vegetation mitigation over the entire property. The planting plan was designed with the use of the Riparian Buffers Modification and Mitigation Guidance Manual and proposes 30 canopy trees, 60 understory trees and 90 shrubs.



ROLE OF THE BOARD:

The board may decide to grant, grant in modified form, or deny a Special Exception application. A decision requires a weighing and balancing of all beneficial and detrimental factors relevant to a proposal, leading to a permit decision that reflects the outcome of that balancing process, known as a public interest review. The local Chesapeake Bay Board has the power to modify an application so that the approved permit meets the purpose of the Chesapeake Bay Act. In making this determination, the local Chesapeake Bay Board must:

1. Review the request for a special exception and the water quality impact assessment;
2. Find that the Wetlands Joint Permit Application meets the 4 criteria of the Group II living shoreline guidance.
3. Hear the testimony of any person in support of or in opposition to the permit;
4. Find that granting the special exception will not confer upon the applicant's any special privileges denied by this chapter to other property owners who are subject to its provisions and who are similarly situated;
5. Find that the special exception request is not based on any conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or nonconforming that are related to adjacent parcels;
6. Find that the special exception request is the minimum necessary to afford relief;
7. Find that the special exception request will be consistent with the purpose and intent of this chapter, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and
8. Find that reasonable and appropriate conditions are imposed which will prevent the special exception request from causing a degradation of water quality.

If any the criteria above are not met, the board shall deny the application.

ALTERNATIVES:

The following alternatives are available to the Board:

1. Adopt proposed Resolution CBB24-3 which approves the request for grading, construction of 3 retaining walls, and replanting.
2. Adopt proposed Resolution CBB24-4 which denies the request.
3. Revise and adopt proposed Resolution CBB24-3
4. Take no action at this time and defer the application to the next meeting. (Applicant must be present for action to be taken by the Board)



STAFF FINDINGS

- The proposed grading and construction of retaining walls within the CRPA does not qualify for an administrative waiver because: 27B-7 (2) Redevelopment on isolated redevelopment sites shall be permitted only if there is no increase in the amount of impervious cover and no further encroachment within the CRPA and it shall conform to county Code chapters 11 and 21.5. Thus, a Chesapeake Bay Special Exception hearing and approval is required.
- The Wetlands permit meets the 4 criteria of the Group II living shoreline guidance and therefore does not require Stafford Wetlands Board approval. VMRC and VIMS will take the lead on reviewing and approving the living shoreline aspect of the project.
- The repairs to the bulkhead are within the jurisdiction of VMRC only as there is no intertidal zone involved with the bulkhead and therefore does not require Stafford Wetlands Board approval.
- The proposed replanting of 11,740 square feet of RPA is an effort to mitigate RPA impacts and improve water quality. This planting area and planting rates are in accordance with Appendix D of the Riparian Buffers Modification and Mitigation Manual by planting at the rate of one canopy tree, 2 understory trees, and three shrubs for every 400 square feet.
 - The Riparian Buffers Modification and Mitigation Manual Provides the following Vegetation Replacement Standards for RPA impacts greater than ¼ acre and less than 1 acre:
 - Plant at the same rate as for ¼ acre or less.
 - For every 400 square-foot unit (20'x20') or fraction thereof plant:
 - one (1) canopy tree @ 1½" - 2" caliper or large evergreen @ 6'
 - two (2) understory trees @ ¾" - 1 ½" caliper or evergreen @ 4' or one (1) understory tree and two (2) large shrubs @ 3'-4'
 - three (3) small shrubs or woody groundcover @ 15" - 18" **AND**
 - The landward 50% of buffer (from 50 feet inland to 100 feet inland): either plant Bare root seedlings or whips at 1,210 stems per acre 1, approximately 6'x6' on center (Minimum survival required after two growing seasons: 600 plants)
 - or**
 - Container grown seedling tubes at 700 per acre approximately 8'x 8' on center (Minimum survival required after two growing seasons: 490 plants)

ATTACHMENT 1
WATER QUALITY IMPACT ASSESSMENT



STAFFORD COUNTY

DEPARTMENT OF PLANNING AND ZONING

WATER QUALITY IMPACT ASSESSMENT

A scaled site drawing, which shows the following, must be attached to this water quality impact assessment:

1. Location of the components of the RPA, including the 100-foot buffer area;
2. Location and nature of any proposed encroachment into the buffer area, including, type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; sewage disposal systems or reserve drainfield sites; and wells.
3. Type and location of proposed best management practices to mitigate the proposed encroachment;
4. Location of existing vegetation onsite, including the number, type of trees, caliper and other vegetation to be removed in the buffer to accommodate the encroachment or modification; and
5. Type, size, and location of replacement vegetation.

Site Conditions (of site and adjacent lands):

Existing Topography: Steep in area of applicability Hydrology: Pre and post areas are pervious, adding 969 SF of wall and stairs
Soils Map Unit/Name: c % Slope: 45 Geology: Tetotum fine sandy loam
Fill Material (source and composition): There is no proposed fill for this project. A geotechnical engineer has been retained for QC.
Total Amount of Disturbed Area (ft²): 11,740 Total Amount of Cleared Area(ft²): 11,740
Estimation of Pre and Post Development Pollutant Loads: Pre-devel TP = 0.11 lb/yr; Post-devel TP = 0.06 lb/yr
Other By reducing slope between walls, runoff and erosion will be reduced

Existing Vegetation:

Total Underbrush / Grass Removed (ft²): 11,740 Types: Grass and juniper
Number of Healthy Trees Removed: 2 Types: Gum
Number of Trees Limbed or Pruned: 0 Types: _____
Number of Dead/Dying/Diseased Trees Removed: _____ Types: _____
Other: _____

Proposed Landscaping / Vegetation Mitigation Measures (App. D, CBLAD Buffer Modification Manual)

Number of New Canopy Trees Proposed: 30 Types: Various native - see plan
Number of New Understory Trees Proposed: 60 Types: Various native - see plan
Number of New Shrubs Proposed: 90 Types: Various native - see plan
Other: _____

Proposed Erosion and Sedimentation Control Practices:

- ☒ Silt Fencing ☒ Temporary Construction Entrance ☐ Straw Bale Barrier(s)
☐ Inlet Protection ☐ Temporary/Permanent Seeding Mulching
☒ Tree Protection Sediment Trap
☐ Other: _____

Proposed Best Management Practices:

- ☐ Dry Well(s) ☐ Infiltration Trench(es) ☐ Vegetated Filter Strip(s) ☐ Grass Swale(s)
Other: _____

BMP design dimensions: _____

Wastewater (Septic) Element (if needed):

Attach legible, clean copy of Health Department Approval Information- to include calculations and dimensions.

Description of potential impacts of the proposed wastewater systems including any proposed mitigation measures for the impacts:

Septic system is not impacted by this project. Existing and proposed fields are in the front yard.

ATTACHMENT 2
WETLANDS JOINT PERMIT APPLICATION
(VMRC PERMIT 20241042)

From: jim.beck@jbeckassociates.com
To: [Howell, Beth \(MRC\)](#)
Cc: [David Lynch](#); [Payne, Khadijah \(MRC\)](#); [Joseph P. Fiorello](#)
Subject: Lynch Shoreline at 1 George Street Stafford VA
Date: Monday, April 29, 2024 8:30:11 AM
Attachments: [image001.png](#)
[24_04_29 Lynch Tidewater JPA.pdf](#)

Hi Beth,

Please find attached a JPA with drawings for shoreline stabilization, bulkhead repair and living shoreline at the above referenced property.

Thanks,
Jim

James P. Beck, PE

(703) 801-8739 jim.beck@jbeckassociates.com



www.jbeckassociates.com

- ❖ DEQ: Permit application fees required for Virginia Water Protection permits – while detailed in 9VAC25-20 – are conveyed to the applicant by the applicable DEQ office (<http://www.deq.virginia.gov/Locations.aspx>). Complete the Permit Application Fee Form and submit it per the instructions to the address listed on the form. Instructions for submitting any other fees will be provided to the applicant by DEQ staff.
- ❖ VMRC: An application fee of \$300 may be required for projects impacting tidal wetlands, beaches and/or dunes when VMRC acts as the LWB. VMRC will notify the applicant in writing if the fee is required. Permit fees involving subaqueous lands are \$25.00 for projects costing \$10,000 or less and \$100 for projects costing more than \$10,000. Royalties may also be required for some projects. The proper permit fee and any required royalty is paid at the time of permit issuance by VMRC. VMRC staff will send the permittee a letter notifying him/her of the proper permit fees and submittal requirements.
- ❖ LWB: Permit fees vary by locality. Contact the LWB for your project area or their website for fee information and submittal requirements. Contact information for LWBs may be found at http://ccrm.vims.edu/permits_web/guidance/local_wetlands_boards.html.

FOR AGENCY USE ONLY	
	Notes:
	JPA # 24-1042

APPLICANTS

Part 1 – General Information

PLEASE PRINT OR TYPE ALL ANSWERS: If a question does not apply to your project, please print N/A (not applicable) in the space provided. If additional space is needed, attach 8-1/2 x 11 inch sheets of paper.

<u>Check all that apply</u>				
Pre-Construction Notification (PCN) ☐	PASDO – PGP Self Verification ☐			
NWP # _____ (For Nationwide Permits ONLY - No DEQ-VWP permit writer will be assigned)	(Replaces Regional Permit 17 (RP-17) checklist)			
County or City in which the project is located: <u>Stafford County</u>				
Waterway at project site: <u>Aquia Creek</u>				
PREVIOUS ACTIONS RELATED TO THE PROPOSED WORK (Include all federal, state, and local pre application coordination, site visits, previous permits, or applications whether issued, withdrawn, or denied)				
Historical information for past permit submittals can be found online with VMRC - https://webapps.mrc.virginia.gov/public/habitat/ - or VIMS - http://ccrm.vims.edu/perms/newpermits.html				
Agency	Action / Activity	Permit/Project number, including any non-reporting Nationwide permits previously used (e.g., NWP 13)	Date of Action	If denied, give reason for denial
VMRC	Approved / NPN for pier	2015-0496	4/14/2015	

Part 1 - General Information (continued)

1. Applicant's legal name* and complete mailing address: Contact Information:

David Lynch
7308 Mallory Circle
Alexandria, VA 22315

Home (703) 304-7552
Work ()
Fax ()
Cell ()
e-mail david.lynch@cpeworldwide.com

State Corporation Commission Name and ID Number (if applicable) _____

2. Property owner(s) legal name* and complete address, if different from applicant: Contact Information:

Home ()
Work ()
Fax ()
Cell ()
e-mail _____

State Corporation Commission Name and ID Number (if applicable) _____

3. Authorized agent name* and complete mailing address (if applicable):

Jim Beck, J Beck & Assoc.
99 Woodrow Drive
Stafford, VA 22554

Contact Information:
Home ()
Work (703) 801-8739
Fax ()
Cell ()
e-mail jim.beck@jbeckassociates.com

State Corporation Commission Name and ID Number (if applicable) S480797-2

*** If multiple applicants, property owners, and/or agents, each must be listed and each must sign the applicant signature page.**

4. Provide a detailed description of the project in the space below, including the type of project, its dimensions, materials, and method of construction. Be sure to include how the construction site will be accessed and whether tree clearing and/or grading will be required, including the total acreage. If the project requires pilings, please be sure to include the total number, type (e.g. wood, steel, etc), diameter, and method of installation (e.g. hammer, vibratory, jetted, etc). If additional space is needed, provide a separate sheet of paper with the project description.

This project is for shoreline stabilization along the Aquia Creek waterfront of the applicants property. Stabilization measures will include:

1. Installation of 180 linear feet of rip-rap toe protection consisting of class 1 rip-rap, 5' high, placed at a 1.5:1 slope;
2. Repairing 139 linear feet of failing timber bulkhead with vinyl sheet pile placed less than two feet seaward of the existing timber bulkhead.
3. Installation of 990 SF Type II living shoreline consisting of class 1 / A1 rip-rap sill with course sand fill and a planted marsh. The living shoreline will be placed seaward of the rip-rap toe protection.

Part 1 - General Information (continued)

5. Have you obtained a contractor for the project? ____ Yes* ☒ No. *If your answer is "Yes" complete the remainder of this question and submit the Applicant's and Contractor's Acknowledgment Form (enclosed)

Contractor's name* and complete mailing address:

Contact Information:

Home (____) _____

Work (____) _____

Fax (____) _____

Cell (____) _____

email _____

State Corporation Commission Name and ID Number (if applicable) _____

*** If multiple contractors, each must be listed and each must sign the applicant signature page.**

6. List the name, address and telephone number of the newspaper having general circulation in the area of the project. Failure to complete this question may delay local and State processing.

