



**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 26, 2023
File Number: NAP-2023-00326-85
File Name: DDNREC Murderkill River Jetties KE
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: Terry Deputy, Delaware Department of Natural Resources and Environmental Control, Division of Watershed Stewardship

AGENT: Douglas Mann, Aptim Coastal Planning & Engineering, LLC

LOCATION: The activity is occurring along the north and south banks of the mouth of the Murderkill River. 39.058712°N, 75.39577°W

PURPOSE: Maintain the Murderkill River inlet.

PROJECT DESCRIPTION:

The Murderkill River entrance to the Delaware Bay is maintained by concrete filled geotextile bags serving as jetties along the northern bank and the southern bank, extending east into the Delaware Bay. The Murderkill River has a federally authorized navigation channel of 60 feet width at -7 feet MLW. The adjacent jetty structures are not included as part of the federal project. The concrete filled bags that make up the jetties are deteriorating and require replacement. The south jetty is overtopped by wave action and the tides, resulting in shoaling of the navigation channel. The 300 foot section of the north jetty is currently losing sediment through gaps in the concrete bags causing additional shoaling of the inlet channel. Both jetty reconstructions will reduce the loss of sand and sediment into the Murderkill River, reducing the need for dredging of the entrance channel.

The concrete bags making up the south jetty will be excavated, removed and hauled to a recycler off-site in roughly 20 foot sections. Sand excavated to achieve proper elevations for the jetty will be placed along the beach south of the south jetty and graded to meet the existing profile. Geotextiles, foundation stone, bedding stone and armor stone will then be placed to form the new jetty. The new jetty will not extend further channelward

into the Delaware Bay than the existing jetty, however the width of the jetty will be expanded upon to ensure stability and proper height.

The concrete bags making up the north jetty will be excavated, removed and hauled to a recycler off-site in roughly 50 to 100 feet sections. Sand excavated to achieve proper elevations will be placed landward of the jetty and vegetated with salt tolerant vegetation. Geotextiles, foundation stone, bedding stone and armor stone will then be placed to form the new jetty. The length of the structure will be approximately 300 feet and connect to the jetty to the east and an existing bulkhead to the west. The width of the jetty will be expanded beyond the footprint of the existing jetty to ensure stability and proper height.

For additional project details, see the attached plans identified as: STATE OF DELAWARE OMB/DIVISION OF FACILITIES MANAGEMENT OMB/DFM CONTRACT #NAT 23311-MKR_JETTY MURDERKILL RIVER JETTIES REHABILITATION AT SOUTH BOWERS ROAD MILFORD DE 19963 AND COOPER AVENUE FREDERICA DE 19946, prepared by Aptim Coastal Planning & Engineering, LLC, dated June 8, 2023, 10 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.

ENDANGERED SPECIES

A preliminary review of this application indicates that species and/or their critical habitat pursuant to Section 7 of the Endangered Species Act (ESA) may be present in the action area. This office will forward this Public Notice to the U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) with a request for technical assistance on whether any ESA-listed species or their critical habitat may be present in the area which would be affected by the proposed activity. This office will evaluate the potential effects of the proposed actions on ESA-listed species or their critical habitat and will consult with the USFWS and/or NMFS, as appropriate. ESA Section 7 consultation would be concluded prior to the final decision on this permit application.

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/>

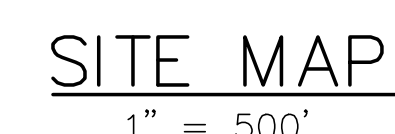
FOR: Todd A. Schaible
Chief, Regulatory Branch

6401 CONGRESS AVENUE, SUITE 140
BOCA RATON, FLORIDA 33487
PH. (561) 391-8102
FAX (561) 391-9116
C.O.A. #2329
www.aptim.com

Reference Files:	Designed by: DM	Checked by: JA
	Drawn by: JEB	Reviewed by: DM
	Date: 6/08/23	Submitted by: DM
	Plot, Scale:	Comm. No.:
	AS NOTED	636024742

MURDERKILL RIVER JETTIES REHABILITATION
NAT 23311-MKR_JETTY
SOUTH BOWERS ROAD AND COOPER AVENUE
MILFORD DE
19963 COVER SHEET
50% SUBMITTAL

