Public Notice

US Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice No.	Date
CENAP-OP-R-2020-00490-95	**08 July 2020**
Application No.	File No.
CENAP-OP-R-2020-00490-95	
In Reply Refer to:	
REGULATORY BRANCH	

This District has received an application for a Department of the Army (DA) 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: New Jersey Department of Transportation
Office of Maritime Resources
Attn: Ms. Genevieve Clifton
P.O. Box 600
Trenton, New Jersey 08625-0600

WATERWAY: Absecon Inlet/Little Panama – Brigantine State Channel (#170).

LOCATION: Sunflower Island, City of Brigantine, Atlantic County, New Jersey: Latitude 39.396684°N, Longitude: -74.411080°W; Gateway Confined Disposal Facility (CDF), City of Pleasantville, Atlantic County, New Jersey: Latitude 39.384140°N, Longitude: -74.492852°W.

ACTIVITY: The applicant, New Jersey Department of Transportation – Office of Maritime Resources, has requested Department of the Army authorization to perform ten (10)-year maintenance dredging of approximately 38,165.0-cubic yards of shoaled sediments from an approximately 31,894.0-foot long channel to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge. The channel design width is 100.0-linear feet, with 3:1 side slopes. All of the work would be accomplished via hydraulic cutterhead dredge.

All resultant dredged material, estimated to total approximately 38,165.0-cubic yards of predominantly coarse-grained sediment (i.e. greater than 70% sand), will be hydraulically pumped via pipeline and discharged at existing sand shoals off Sunflower Island for enhancement of shallow water habitat. Residual fine-grained dredged material will be hydraulically pumped via pipeline into the Gateway CDF.

Due to the short length of pipeline required to transport dredged material to Sunflower Island, the dredge pipeline will be floating. The dredge pipeline to

the Gateway CDF will be floating, except where it crosses navigation channels where it will be sunken for safety reasons. All pipeline will be marked as per U.S. Coast Guard regulations.

Brigantine State Channel has been historically maintenance dredged, with the currently-proposed maintenance dredging program targeting substantial shoaling that has built up over the last decade, to include sediment deposited by Superstorm Sandy and Winter Storm Jonas.

Each maintenance dredging event is anticipated to be approximately twelve (12) weeks in duration, including mobilization/demobilization, dredging, and material placement activities. Two (2) or three (3) maintenance dredging events are anticipated to be conducted over the next ten (10)-years.

PURPOSE: The stated purpose of this project is to restore and maintain safe navigational depths for transiting recreational and emergency vessels; and enhancement of shallow water habitat by reutilization of dredged material within the "back bay" system.

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 those 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. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

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

Due to the potential for extensive telework associated with the COVID-19 situation, all comments on the proposed work should be submitted, within thirty (30) days, via email only to the District Engineer, U.S. Army Corps of Engineers - Philadelphia District at PhiladelphiaDistrictRegulatory@usace.army.mil.

From a review of this application concerning Section 106 of the National Historic Preservation Act of 1966, the permit area has been so extensively modified from past use, including historical

maintenance dredging, that little likelihood exists for the proposed project to impact an historic property.

A preliminary review of this application indicates that the proposed work may affect listed aquatic-based species or their critical habitat. Pursuant to Section 7 of the Endangered Species Act (ESA), the Philadelphia District will evaluate the potential effects from the proposed actions to these species and their habitat, and consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

A preliminary review of this application indicates that the proposed work may affect listed land-based species or their critical habitat. Pursuant to Section 7 of the Endangered Species Act (ESA), the Philadelphia District will evaluate the potential effects from the proposed actions to these species and their habitat, and consult with the U.S. Fish & Wildlife Service as appropriate. Consultation will be concluded prior to the final decision on this permit application.

The Magnuson-Stevens Fishery Conservation and Management Act requires all federal agencies to consult with the NOAA Fisheries 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. The Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

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 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 Coastal Zone Management (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 of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by contacting Mr. Robert Youhas of my staff at via email at robert.youhas@usace.army.mil, or by phone at 215-656-6729.

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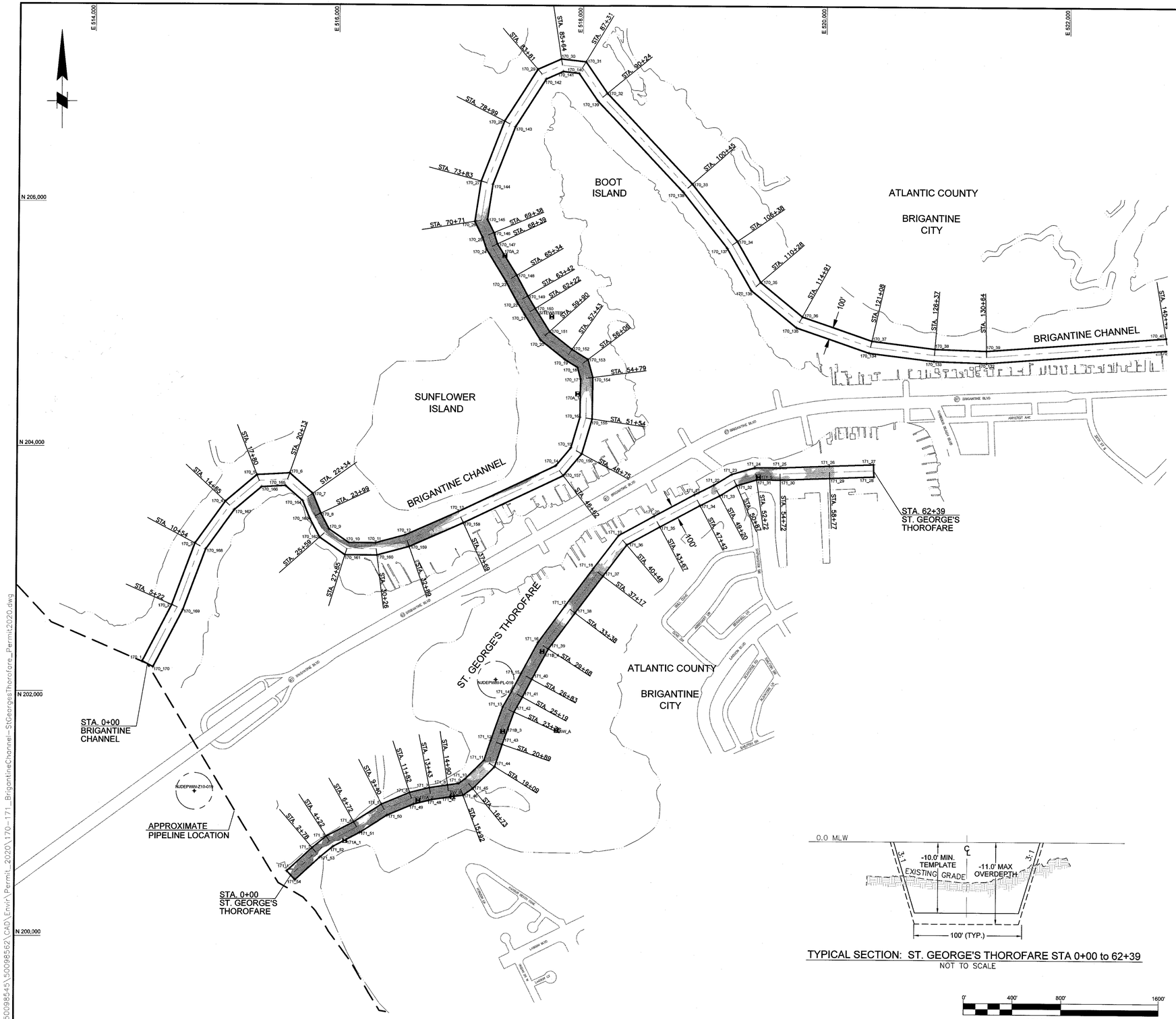
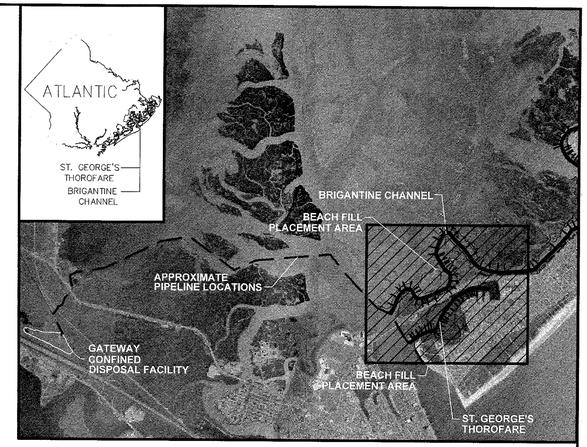
Date: 2020.07.06 16:05:28 -04'00'

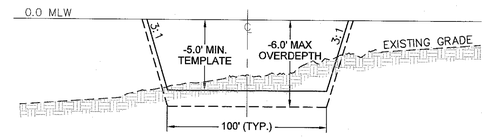
Todd A. Schaible
Chief, Regulatory Branch





CHANNEL LOCATION PLAN

N.T.S.