Name and complete mailing address:

The Free-Lance Star
1340 Central Park Blvd.
Suite 100
Fredericksburg, VA 22401

Telephone number

(540) 370-5000

7. Give the following project location information:

Street Address (911 address if available) 1 George Street, Stafford, VA 22554

Lot/Block/Parcel# Tax map 40-59

Subdivision Widewater Beach

City / County Stafford ZIP Code 22554

Latitude and Longitude at Center Point of Project Site (Decimal Degrees):

38.41515 / - 77.33738 (Example: 36.41600/-76.30733)

If the project is located in a rural area, please provide driving directions giving distances from the best and nearest visible landmarks or major intersections. *Note: if the project is in an undeveloped subdivision or property, clearly stake and identify property lines and location of the proposed project. A supplemental map showing how the property is to be subdivided should also be provided.*

8. What are the *primary and secondary purposes of and the need for* the project? For example, the primary purpose may be "to protect property from erosion due to boat wakes" and the secondary purpose may be "to provide safer access to a pier."

The primary purpose is to stabilize the existing shoreline.

The secondary purpose is to stabilize the upland steep, failing slope.

Part 1 - General Information (continued)

9. Proposed use (check one):

- ☒ Single user (private, non-commercial, residential)
☐ Multi-user (community, commercial, industrial, government)

10. Describe alternatives considered and the measures that will be taken to avoid and minimize impacts, to the maximum extent practicable, to wetlands, surface waters, submerged lands, and buffer areas associated with any disturbance (clearing, grading, excavating) during and after project construction. *Please be advised that unavoidable losses of tidal wetlands and/or aquatic resources may require compensatory mitigation.*

Alternatives considered included no action, new bulkhead along full length of waterfront and rip-rap shoring of existing bulkhead.

11. Is this application being submitted for after-the-fact authorization for work which has already begun or been completed? ☐ Yes ☒ No. If yes, be sure to clearly depict the portions of the project which are already complete in the project drawings.

12. Approximate cost of the entire project (materials, labor, etc.): \$ 85000
Approximate cost of that portion of the project that is channelward of mean low water:
\$ 10000

13. Completion date of the proposed work: Spring - 2024

14. Adjacent Property Owner Information: List the name and complete **mailing address**, including zip code, of each adjacent property owner to the project. (NOTE: If you own the adjacent lot, provide the requested information for the first adjacent parcel beyond your property line.) Failure to provide this information may result in a delay in the processing of your application by VMRC.

Property to the east:

John / Linda Cunningham
115 Woodrow Drive
Stafford, VA 22554
Tax Map 41B-1-2

Property to the west:

Todd Santee
5 George Street
Stafford, VA 22554
Tax Map 40-60

Part 2 - Signatures

1. Applicants and property owners (if different from applicant).

NOTE: REQUIRED FOR ALL PROJECTS

PRIVACY ACT STATEMENT: The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. These laws require that individuals obtain permits that authorize structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters prior to undertaking the activity. Information provided in the Joint Permit Application will be used in the permit review process and is a matter of public record once the application is filed. Disclosure of the requested information is voluntary, but it may not be possible to evaluate the permit application or to issue a permit if the information requested is not provided.

CERTIFICATION: I am hereby applying for all permits typically issued by the DEQ, VMRC, USACE, and/or Local Wetlands Boards for the activities I have described herein. I agree to allow the duly authorized representatives of any regulatory or advisory agency to enter upon the premises of the project site at reasonable times to inspect and photograph site conditions, both in reviewing a proposal to issue a permit and after permit issuance to determine compliance with the permit.

In addition, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

David Lynch

Applicant's Legal Name (printed/typed)

(Use if more than one applicant)

Applicant's Signature

(Use if more than one applicant)

Date

Property Owner's Legal Name (printed/typed)
(If different from Applicant)

(Use if more than one owner)

Property Owner's Signature

(Use if more than one owner)

Date

Part 2 – Signatures (continued)

2. Applicants having agents (if applicable)

CERTIFICATION OF AUTHORIZATION

I (we), David Lynch, hereby certify that I (we) have authorized James Beck
(Applicant's legal name(s)) (Agent's name(s))

to act on my behalf and take all actions necessary to the processing, issuance and acceptance of this permit and any and all standard and special conditions attached.

We hereby certify that the information submitted in this application is true and accurate to the best of our knowledge.

James P. Beck
(Agent's Signature)

(Use if more than one agent)

4/23/24
(Date)

David Lynch
(Applicant's Signature)

(Use if more than one applicant)

28 APR 2024
(Date)

3. Applicant's having contractors (if applicable)

CONTRACTOR ACKNOWLEDGEMENT

I (we), _____, have contracted _____
(Applicant's legal name(s)) (Contractor's name(s))
to perform the work described in this Joint Permit Application, signed and dated _____.

We will read and abide by all conditions set forth in all Federal, State and Local permits as required for this project. We understand that failure to follow the conditions of the permits may constitute a violation of applicable Federal, state and local statutes and that we will be liable for any civil and/or criminal penalties imposed by these statutes. In addition, we agree to make available a copy of any permit to any regulatory representative visiting the project to ensure permit compliance. If we fail to provide the applicable permit upon request, we understand that the representative will have the option of stopping our operation until it has been determined that we have a properly signed and executed permit and are in full compliance with all terms and conditions.

Contractor's name or name of firm

Contractor's or firms address

Contractor's signature and title

Contractor's License Number

Applicant's signature

(use if more than one applicant)

Date

Part 2 – Signatures (continued)

ADJACENT PROPERTY OWNER'S ACKNOWLEDGEMENT FORM

I (we), John Cunninham, own land next to (across the water
(Print adjacent/nearby property owner's name)

from/on the same cove as) the land of David Lynch.
(Print applicant's name(s))

I have reviewed the applicant's project drawings dated 2/28/2024
(Date)

to be submitted for all necessary federal, state and local permits.

I HAVE NO COMMENT _____ ABOUT THE PROJECT.

I DO NOT OBJECT ggc TO THE PROJECT.

I OBJECT _____ TO THE PROJECT.

The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.

(Before signing this form be sure you have checked the appropriate option above).

John J. Cunningham Jr
Adjacent/nearby property owner's signature(s)

4-28-2024
Date

Note: If you object to the proposal, the reason(s) you oppose the project must be submitted in writing to VMRC. An objection will not necessarily result in denial of the project; however, valid complaints will be given full consideration during the permit review process.

Part 2 – Signatures (continued)

ADJACENT PROPERTY OWNER'S ACKNOWLEDGEMENT FORM

I (we), Todd Santee, own land next to (across the water
(Print adjacent/nearby property owner's name)

from/on the same cove as) the land of David Lynch.
(Print applicant's name(s))

I have reviewed the applicant's project drawings dated 2/28/2024
(Date)

to be submitted for all necessary federal, state and local permits.

I HAVE NO COMMENT _____ ABOUT THE PROJECT.

I DO NOT OBJECT TR TO THE PROJECT.

I OBJECT _____ TO THE PROJECT.

The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.

(Before signing this form, be sure you have checked the appropriate option above).

Todd R Santee
Adjacent/nearby property owner's signature(s)

4/28/24
Date

Note: If you object to the proposal, the reason(s) you oppose the project must be submitted in writing to VMRC. An objection will not necessarily result in denial of the project; however, valid complaints will be given full consideration during the permit review process.

Part 3 – Appendices (continued)

Appendix B: Projects for Shoreline Stabilization in tidal wetlands, tidal waters and dunes/beaches including riprap revetments and associated backfill, marsh toe stabilization, bulkheads and associated backfill, breakwaters, beach nourishment, groins, jetties, and living shoreline projects. Answer all questions that apply. Please provide any reports provided from the Shoreline Erosion Advisory Service or VIMS.

NOTE: It is the policy of the Commonwealth that living shorelines are the preferred alternative for stabilizing tidal shorelines (Va. Code § 28.2-104.1). **Information on non-structural, vegetative alternatives (i.e., Living Shoreline) for shoreline stabilization is available at http://ccrm.vims.edu/coastal_zone/living_shorelines/index.html.**

1. Describe each **revetment, bulkhead, marsh toe, breakwater, groin, jetty, other structure, or living shoreline project** separately in the space below. Include the overall length in linear feet, the amount of impacts in acres, and volume of associated backfill below mean high water and/or ordinary high water in cubic yards, as applicable:

This project is for shoreline stabilization along the Aquia Creek waterfront of the applicants property. Stabilization measures will include:

1. Installation of 180 linear feet of rip-rap toe protection consisting of class 1 rip-rap, 5' high, placed at a 1.5:1 slope;
 2. Repairing 139 linear feet of failing timber bulkhead with vinyl sheet pile placed less than two feet seaward of the existing timber bulkhead.
 3. Installation of 990 SF Type II living shoreline consisting of class 1 and A1 rip-rap sill with course sand fill and a planted marsh. The living shoreline will be placed seaward of the rip-rap toe protection.
2. What is the maximum encroachment channelward of mean high water? ²⁵_____feet.
Channelward of mean low water? ¹⁶_____feet.
Channelward of the back edge of the dune or beach? _____feet.
 3. Please calculate the square footage of encroachment over:
 - Vegetated wetlands 0 square feet
 - Non-vegetated wetlands 800 square feet
 - Subaqueous bottom _____square feet
 - Dune and/or beach _____square feet
 4. For bulkheads, is any part of the project maintenance or replacement of a previously authorized, currently serviceable, existing structure? ☒ Yes _____ No.

If yes, will the construction of the new bulkhead be no further than two (2) feet channelward of the existing bulkhead? ☒ Yes _____No.

If no, please provide an explanation for the purpose and need for the additional encroachment.

Part 3 – Appendices (continued)

5. Describe the type of construction and **all** materials to be used, including source of backfill material, if applicable (e.g., vinyl sheet-pile bulkhead, timber stringers and butt piles, 100% sand backfill from upland source; broken concrete core material with Class II quarry stone armor over filter cloth).

NOTE: Drawings must include construction details, including dimensions, design and all materials, including fittings if used.

The bulkhead repair will consist of vinyl sheet pile placed immediately seaward of the failing timber bulkhead. The bulkhead will have a 3" timber waler along the top and capping timbers.

The rip-rap toe protection will consist of Class 1 rip-rap over filter cloth. The sill will consist of class 1A and 1 rip-rap placed over filter cloth. Sand fill will consist of course sand.

All material will be sourced off site and trucked or barged to the site.

6. If using stone, broken concrete, etc. for your structure(s), what is the average weight of the:

Core (inner layer) material 25-75 pounds per stone Class size A1

Armor (outer layer) material 50-150 pounds per stone Class size A1 & 1

7. For **beach nourishment**, including that associated with breakwaters, groins or other structures, provide the following:

- Volume of material

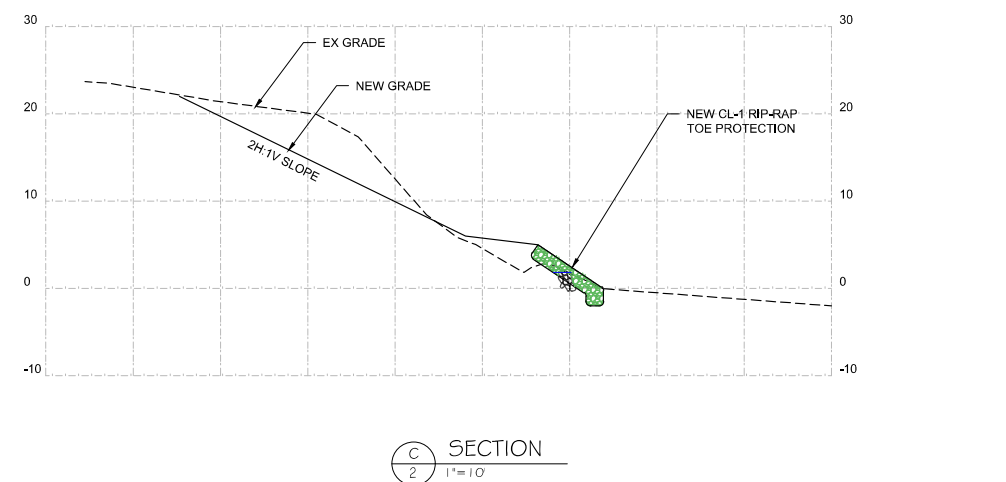
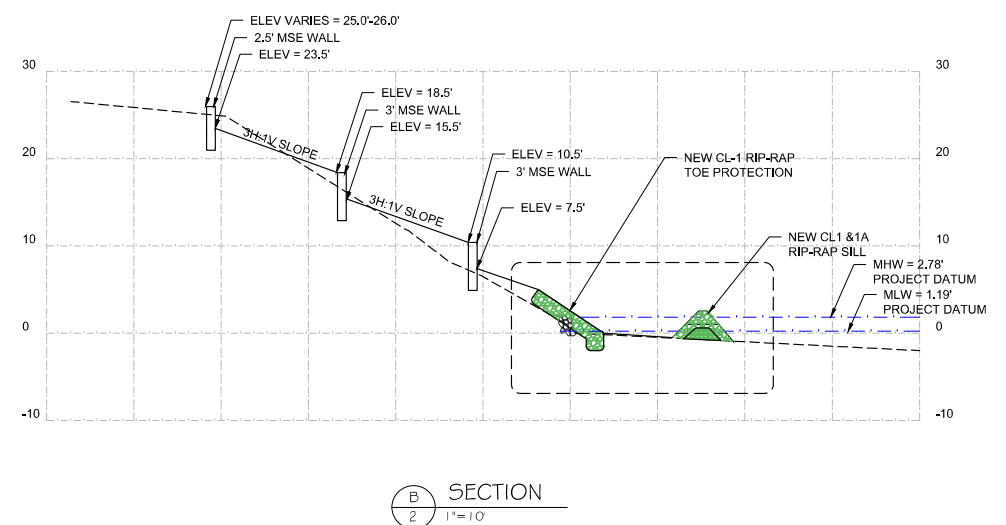
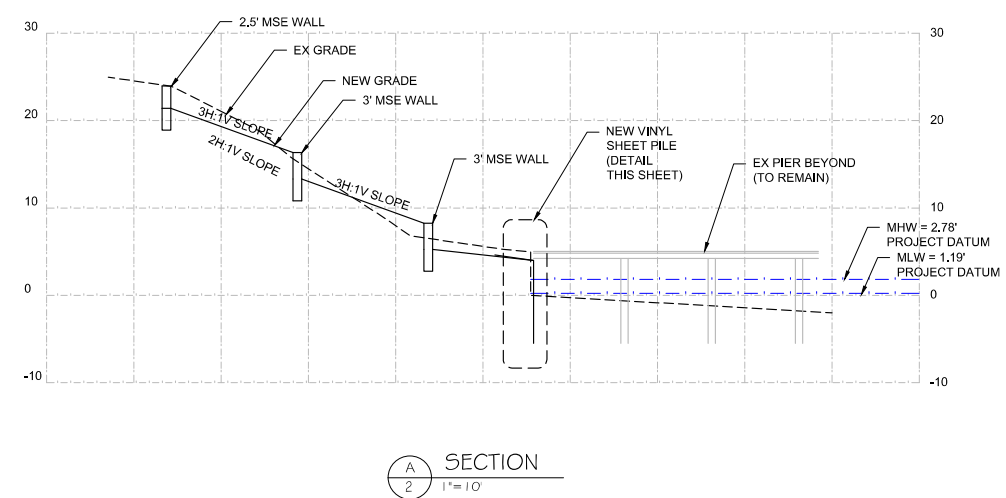
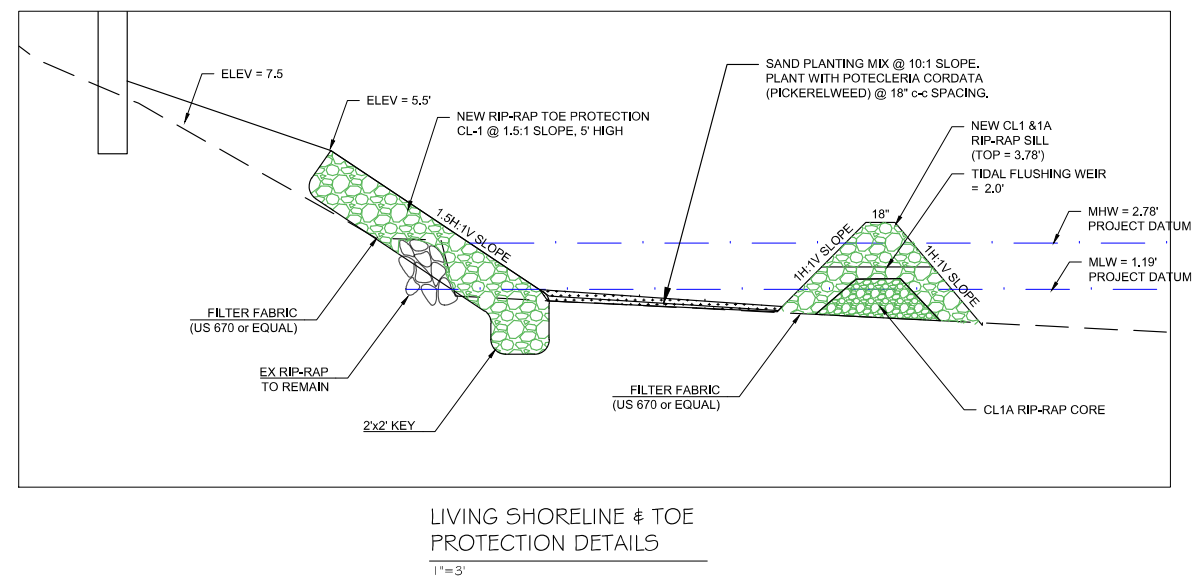
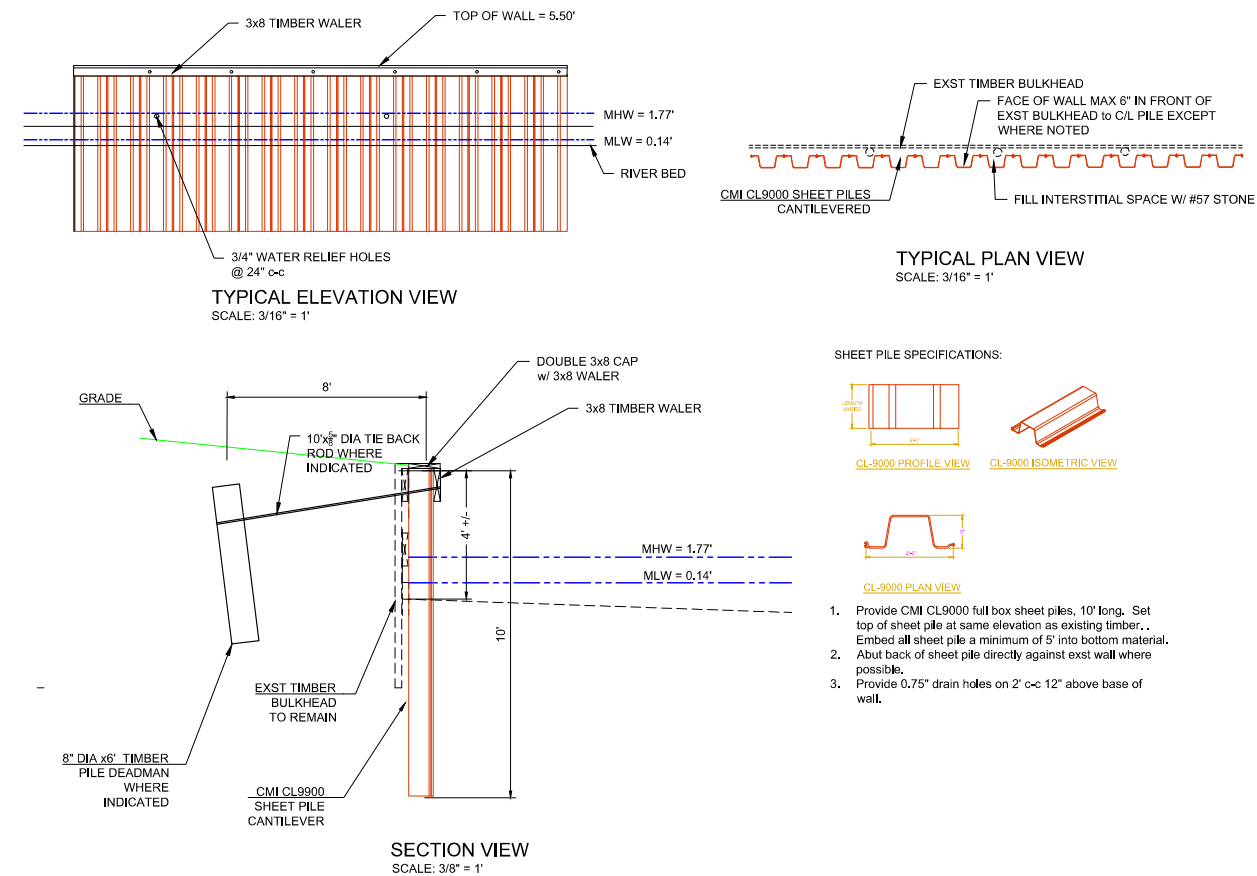
<u>90</u>	cubic yards channelward of mean low water	Sill Volume
<u>100</u>	cubic yards landward of mean low water	Toe Volume
<u>50</u>	cubic yards channelward of mean high water	Toe Volume
<u>50</u>	cubic yards landward of mean high water	Toe Volume
- Area to be covered

<u>1200</u>	square feet channelward of mean low water	Sill Area
<u>800</u>	square feet landward of mean low water	Toe Area
<u>800</u>	square feet channelward of mean high water	Toe Area
<u>550</u>	square feet landward of mean high water	Toe Area
- Source of material, composition (e.g. 90% sand, 10% clay): 90% course sand w/ 10% organics
- Method of transportation and placement:

By truck to site and then by barge for placement.

- Describe any proposed vegetative stabilization measures to be used, including planting schedule, spacing, monitoring, etc. Additional guidance is available at <http://www.vims.edu/about/search/index.php?q=planting+guidelines>:

Pickernelweed (potecleria cordata) planted 18" c-c in living shoreline area.



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TITLE: SHORELINE SECTIONS AND DETAILS

PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

DESIGN BY:	JPB
DRAWN BY:	JPB
CHECK:	JPB
DATE:	4/15/2024
FILE:	J10174
SCALE:	AS SHOWN
SHEET	

CONCRETE SEGMENTAL RETAINING WALL SYSTEM SPECIFICATION
PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. RETAINING WALL SYSTEM CONSTRUCTED OF CONCRETE SEGMENTAL RETAINING WALL UNITS.
B. GEOSYNTHETIC REINFORCEMENT FABRIC.
C. LEVELING PAD BASE.
D. DRAINAGE AGGREGATE.
E. BACKFILL.
F. DRAINAGE PIPE.
G. ADHESIVES.

1.02 REFERENCES

- A. AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS (AASHTO).
1. AASHTO M208 GEOTEXTILE SPECIFICATION FOR HIGHWAY APPLICATIONS.
2. AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
1. ASTM C140 STANDARD TEST METHODS FOR SAMPLING AND TESTING CONCRETE MASONRY UNITS AND RELATED UNITS.
2. ASTM C1282 STANDARD TEST METHOD FOR EVALUATING THE FREEZE-THAW DURABILITY OF MANUFACTURED CONCRETE MASONRY UNITS AND RELATED CONCRETE UNITS.
3. ASTM C1372 STANDARD SPECIFICATION FOR SEGMENTAL RETAINING WALL UNITS.
4. ASTM D448 STANDARD CLASSIFICATION FOR SIZES OF AGGREGATE FOR ROAD AND BRIDGE CONSTRUCTION.
5. ASTM D698 STANDARD TEST METHODS FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT (12,400 FT-LB/FF³).
6. ASTM D1556 STANDARD TEST METHOD FOR DENSITY AND UNIT WEIGHT OF SOIL IN PLACE BY THE SAND CONE METHOD.
7. ASTM D1557 STANDARD TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT (56,000 FT-LB/FF³) (2700 KN-M/M³).
8. ASTM D2487 STANDARD CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM).
9. ASTM D2922 STANDARD TEST METHODS FOR DENSITY OF SOIL AND SOIL-AGGREGATE IN PLACE BY NUCLEAR METHODS (SHALLOW DEPTH).
10. ASTM D3034 STANDARD SPECIFICATION FOR TYPE PSM POLY VINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS.
11. ASTM D4318 STANDARD TEST METHODS FOR LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS.
12. ASTM D4595 STANDARD TEST METHOD FOR TENSILE PROPERTIES OF GEOTEXTILES BY THE WIDE-WIDTH STRIP METHOD.
13. ASTM D5262 STANDARD TEST METHOD FOR EVALUATING THE UNCONFINED TENSION CREEP BEHAVIOR OF GEOSYNTHETICS.
14. ASTM F405 STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE (PE) TUBINGS AND FITTINGS.
15. ASTM G91 STANDARD TEST METHOD FOR MEASURING PH OF SOIL FOR USE IN CORROSION TESTING.
C. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA).
1. NCMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS, THIRD EDITION, FIFTH PRINTING (2010).
2. NCMA SRWU-1 DETERMINATION OF CONNECTION STRENGTH BETWEEN GEOSYNTHETICS AND SEGMENTAL CONCRETE UNITS.
3. NCMA SRWU-2 DETERMINATION OF SHEAR STRENGTH BETWEEN SEGMENTAL CONCRETE UNITS.

