



**US Army Corps
of Engineers**
Philadelphia District
1650 Arch Street
Philadelphia, PA 19103-2004
Attn: CENAP-OPR

Public Notice

Comment Period Begins: June 26, 2023
Comment Period Ends: July 11, 2023
File Number: NAP-2021-00576-85
File Name: Fenwick Island Channel Dredging SX
Contact: Michael D. Yost
Email: michael.d.yost@usace.army.mil

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

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: Patricia Schuchman, Town of Fenwick Island

AGENT: Wendy Mae Mahaney, Anchor QEA, LLC.

LOCATION: The activity is occurring within and along the Little Assawoman Bay in Fenwick Island, Sussex County, Delaware.
38.458327°N, 75.061823°W

PURPOSE: The activity is designed to maintain the navigational servitude at key locations in the Bay.

PROJECT DESCRIPTION:

The applicant proposes to hydraulically dredge 2 channels identified as the North Channel and South Channel within the Little Assawoman Bay to a depth of -4 feet below mean low water with an allowable over-dredge tolerance to a depth of -5 feet mean low water. The combined channel length is approximately 4,000 linear feet encompassing approximately 4.6 acres. Approximately 19,000 cubic yards of material will be pumped into geotextile dewatering bags located west of the dredging areas at 38876 Bennett Avenue in Selbyville, Sussex County, Delaware. The dewatering area will be surrounded by super silt fence, with the excess water collected via sumps or earthen berms and pumped back into the bay. Once dewatered, the dredged material will remain on site for use on the property. A public notice was previously issued on June 28, 2021, however, that application was withdrawn by the applicant.

For additional project details, see the attached plans identified as: PERMIT DRAWINGS LITTLE ASSAWOMAN BAY DREDGING PROJECT TOWN OF FENWICK, prepared by Anchor QEA, dated June 10, 2021, 13 sheets.

MITIGATION

The applicant has stated that the proposed project has been designed to avoid and minimize adverse effects on the aquatic environment to the maximum extent practicable. Information provided in the application and on the plans indicates that compensatory mitigation is neither practicable nor feasible for the amount of dredged or fill material to be discharged into waters of the United States.

CORPS EVALUATION FACTORS

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof. Among these factors are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people.

The evaluation of the impact of this project will also include application of the Clean Water Act Section 404(b)(1) Guidelines promulgated by the Administrator, U.S. Environmental Protection Agency if the project includes a discharge of dredge or fill material pursuant to Section 404 of the Clean Water Act.

Evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, EPA, (40 CFR part 230) or of the criteria established under authority of section 102(a) of the Marine Protection, Research and Sanctuaries Act of 1972.

ENDANGERED SPECIES

A preliminary review of this application indicates that the proposed work would not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act (ESA). As a result, consultation with the U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) pursuant to Section 7 of the ESA is not necessary. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

CULTURAL RESOURCES AND TRIBAL TRUST

The District's Cultural Resource Specialist and Tribal Liaison is currently reviewing the proposed permit action for potential impacts to Historic Properties eligible for or listed on the National Register of Historic Places and for potential issues concerning the

Tribes. A determination of effects will be coordinated with the State Historic Preservation Office, the Tribes and other consulting parties as necessary.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires all federal agencies to consult with the National Marine Fisheries Service (NMFS) for all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary review of this application indicates that EFH is present within the project area. This office will evaluate the potential effects of the proposed actions on EFH and will consult with NMFS, as appropriate. Consultation would be concluded prior to the final decision on this permit application.

WATER QUALITY CERTIFICATE

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate (WQC) is required from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

COASTAL ZONE MANAGEMENT ACT

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management (CZM) Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State CZM Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact on the State's coastal zone should be sent to this office with a copy to the State's CZM office.

SUBMISSION OF COMMENTS AND PUBLIC HEARING REQUEST

Any comments received will be considered by this office to determine whether to issue, modify, condition, or deny a permit for this proposed project. To make this decision, comments are used to assess the probable impact on the public interest. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work must be submitted, in writing, within the comment period indicated in the header above. Any person may request, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing must be in writing and state the reasons for holding a public hearing.

Please provide any comments, request for a public hearing, or requests for additional information to the Regulatory Project Manager indicated above. All Public Notices are posted on our website at:

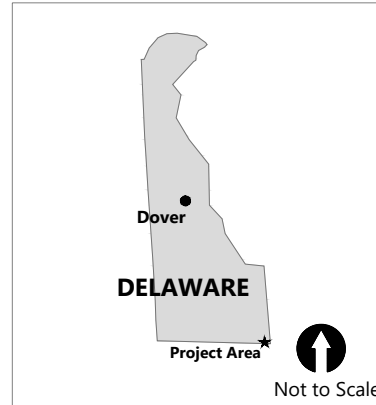
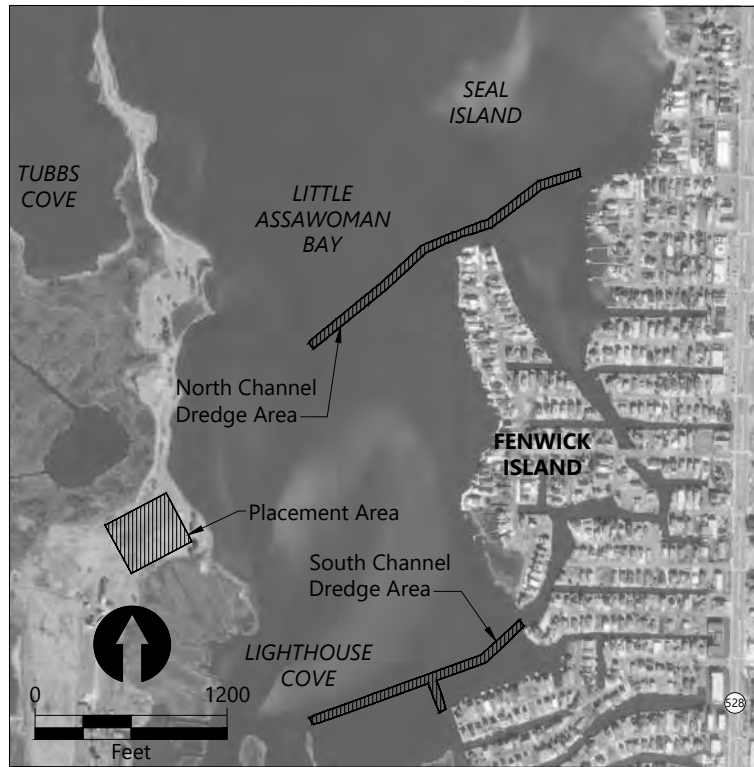
<https://www.nap.usace.army.mil/Missions/Regulatory/Public-Notices/>

FOR: Todd A. Schaible
Chief, Regulatory Branch

Permit Drawings

Little Assawoman Bay Dredging Project

TOWN OF FENWICK ISLAND



SHEET LIST	
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Publish Date: 2021/06/10 4:57 PM | User: bhurry
 Filepath: K:\Projects\2069-Fenwick\Fenwick\Permit\2069-PL-001-COVER SHEET AND GENERAL NOTES.dwg Figure 1