TYPICAL SECTION: BRIGANTINE CHANNEL STA 55+00 to 72+00

NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW DATUMS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE ARE 1.92 FEET AND 2.22 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), RESPECTIVELY. INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983.
3. EXISTING SHORELINE & DOCK LOCATIONS BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. BATHYMETRIC DATA IS EXPRESSED IN FEET BELOW MLW & WAS COLLECTED ON NOVEMBER 9, 2019 FOR BRIGANTINE CHANNEL & ST. GEORGE'S THOROFARE BY GAHAGAN & BRYANT ASSOCIATES, INC.
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6. AERIAL IMAGERY FROM NEW JERSEY STATE GEOGRAPHIC INFORMATION NETWORK, DATED 2015.
7. CONTRACTOR TO EXERCISE EXTREME CAUTION WHILE WORKING ADJACENT TO EXISTING BULKHEADS AND OTHER STRUCTURES TO AVOID ANY DAMAGE. WHERE NAVIGATIONAL TEMPLATE SIDE SLOPES INTERSECT EXISTING STRUCTURES, SIDE SLOPES SHALL BE ADJUSTED ACCORDINGLY TO AVOID IMPACTS, TO BE APPROVED BY THE RESIDENT ENGINEER.

BRIGANTINE	ST. GEORGE'S
+3.66 MHHW	+4.30 MHHW
+3.43 MHW	+3.92 MHW
+1.92 NAVD88	+2.22 NAVD88
+1.72 MTL	+1.96 MTL
0.0 MLW	0.0 MLW
-0.10 MLLW	-0.18 MLLW

RANGE OF TIDE NOT TO SCALE — RANGE OF TIDE NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- CHANNEL SHOALING AREA – TEMPLATE NAVIGATIONAL CHANNEL
- CHANNEL SHOALING AREA – OVERDEPTH
- HISTORIC RESOURCE AND BUFFER

TYPICAL SECTION: ST. GEORGE'S THOROFARE STA 0+00 to 62+39

NOT TO SCALE

GRAPHIC SCALE (FT)

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

APPR.	BY	DESCRIPTION	DATE:	REV.

DRAWN BY: CEM
CHECKED BY: ST
SCALE: AS SHOWN
DATE: 05/12/20

DEWBERRY ENGINEERS INC.
CERTIFICATION OF AUTHORIZATION
NO. 24GA28047600

JAMES D. HEEREN
NEW JERSEY PROFESSIONAL ENGINEER
NO. 24GE04031000

PROJECT NO.

SHEET 1 OF 17

DWG. NO. DRG-01

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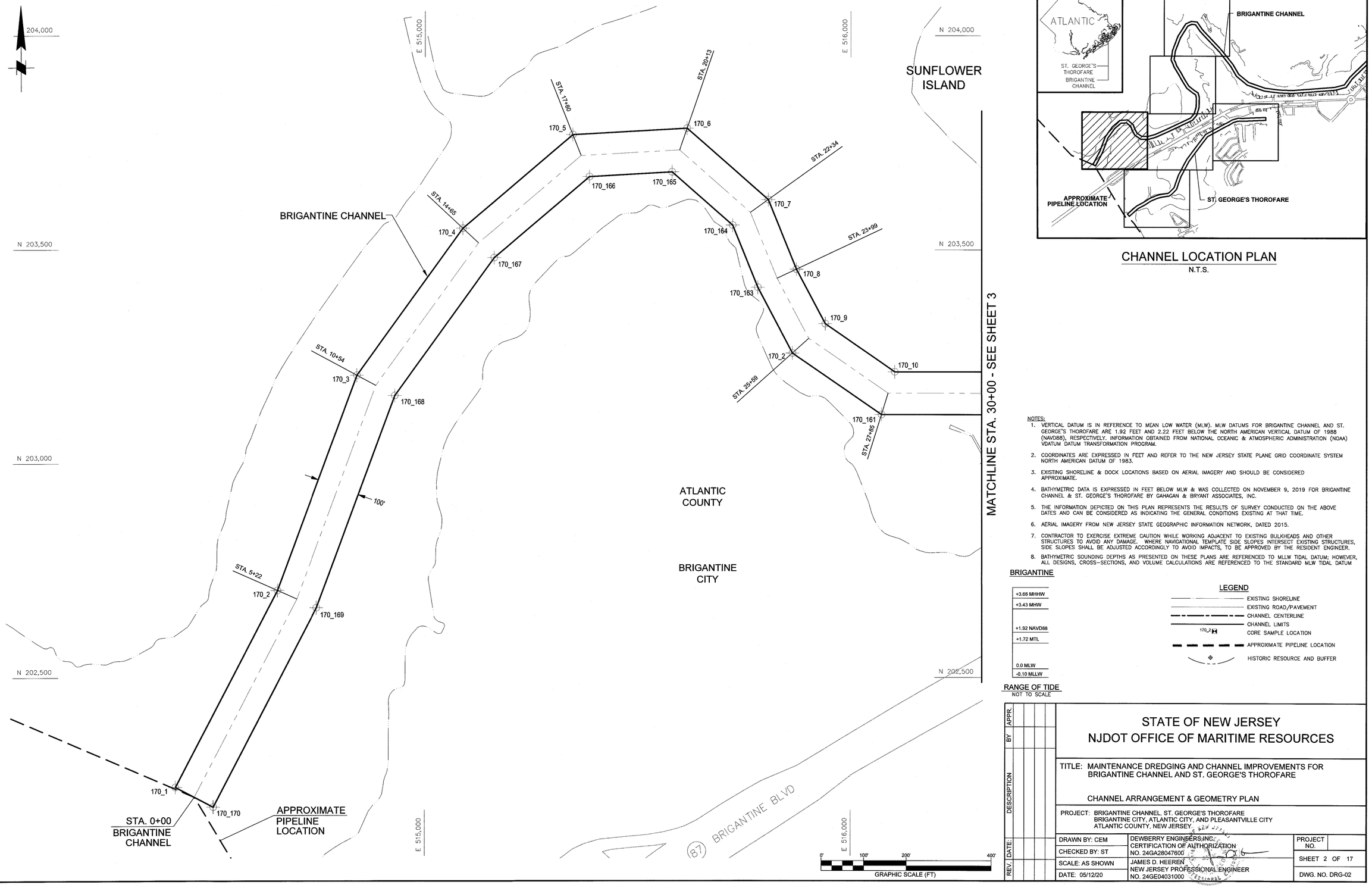

CHANNEL LOCATION PLAN
N.T.S.