1.03 DEFINITIONS

- A. REINFORCED FILL: SOIL WHICH IS USED AS FILL BEHIND THE DRAINAGE AGGREGATE AND WITHIN THE REINFORCED SOIL MASS.
B. RETAINED SOIL: SOIL LOCATED IN THE AREA BEHIND THE REINFORCED ZONE.
C. DRAINAGE AGGREGATE: MATERIAL USED WITHIN (IF APPLICABLE), BETWEEN, AND DIRECTLY BEHIND THE CONCRETE RETAINING WALL UNITS.
D. FILTER FABRIC: MATERIAL USED FOR SEPARATION AND FILTRATION OF DISSIMILAR SOIL TYPES.
E. FOUNDATION SOIL: SOIL MASS SUPPORTING THE LEVELING PAD AND REINFORCED SOIL ZONE OF THE RETAINING WALL SYSTEM.
F. IMPERVIOUS FILL: SOIL PLACED AT THE GROUND SURFACE THAT REDUCES/IMPEDES THE FLOW OF WATER INTO THE REINFORCED ZONE.
G. GEOSYNTHETIC REINFORCEMENT: MATERIAL SPECIFICALLY FABRICATED FOR USE AS A SOIL REINFORCEMENT.
H. GLOBAL STABILITY: THE GENERAL MASS MOVEMENT OF A SOIL REINFORCED SEGMENTAL RETAINING WALL STRUCTURE AND ADJACENT SOIL MASS. GLOBAL STABILITY SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER FOR WALLS OVER 10 FT IN HEIGHT.
I. PROJECT ENGINEER: GEOTECHNICAL ENGINEER (COMMON ENGINEERING ASSOCIATES, DEAN) SHALL BE EMPLOYED TO PERFORM SITE OBSERVATIONS, PROVIDE RECOMMENDATIONS FOR FOUNDATION SUPPORT AND VERIFY SOIL PARAMETERS ON A FULL-TIME BASIS OR AS DETERMINED APPROPRIATE BY DEA.

1.04 SUBMITTALS TO OWNER

- A. TEST REPORTS: INDEPENDENT LABORATORY REPORTS STATING MOISTURE ABSORPTION AND COMPRESSIVE STRENGTH PROPERTIES OF THE CONCRETE RETAINING WALL UNITS MEET THE PROJECT SPECIFICATIONS WHEN TESTED IN ACCORDANCE WITH ASTM C140.
1.05 DELIVERY, STORAGE AND HANDLING

- A. DELIVER, STORE, AND HANDLE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. IN SUCH A MANNER AS TO PREVENT DAMAGE, CHECK THE MATERIALS UPON DELIVERY TO ASSURE THAT PROPER MATERIAL HAS BEEN RECEIVED. STORE ABOVE GROUND ON WOOD PALLETS OR BLOCKING. REMOVE DAMAGED OR OTHERWISE UNSUITABLE MATERIAL WHEN SO DETERMINED. FROM THE SITE.
1. EXPOSED FACES OF CONCRETE WALL UNITS SHALL BE FREE OF CHIPS, CRACKS, STAINS, AND OTHER IMPERFECTIONS DETRACTING FROM THEIR APPEARANCE, WHEN VIEWED FROM A DISTANCE OF 10 FEET.
2. PREVENT MUD, WET CEMENT, ADHESIVES AND SIMILAR MATERIALS WHICH MAY HARM APPEARANCE OF UNITS. FROM COMING IN CONTACT WITH SYSTEM COMPONENTS.

1.06 EXTRA MATERIALS

- A. FURNISH OWNER WITH REPLACEMENT UNITS IDENTICAL TO THOSE INSTALLED ON THE PROJECT. AS MAY BE REQUESTED BY OWNER.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. CONCRETE RETAINING WALL UNITS.

1. PHYSICAL REQUIREMENTS

- a. MEET REQUIREMENTS OF ASTM C1372, EXCEPT THE MAXIMUM WATER ABSORPTION SHALL BE LIMITED TO 7 PERCENT. AND UNIT HEIGHT DIMENSIONS SHALL NOT VARY MORE THAN PLUS OR MINUS 1/16 INCH FROM THAT SPECIFIED IN THE ASTM REFERENCE, NOT INCLUDING TEXTURED FACE.
b. UNIT FACE AREA: NOT LESS THAN 1.0 SQUARE FEET.
c. COLOR: SELECTED BY THE OWNER FROM MANUFACTURER'S FULL RANGE OF STANDARD COLORS.
d. FACE PATTERN: GEOMETRY SELECTED BY OWNER.
e. TEXTURE: AS SELECTED BY OWNER.
B. GEOSYNTHETIC REINFORCEMENT: AS SHOWN ON THE DRAWINGS.
C. LEVELING PAD BASE: CRUSHED STONE MEETING THE REQUIREMENTS OF VDOT 21A/B -8 INCHES MINIMUM COMPACTED THICKNESS OTHER MATERIAL SUCH AS OPEN GRADED AGGREGATE (e.g. VDOT No 57) SHALL REQUIRE APPROVAL BY THE GEOTECHNICAL ENGINEER.
D. DRAINAGE AGGREGATE: VDOT No 57 STONE.
E. REINFORCED FILL: AS STATED IN NOTE 3 OF COVER SHEET.
F. IMPERVIOUS MATERIAL: CLAYEY SOIL OR OTHER SIMILAR MATERIAL WHICH WILL IMPEDIE PERCOLATION INTO THE DRAINAGE ZONE BEHIND THE WALL.
G. DRAINAGE PIPE: PERFORATED PVC OR PERFORATED CORRUGATED HOPE PIPE MANUFACTURED IN ACCORDANCE WITH D3034 AND/OR ASTM F405.
H. CONSTRUCTION ADHESIVE: EXTERIOR GRADE ADHESIVE AS RECOMMENDED BY THE RETAINING WALL UNIT MANUFACTURER.

PART 3 - EXECUTION

3.01 EVALUATION

- A. EVALUATION SHOULD BE CONDUCTED BY THE OWNER OR OWNER'S DESIGNATED REPRESENTATIVE.
B. EVALUATE THE AREAS AND CONDITIONS UNDER WHICH THE RETAINING WALL SYSTEM IS TO BE ERECTED, AND NOTIFY THE GEOTECHNICAL ENGINEER IN WRITING OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. WALL CONTRACTOR SHALL VISIT THE SITE TO PERFORM SAME EVALUATION.
C. PROMPTLY NOTIFY THE WALL DESIGN ENGINEER OF SITE CONDITIONS WHICH MAY AFFECT WALL PERFORMANCE. SOIL CONDITIONS OBSERVED OTHER THAN THOSE ASSUMED, OR OTHER CONDITIONS THAT MAY REQUIRE A REEVALUATION OF THE WALL DESIGN.

3.02 PREPARATION

- A. ENSURE SURROUNDING STRUCTURES ARE PROTECTED FROM THE EFFECTS OF WALL EXCAVATION.
B. EXCAVATION SUPPORT: IF REQUIRED, IS THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING THE STABILITY OF THE EXCAVATION AND ITS INFLUENCE ON ADJACENT PROPERTIES AND STRUCTURES.
C. OWNER OR OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR LOCATING ANY AND ALL UTILITIES IN THE WORK AREA PRIOR TO WALL CONSTRUCTION. UTILITY LOCATIONS SHALL BE IDENTIFIED IN THE FIELD AND SHOWN TO THE WALL CONTRACTOR'S SITE FOREMAN.

3.03 EXCAVATION

- A. EXCAVATE TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. OVER-EXCAVATION SHOULD BE EVALUATED BY GEOTECHNICAL ENGINEER. REPLACEMENT OF OVER-EXCAVATED SOILS WITH COMPACTED FILL SHALL BE AS RECOMMENDED BY GEOTECHNICAL ENGINEER. USE CARE IN EXCAVATING TO PREVENT DISTURBANCE OF THE BASE BEYOND THE LINES SHOWN.

3.04 FOUNDATION PREPARATION

- A. EXCAVATE FOUNDATION SOIL AS REQUIRED FOR FOOTING OR BASE DIMENSION SHOWN ON THE DRAWINGS, AND AS RECOMMENDED BY DEA.
B. DEA SHALL EVALUATE FOUNDATION SOIL TO ENSURE THAT THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS THAT INDICATED ON THE DRAWINGS. REMOVE SOIL NOT MEETING THE REQUIRED STRENGTH, OVERSIZE RESULTING SPACE SUFFICIENTLY FROM THE FRONT OF THE BLOCK TO THE BACK OF THE REINFORCEMENT AND BACKFILL WITH SUITABLE COMPACTED BACKFILL SOILS.
C. DEA SHALL EVALUATE WHETHER THE FOUNDATION SOILS WILL REQUIRE SPECIAL TREATMENT OR CORRECTION TO REDUCE TOTAL AND DIFFERENTIAL SETTLEMENT.
D. FILL OVER-EXCAVATED AREAS WITH SUITABLE COMPACTED BACKFILL, AS RECOMMENDED BY DEA.

3.05 BASE COURSE PREPARATION

- A. PLACE BASE MATERIALS TO THE DEPTHS AND WIDTHS SHOWN ON THE DRAWINGS, UPON UNDISTURBED SOILS, OR FOUNDATION SOILS PREPARED IN ACCORDANCE WITH ARTICLE 3.04.
1. EXTEND THE LEVELING PAD LATERALLY AT LEAST 6 INCHES IN FRONT AND BEHIND THE LOWER MOST CONCRETE RETAINING WALL UNIT.
2. PROVIDE AGGREGATE BASE COMPACTED TO 8 INCHES THICK (MINIMUM).
B. COMPACT AGGREGATE BASE MATERIAL TO PROVIDE A LEVEL, HARD SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS.
C. PREPARE BASE MATERIALS TO ENSURE COMPLETE CONTACT WITH RETAINING WALL UNITS GAPS ARE NOT ALLOWED.

3.06 ERECTION

- A. GENERAL: ERECT UNITS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, AND AS SPECIFIED HEREIN.
B. PLACE FIRST COURSE OF CONCRETE WALL UNITS ON THE PREPARED BASE MATERIAL. CHECK UNITS FOR LEVEL AND ALIGNMENT. MATCH THE SAME ELEVATION AT THE TOP OF EACH UNIT WITHIN EACH SECTION OF THE BASE COURSE.
C. ENSURE THAT FOUNDATION UNITS ARE IN FULL CONTACT WITH NATURAL OR COMPACTED SOIL BASE.
D. PLACE CONCRETE WALL UNITS SIDE-BY-SIDE FOR FULL LENGTH OF WALL ALIGNMENT. ALIGNMENT MAY BE DONE BY USING A STRING LINE MEASURED FROM THE BACK OF THE BLOCK. GAPS ARE NOT ALLOWED BETWEEN THE FOUNDATION CONCRETE WALL UNITS.
E. PLACE 12 INCHES (MINIMUM) OF DRAINAGE AGGREGATE BETWEEN, AND DIRECTLY BEHIND THE CONCRETE WALL UNITS. FILL VOIDS IN RETAINING WALL UNITS WITH DRAINAGE AGGREGATE. PROVIDE A DRAINAGE ZONE BEHIND THE WALL UNITS TO 8 INCHES BELOW THE FINAL SURFACE GRADE IN ORDER TO CAP THE BACKFILL AND DRAINAGE AGGREGATE ZONE WITH 6 INCHES OF IMPERVIOUS MATERIAL.
F. INSTALL DRAINAGE PIPE AT THE LOWEST ELEVATION POSSIBLE (SEE DETAILS SHEET), TO MAINTAIN GRAVITY FLOW OF WATER TO OUTSIDE OF THE REINFORCED ZONE BEHIND THE MAIN COLLECTION DRAINAGE PIPE. LOCATED JUST BEHIND THE CONCRETE RETAINING WALL UNITS, 2 PERCENT MINIMUM TO PROVIDE GRAVITY FLOW TO THE DAYLIGHTED AREAS. DAYLIGHT THE MAIN COLLECTION DRAINAGE PIPE TO AN APPROPRIATE LOCATION AWAY FROM THE WALL SYSTEM AT EACH LOW POINT.
G. REMOVE EXCESS FILL FROM TOP OF UNITS AND INSTALL NEXT COURSE DRAINAGE AGGREGATE AND BACKFILL ARE TO BE COMPACTED BEFORE INSTALLATION OF NEXT COURSE.
H. CHECK EACH COURSE FOR LEVEL AND ALIGNMENT.
I. INSTALL EACH SUCCEEDING COURSE. BACKFILL AS EACH COURSE IS COMPLETED. PULL THE UNITS FORWARD UNTIL THE LOCATING SURFACE OF THE UNIT CONTACTS THE LOCATING SURFACE OF THE UNITS IN THE PRECEDING COURSE. INTERLOCK WALL SEGMENTS THAT MEET AT CORNERS BY OVERLAPPING SUCCESSIVE COURSES. ATTACH CONCRETE RETAINING WALL UNITS AT EXTERIOR CORNERS WITH ADHESIVE SPECIFIED.
J. INSTALL GEOSYNTHETIC REINFORCEMENT IN ACCORDANCE WITH GEOSYNTHETIC MANUFACTURER'S RECOMMENDATIONS AND THE WALL DESIGN DRAWINGS.