DRAWING NO.
G001
SHEET 1 OF 12



G001	COVER SHEET
C001	OVERALL EXISTING CONDITIONS
C002	CONSTRUCT ACCESS AND PROJECT DISTURBANCE LIMITS
C003	NORTH JETTY EXISTING CONDITIONS AND EASEMENTS
C004	SOUTH JETTY EXISTING CONDITIONS
C005	NORTH JETTY PROPOSED IMPROVEMENTS
C006	SOUTH JETTY PROPOSED IMPROVEMENTS
C007	NORTH JETTY CROSS-SECTIONS
C008	NORTH JETTY CROSS-SECTIONS
C009	SOUTH JETTY CROSS-SECTIONS
C010	EXISTING DOCK AND NORTH JETTY CONNECTION
L001	NORTH JETTY VEGETATION PLAN



NOT FOR CONSTRUCTION

Stef Wimmer

DOUGLAS W. MANN P.F. NO. 12949

DATE _____



NOTES:

1. TOPOGRAPHIC INFORMATION BY PENNONI ASSOCIATES, INC.
2. STAND ALONE SURVEY ON FILE WITH DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL.
3. DATE OF AERIAL PHOTOGRAPHY: 2022.
4. COORDINATES SHOWN HEREON ARE IN FEET BASED ON THE DELAWARE STATE PLANE 1983 COORDINATE SYSTEM.
5. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88.
6. SOUTH BOWERS TOPOGRAPHIC INFORMATION IS FROM 2014 SURVEY.
7. ELEVATION CONTOURS ARE CREATED FROM 2022 SURVEY

NOT FOR CONSTRUCTION

DOUGLAS W. MANN P.E. NO. 12949

DATE

MURDERKILL RIVER JETTIES REHABILITATION
NAT 23311-MKR JETTY
SOUTH BOWERS ROAD AND COOPER AVENUE
MILFORD DE 19963
19963 NORTH JETTY EXISTING CONDITIONS
60% SUBMITTAL AND EASEMENTS

DRAWING NO.

C003

SHEET 4 OF 12

Aptim Coastal Planning & Engineering, LLC

6401 CONGRESS AVENUE, SUITE 140
BOCA RATON, FLORIDA 33487

www.aptim.com

PH. (561) 391-8102
FAX (561) 391-9116
C.O.A.#2329

REVISIONS	
No.	Description
1	4/23 USCE PA

Reference Files:	
Designed by:	DM
Checked by:	UA
Drawn by:	DM
Reviewed by:	DM
Dated:	6/08/23
Submitted by:	DM
Comm. No.:	636024742
Plot Scale:	AS NOTED



NOTES:

1. TOPOGRAPHIC INFORMATION BY PENNONI ASSOCIATES, INC.
2. STAND ALONE SURVEY ON FILE WITH DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL.
3. DATE OF AERIAL PHOTOGRAPHY: 2022.
4. COORDINATES SHOWN HEREON ARE IN FEET BASED ON THE DELAWARE STATE PLANE 1983 COORDINATE SYSTEM,
5. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88.

SITE CONTROL

POINTS PROVIDED BY OTHERS
50 N 385510.61 E 661556.31 ELEV=4.39 GPS MON
51 N 386140.82 E 661211.74 ELEV=6.23 GPS PK

POINTS SET BY PENNONI
400 N 385088.0303 E 661623.3327 ELEV=5.07 PK
401 N 384605.2230 E 662253.5409 ELEV=2.17 PK

NOT FOR CONSTRUCTION

DOUGLAS W. MANN P.E. NO. 12949

DATE

MURDERKILL RIVER JETTIES REHABILITATION
NAT 23311-MKR JETTY
SOUTH BOWERS ROAD AND COOPER AVENUE
MILFORD DE
19963
SOUTH JETTY EXISTING CONDITIONS
60% SUBMITTAL

DRAWING NO.