Figure 1
Cover Sheet

Permit Set
 Little Assawoman Bay Dredging Project

GENERAL NOTES

1. This project includes hydraulic dredging of sediments in Little Assawoman Bay, Fenwick island, Delaware, and associated upland access for construction equipment access and dredged material dewatering.
2. If specifications contradict these drawings, specifications shall govern.
3. Locations displayed for existing conditions such as shorelines, structures, underground utilities, identified trees, and utilities are approximate. contractor shall field verify location of site structures, location of identified trees, shoreline, and other site features prior to construction.
4. The owner's representative shall be notified in writing of any conditions that vary from those shown on the drawings. the contractor's work shall not vary from the drawings without the expressed approval of owner's representative.
5. Details shown are typical; similar details apply to similar conditions unless otherwise noted.
6. These drawings do not include necessary components for construction safety. the contractor is responsible for the safety of site personnel and shall abide by the requirements of the technical specifications and the contractor's health and safety plan (HASP), as appropriate, as well as applicable Occupational Safety and Health Administration (OSHA) regulations.
7. The contractor is responsible for obtaining all utility markouts and forwarding confirmation of notification to the owner's representative. the contractor shall be responsible to obtain any and all necessary permits from the affected utility companies and for scheduling of inspections by utility company personnel, if required, during construction.
8. The contractor shall adequately protect all existing structures and utilities. any damage to existing structures, shorelines, or utilities shall be the sole responsibility of the contractor.
9. Overhead lines are present at the site and they are not shown in their entirety on these drawings. contractor shall field verify and locate all overhead lines present along the work areas.
10. The contractor shall comply with all required permits and other applicable regulatory requirements.
11. The contractor shall be responsible for temporary erosion and sediment control measures during the construction period, as required by the permits, local ordinances, plans, and specifications.
12. The contractor is advised that all local public nuisance laws and noise ordinances shall be observed during the course of construction.
13. The contractor shall furnish, install, and maintain appropriate signage for traffic control and pedestrian safety during construction. maintain open access for all public roadways during performance of the work.
14. The contractor shall maintain a neat and orderly site, yard, and grounds. remove and dispose off site all rubbish, waste materials, litter, and all foreign substances. promptly notify appropriate authorities and owner's representative, and remove petro-chemical spills, stains, and other foreign deposits in accordance with local, state, and federal regulations.

ESTIMATE OF QUANTITIES			
PROJECT AREA	REQUIRED DREDGE VOLUME (CY)	ALLOWABLE OVERDREDGE VOLUME (CY)	TOTAL VOLUME (CY)
NORTH CHANNEL	5,597	3,968	9,565
SOUTH CHANNEL	5,483	3,411	8,894
TOTAL	11,080	7,379	18,459

SEQUENCE OF CONSTRUCTION:

Specific activities conducted by the contractor to complete the work include, but are not limited to:

1. Conduct field investigations or evaluations to confirm site conditions.
2. Prepare and submit final work plans and all other pre-construction submittals.
3. Attend a pre-construction meeting with the owner's representative.
4. Mobilize crews, facilities, equipment, and materials required to complete the work.
5. Install and maintain environmental controls.
6. Establish dredged material dewatering area in accordance with these project drawings.
7. Dredge north and south channels to the limits specified on drawings. this work includes, but is not limited to:
 - A. Dredge sediments in the sequence identified in the technical specifications
 - B. Transport sediments via pipeline to the dredged material dewatering area
 - C. Manage and dewater sediments as stated in the specifications.
8. Place aids to navigation buoys within Little Assawoman Bay as shown on these drawings.
9. Restore the upland site, where applicable, to pre-construction conditions in accordance with the technical specifications.

SURVEY NOTES:

1. Horizontal Datum: Delaware State Plane , North American Datum of 1983 (NAD83), U.S. Survey Feet
2. Vertical Datum: Mean Low Water. 0' MLW = -0.87 NAVD88

EXISTING LEGEND:

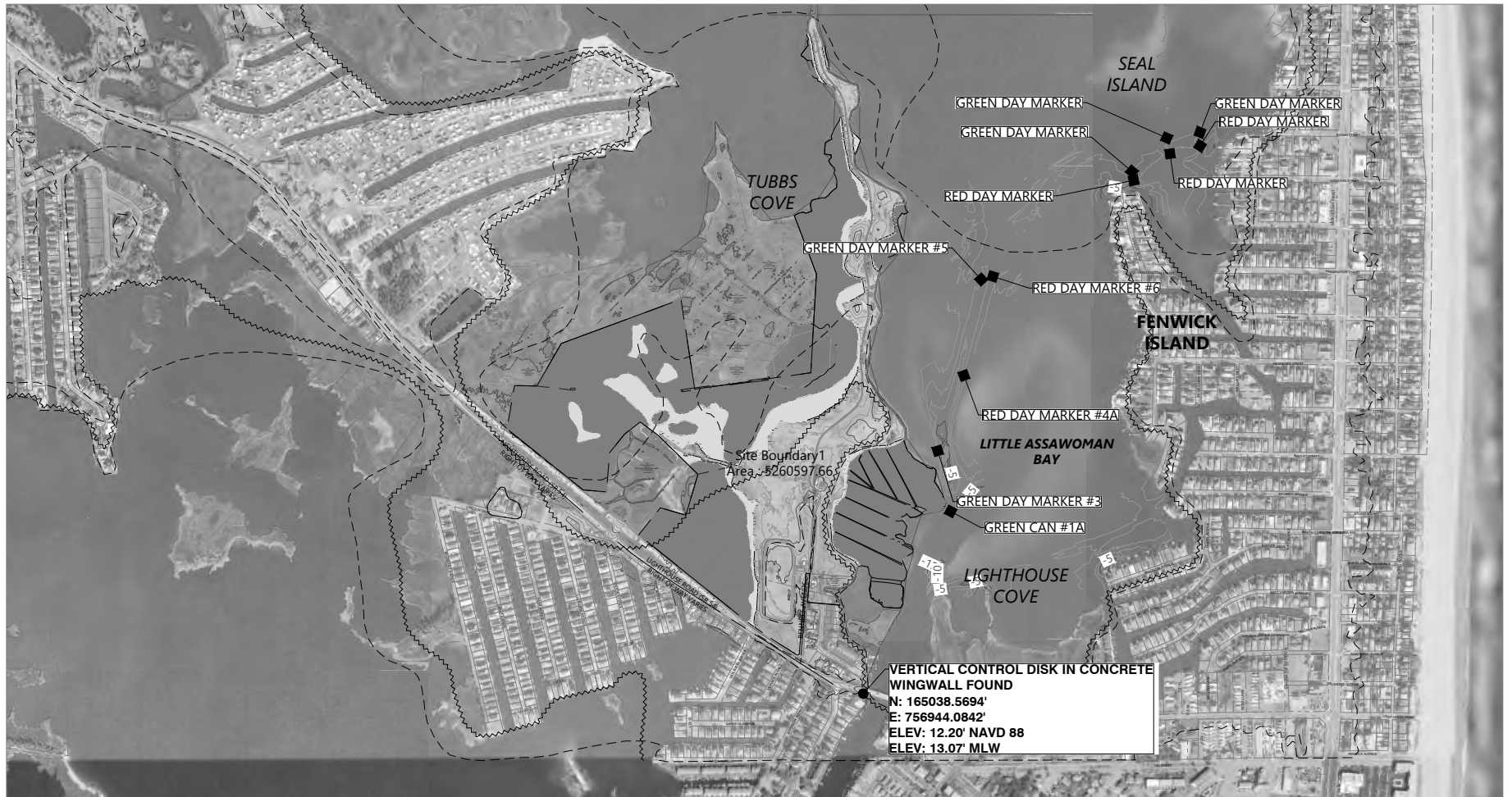
- Existing Grade
- Parcel
- Limited Wave Action Line
- Flood Zone
- Wetland Waters of United States
- Tidal Wetlands
- Riprap
- Marker

PROPOSED LEGEND:

- Existing Grade
- Placement area
- Limits of Disturbance
- Silt Fence
- Stabilized Construction Entrance
- Limit of Required Dredging (Elevation -4.0' MLW)
- Approximate Daylight Extents



**Figure 2
 General Notes and Legend**

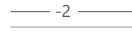

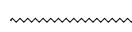
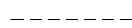


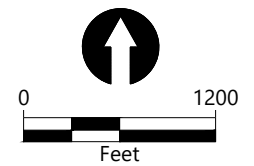
SOURCE: Bathymetric Survey from Cannon. Upland Survey and Line Work Provided by GMB. Aerial Imagery from Bing Maps.