1. ORIENT GEOSYNTHETIC REINFORCEMENT WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL FACE.
2. PRIOR TO GEOSYNTHETIC REINFORCEMENT PLACEMENT, PLACE THE BACKFILL AND COMPACT TO THE ELEVATION OF THE TOP OF THE WALL UNITS AT THE ELEVATION OF THE GEOSYNTHETIC REINFORCEMENT.
3. PLACE GEOSYNTHETIC REINFORCEMENT AT THE ELEVATIONS AND TO THE LENGTHS SHOWN ON THESE DESIGN DRAWINGS.
4. LAY GEOSYNTHETIC REINFORCEMENT HORIZONTALLY ON TOP OF THE CONCRETE RETAINING WALL UNITS AND THE COMPACTED BACKFILL SOILS. PLACE THE GEOSYNTHETIC REINFORCEMENT WITHIN ONE INCH OF THE FACE OF THE CONCRETE RETAINING WALL UNITS. PLACE THE NEXT COURSE OF CONCRETE RETAINING WALL UNITS ON TOP OF THE GEOSYNTHETIC REINFORCEMENT.
5. THE GEOSYNTHETIC REINFORCEMENT SHALL BE IN TENSION AND FREE FROM WRINKLES PRIOR TO PLACEMENT OF THE REINFORCED FILL SOILS. PULL GEOSYNTHETIC REINFORCEMENT HAND-TAUT AND SECURE IN PLACE WITH STAPLES, STAKES, OR BY HAND-TENSIONING UNITS. THE GEOSYNTHETIC REINFORCEMENT IS COVERED BY 6 INCHES OF LOOSE FILL.
6. THE GEOSYNTHETIC REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTHS. SPLICES IN THE GEOSYNTHETIC REINFORCEMENT STRENGTH DIRECTION ARE NOT ALLOWED.
7. WHERE PIPES INTERFERE WITH GRID LOCATIONS/ELEVATIONS SHOWN ON PLANS, GRID SHALL BE PLACED ALONG SIDE OF, UNDER, AND/OR ABOVE TO MATCH ELEVATIONS ON OTHER SIDE OF PIPE AS SHOWN. ADDITIONAL GRID MAY BE REQUIRED BY WALL DESIGNER ABOVE AND BELOW PIPE, DEPENDING ON ALIGNMENT ANGLE AND SLOPE OF PIPE.
8. DO NOT OPERATE TRACKED CONSTRUCTION EQUIPMENT DIRECTLY ON ANY GEOSYNTHETIC REINFORCEMENT AT LEAST 8 INCHES OF COMPACTED BACKFILL SOIL IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOSYNTHETIC REINFORCEMENT. KEEP TURNING OF TRACKED CONSTRUCTION EQUIPMENT TO A MINIMUM.
9. RUBBER-TIRED EQUIPMENT MAY PASS OVER THE GEOSYNTHETIC REINFORCEMENT AT SPEEDS OF LESS THAN 5 MILES PER HOUR TURNING OF RUBBER TIRED EQUIPMENT IS NOT ALLOWED.
K. USE SPECIAL CORNER BLOCKS AS RECOMMENDED BY THE BLOCK MANUFACTURER.
L. THE CONTRACTOR SHALL START AND FINISH WALL CONSTRUCTION WITHOUT UNDUE DELAY. IF CONTRACTOR IS INSTRUCTED BY OWNER TO STOP WORK BEFORE COMPLETE INSTALLATION OR IF WALL CONTRACTOR ELECTS TO DELAY WORK FOR ANY REASON, A CAPPING LAYER OF LOW PERMEABILITY SOIL SHALL BE PLACED OVER TOP OF THE DRAINAGE STONE AT LEAST 6 INCHES THICK AND COMPACTED A MINIMUM OF FOUR PASSES WITH A VIBRATORY PLATE COMPACTOR. THIS LAYER IS CONSIDERED TEMPORARY AND SHALL BE COMPLETELY REMOVED PRIOR TO RESUMING WALL CONSTRUCTION.
M. WALL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR/OWNER THE FINAL PLACEMENT OF IMPERVIOUS FILL OVER THE DRAINAGE LAYER BEHIND THE WALL. THE IMPERVIOUS FILL IS CONSIDERED PART OF THIS WALL SYSTEM AND SHOULD BE PLACED PRIOR TO WALL CONTRACTOR'S DEMOBILIZATION.

3.07 REINFORCED FILL PLACEMENT

- A. PLACE FILL IN THE REINFORCED ZONE, SPREAD AND COMPACT IN A MANNER THAT WILL MINIMIZE SLACK IN THE GEOSYNTHETIC REINFORCEMENT.
B. ONLY LIGHT-WEIGHT HAND-OPERATED COMPACTION EQUIPMENT IS ALLOWED WITHIN 4 FEET OF THE BACK OF THE RETAINING WALL UNITS. REPLACE THE REINFORCED SOIL IN THE ZONE WITH DRAINAGE AGGREGATE MATERIAL AND COMPACT WITH A MINIMUM 4 PASSES WITH A LIGHT VIBRATORY COMPACTOR AND IN THIN LIFTS.
C. MINIMUM COMPACTION REQUIREMENTS FOR FILL PLACED IN THE REINFORCED ZONE.
1. PLACE MATERIALS FOR USE IN THE REINFORCED ZONE IN LOOSE LAYERS NO GREATER THAN 8 INCHES FOR SOIL, AND NO GREATER THAN 10 INCHES FOR CRUSHED STONE MATERIALS.
2. COMPACTION WITHIN 4 FEET OF THE BACK OF THE SEGMENTAL WALL UNITS SHALL BE PERFORMED WITH LIGHTWEIGHT, HAND-OPERATED COMPACTION EQUIPMENT AND IN THINNER LIFTS IF NECESSARY TO ACHIEVE COMPACTION THROUGHOUT ENTIRE LIFT.
3. COMPACT FILL (REINFORCED AND RETAINED) TO 95 PERCENT OF THE SOIL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698) FOR THE ENTIRE WALL HEIGHT.
4. UTILITY TRENCH-BACKFILL: COMPACT UTILITY TRENCH BACKFILL IN OR BELOW THE REINFORCED ZONE TO 95 PERCENT OF THE SOIL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).
5. UTILITIES MUST BE PROPERLY DESIGNED (BY OTHERS) TO WITHSTAND ALL FORCES FROM THE RETAINING WALL UNITS, REINFORCED SOIL MASS, AND SURCHARGE LOADS, IF ANY.
6. WHERE CRUSHED ROCK (OPEN GRADED AGGREGATE SUCH AS VDOT No. 57 STONE) MATERIALS ARE USED IN THE REINFORCED ZONE, COMPACTION SHALL BE PERFORMED BY A MINIMUM OF 4 PASSES WITH A LIGHT VIBRATORY COMPACTOR AND IN THIN LIFTS, NO GREATER THAN 8 INCHES.
D. AT THE END OF EACH DAY'S OPERATION, SLOPE THE LAST LEVEL OF COMPACTED BACKFILL AWAY FROM THE INTERIOR (CONCEALED) FACE OF THE WALL TO DIRECT SURFACE WATER RUNOFF AWAY FROM THE WALL FACE.
E. THE WALL AND EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR ENSURING THAT THE FINISHED SITE DRAINAGE IS DIRECTED AWAY FROM THE RETAINING WALL SYSTEM. IN ADDITION, THE CONTRACTORS ARE RESPONSIBLE FOR ENSURING THAT SURFACE WATER RUNOFF FROM ADJACENT CONSTRUCTION AREAS IS NOT ALLOWED TO ENTER THE RETAINING WALL AREA OF THE CONSTRUCTION SITE.

3.08 CAP UNIT INSTALLATION

- A. APPLY ADHESIVE TO THE TOP SURFACE OF THE UNIT BELOW AND PLACE THE CAP UNIT INTO DESIRED POSITION.
B. CUT CAP UNITS AS NECESSARY TO OBTAIN THE PROPER FIT.

3.09 SITE CONSTRUCTION TOLERANCES

- A. SITE CONSTRUCTION TOLERANCES
1. VERTICAL ALIGNMENT: PLUS OR MINUS 1-1/2 INCHES OVER ANY 10'-0" FOOT DISTANCE, WITH A MAXIMUM DIFFERENTIAL OF 3 INCHES OVER THE LENGTH OF THE WALL.
2. HORIZONTAL LOCATION CONTROL FROM GRADING PLAN
a. STRAIGHT LINES: PLUS OR MINUS 1-1/2 INCHES OVER ANY 10'-0" FOOT DISTANCE
b. CORNER AND RADIUS LOCATIONS: PLUS OR MINUS 12 INCHES
c. CURVES AND SERPENTINE RADII: PLUS OR MINUS 2 FEET.
B. AESTHETICS OF FINISHED WALL IS NOT RESPONSIBILITY OF WALL DESIGNER.

3.10 FIELD QUALITY CONTROL

- A. INSTALLER RESPONSIBLE FOR PROPER INSTALLATION OF SYSTEM COMPONENTS.
B. OWNER SHALL ENGAGE DEIA TO VERIFY THE CORRECT INSTALLATION OF SYSTEM COMPONENTS IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE DRAWINGS.
C. CORRECT ANY WORK WHICH DOES NOT MEET THESE SPECIFICATIONS OR THE REQUIREMENTS SHOWN ON THE WALL DESIGN DRAWINGS.
D. DEIA TO PERFORM COMPACTION TESTING OF THE FILL PLACED AND COMPACTED IN THE FOUNDATION, RETAINED AND REINFORCED FILL ZONES.

1. TESTING FREQUENCY

- a. MINIMUM ONE TEST FOR EVERY BLOCK COURSE (VERTICAL) OF FILL PLACED AND COMPACTED, FOR EVERY 50 LINEAL FEET OF RETAINING WALL (MINIMUM 2 TESTS PER LIFT RECOMMENDED).
b. VARY COMPACTION TEST LOCATIONS TO COVER THE ENTIRE AREA OF THE REINFORCED SOIL ZONE, INCLUDING THE AREA COMPACTED BY THE HAND-OPERATED COMPACTION EQUIPMENT. IF OPEN GRADED STONE (SUCH AS VDOT No. 57 STONE) IS USED AS MATERIAL IN REINFORCED ZONE, STONE SHALL BE COMPACTED BY MINIMUM FOUR PASSES WITH VIBRATORY COMPACTION EQUIPMENT.

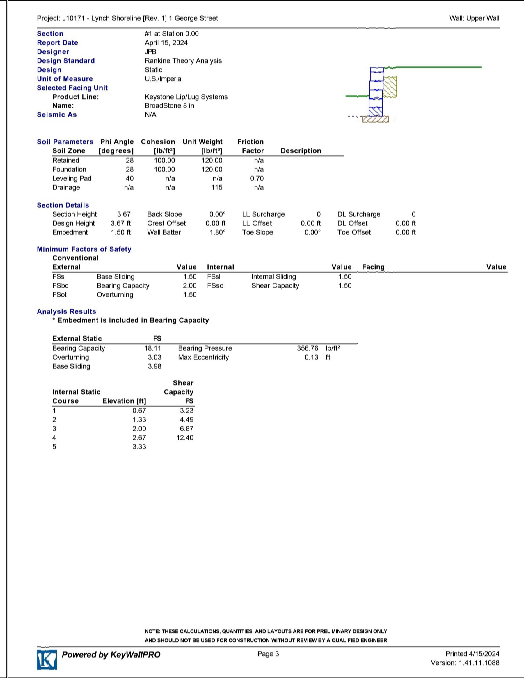
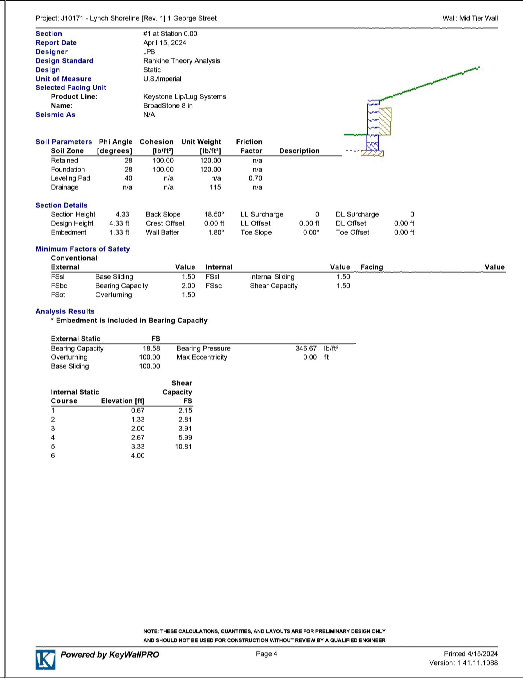
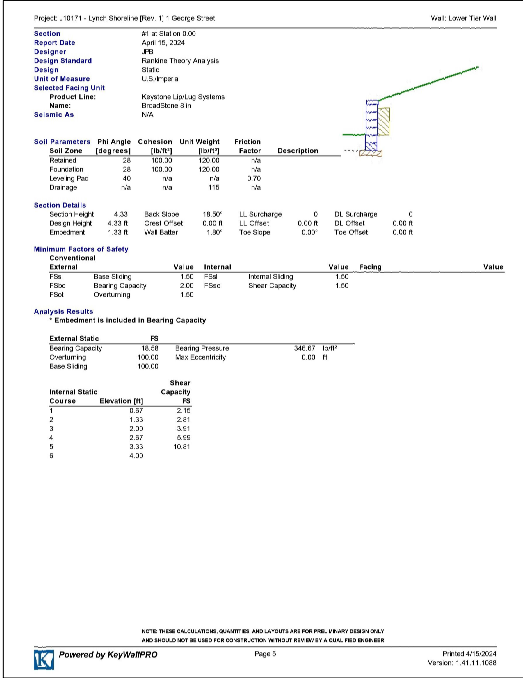
3.11 ADJUSTING AND CLEANING

- A. REPLACE DAMAGED UNITS WITH NEW UNITS AS THE WORK PROGRESSES.
B. REMOVE DEBRIS GENERATED BY WALL CONTRACTOR AND LEAVE ADJACENT PAVED AREAS (AS APPLICABLE) BROOM CLEAN.