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8. BATHYMETRIC SOUNDING DEPTHS AS PRESENTED ON THESE PLANS ARE REFERENCED TO MLLW TIDAL DATUM; HOWEVER, ALL DESIGNS, CROSS-SECTIONS, AND VOLUME CALCULATIONS ARE REFERENCED TO THE STANDARD MLW TIDAL DATUM

BRIGANTINE

+3.66 MHHW
+3.43 MHW
+1.92 NAVD88
+1.72 MTL
0.0 MLW
-0.10 MLLW

RANGE OF TIDE
NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- HISTORIC RESOURCE AND BUFFER

APPR.	BY	DESCRIPTION	DATE:	REV.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

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BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 2 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-02
DATE: 05/12/20		

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MATCHLINE STA. 49+00 - SEE SHEET 4

MATCHLINE STA. 30+00 - SEE SHEET 2

MATCHLINE STA. 43+00 - SEE SHEET 7

MATCHLINE STA. 26+00 - SEE SHEET 6

E 516,500

E 517,000

E 517,500

E 518,000

E 518,500

N 203,500

N 203,000

N 202,500

SUNFLOWER ISLAND

BRIGANTINE CHANNEL

100'

BRIGANTINE BLVD

(87)

ST. GEORGE'S THOROFARE

ATLANTIC COUNTY

BRIGANTINE CITY

NJDEPWW-PL-019

170_156

STA. 48+75

170_14

170_157

STA. 48+62

170_13

170_158

STA. 37+69

170_12

170_11

170_159

170_160

STA. 32+89

STA. 30+26

171_19

171_36

STA. 40+48

171_18

171_37

STA. 37+17

171_17

171_38

STA. 33+38

171_16

171_39

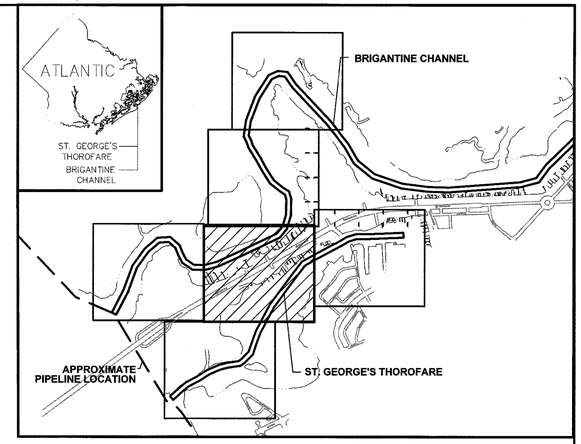
171B_4

STA. 29+68

171_15

171_40

STA. 26+83



CHANNEL LOCATION PLAN

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BRIGANTINE	ST. GEORGE'S
+3.66 MHHW	+4.30 MHHW
+3.43 MHW	+3.92 MHW
+1.92 NAVD88	+2.22 NAVD88
+1.72 MTL	+1.96 MTL
0.0 MLW	0.0 MLW
-0.10 MLLW	-0.18 MLLW

RANGE OF TIDE
NOT TO SCALE

RANGE OF TIDE
NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- HISTORIC RESOURCE AND BUFFER

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY:	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 3 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN, NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-03
DATE: 05/12/20		

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MATCHLINE STA. 72+00 - SEE SHEET 5

MATCHLINE STA. 49+00 - SEE SHEET 3

E 516,500

E 517,000

E 517,500

E 518,000

E 518,500

N 205,500

N 205,000

N 204,500

N 204,000

ATLANTIC COUNTY

BRIGANTINE CITY

BOOT ISLAND

SUNFLOWER ISLAND

BRIGANTINE CHANNEL

SITEWATER

STA. 70+71

STA. 69+38

STA. 68+39

STA. 65+34

STA. 63+42

STA. 62+22

STA. 59+90

STA. 57+43

STA. 56+06

STA. 54+79

STA. 51+54

170_26

170_145

170_25

170_146

170_24

170_147

170A_2

100'

170_148

170_23

170_149

170_22

170_150

170_21

170_151

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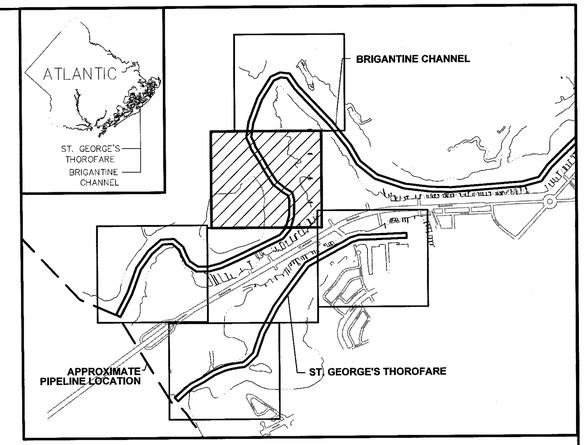
170A_1

170_16

170_155

170_15



CHANNEL LOCATION PLAN

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BRIGANTINE

+3.66 MHHW	
+3.43 MHW	
+1.92 NAVD88	
+1.72 MTL	
0.0 MLW	
-0.10 MLLW	

RANGE OF TIDE
NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- HISTORIC RESOURCE AND BUFFER

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV.	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

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PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 4 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-04
DATE: 05/12/20		

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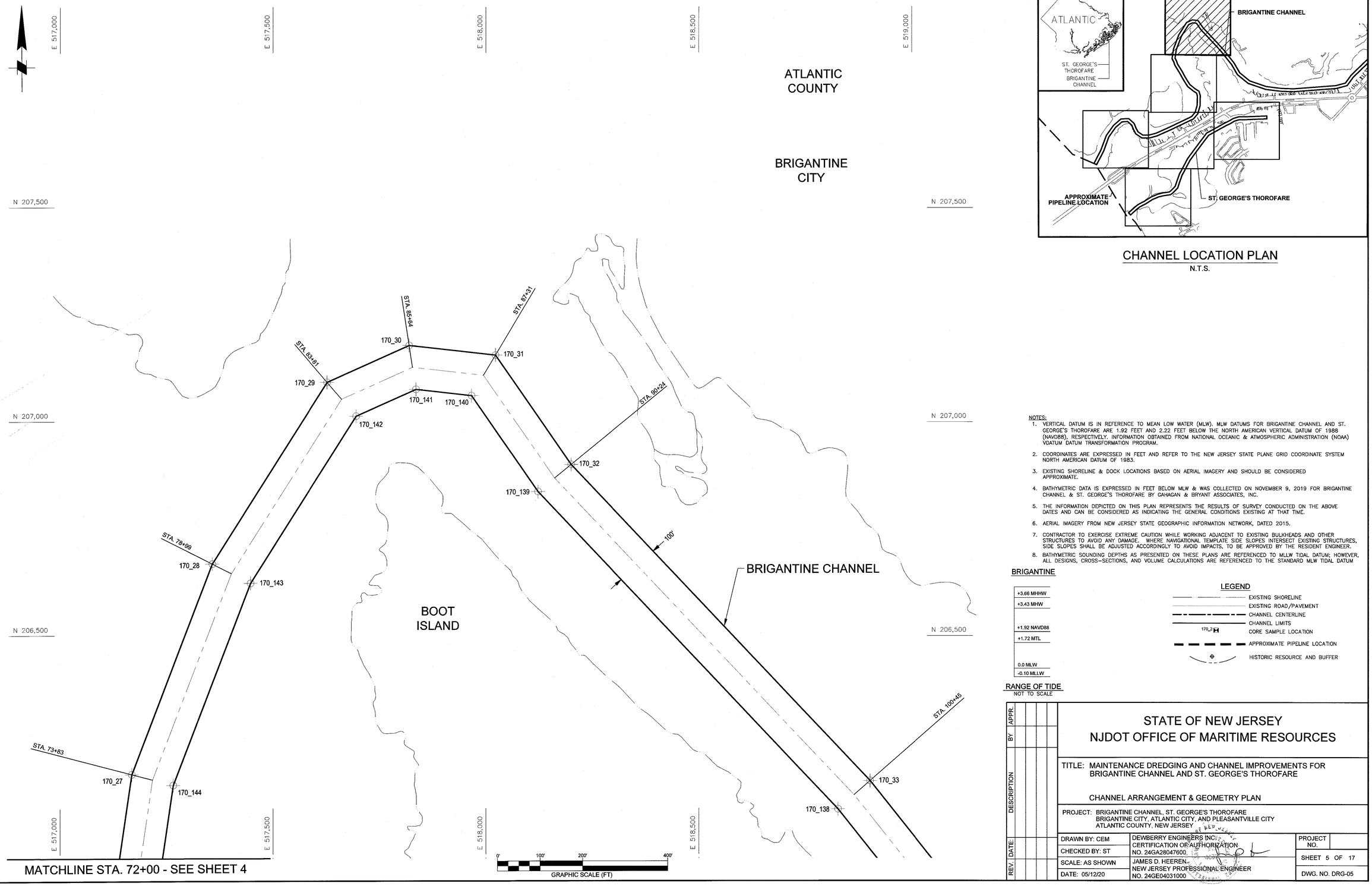