HORIZONTAL DATUM: Delaware State Plane , NAD83, U.S. Survey Feet.

VERTICAL DATUM: Mean Low Water (MLW).

EXISTING LEGEND:

-  Existing Grade
-  Parcel
-  Limited Wave Action Line
-  Flood Zone



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 Filepath: K:\Projects\2069-Fenwick\Fenwick\Permit\2069-PL-002-EXISTING CONDITIONS.dwg Figure 3



Figure 3
Existing Conditions

Permit Set
 Little Assawoman Bay Dredging Project



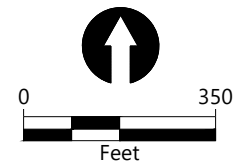
SOURCE: Survey from Cannon. Aerial Imagery from Bing Maps.

HORIZONTAL DATUM: Delaware State Plane , NAD83, U.S. Survey Feet.

VERTICAL DATUM: Mean Low Water (MLW).

LEGEND:

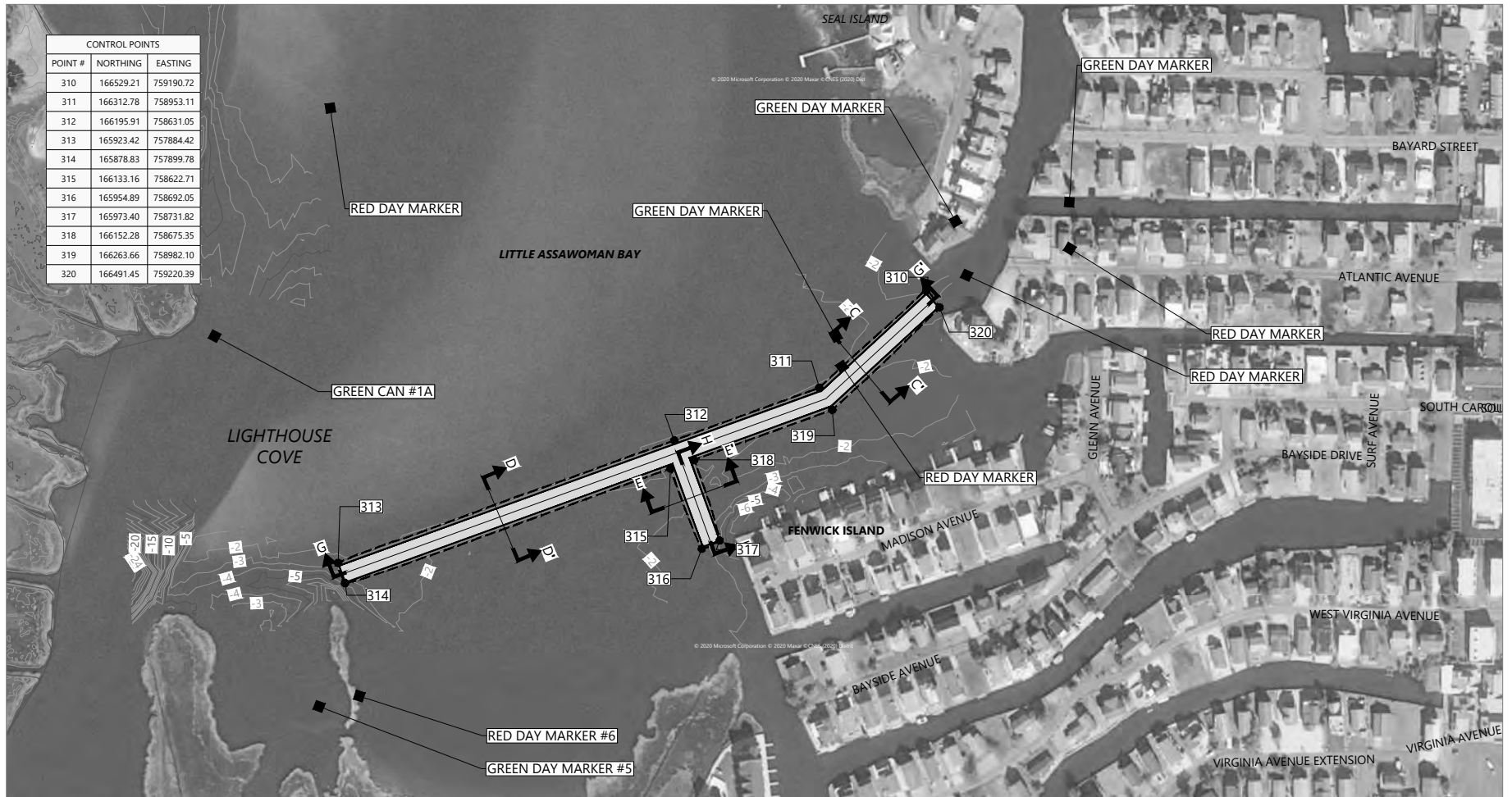
- 3 Existing Grade
- Limit of Required Dredging (Elevation -4.0' MLW)
- Approximate Daylight Extents



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Figure 4
Dredging Plan - North Channel
 Permit Set
 Little Assawoman Bay Dredging Project

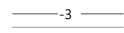

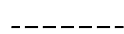


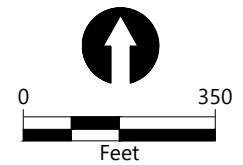
SOURCE: Survey from Cannon. Aerial Imagery from Bing Maps.

HORIZONTAL DATUM: Delaware State Plane , NAD83, U.S. Survey Feet.

VERTICAL DATUM: Mean Low Water (MLW).

LEGEND:

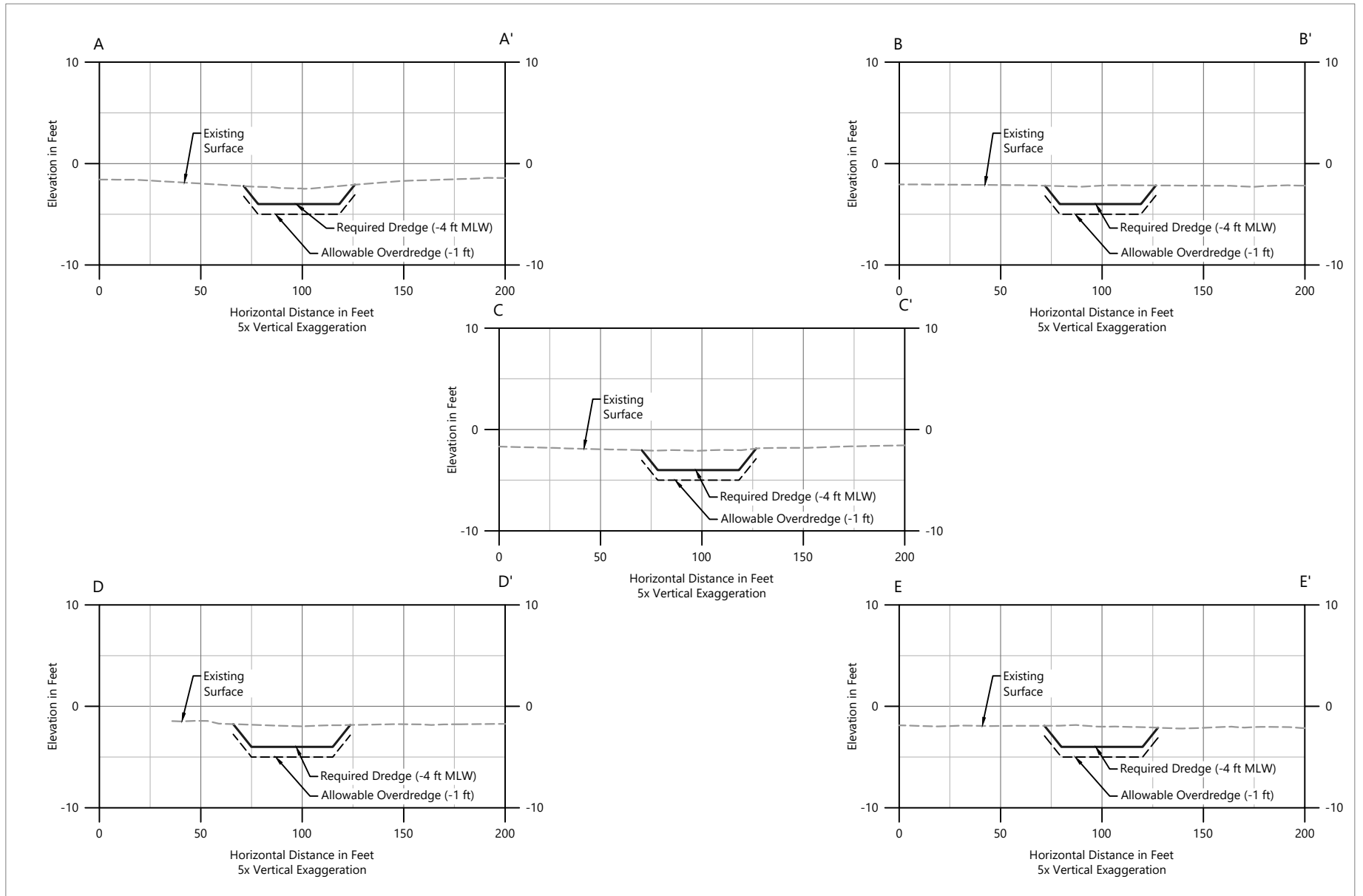
-  Existing Grade
-  Limit of Required Dredging (Elevation -4.0' MLW)
-  Approximate Daylight Extents