3.12 MEASUREMENT, PAYMENT AND CERTIFICATION

- A. MEASUREMENT OF SEGMENTAL RETAINING WALL SHALL BE ON AN INSTALLED SQUARE FOOT BASIS COMPUTED ON THE TOTAL FACE AREA OF WALL INSTALLED. WALL FACE AREA INCLUDES THE BOTTOM OF THE BASE COURSE TO THE TOP OF THE WALL, AND THE ENTIRE LENGTH OF THE WALL.
B. PAYMENT SHALL BE IN ACCORDANCE WITH WALL INSTALLERS CONTRACT.
C. WALL CONTRACTOR SHALL PROVIDE CERTIFICATE LETTER WITHIN ONE WEEK OF WALL COMPLETION STATING THAT THE WALL WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. WARRANTY FOR THE WALL SHALL BE AS AGREED UPON WITH THE OWNER AND STATED IN THE WALL BUILDERS CONTRACT.

END OF SPECIFICATIONS



REVISIONS							
Date	Description	Approved					

J Beck & Associates
Engineering and Consulting

99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE:
WALL SECTIONS AND
DETAILS

PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

DESIGN BY: JPB
DRAWN BY: JPB
CHECK: JPB
DATE: 4/15/2024
FILE: J0174
SCALE: AS SHOWN
SHEET
3 of 5



EROSION AND SEDIMENT CONTROL NARRATIVE:

Project Description
This project is to provide stabilization to roughly 300 linear feet of Aquia Creek shoreline by constructing a tiered retaining wall system, repairing an existing timber bulkhead, and cutting back existing vertical cliff areas to a stabilized slope. The total disturbed area of the project is 0.27 acres, which is all within the RPA. The intent of the grading is to provide stable slopes and balance any earthwork in the areas to the extent possible within the designated limits of disturbance.

Existing Conditions
The existing site consists of a failed slope along the water edge ranging in elevation from 5' to 26'. The site landward of the top of slope line has mild topography and is turf. There is an existing single family residence with several out buildings on the property.

Soils
Soils at the face of slope consist of sedimentary layers of sandy loam, and clay.

Adjacent Areas
The properties above stream and down stream are currently single family residential lots.

Off-site Areas
The properties to surrounding the project site are single family residential lots.

Stockpile Locations
Soil stockpiles or borrow areas are not anticipated. In the event that they are required, they shall be stabilized or protected with sediment trapping measures.

Vehicular Sediment Tracking
Contractor shall utilize construction entrance on site to minimize the transport of sediment off-site. Any sediment deposited on public or private roads shall be removed by shoveling or sweeping and shall be transported to an appropriate disposal area.

Erosion and Sediment Control Measures
All vegetative and structural erosion control practices shall be constructed and maintained in accordance with the Virginia Erosion and Sediment Control Handbook, latest edition, unless specifically indicated otherwise. No disturbed area shall be denuded for more than (7) days, except for those portions of the site that are continuously worked beyond fourteen (14) days.

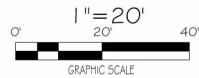
Sequence of Construction:

1. Install Construction Entrance and Safety Fence around drainfield area.
2. Stake limits of limits of clearing and grading.
3. Install shoreline toe protection and perform bulkhead work. No land disturbance is proposed with this phase of work.
4. Contact Stafford County to schedule a pre-construction meeting with the inspector at least two days prior to commencement of work.
5. Install silt fence along base of proposed work area. Contact inspector for approval of silt fence.
6. Perform cut and fill operations for construction of the lower wall, lay back 2:1 slope area and build up grade for up-slope walls.
7. Proceed to lay back upstream slope. Perform rough and fine grading and install temporary (VESCH STD & SPEC 3.31) or permanent (VESCH STD & SPEC 3.32) vegetative stabilization as schedule allows. Install erosion control matting as indicated (VESCH STD & SPEC 3.36).
8. Upon completion of work and stabilization of all denuded areas, obtain approval from County inspector to remove silt fence.

Maintenance Program

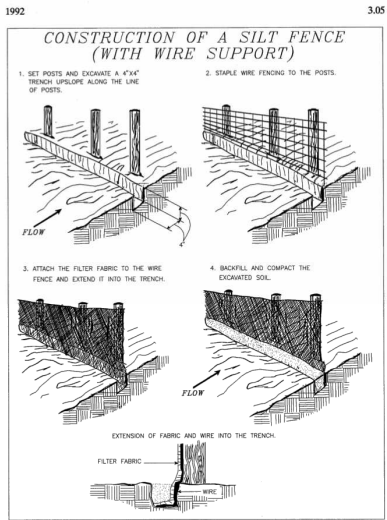
1. Perform daily site inspections. Repair or replace any damaged sediment control measure by the close of day.
2. Silt fence barrier shall be checked regularly for undermining or deterioration of the fabric. Sediment shall be removed and spread on site when the level of sediment reaches half way to the top of the barrier.
3. Seeded areas shall be checked regularly to ensure a good stand is maintained. Area shall be fertilized limed and re-seeded as necessary to encourage a good stand.

EROSION AND SEDIMENT CONTROL PLAN

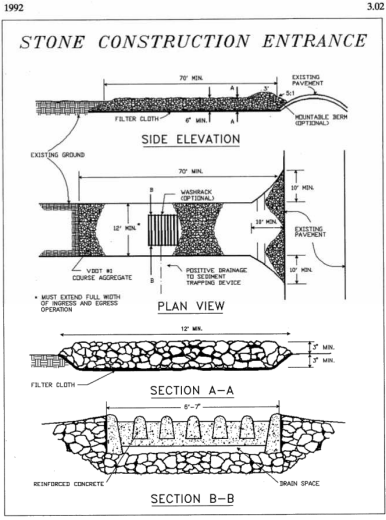


EROSION & SEDIMENT CONTROL LEGEND:

- CE TEMPORARY CONSTRUCTION ENTRANCE
STD. # SPEC. 3.02
- PS PERMANENT SEEDING
STD. # SPEC. 3.32
- SF SILT FENCE STD. # SPEC 3.05
- SSF SUPER SILT FENCE (WIRE SUPPORTED) STD. # SPEC 3.05
- SAF 36" TALL PLASTIC SAFETY FENCE
- IP INLET/OUTLET PROTECTION
STD. # SPEC. 3.18
- OP
- LOC LIMITS OF CLEARING & GRADING



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC

TABLE 3.32-D	
SITE SPECIFIC SEEDING MIXTURES FOR COASTAL PLAIN AREA	
	Total lbs. Per Acre
Minimum Care Lawn	
• Commercial or Residential	
• Kentucky 31 or Turf-Type Tall Fescue	175-200 lbs.
• Common Bermudagrass **	75 lbs.
High-Maintenance Lawn	
• Kentucky 31 or Turf-Type Tall Fescue	200-250 lbs.
• Hybrid Bermudagrass (seed) **	40 lbs. (unhulled)
• Hybrid Bermudagrass (by other vegetative establishment method, see Std. & Spec. 3.34)	30 lbs. (hulled)
General Slope (3:1 or less)	
• Kentucky 31 Fescue	128 lbs.
• Red Top Grass	2 lbs.
• Seasonal Nurse Crop *	150 lbs.
Low Maintenance Slope (Steeper than 3:1)	
• Kentucky 31 Tall Fescue	93-108 lbs.
• Common Bermudagrass **	0-15 lbs.
• Red Top Grass	2 lbs.
• Seasonal Nurse Crop *	20 lbs.
• Sericea Lespedeza **	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February, March through April Annual Rye
May 1st through August Foothill Millet
September, October through November 15th Annual Rye
November 16th through January Winter Rye

** May through October, use hulled seed. All other seeding periods, use unhulled seed. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

REVISIONS

Date	Description	Approved

J Beck & Associates
Engineering and Consulting

99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@beckassociates.com

TITLE:
EROSION AND
SEDIMENT CONTROL
PLAN

PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

DESIGN BY: JPB

DRAWN BY: JPB

CHECK: JPB

DATE: 4/15/2024

FILE: J10174

SCALE: AS SHOWN

SHEET

5 of 5

ATTACHMENT 3

2022 VICINITY MAP

2024 PICTOMETRY MAP

1937 HISTORICAL AERIAL IMAGERY

1954 HISTORICAL AERIAL IMAGERY

1983 HISTORICAL AERIAL IMAGERY

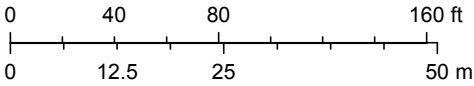
2011 HISTORICAL AERIAL IMAGERY

2022 Aerial (Tx Map #40-59 (CBB24-03))



6/3/2024, 4:34:10 PM

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|--|---------------------------|--|-----------------------|--|-----------------------|
| | Enable OnBase Search | | County Administration | | Secondary Major |
| | Points of Interest | | Community Facilities | | VA Primary (Business) |
| | Stafford Regional Airport | | Public Schools | | VA Primary |
| | Stafford Hospital | | Structures | | US Route (Business) |
| | Train Stations | | Quantico Roads | | US Route |
| | Libraries | | Secondary Minor | | Interstate Ramps |
| | | | Secondary | | Interstate |

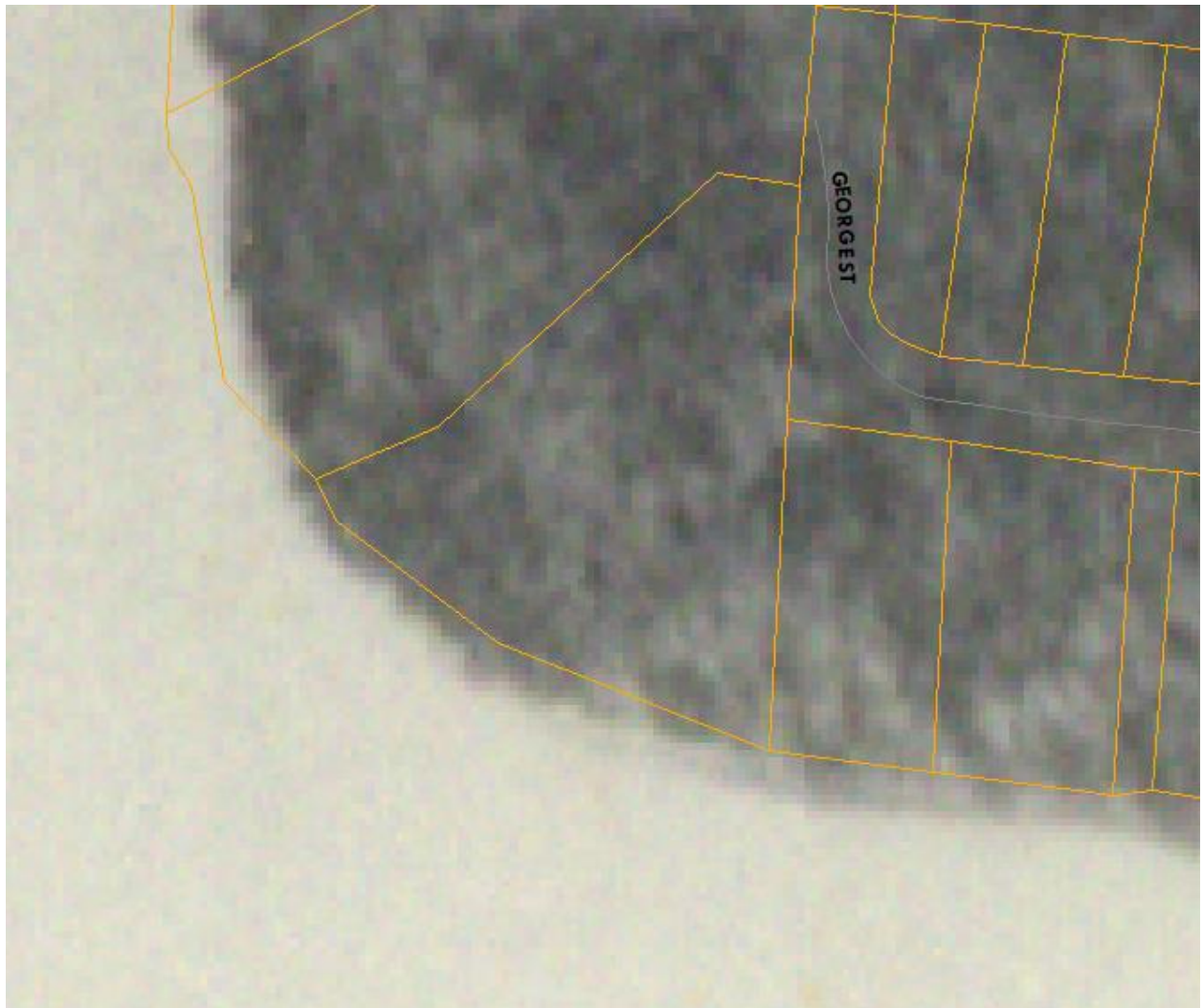
Stafford County GIS Office, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Tax Map Parcel 40-59 - 2024 Pictometry Map