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7. CONTRACTOR TO EXERCISE EXTREME CAUTION WHILE WORKING ADJACENT TO EXISTING BULKHEADS AND OTHER STRUCTURES TO AVOID ANY DAMAGE. WHERE NAVIGATIONAL TEMPLATE SIDE SLOPES INTERSECT EXISTING STRUCTURES, SIDE SLOPES SHALL BE ADJUSTED ACCORDINGLY TO AVOID IMPACTS, TO BE APPROVED BY THE RESIDENT ENGINEER.
8. BATHYMETRIC SOUNDING DEPTHS AS PRESENTED ON THESE PLANS ARE REFERENCED TO MLLW TIDAL DATUM; HOWEVER, ALL DESIGNS, CROSS-SECTIONS, AND VOLUME CALCULATIONS ARE REFERENCED TO THE STANDARD MLW TIDAL DATUM

BRIGANTINE

RANGE OF TIDE
NOT TO SCALE

LEGEND
- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_29 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- HISTORIC RESOURCE AND BUFFER

REV.	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM
CHECKED BY: ST
SCALE: AS SHOWN
DATE: 05/12/20

DEWBERRY ENGINEERS INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28047600

JAMES D. HEEREN
NEW JERSEY PROFESSIONAL ENGINEER
NO. 24GE04031000

PROJECT NO.

SHEET 5 OF 17

DWG. NO. DRG-05

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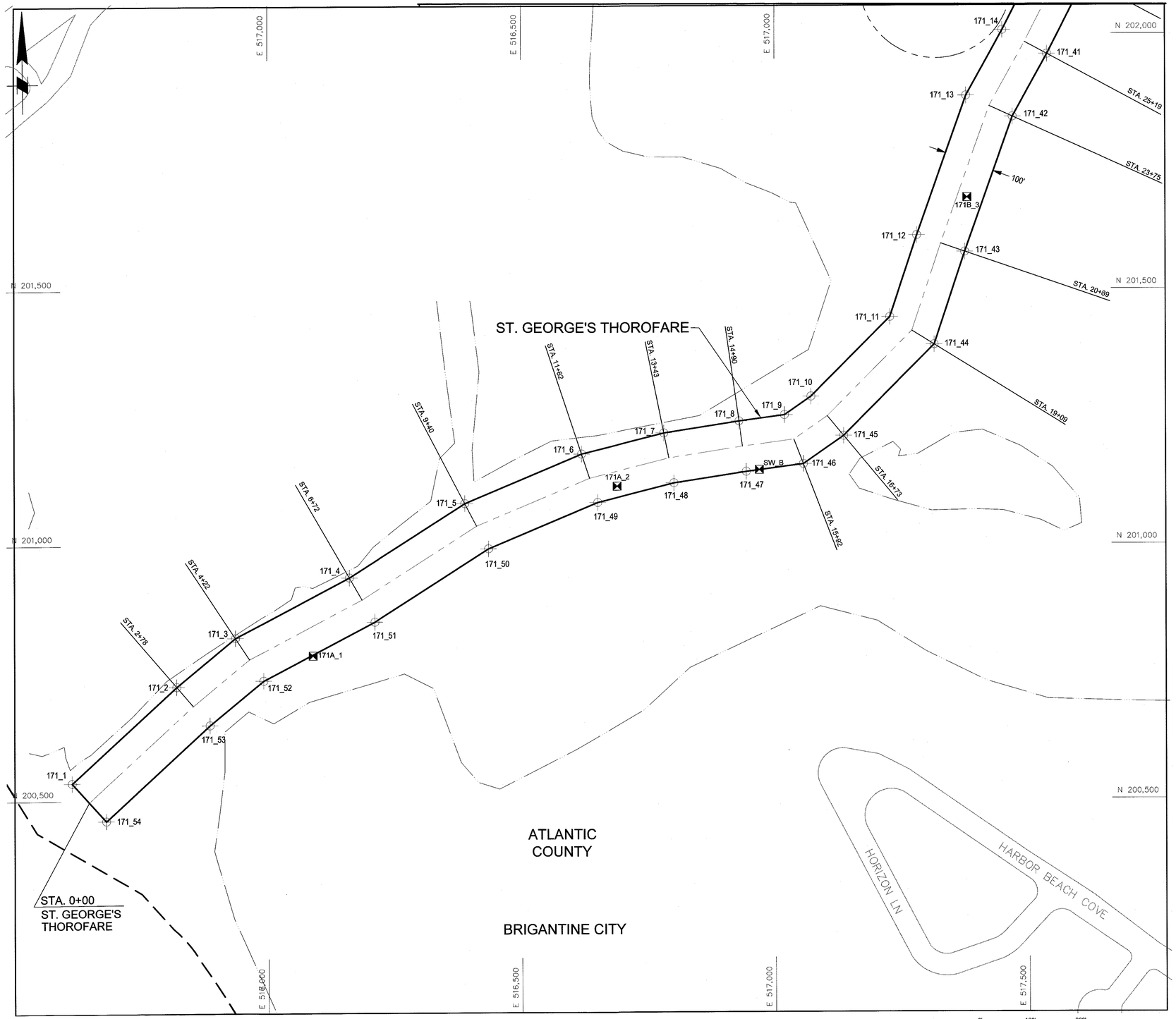
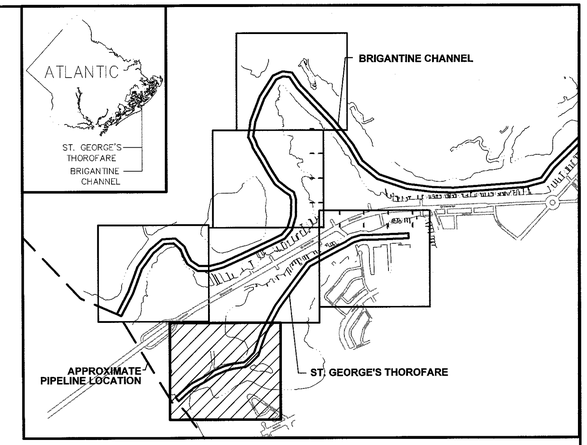
MATCHLINE STA. 26+00 - SEE SHEET 3





CHANNEL LOCATION PLAN
N.T.S.

NOTES:
1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW DATUMS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE ARE 1.92 FEET AND 2.22 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), RESPECTIVELY. INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
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ST. GEORGE'S

+4.30 MHHW
+3.92 MHW
+2.22 NAVD88
+1.96 MTL
0.0 MLW
-0.18 MLLW

RANGE OF TIDE
NOT TO SCALE

LEGEND
- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- HISTORIC RESOURCE AND BUFFER

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 6 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-06
DATE: 05/12/20		