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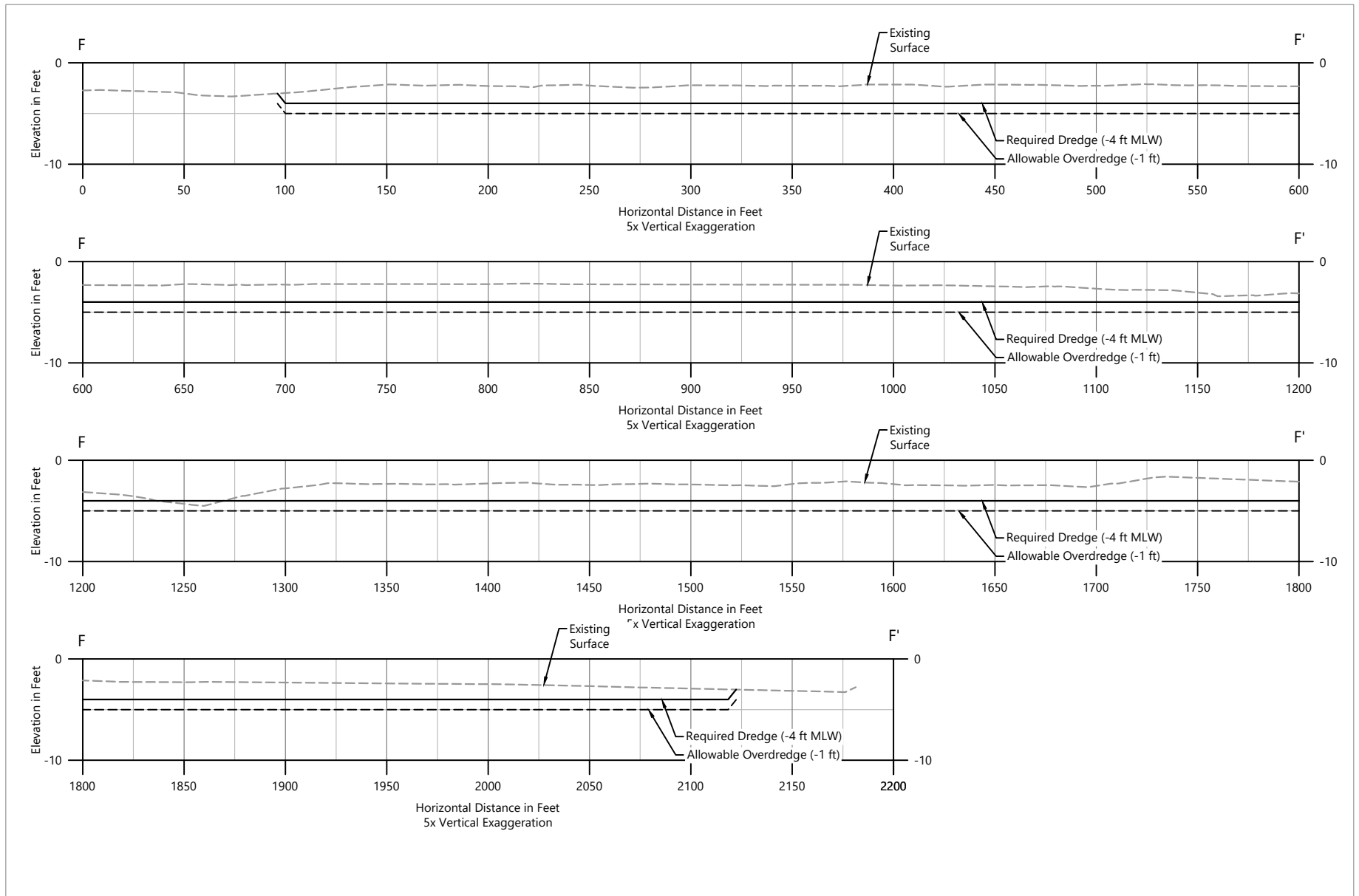
Figure 5
Dredging Plan - South Channel
 Permit Set
 Little Assawoman Bay Dredging Project



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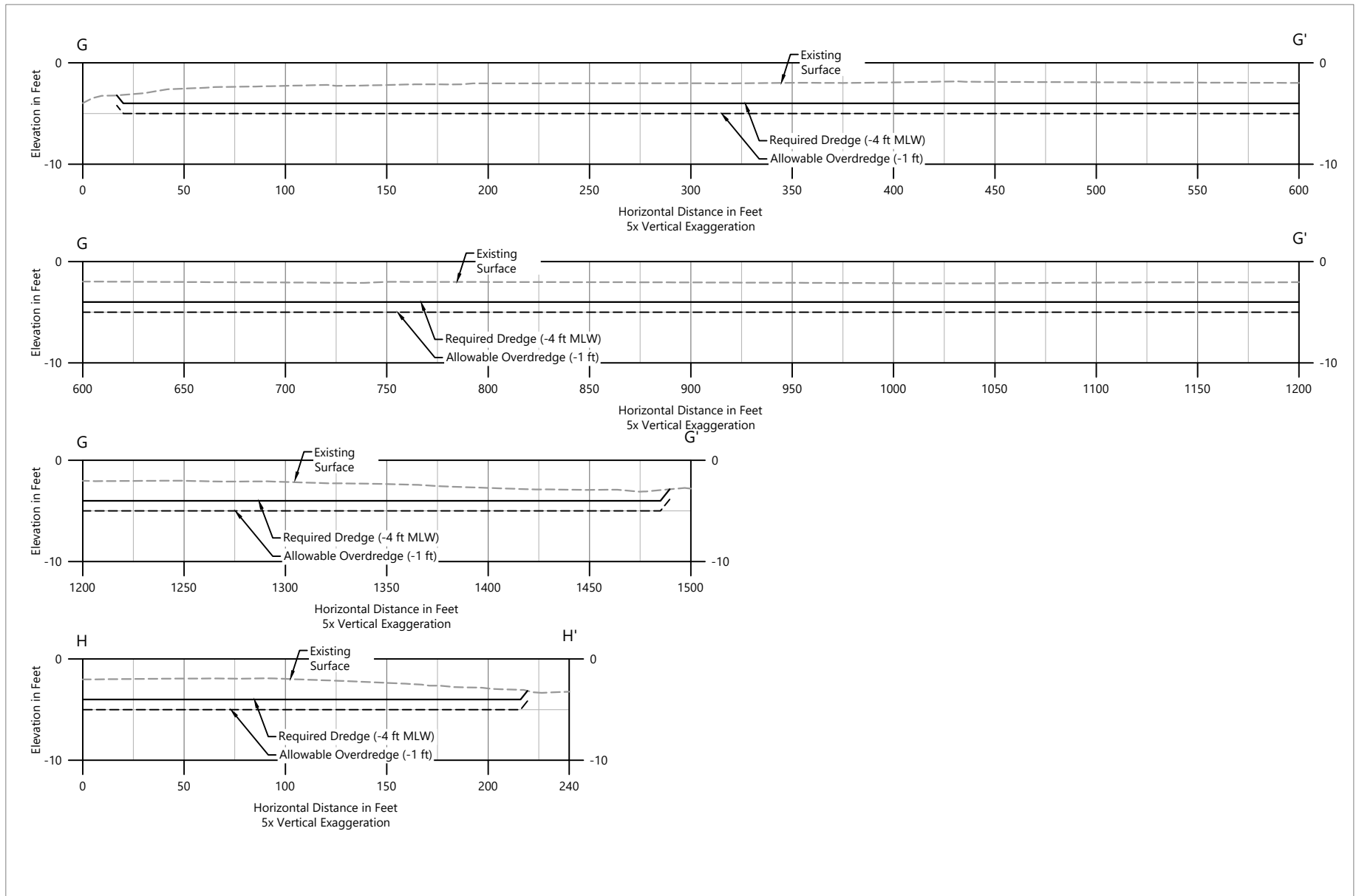
Figure 6
Dredge Cross Sections
 Permit Set
 Little Assawoman Bay Dredging Project