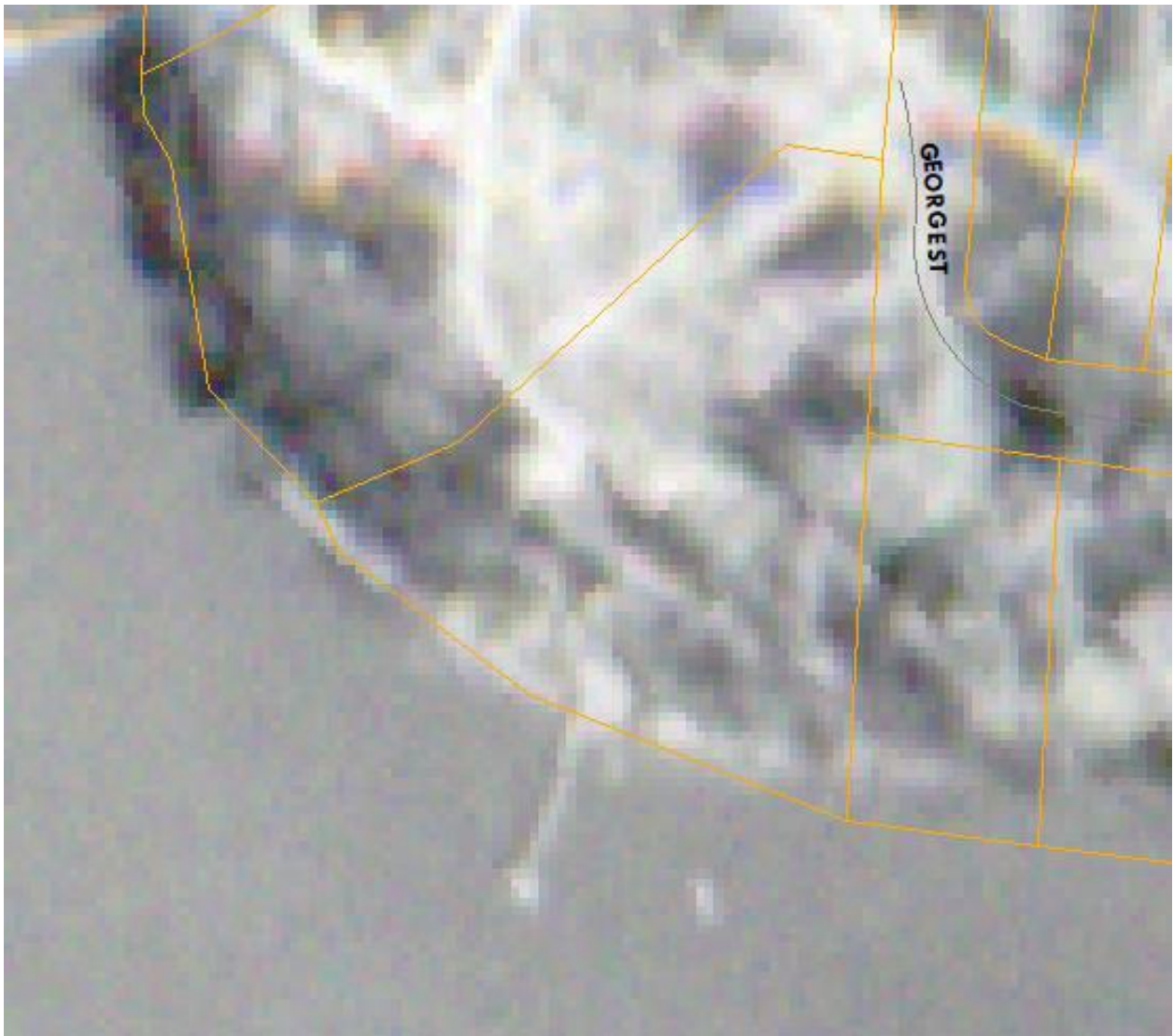
Not to Scale

1937 Historical Aerial (Tx Map # 40-59)



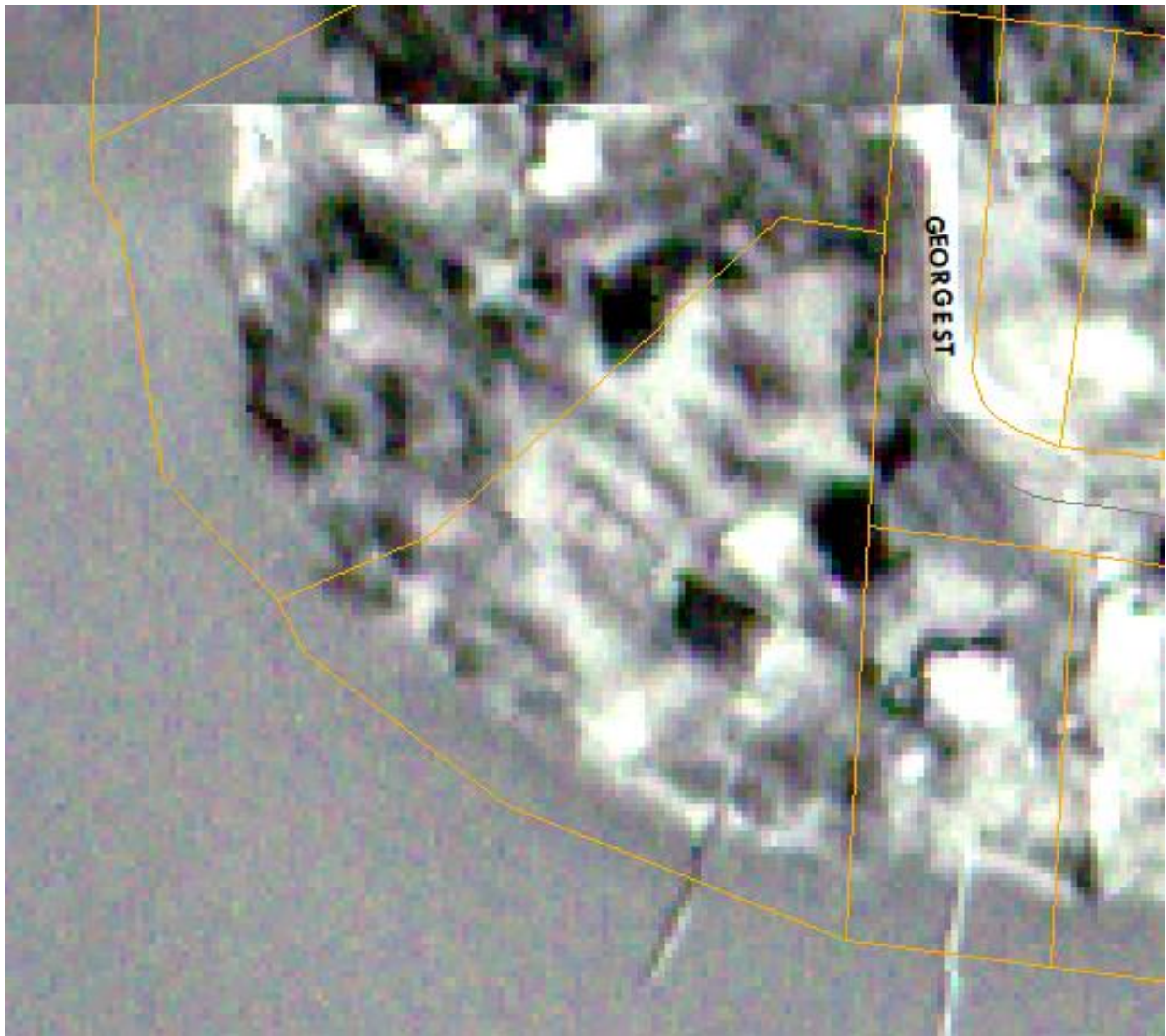
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1954 Historical Aerial (Tx Map # 40-59)



Not to Scale

1983 Historical Aerial (Tx Map # 40-59)



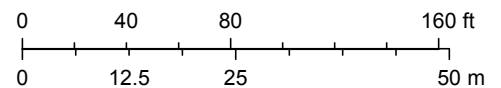
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2011 Historical Aerial (Tx Map #40-59 (CBB24-03))



6/3/2024, 4:32:23 PM

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|--|---------------------------|--|-----------------------|--|-----------------------|
| | Enable OnBase Search | | County Administration | | Secondary Major |
| | Points of Interest | | Community Facilities | | VA Primary (Business) |
| | Stafford Regional Airport | | Public Schools | | VA Primary |
| | Stafford Hospital | | Structures | | US Route (Business) |
| | Train Stations | | Quantico Roads | | US Route |
| | Libraries | | Secondary Minor | | Interstate Ramps |
| | | | Secondary | | Interstate |

Virginia Geographic Information Network (VGIN), Stafford County GIS Office, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

ATTACHMENT 4
ADJACENT PROPERTY OWNERS NOTIFICATION

Adjacent Property Owners

Mr. Todd Santee
5 George Street
Stafford, Virginia 22554

Mr. John Cunningham
115 Woodrow Drive
Stafford, Virginia 22554

J&M Sterling LLC
111 Woodrow Drive
Stafford, Virginia 22554



May 28, 2024

J&M Sterling LLC
111 Woodrow Drive
Stafford, Virginia 22554

NOTICE OF PUBLIC HEARING

Subject: ***24155700; Stafford Count Chesapeake Bay Board Application, CBB24-01; Lynch Retaining Walls; Tax Map Parcel No. 40-59; within the Griffis-Widewater Election District***

The Stafford County Chesapeake Bay Board will hold a public hearing on Monday, June 17, 2024, beginning at 6:00 p.m. or as soon thereafter as the matter may be heard, in the George L. Gordon, Jr., Government Center, 1300 Courthouse Road. The hearing will consider the request of Mr. David Lynch for a Stafford County Chesapeake Bay Board Special Exception on Tax Map Parcel No. 40-59. The purpose of the request is to construct 3 retaining walls along the slope adjacent to the Aquia Creek within the Chesapeake Bay Resource Protection Area buffer.

All interested parties are invited to appear at the above designated time and place and state their views. Persons requiring special accommodations to facilitate participation in the above matter are encouraged to contact the Department of Development Services at least five days prior to the meeting.

The public hearing may be continued or adjourned. A copy of the application and other related materials are on file in the Department of Development Services located at 2128 Richmond Highway, Suite 201, Stafford, Virginia 22554, and may be examined Monday through Friday between the hours of 8:00 a.m. and 4:30 p.m.

If you have any questions or concerns regarding this matter, please contact Joseph Fiorello at (540) 658-8689.