C004

SHEET 5 OF 12

Reference Files:

Designed by: DM
Drawn by: AY
Date: 6/08/23
Plot Scale: AS NOTED

Checked by: UA
Reviewed by: DM
Submitted by: DM
Comm. No.: 636024742

REVISIONS

No.	Date	Description

Aptim Coastal Planning & Engineering, LLC

6401 CONGRESS AVENUE, SUITE 140
BOCA RATON, FLORIDA 33487

www.aptim.com



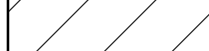
PH. (561) 391-8102
FAX (561) 391-9116
C.O.A.#2329



NOTES:

1. TOPOGRAPHIC INFORMATION BY PENNONI ASSOCIATES, INC.
2. STAND ALONE SURVEY ON FILE WITH DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL.
3. DATE OF AERIAL PHOTOGRAPHY: 2022.
4. COORDINATES SHOWN HEREON ARE IN FEET BASED ON THE DELAWARE STATE PLANE 1983 COORDINATE SYSTEM.
5. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88.
6. SOUTH BOWERS TOPOGRAPHIC INFORMATION IS FROM 2014 SURVEY.
7. ELEVATION CONTOURS ARE CREATED FROM 2022 SURVEY
8. ALL SECTIONS ARE ON C009.

LEGEND:

-  CREST EL.VARIES
-  ROCK OVERLAY
-  EXCESS SAND DISPOSAL AREA

SITE CONTROL

POINTS PROVIDED BY OTHERS
50 N 385510.61 E 661556.31 ELEV=4.39 GPS MON
51 N 386140.82 E 661211.74 ELEV=6.23 GPS PK

POINTS SET BY PENNONI
400 N 385088.0303 E 661623.3327 ELEV=5.07 PK
401 N 384605.2230 E 662253.5409 ELEV=2.17 PK

NOT FOR CONSTRUCTION

DOUGLAS W. MANN P.E. NO. 12949

DATE

REVISIONS		
No.	Date	Description
1	4/23	USCE PA 1

Checked by:	UA
Reviewed by:	DM
Submitted by:	DM
Comm. No.:	636024742
Designed by:	DM
Drawn by:	AV
Dated:	6/08/23
Plot Scale:	AS NOTED

MURDERKILL RIVER JETTIES REHABILITATION
NAT 23311-MKR JETTY
SOUTH BOWERS ROAD AND COOPER AVENUE
MILFORD DE 19946
60% SUBMITTAL SOUTH JETTY
PROPOSED IMPROVEMENTS

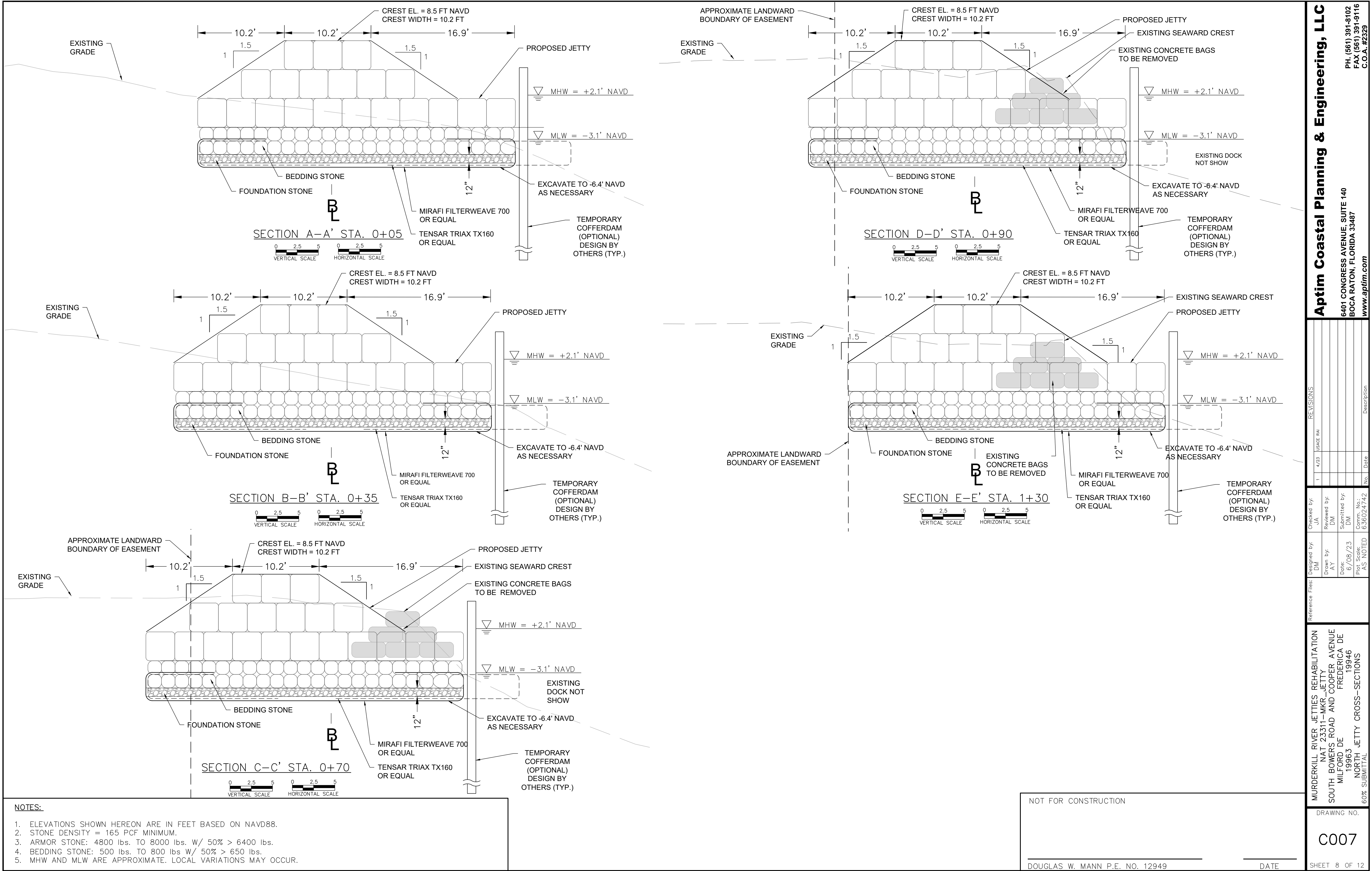
DRAWING NO.