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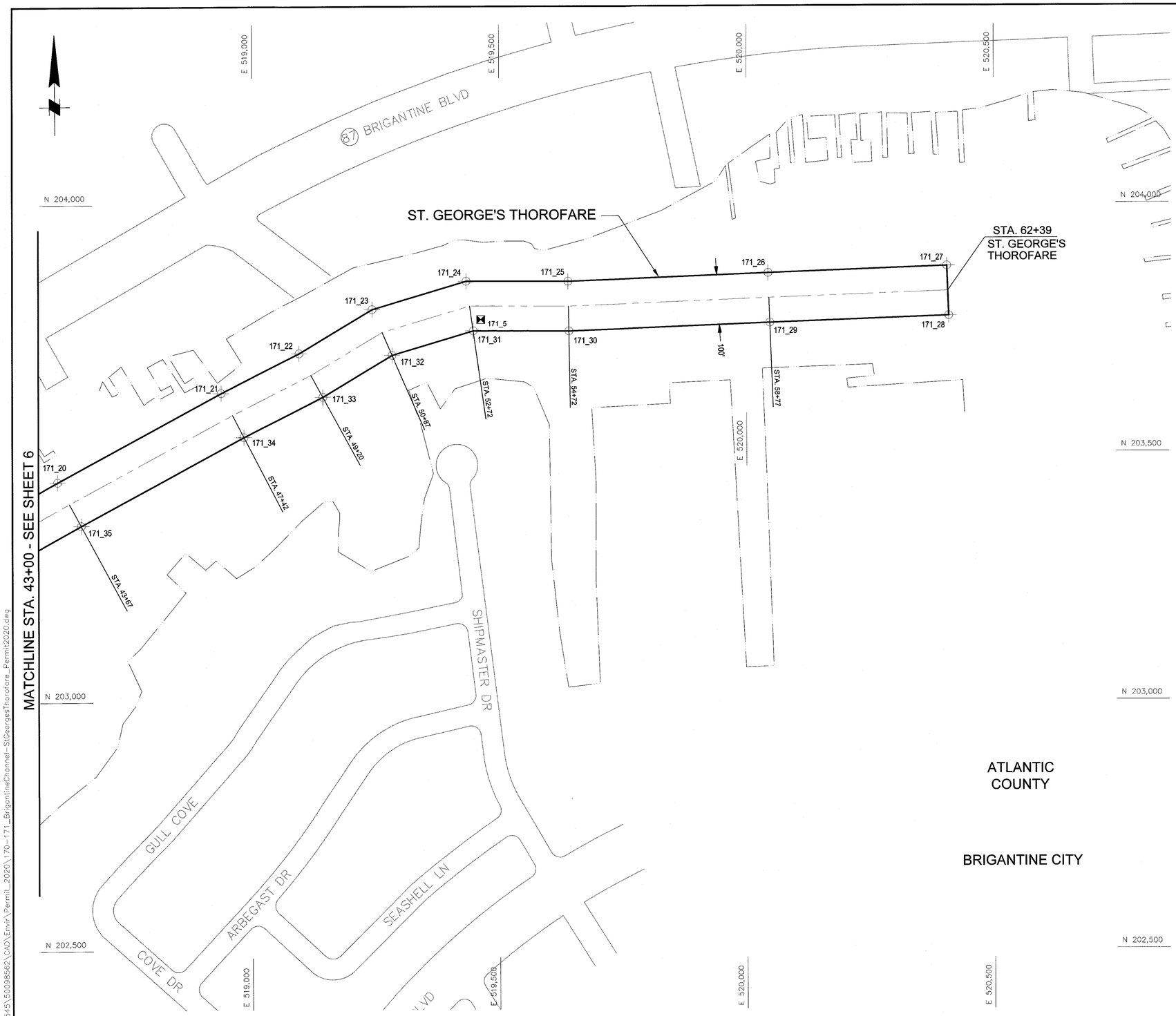

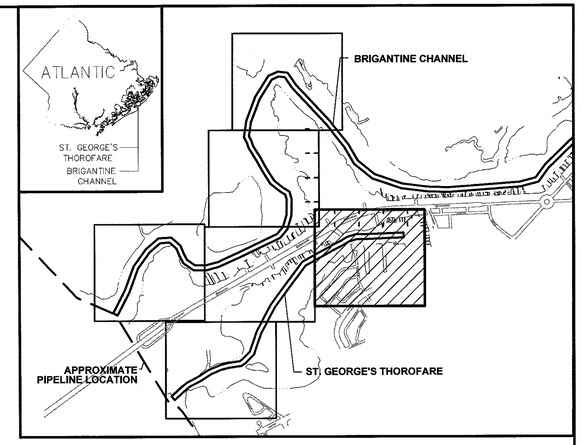

CHANNEL LOCATION PLAN
N.T.S.

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ATLANTIC COUNTY

BRIGANTINE CITY

ST. GEORGE'S

+4.30 MHHW
+3.92 MHW
+2.22 NAVD88
+1.96 MTL
0.0 MLW
-0.18 MLLW

RANGE OF TIDE
NOT TO SCALE

LEGEND
- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- HISTORIC RESOURCE AND BUFFER

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047800	PROJECT NO.
CHECKED BY: ST		SHEET 7 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-07
DATE: 05/12/20		

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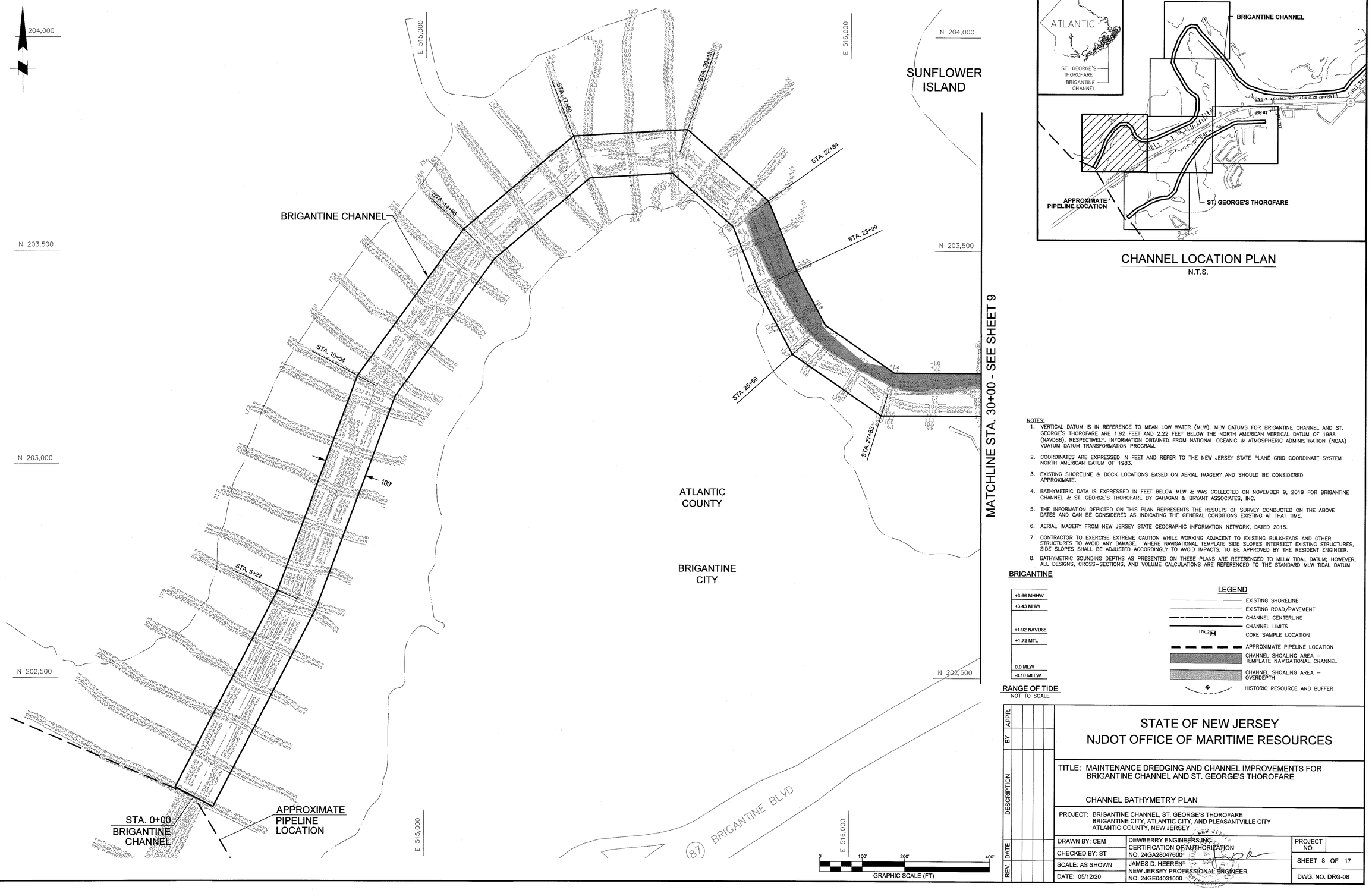

CHANNEL LOCATION PLAN
N.T.S.