Sincerely,

Joseph Fiorello, PWS, CPWD, CA
Environmental Planner

JPF:EAT: PS



May 28, 2024

Mr. John Cunningham
115 Woodrow Drive
Stafford, Virginia 22554

NOTICE OF PUBLIC HEARING

Subject: ***24155700; Stafford Count Chesapeake Bay Board Application, CBB24-01; Lynch Retaining Walls; Tax Map Parcel No. 40-59; within the Griffis-Widewater Election District***

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Environmental Planner

JPF:EAT: PS



May 28, 2024

Mr. Todd Santee
5 George Street
Stafford, Virginia 22554

NOTICE OF PUBLIC HEARING

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Sincerely,

Joseph Fiorello, PWS, CPWD, CA
Environmental Planner

JPF:EAT: PS

ATTACHMENT 5
PROPOSED RESOLUTIONS

CHEAPEAKE BAY BOARD
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

SPECIAL EXCEPTION RESOLUTION

At a regular meeting of the Stafford County Chesapeake Bay Board held in the Board of Supervisors Chambers, Stafford County Administration Center, Stafford, Virginia, on the 17th day of June, 2024:

MEMBERS:

Sue Henderson
Mary Rust
Anthony Pineau
Benjamin Rudasill
Dan Adams
Robert Hayden
Zachary Martinez

VOTE:

On the motion of _____, seconded by _____, which carried by a vote of ____ to ____, the following was adopted:

A RESOLUTION WHICH APPROVES AN APPLICATION FOR A SPECIAL EXCEPTION PURSUANT COUNTY CODE SECTION 27B-14 ENTITLED "SPECIAL EXCEPTIONS" TO ALLOW DISTURBANCE OF A CRITICAL RESOURCE PROTECTION AREA (CRPA) ON TAX MAP PARCEL 40-59, GRIFFIS-WIDEWATER ELECTION DISTRICT

WHEREAS, the Stafford County Chesapeake Bay Board received application 24155700 from Mr. David Lynch to allow grading, construction of 3 retaining walls, and replanting within 11,740 square feet (0.27-acre) of CRPA located on site; and

WHEREAS, the Stafford County Chesapeake Bay Board has authority under County Code Section 27B-14 to issue an exception for land disturbance activities in a CRPA; and

WHEREAS, Mr. David Lynch has applied for an exception to County Code Section 27B-7(2), entitled "Development Conditions"; and

WHEREAS, the Stafford County Chesapeake Bay Board has given proper notice of a public hearing as required by the Code of Virginia (1950), as amended, and the Stafford County Code; and

WHEREAS, the Stafford County Chesapeake Bay Board after due consideration of the facts of the application and testimony at the public hearing finds the following;

- (1) Granting the special exception will not confer upon the applicant(s) any special privileges denied by this chapter to other property owners who are subject to its provisions and who are similarly situated;
- (2) The special exception request is not based on any conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or nonconforming that are related to adjacent parcels;
- (3) The special exception request is the minimum necessary to afford relief;

- (4) The special exception request will be consistent with the purpose and intent of this chapter, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and
- (5) Reasonable and appropriate conditions can be imposed which will prevent the special exception request from causing a degradation of water quality; and

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Chesapeake Bay Board on this the 17th day of June, 2024, that exceptions to County Code Section 27B-7, entitled “Development conditions” pursuant to application 24155700 be and it hereby is approved with the following conditions:

- 1. The limits of the CRPA buffer encroachments shall be as shown in the Wetlands Joint Permit Application Plan Sheets (sheets 1-5) submitted with the Special Exception Application, Attachment 2 of the Staff Report dated June 17, 2024.
- 2. Mitigation for the encroachment into the CRPA must be consistent with the plantings proposed in the Special Exception Request and as shown on the site design plans of the Wetlands Joint Permit Application.
- 3. A Land Disturbance Permit will be required if land disturbance is greater than 2,500 sq. ft.
- 4. A building permit will be required for the construction of the 3 retaining walls.
- 5. Should design plans change, the applicant is required to contact Stafford County Environmental Staff.
- 6. The applicant shall contact Stafford County Environmental Planner for a post construction and vegetation planting site inspection. Thereafter, applicant is to contact Staff to conduct an annual site visit for 2 years. This monitoring is to verify the vegetation is still present and health.
- 7. The applicant is to ensure the required plantings survive and are in good health in perpetuity. If any of the plantings die they are to be replaced in kind.
- 8. This resolution, CBB-24-03 for the grading, construction of three retaining walls and replanting of the disturbed portion of the RPA on Tax Map Parcel 40-59 is valid for 1 year and will expire June 17, 2025.

Sue Henderson
Chesapeake Bay Board Chairman

JPF:et

CHEAPEAKE BAY BOARD
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

SPECIAL EXCEPTION RESOLUTION

At a regular meeting of the Stafford County Chesapeake Bay Board held in the Board of Supervisors Chambers, Stafford County Administration Center, Stafford, Virginia, on the 17th day of June, 2024:

MEMBERS:

Sue Henderson
Mary Rust
Anthony Pineau
Benjamin Rudasill
Dan Adams
Robert Hayden
Zachary Martinez

VOTE:

On the motion of _____, seconded by _____, which carried by a vote of __ to __, the following was adopted:

A RESOLUTION WHICH DENIES AN APPLICATION FOR A SPECIAL EXCEPTION PURSUANT COUNTY CODE SECTION 27B-14 ENTITLED "SPECIAL EXCEPTIONS" TO ALLOW DISTURBANCE OF A CRITICAL RESOURCE PROTECTION AREA (CRPA) ON TAX MAP PARCEL 40-59, GRIFFIS-WIDEWATER ELECTION DISTRICT

WHEREAS, the Stafford County Chesapeake Bay Board received application 24155700 from Mr. David Lynch to allow a grading, construction of 3 retaining walls, and replanting within 11,740 square feet (0.27-acre) of CRPA located on site; and

WHEREAS, the Stafford County Chesapeake Bay Board has authority under County Code Section 27B-14 to issue an exception for land disturbance activities in a CRPA; and

WHEREAS, Mr. David Lynch has applied for an exception to County Code Section 27B-7, entitled "Development conditions"; and

WHEREAS, the Stafford County Chesapeake Bay Board has given proper notice of a public hearing as required by the Code of Virginia (1950), as amended, and the Stafford County Code; and

WHEREAS, the Stafford County Chesapeake Bay Board after due consideration of the facts of the application and testimony at the public hearing finds one or more of the following to be true:

- (1) Granting the special exception will confer upon the applicant(s) special privileges denied by this chapter to other property owners who are subject to its provisions and who are similarly situated;
- (2) The special exception request is based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or nonconforming that are related to adjacent parcels;
- (3) The special exception request is not the minimum necessary to afford relief;

- (4) The special exception request will not be consistent with the purpose and intent of this chapter, injurious to the neighborhood or otherwise detrimental to the public welfare, and is of substantial detriment to water quality; and
- (5) Reasonable and appropriate conditions cannot be imposed which will prevent the special exception request from causing a degradation of water quality; and

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Chesapeake Bay Board on this the 17th day of June, 2024, that exceptions to County Code Section 27B-7, entitled “Development conditions”, pursuant to application 24155700 be and it hereby is denied.

Sue Henderson
Chesapeake Bay Board Chairman

JPF:et

ATTACHMENT 6
LYNCH RETAINING WALL POWER POINT
PRESENTATION



Chesapeake Bay Board

JUNE 17, 2024

Stafford County Government

Agenda

- Call to Order
- Roll Call
- Determination of a Quorum
- Approval of Meeting Minutes
 - January 22, 2024
- Public Hearing
- CBB24-03 – AP24155700 – MR. David Lynch Retaining Walls
 - Application to impact 20,834 sq. ft. (0.48 acre) of CRPA for a second entrance to the Matan Crossroads project site.

Chapter 27B: Section 27B-14 – Special Exceptions

- (a) In deciding whether to grant, grant in modified form or deny a special exception application, the board shall review the request for a special exception and the water quality impact assessment. The board may grant the special exception, with such conditions and safeguards as deemed necessary to further the purpose and intent of this chapter, if the board finds:
 - 1) Granting the special exception will not confer upon the applicant(s) any special privileges denied by this chapter to other property owners who are subject to its provisions and who are similarly situated;
 - 2) The special exception request is not based on any conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or nonconforming that are related to adjacent parcels;
 - 3) The special exception request is the minimum necessary to afford relief;
 - 4) The special exception request will be consistent with the purpose and intent of this chapter, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and
 - 5) Reasonable and appropriate conditions are imposed which will prevent the special exception request from causing a degradation of water quality.
- (b) If the board denies the special exception, the board shall provide the applicant(s) with the board's written decision, including its rationale.

CBB24-03 – AP24155700 – Lynch

Retaining Walls

- Description:
 - A request to impact 11,740 sq. ft. of CRPA for the construction of 3 tiered retaining walls.
- Tax Map Parcel No:
 - 40-59
- Election District:
 - Giffis-Widewater



Background

- **Current Condition:**

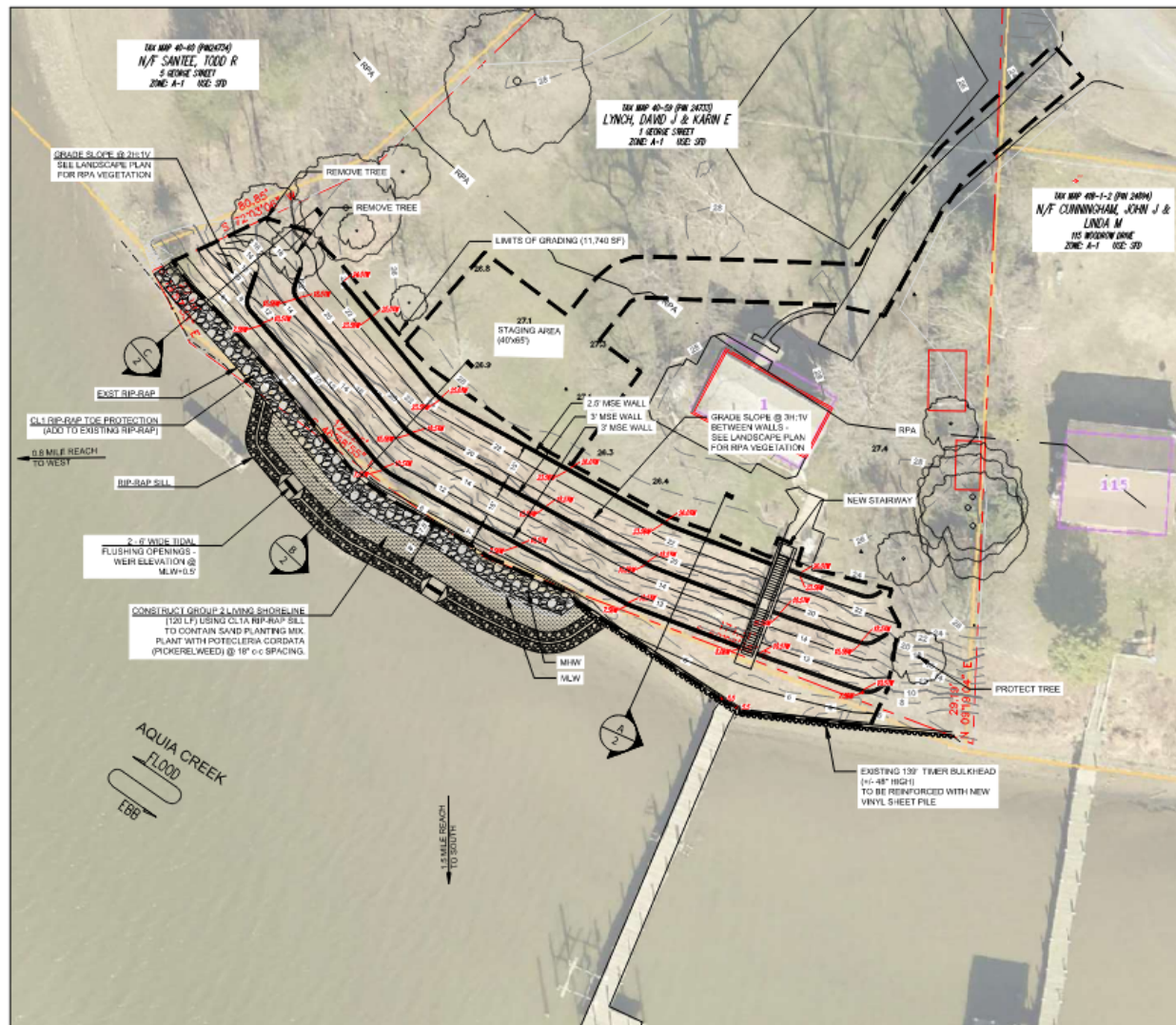
The property is zoned A1; was platted prior to the adoption of the Chesapeake Bay Act ordinances, contains a single-family residential structure; a partial bulkhead; and a pier. Based on aerial photographs the house was built sometime between 1937 – 1954, and is readily visible in the 1983 aerial photograph of the area. The pier shows up in the 1954 aerial photograph of the area and was replaced in 2015 under wetlands permit application VMRC#20150496. The 2015 wetland permit application for the replacement of the pier showed that the bulkhead was in existence at that time. The 2022 aerial shows the majority of the CRPA to be void of woody vegetation.
- **Proposed Condition:**

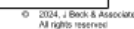
The proposed grading, construction of the three retaining walls, and replanting within the CRPA of the property will involve disturbing 11,740 sq. ft. of the seaward 50 feet of the CRPA located on site. Replanting will also occur in some areas of the property that are located outside of the CRPA as mitigation for the void of vegetation within the landward 50-foot portion of the CRPA originally used for the residential structure and a small backyard. This is a normal practice to accommodate a residential structure on a pre-Chesapeake Bay lot while still providing vegetation mitigation over the entire property. The planting plan was designed with the use of the Riparian Buffers Modification and Mitigation Guidance Manual and proposes 30 canopy trees, 60 understory trees and 90 shrubs.
- Mr. David Lynch is requesting the Board consider the mitigation described above as compensation for the loss 0.27 acre (11,740 sq. ft.) of RPA due to the proposed grading, installation of the 3 retaining walls and replanting of the disturbed portion of the RPA.

Tax Map Location – 40-59 (1 George Street)



Proposed Grading & Retaining Walls







Staff Observations

- A special exception is required for proposed grading and construction of 3 retaining walls within the CRPA.
- The wetlands permit application meets the 4 criteria of the Group II living shoreline guidance.
- Repairs to the bulkhead are not within the jurisdiction of the Stafford County Wetlands Board.
- The proposed mitigation for the 0.27 acres of RPA encroachment is in accordance with Chapter 27B of Stafford County Code and Appendix D of the Riparian Buffers Modification and Mitigation Manual.

ATTACHMENT 7

OLD BUISNESS:

CHAIRMAN'S REPORT:

STAFF REPORT: NONE

ADJOURNMENT