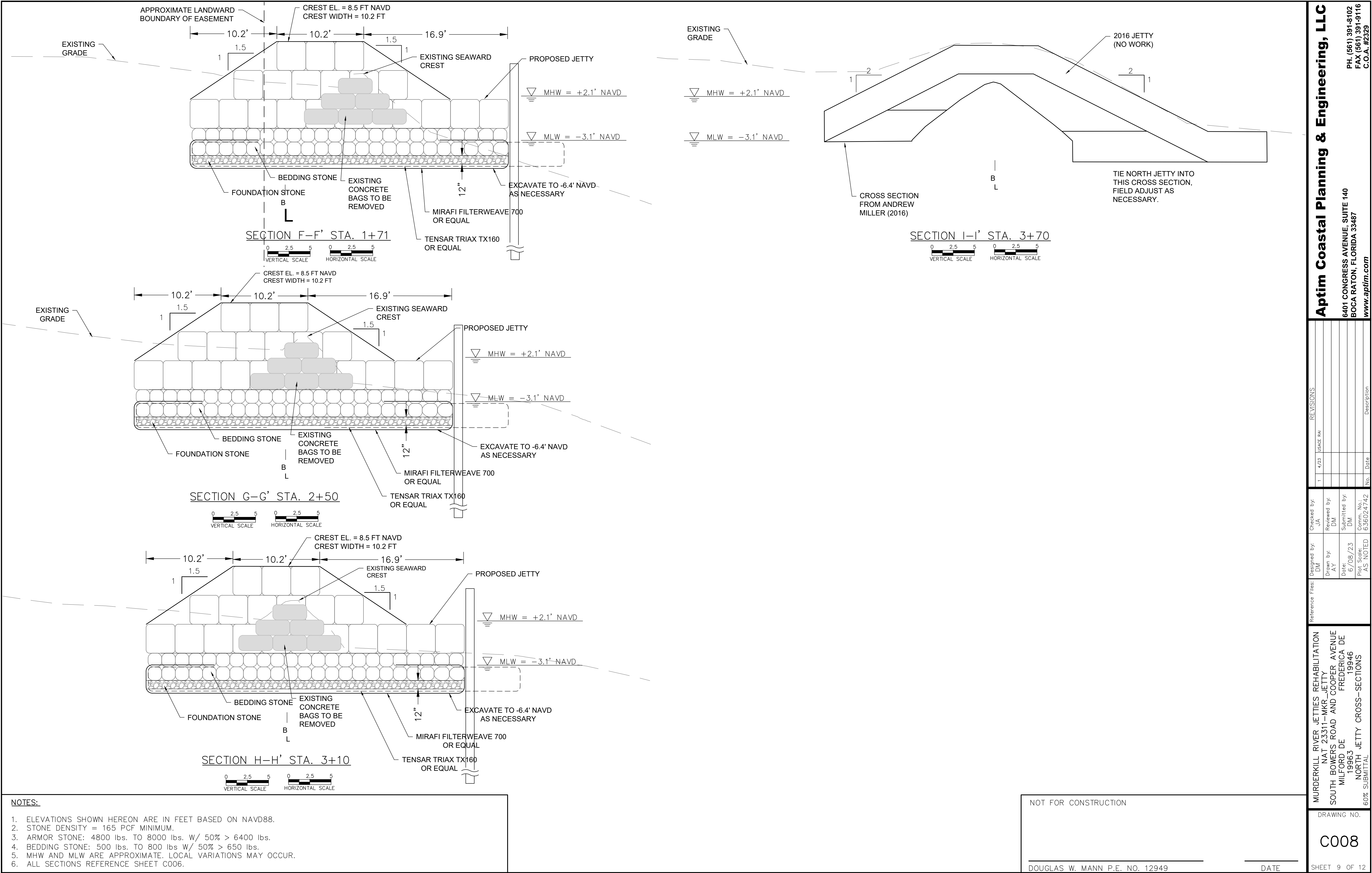
C006

SHEET 7 OF 12

Aptim Coastal Planning & Engineering, LLC

6401 CONGRESS AVENUE, SUITE 140
BOCA RATON, FLORIDA 33487
www.aptim.com
PH. (561) 391-8102
FAX (561) 391-9116
C.O.A. #2329





NOTES:

- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88.
- STONE DENSITY = 165 PCF MINIMUM.
- ARMOR STONE: 4800 lbs. TO 8000 lbs. W/ 50% > 6400 lbs.
- BEDDING STONE: 500 lbs. TO 800 lbs W/ 50% > 650 lbs.
- MHW AND MLW ARE APPROXIMATE. LOCAL VARIATIONS MAY OCCUR.
- ALL SECTIONS REFERENCE SHEET C006.

NOT FOR CONSTRUCTION

DOUGLAS W. MANN P.E. NO. 12949

DATE

Aptim Coastal Planning & Engineering, LLC

6401 CONGRESS AVENUE, SUITE 140
BOCA RATON, FLORIDA 33487
PH. (561) 391-8102
FAX (561) 391-9116
C.O.A.#2329
www.aptim.com