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BRIGANTINE

+3.66 MHHW
+3.43 MHW
+1.92 NAVD88
+1.72 MTL
0.0 MLW
-0.10 MLLW

RANGE OF TIDE
NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170.2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- CHANNEL SHOALING AREA – TEMPLATE NAVIGATIONAL CHANNEL
- CHANNEL SHOALING AREA – OVERDEPTH
- HISTORIC RESOURCE AND BUFFER

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL BATHYMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 8 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-08
DATE: 05/12/20		

Q:\50098545\50098562\CAD\Envir\Permit_2020\170-171_BrigantineChannel-StGeorgesThorofare_Permit2020.dwg

MATCHLINE STA. 49+00 - SEE SHEET 10

MATCHLINE STA. 30+00 - SEE SHEET 8

MATCHLINE STA. 43+00 - SEE SHEET 13

MATCHLINE STA. 26+00 - SEE SHEET 12

SUNFLOWER ISLAND

BRIGANTINE CHANNEL

ST. GEORGE'S THOROFARE

ATLANTIC COUNTY

BRIGANTINE CITY

BRIGANTINE BLVD

87

E 516,500

E 517,000

E 517,500

E 518,000

E 518,500

N 203,500

N 203,000

N 202,500

STA. 49+75

STA. 49+02

STA. 37+69

STA. 32+89

STA. 30+25

STA. 40+48

STA. 37+17

STA. 33+38

STA. 29+68

STA. 26+83

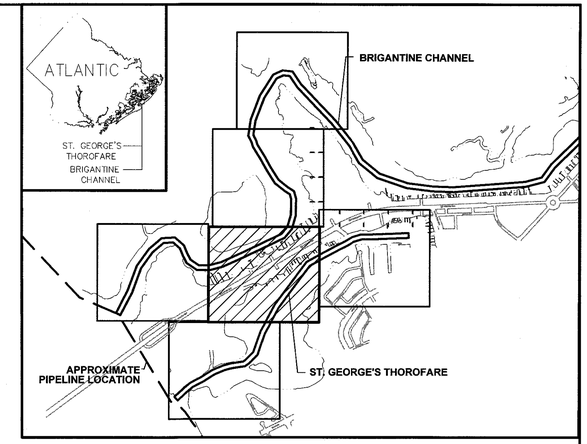
100'

171B_4

NJDEPWW-PL-019

0' 100' 200' 400'

GRAPHIC SCALE (FT)



CHANNEL LOCATION PLAN

N.T.S.

NOTES:

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BRIGANTINE

+3.66 MHHW
+3.43 MHW
+1.92 NAVD88
+1.72 MTL
0.0 MLW
-0.10 MLLW

RANGE OF TIDE
NOT TO SCALE

ST. GEORGE'S

+4.30 MHHW
+3.92 MHW
+2.22 NAVD88
+1.96 MTL
0.0 MLW
-0.18 MLLW

RANGE OF TIDE
NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- CHANNEL SHOALING AREA – TEMPLATE NAVIGATIONAL CHANNEL
- CHANNEL SHOALING AREA – OVERDEPTH
- HISTORIC RESOURCE AND BUFFER

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL BATHYMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 9 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-09
DATE: 05/12/20		

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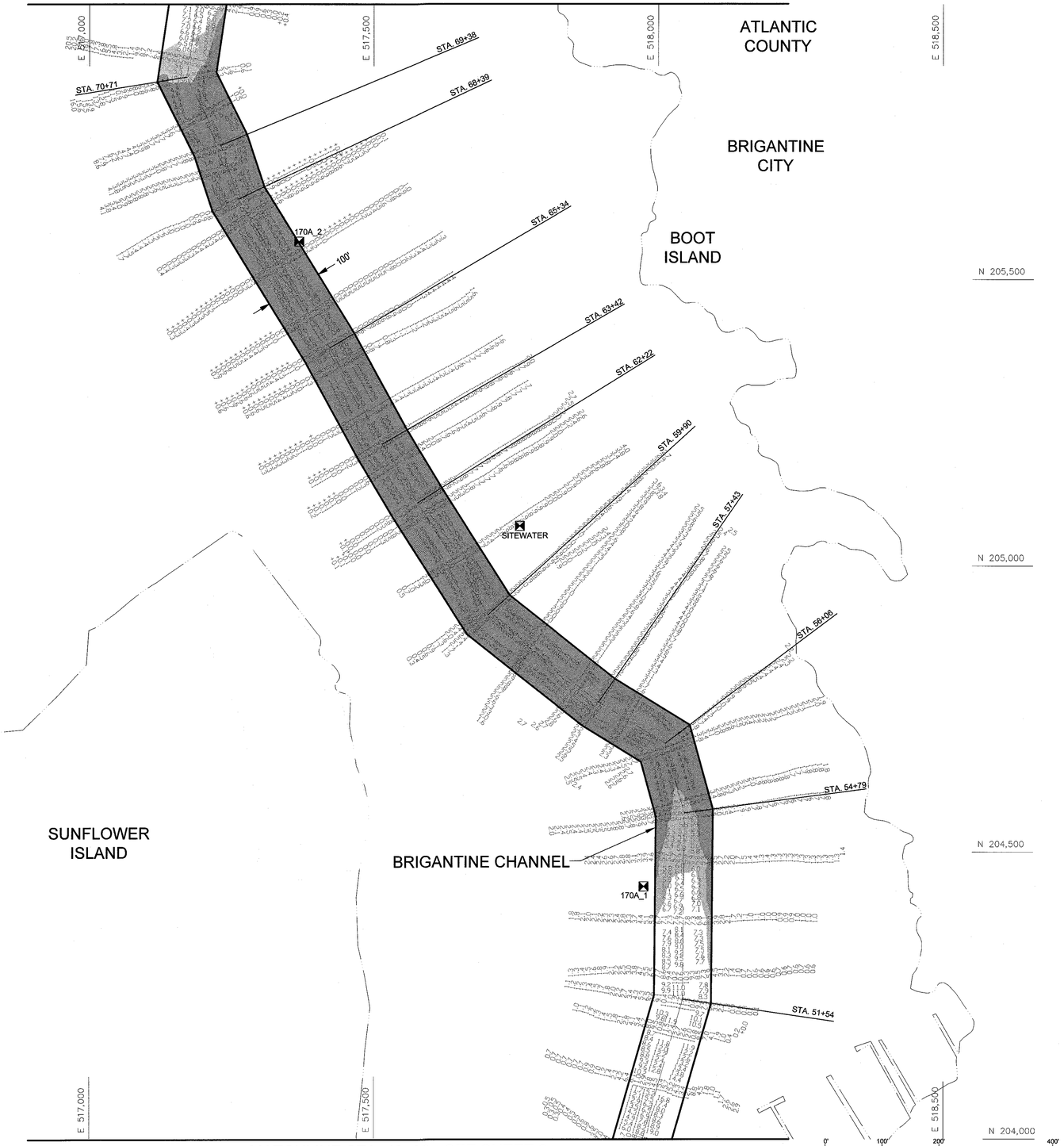
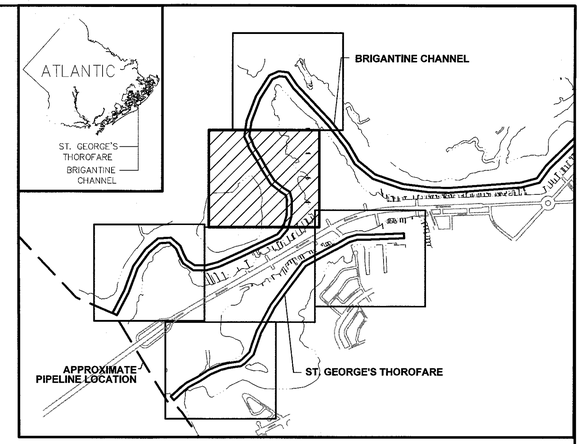
MATCHLINE STA. 72+00 - SEE SHEET 11



MATCHLINE STA. 49+00 - SEE SHEET 9



CHANNEL LOCATION PLAN
N.T.S.