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 Filepath: K:\Projects\2069-Fenwick\Fenwick\Permit\2069-PL-003-PROPOSED DESIGN.dwg Figure 7



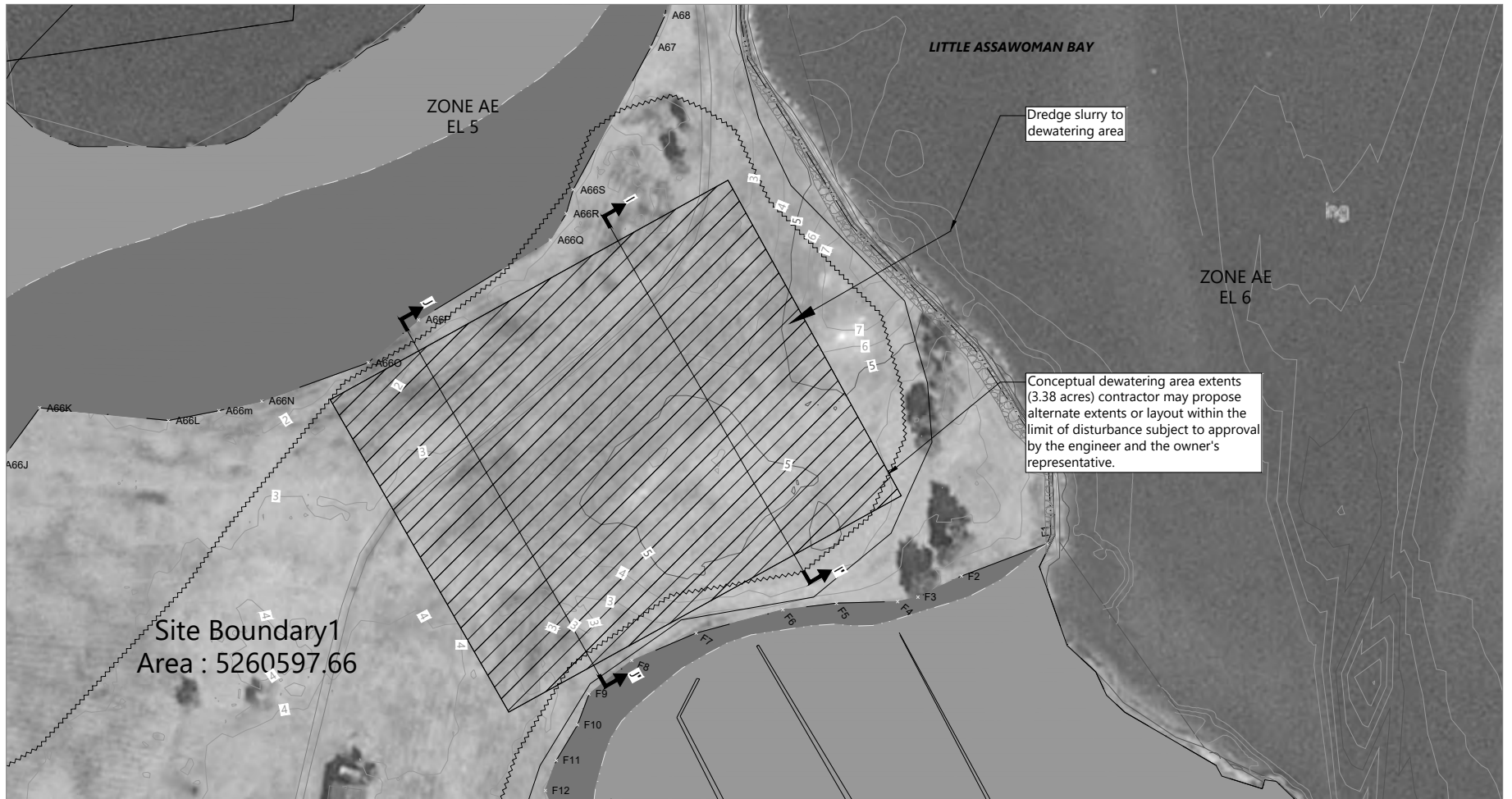
Figure 7
Dredge Cross Sections
 Permit Set
 Little Assawoman Bay Dredging Project



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Figure 8
Dredge Cross Sections
 Permit Set
 Little Assawoman Bay Dredging Project

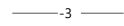

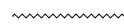
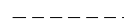


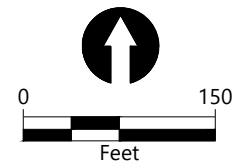
SOURCE: Survey from Cannon. Aerial Imagery from Bing Maps.

HORIZONTAL DATUM: Delaware State Plane , NAD83, U.S. Survey Feet.

VERTICAL DATUM: Mean Low Water (MLW).

LEGEND:

-  Existing Grade
-  Placement Area
-  Limited Wave Action Line
-  Flood Zone

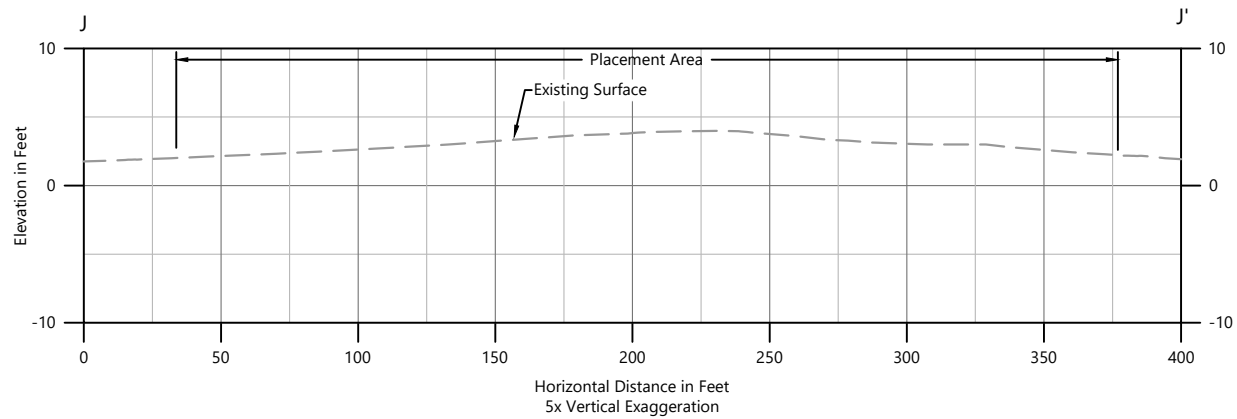
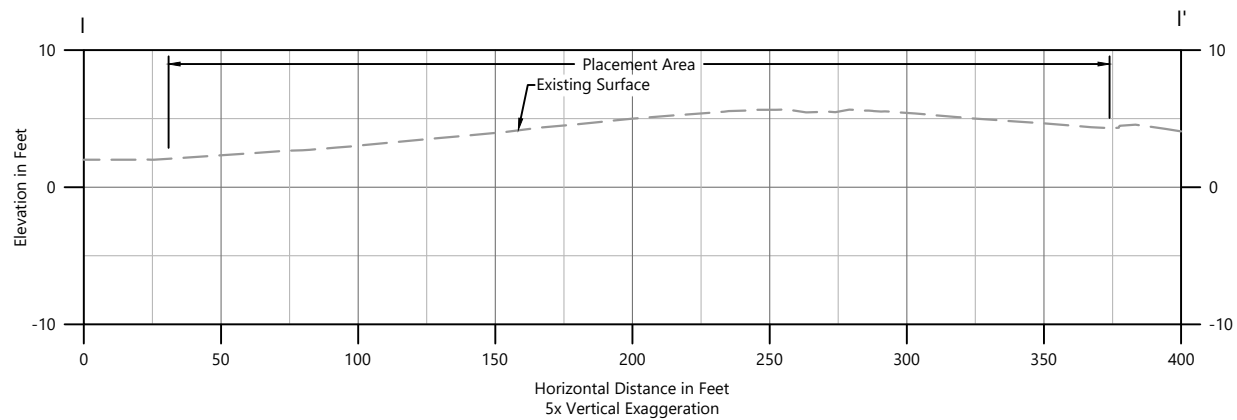


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**Figure 9
 Placement Plan**

Permit Set
 Little Assawoman Bay Dredging Project

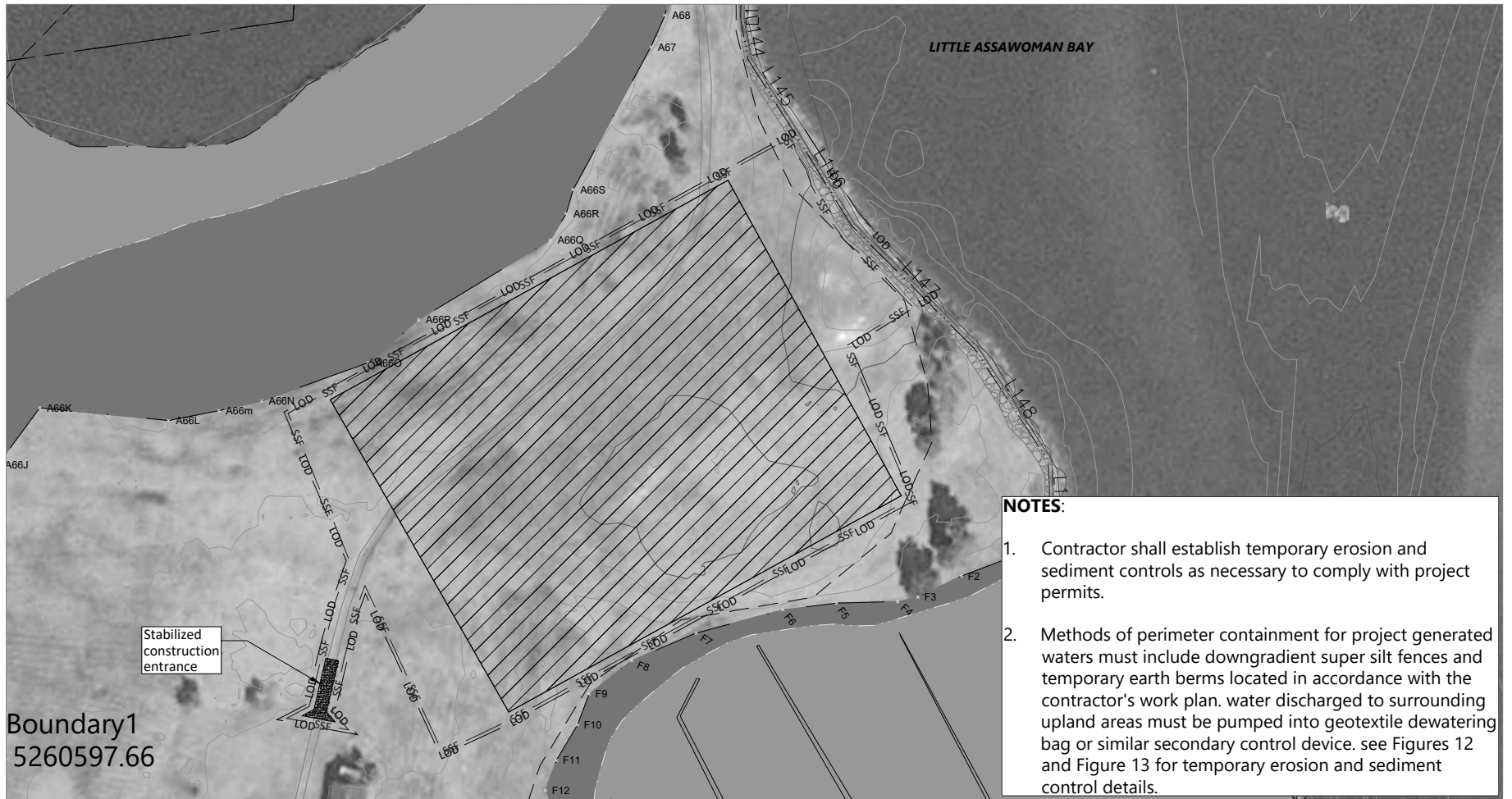


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Figure 10
Placement Cross Sections

Permit Set
 Little Assawoman Bay Dredging Project



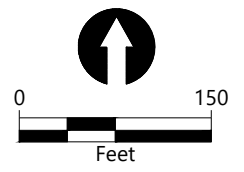
SOURCE: Survey from Cannon. Aerial Imagery from Bing Maps.

HORIZONTAL DATUM: Delaware State Plane, NAD83, U.S. Survey Feet.

VERTICAL DATUM: Mean Low Water (MLW).

LEGEND:

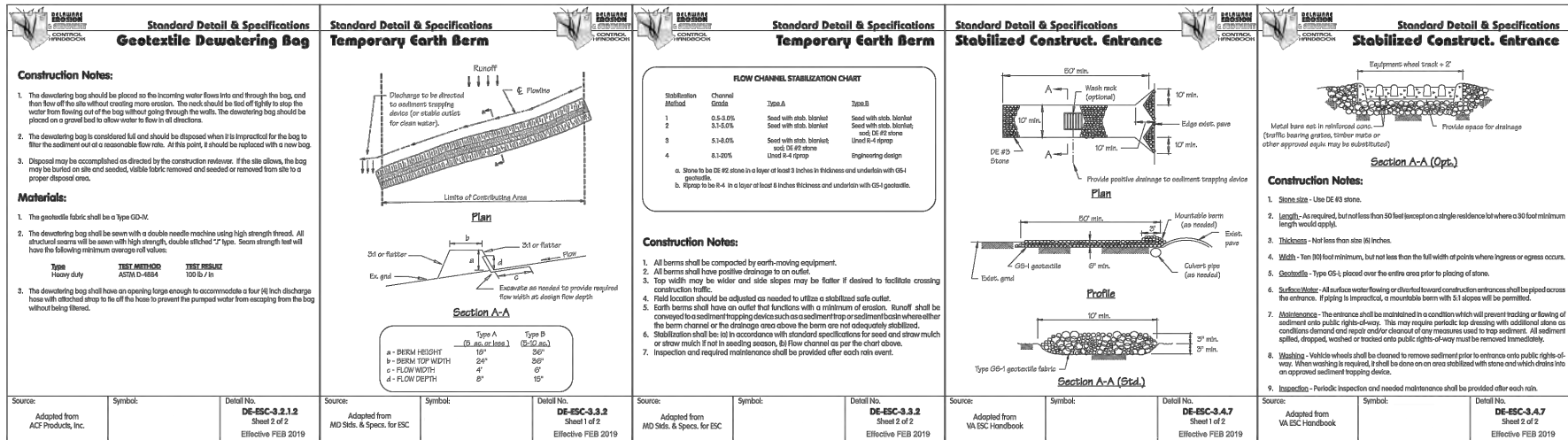
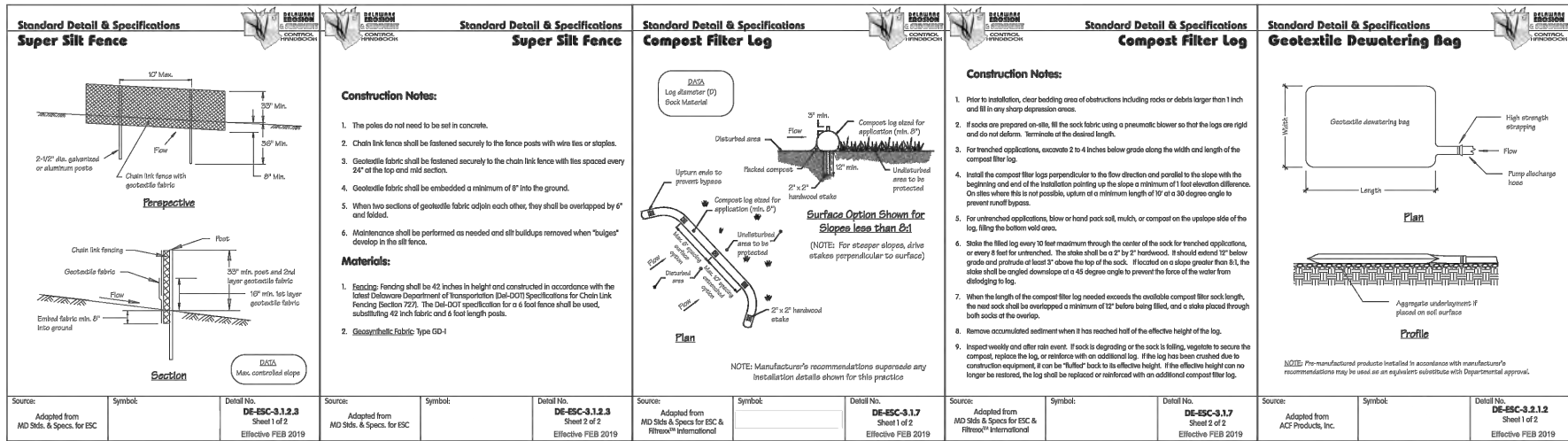
- -3 — Existing Grade
- LOD — Limits of disturbance
- SSF — Silt fence
- Stabilized construction entrance



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 Filepath: K:\Projects\2069-Fenwick\Fenwick\Permit\2069-PL-005-EROSION AND SEDIMENT CONTROL.dwg Figure 11



Figure 11
Erosion and Sediment Control Plan
 Permit Set
 Little Assawoman Bay Dredging Project



Standard Detail & Specifications Construction Site Waste Mgt & Spill Control

Data to be Provided:
Volume of Potential Pollutants
Height of containment
Area of containment
Volume of contaminants

Pollution Prevention - Spill Prevention

- Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
- Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
- Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
- Use barriers such as berms to prevent storm water run-on and runoff, and to contain spills.
- Place a "Fueling Area" sign next to each fueling area.
- Store hazardous materials such as fuel, solvents, oil, and chemicals in secondary containment.
- Inspect vehicles and equipment for leaks on each day of use. Repair fluid and oil leaks immediately.
- Absorbent spill clean-up materials and spill kits must be available in fueling areas and on fuel trucks.
- If fueling is to take place at night, make sure the fueling area is sufficiently illuminated.
- Do not bury spills or wash them down with water.

LEAKS AND DROPS

- Use drip parts or absorbent pads at all times. Place under and around leaky equipment.
- Do not allow oil, grease, fuel or chemicals to drip onto the ground.
- Have spill kits and clean up material on-site.
- Repair leaky equipment promptly or remove problem vehicles and equipment from the site. Clean up contaminated soil immediately.
- Store contaminated waste in sealed containers constructed of suitable material. Label these containers properly.
- Clean up all spills and leaks. Promptly dispose of waste and spent clean up materials.

Source: Delaware ESC Handbook
Symbol:
Detail No. **DE-ESC-3.6.1**
Sheet 1 of 5
Effective FEB 2019

Standard Detail & Specifications Construction Site Waste Mgt & Spill Control

Pollution Prevention - Spill Prevention

- Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
- Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
- Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
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Source: Delaware ESC Handbook
Symbol:
Detail No. **DE-ESC-3.6.1**
Sheet 2 of 5
Effective FEB 2019

Standard Detail & Specifications Construction Site Waste Mgt & Spill Control

Notes:
The Construction Site Pollution Prevention Plan should include the following elements:

- Material Inventory**
Document the Storage and Use of the following materials:
a. Concrete
b. Disinfectants
c. Pesticides (aerial and latex)
d. Cleaning solvents
e. Pesticides
f. Wood scraps
g. Fertilizers
h. Petroleum based products
- Good housekeeping practices**
a. Store only enough product required to do the job.
b. All materials shall be stored in a neat, orderly manner in their original labeled containers and covered.
c. Substances shall not be mixed.
d. When possible, all of a product shall be used up prior to disposal of the container.
e. Manufacturer's instructions for disposal shall be strictly adhered to.
f. The site foreman shall designate someone to inspect all BMPs daily.
- Waste management practices**
a. All waste materials shall be collected and stored in securely lidded dumpsters in a location that does not drain to a waterbody.
b. Waste materials shall be salvaged and/or recycled whenever possible.
c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed trash hauler is responsible for cleaning out dumpsters.

Source: Adapted from US EPA Pub. 840-B-92-002
Symbol:
Detail No. **DE-ESC-3.6.1**
Sheet 3 of 5
Effective FEB 2019

Standard Detail & Specifications Construction Site Waste Mgt & Spill Control

Notes (cont.)

- Trash shall be disposed of in accordance with all applicable Delaware laws.
- Trash cans shall be placed at all lunch spots and littering is strictly prohibited. Recycling bins shall be placed near the construction trailer.
- If fertilizer bags can not be stored in a weather-proof location, they shall be kept on pallet and covered with plastic sheathing which is overlapped and anchored.
- Equipment maintenance practices**
a. If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.
b. If performed on-site, vehicles shall be washed with high-pressure water spray without detergents in an area contained by an impervious berm.
c. Drip pans shall be used for all equipment maintenance.
d. Equipment shall be inspected for leaks on a daily basis.
e. Washout from concrete trucks shall be disposed of in a temporary pit for hardening and proper disposal.
f. Fuel nozzles shall be equipped with automatic shut-off valves.
g. All used products such as oil, antifreeze, solvents and fresh shall be disposed of in accordance with manufacturer's recommendations and local, state and federal laws and regulations.
- Spill prevention practices**
a. Potential spill areas shall be identified and contained in covered areas with no connection to the storm drain system.
b. Warning signs shall be posted in hazardous material storage areas.
c. Preventive maintenance shall be performed on all tanks, valves, pumps, pipes and other equipment as necessary.
d. Low or non-toxic substances shall be prioritized for use.