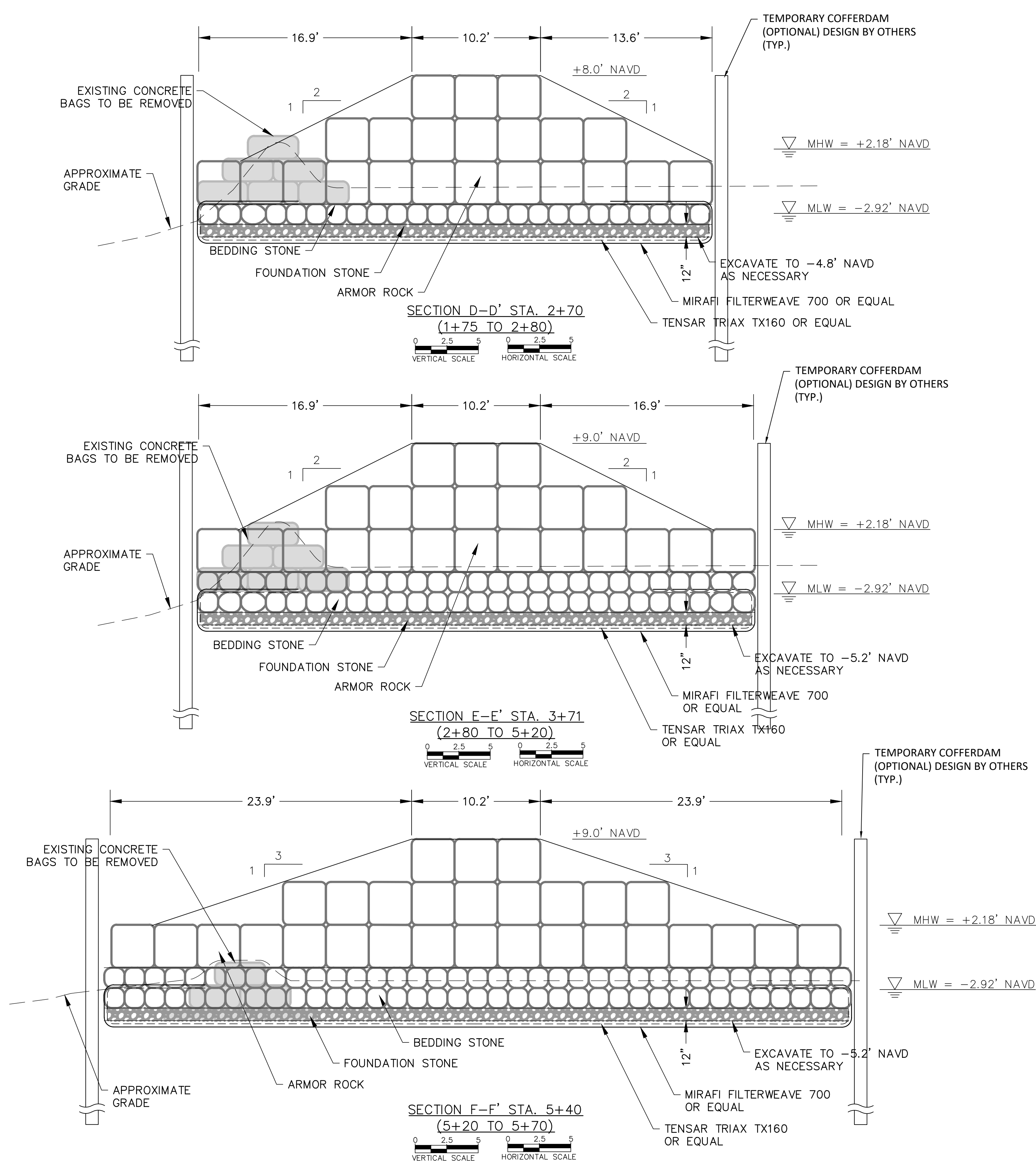
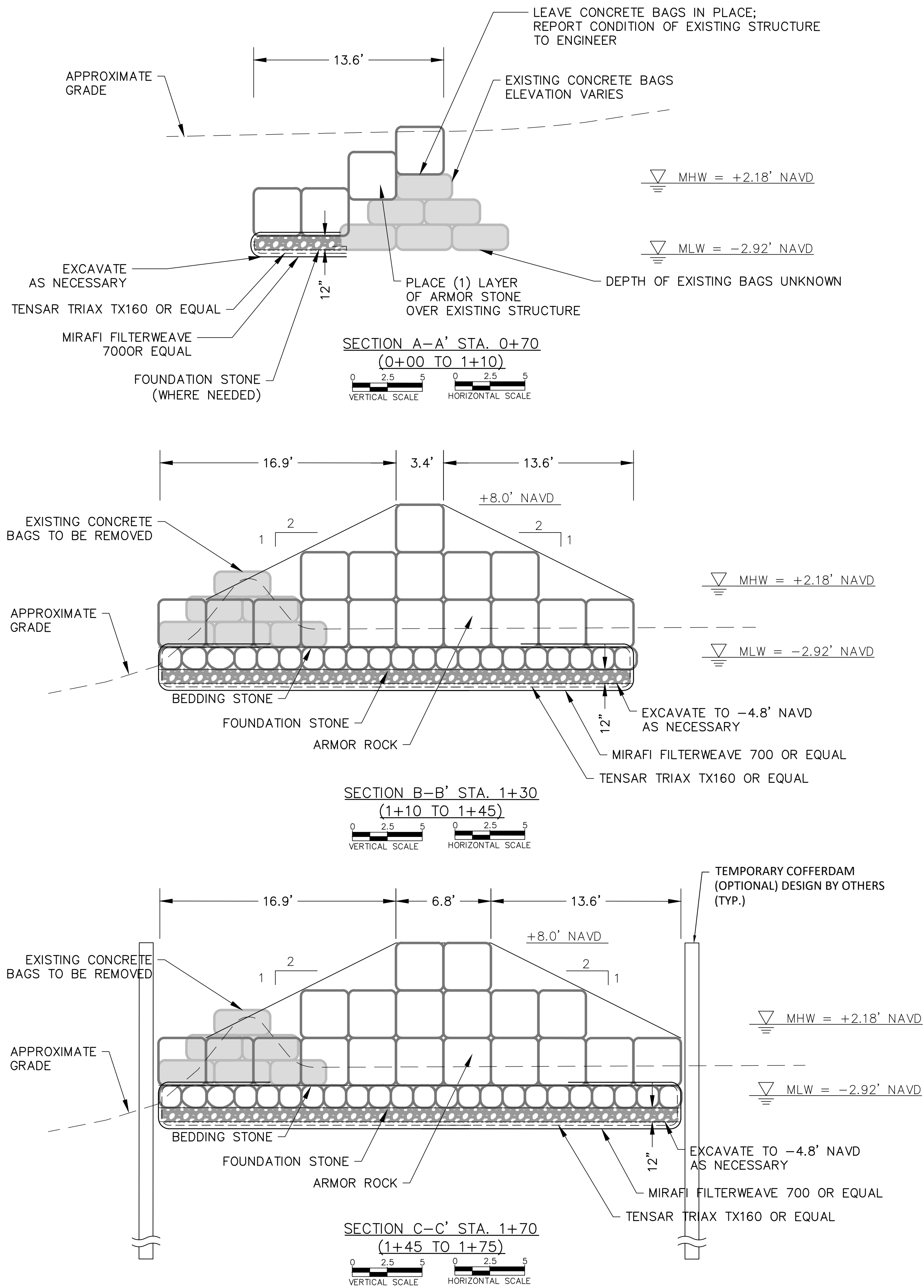
REVISIONS		Checked by:	Designed by:	Reference Files:
1	4/23	JUSCE PA	DM	
		Reviewed by:	Drawn by:	
		DM	AY	
		Submitted by:	Dated:	
		DM	6/08/23	
		Comm. No.:	Plot Scale:	
		636024742	AS NOTED	
		No.	Date	Description