NOTES:
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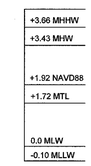
BRIGANTINE



RANGE OF TIDE
NOT TO SCALE

LEGEND
- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- CHANNEL SHOALING AREA – TEMPLATE NAVIGATIONAL CHANNEL
- CHANNEL SHOALING AREA – OVERDEPTH
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REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL BATHYMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 10 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-10
DATE: 05/12/20		

E 517,000 | E 517,500 | E 518,000 | E 518,500 | E 519,000

ATLANTIC COUNTY

BRIGANTINE CITY

N 207,500

N 207,000

N 206,500

STA. 83+81

STA. 86+64

STA. 87+31

STA. 90+24

STA. 79+99

STA. 73+83

STA. 100+45

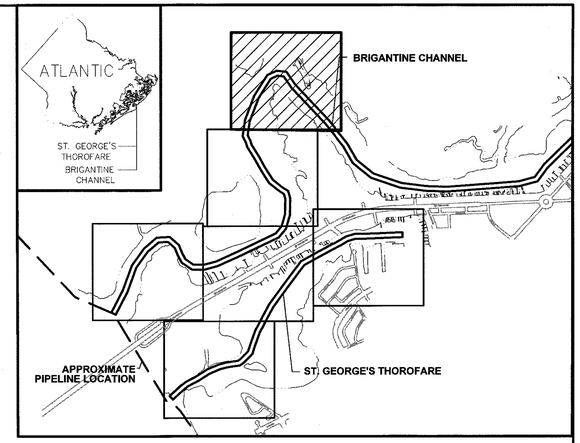
100'

BRIGANTINE CHANNEL

BOOT ISLAND

MATCHLINE STA. 72+00 - SEE SHEET 10

0' 100' 200' 400'
GRAPHIC SCALE (FT)



CHANNEL LOCATION PLAN
N.T.S.

NOTES:
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BRIGANTINE

+3.66 MHHW
+3.43 MHW
+1.92 NAVD88
+1.72 MTL
0.0 MLW
-0.10 MLLW

RANGE OF TIDE
NOT TO SCALE

LEGEND
- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170.2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- CHANNEL SHOALING AREA – TEMPLATE NAVIGATIONAL CHANNEL
- CHANNEL SHOALING AREA – OVERDEPTH
- HISTORIC RESOURCE AND BUFFER

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL BATHYMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 11 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-11
DATE: 05/12/20		

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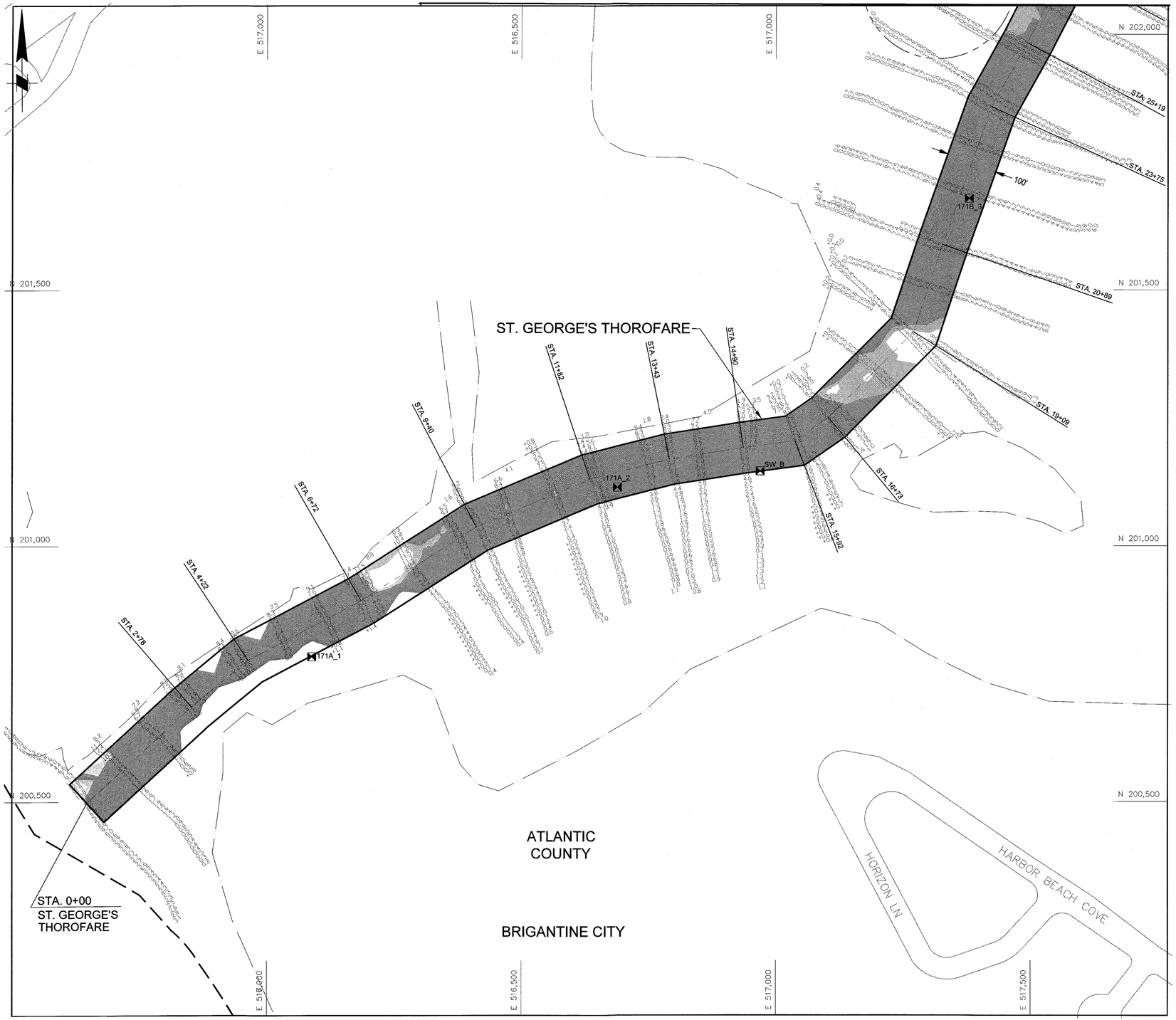
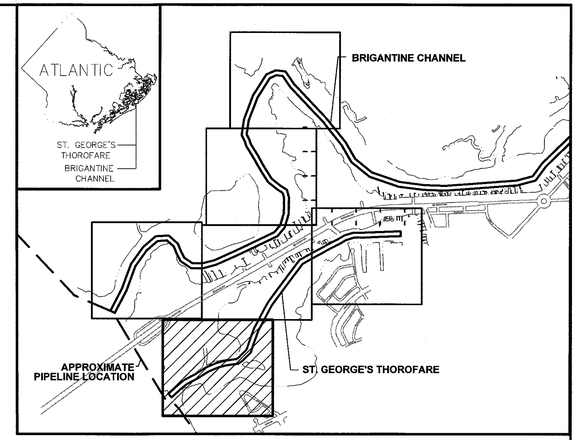
MATCHLINE STA. 26+00 - SEE SHEET 9





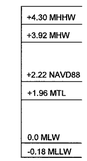
CHANNEL LOCATION PLAN

N.T.S.

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW DATUMS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE ARE 1.92 FEET AND 2.22 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), RESPECTIVELY. INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983.
3. EXISTING SHORELINE & DOCK LOCATIONS BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. BATHYMETRIC DATA IS EXPRESSED IN FEET BELOW MLW & WAS COLLECTED ON NOVEMBER 9, 2019 FOR BRIGANTINE CHANNEL & ST. GEORGE'S THOROFARE BY GAHAGAN & BRYANT ASSOCIATES, INC.
5. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEY CONDUCTED ON THE ABOVE DATES AND CAN BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
6. AERIAL IMAGERY FROM NEW JERSEY STATE GEOGRAPHIC INFORMATION NETWORK, DATED 2015.
7. CONTRACTOR TO EXERCISE EXTREME CAUTION WHILE WORKING ADJACENT TO EXISTING BULKHEADS AND OTHER STRUCTURES TO AVOID ANY DAMAGE. WHERE NAVIGATIONAL TEMPLATE SIDE SLOPES INTERSECT EXISTING STRUCTURES, SIDE SLOPES SHALL BE ADJUSTED ACCORDINGLY TO AVOID IMPACTS, TO BE APPROVED BY THE RESIDENT ENGINEER.