Source: Adapted from US EPA Pub. 840-B-92-002
Symbol:
Detail No. **DE-ESC-3.6.1**
Sheet 4 of 5
Effective FEB 2019

Standard Detail & Specifications Construction Site Waste Mgt & Spill Control

Notes (cont.)

- Contact information for reporting spills through the DAREC 24-Hour Toll Free Number shall be prominently posted.
- Education**
a. Best management practices for construction site pollution control shall be part of regular progress meetings.
b. Information regarding waste management, equipment maintenance and spill prevention shall be prominently posted in the construction trailer.

CONTACT INFORMATION

DAREC 24-Hour Toll Free Number: 800-662-8602
DAREC Solid & Hazardous Waste Management Section: 302-739-9400

Source: Adapted from US EPA Pub. 840-B-92-002
Symbol:
Detail No. **DE-ESC-3.6.1**
Sheet 5 of 5
Effective FEB 2019

Standard Detail & Specifications Vegetative Stabilization

TEMPORARY SEEDING BY RATE, DEPTH AND DATES

Rate	Depth	Planting Date	Planting Depth
1	1/2 inch	12/15/19	1/2 inch
2	3/4 inch	12/15/19	3/4 inch
3	1 inch	12/15/19	1 inch
4	1 1/2 inch	12/15/19	1 1/2 inch
5	2 inch	12/15/19	2 inch
6	2 1/2 inch	12/15/19	2 1/2 inch
7	3 inch	12/15/19	3 inch
8	3 1/2 inch	12/15/19	3 1/2 inch
9	4 inch	12/15/19	4 inch
10	4 1/2 inch	12/15/19	4 1/2 inch
11	5 inch	12/15/19	5 inch
12	5 1/2 inch	12/15/19	5 1/2 inch
13	6 inch	12/15/19	6 inch
14	6 1/2 inch	12/15/19	6 1/2 inch
15	7 inch	12/15/19	7 inch
16	7 1/2 inch	12/15/19	7 1/2 inch
17	8 inch	12/15/19	8 inch
18	8 1/2 inch	12/15/19	8 1/2 inch
19	9 inch	12/15/19	9 inch
20	9 1/2 inch	12/15/19	9 1/2 inch
21	10 inch	12/15/19	10 inch
22	10 1/2 inch	12/15/19	10 1/2 inch
23	11 inch	12/15/19	11 inch
24	11 1/2 inch	12/15/19	11 1/2 inch
25	12 inch	12/15/19	12 inch

NOTE: Alternative seed mixes may be used with prior approval from the Department or Designated Agency.

Source: Delaware ESC Handbook
Symbol:
Detail No. **DE-ESC-3.4.3**
Sheet 1 of 4
Effective FEB 2019

Standard Detail & Specifications Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES

Seedling Rate	Seeding Rate	Planting Date	Planting Depth
1	1/2 inch	12/15/19	1/2 inch
2	3/4 inch	12/15/19	3/4 inch
3	1 inch	12/15/19	1 inch
4	1 1/2 inch	12/15/19	1 1/2 inch
5	2 inch	12/15/19	2 inch
6	2 1/2 inch	12/15/19	2 1/2 inch
7	3 inch	12/15/19	3 inch
8	3 1/2 inch	12/15/19	3 1/2 inch
9	4 inch	12/15/19	4 inch
10	4 1/2 inch	12/15/19	4 1/2 inch
11	5 inch	12/15/19	5 inch
12	5 1/2 inch	12/15/19	5 1/2 inch
13	6 inch	12/15/19	6 inch
14	6 1/2 inch	12/15/19	6 1/2 inch
15	7 inch	12/15/19	7 inch
16	7 1/2 inch	12/15/19	7 1/2 inch
17	8 inch	12/15/19	8 inch
18	8 1/2 inch	12/15/19	8 1/2 inch
19	9 inch	12/15/19	9 inch
20	9 1/2 inch	12/15/19	9 1/2 inch
21	10 inch	12/15/19	10 inch
22	10 1/2 inch	12/15/19	10 1/2 inch
23	11 inch	12/15/19	11 inch
24	11 1/2 inch	12/15/19	11 1/2 inch
25	12 inch	12/15/19	12 inch

NOTE: Alternative seed mixes may be used with prior approval from the Department or Designated Agency.

Source: Delaware ESC Handbook
Symbol:
Detail No. **DE-ESC-3.4.3**
Sheet 2 of 4
Effective FEB 2019

Standard Detail & Specifications Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES (cont.)

Seedling Rate	Seeding Rate	Planting Date	Planting Depth
1	1/2 inch	12/15/19	1/2 inch
2	3/4 inch	12/15/19	3/4 inch
3	1 inch	12/15/19	1 inch
4	1 1/2 inch	12/15/19	1 1/2 inch
5	2 inch	12/15/19	2 inch
6	2 1/2 inch	12/15/19	2 1/2 inch
7	3 inch	12/15/19	3 inch
8	3 1/2 inch	12/15/19	3 1/2 inch
9	4 inch	12/15/19	4 inch
10	4 1/2 inch	12/15/19	4 1/2 inch
11	5 inch	12/15/19	5 inch
12	5 1/2 inch	12/15/19	5 1/2 inch
13	6 inch	12/15/19	6 inch
14	6 1/2 inch	12/15/19	6 1/2 inch
15	7 inch	12/15/19	7 inch
16	7 1/2 inch	12/15/19	7 1/2 inch
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21	10 inch	12/15/19	10 inch
22	10 1/2 inch	12/15/19	10 1/2 inch
23	11 inch	12/15/19	11 inch
24	11 1/2 inch	12/15/19	11 1/2 inch
25	12 inch	12/15/19	12 inch

NOTE: Alternative seed mixes may be used with prior approval from the Department or Designated Agency.

Source: Delaware ESC Handbook
Symbol:
Detail No. **DE-ESC-3.4.3**
Sheet 3 of 4
Effective FEB 2019

Standard Detail & Specifications Vegetative Stabilization

Construction Notes:

- Site Preparation**
a. Prior to seeding, install needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, grassed waterways, and sediment basins.
b. Final grading and shaping is not necessary for temporary seedings.
- Seedbed Preparation**
It is important to prepare a good seedbed to insure the success of establishing vegetation. The seedbed should be well prepared, loose, uniform, and free of large rocks, roots, and other objectionable material. The soil surface should not be compacted or crusted.
- Soil Amendments**
a. Apply fertilizer materials based on the recommendations of a soil test in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply dolomitic limestone at the rate of 1 to 2 tons per acre. Apply limestone uniformly and incorporate into the top 4 to 6 inches of soil.
b. Fertilizer - Apply fertilizer based on the recommendations of a soil test in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply a formulation of 10-10-10 at the rate of 500 pounds per acre. Apply fertilizer uniformly and incorporate into the top 4 to 6 inches of soil.
- Seeding**
a. For temporary stabilization, select a mixture from Sheet 1. For permanent stabilization, select a mixture from Sheet 2 or Sheet 3 depending on the conditions. Alternative seed mixes may be used with prior approval from the Department or Designated Agency.
b. Apply seed uniformly with a broadcast seeder, drill, cultipacker seeder or hydroseeder. All seed will be applied at the recommended rate and planting depth.
c. Seed that has been broadcast should be covered by rolling or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used and the seed and fertilizer is mixed, they will be mixed on site and the seeding shall be done immediately and without interruption.
d. All seeding shall be done in accordance with detail DE-ESC-3.4.3.

Source: Delaware ESC Handbook
Symbol:
Detail No. **DE-ESC-3.4.3**
Sheet 4 of 4
Effective FEB 2019

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Figure 13
Erosion and Sediment Control Details 2 of 2
Permit Set
Little Assawoman Bay Dredging Project