MURDERKILL RIVER JETTIES REHABILITATION
NAT 23311-MKR-JETTY
SOUTH BOWERS ROAD AND COOPER AVENUE
MILFORD DE 19946
NORTH JETTY CROSS-SECTIONS
60% SUBMITTAL

DRAWING NO.

C008

SHEET 9 OF 12



NOTES:

- ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD88.
- STONE DENSITY = 165 PCF MINIMUM.
- ARMOR STONE: 4800 lbs. TO 8000 lbs. W/ 50% > 6400 lbs.
- BEDDING STONE: 500 lbs. TO 800 lbs W/ 50% > 650 lbs.
- MHW AND MLW ARE APPROXIMATE. LOCAL VARIATIONS MAY OCCUR.

NOT FOR CONSTRUCTION

DOUGLAS W. MANN P.E. NO. 12949

DATE

Aptim Coastal Planning & Engineering, LLC

6401 CONGRESS AVENUE, SUITE 140
BOCA RATON, FLORIDA 33487
PH. (561) 391-8102
FAX (561) 391-9116
C.O.A.#2329
www.aptim.com

REVISIONS		USACE #A		Description	
1	4/23			No.	Date

Checked by:	JUA	Designed by:	DM
Reviewed by:	DM	Drawn by:	AY
Submitted by:	DM	Dated:	6/06/23
Comm. No.:	636024742	Plot Scale:	AS NOTED

MURDERKILL RIVER JETTIES REHABILITATION
NAT 23311-MKR JETTY
SOUTH BOWERS ROAD AND COOPER AVENUE
MILFORD DE FREDERICA DE 19946
SOUTH JETTY CROSS-SECTIONS
60% SUBMITTAL

DRAWING NO.

C009

SHEET 10 OF 12