ST. GEORGE'S



RANGE OF TIDE
NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- CHANNEL SHOALING AREA – TEMPLATE NAVIGATIONAL CHANNEL
- CHANNEL SHOALING AREA – OVERDEPTH
- HISTORIC RESOURCE AND BUFFER

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL BATHYMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.	
CHECKED BY: ST		SHEET	12 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000		
DATE: 05/12/20		DWG. NO.	DRG-12

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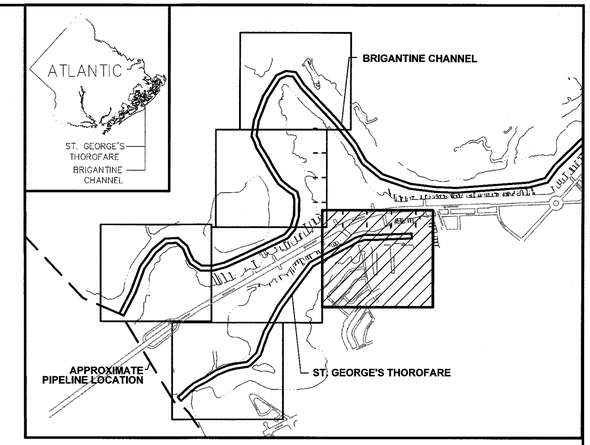


CHANNEL LOCATION PLAN
N.T.S.

NOTES:
1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW DATUMS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE ARE 1.92 FEET AND 2.22 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), RESPECTIVELY. INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983.
3. EXISTING SHORELINE & DOCK LOCATIONS BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. BATHYMETRIC DATA IS EXPRESSED IN FEET BELOW MLW & WAS COLLECTED ON NOVEMBER 9, 2019 FOR BRIGANTINE CHANNEL & ST. GEORGE'S THOROFARE BY GAHAGAN & BRYANT ASSOCIATES, INC.
5. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEY CONDUCTED ON THE ABOVE DATES AND CAN BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
6. AERIAL IMAGERY FROM NEW JERSEY STATE GEOGRAPHIC INFORMATION NETWORK, DATED 2015.
7. CONTRACTOR TO EXERCISE EXTREME CAUTION WHILE WORKING ADJACENT TO EXISTING BULKHEADS AND OTHER STRUCTURES TO AVOID ANY DAMAGE. WHERE NAVIGATIONAL TEMPLATE SIDE SLOPES INTERSECT EXISTING STRUCTURES, SIDE SLOPES SHALL BE ADJUSTED ACCORDINGLY TO AVOID IMPACTS, TO BE APPROVED BY THE RESIDENT ENGINEER.

ATLANTIC COUNTY

BRIGANTINE CITY

ST. GEORGE'S

+4.30 MHHW
+3.92 MHW
+2.22 NAVD88
+1.96 MTL
0.0 MLW
-0.18 MLLW

RANGE OF TIDE
NOT TO SCALE

LEGEND
- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS
- 170_2 CORE SAMPLE LOCATION
- APPROXIMATE PIPELINE LOCATION
- CHANNEL SHOALING AREA – TEMPLATE NAVIGATIONAL CHANNEL
- CHANNEL SHOALING AREA – OVERDEPTH
- HISTORIC RESOURCE AND BUFFER

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV.	DATE	DESCRIPTION	BY	APPR.

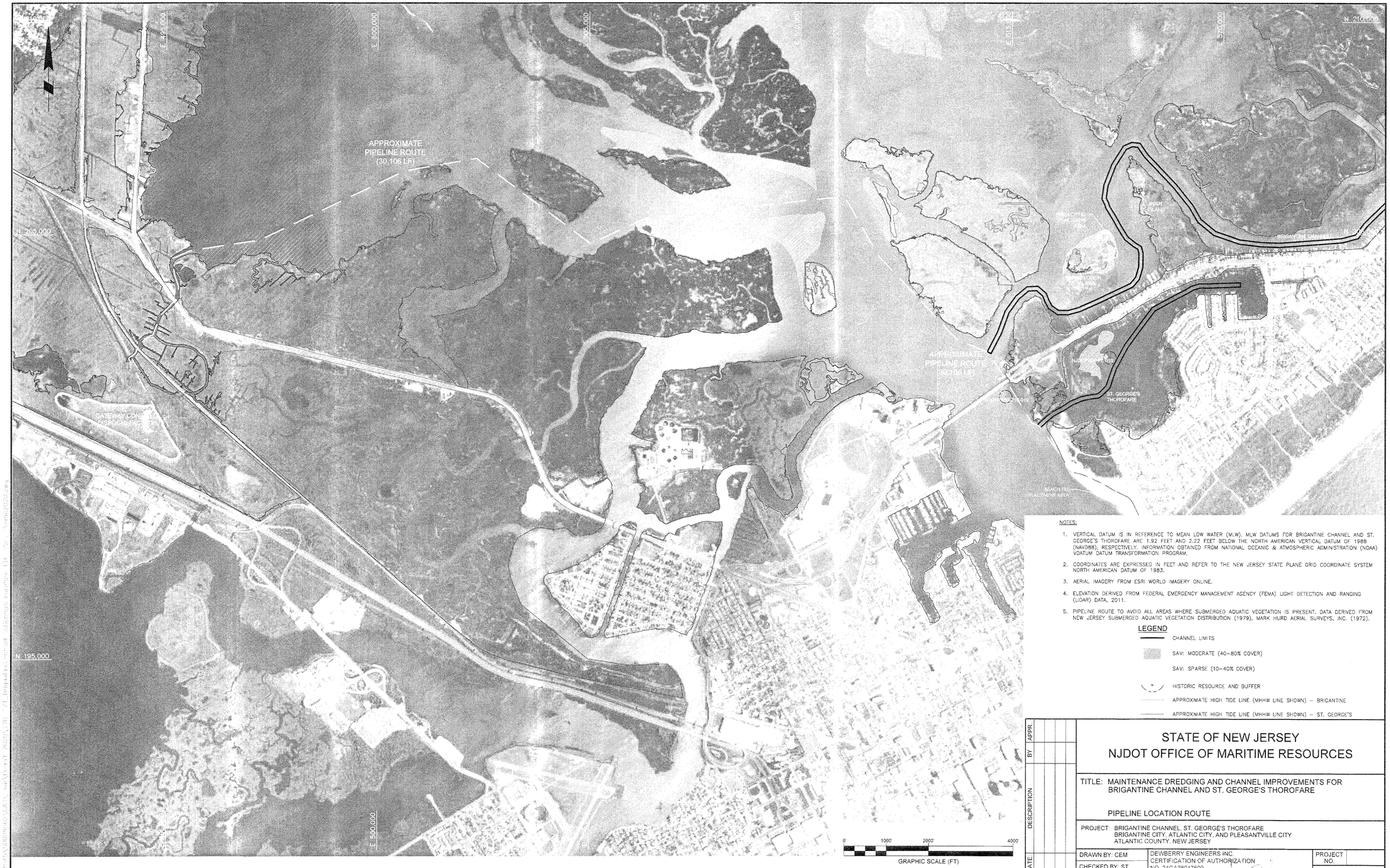
STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL BATHYMETRY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 13 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-13
DATE: 05/12/20		



NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW DATUMS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE ARE 1.92 FEET AND 2.22 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), RESPECTIVELY. INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983.
3. AERIAL IMAGERY FROM ESRI WORLD IMAGERY ONLINE.
4. ELEVATION DERIVED FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) LIGHT DETECTION AND RANGING (LIDAR) DATA, 2011.
5. PIPELINE ROUTE TO AVOID ALL AREAS WHERE SUBMERGED AQUATIC VEGETATION IS PRESENT. DATA DERIVED FROM NEW JERSEY SUBMERGED AQUATIC VEGETATION DISTRIBUTION (1979), MARK HURD AERIAL SURVEYS, INC. (1972).

LEGEND

- CHANNEL LIMITS
- SAV: MODERATE (40–80% COVER)
- SAV: SPARSE (10–40% COVER)
- HISTORIC RESOURCE AND BUFFER
- APPROXIMATE HIGH TIDE LINE (MHHW LINE SHOWN) – BRIGANTINE
- APPROXIMATE HIGH TIDE LINE (MHHW LINE SHOWN) – ST. GEORGE'S

REV.	DATE	DESCRIPTION	BY	APPR.

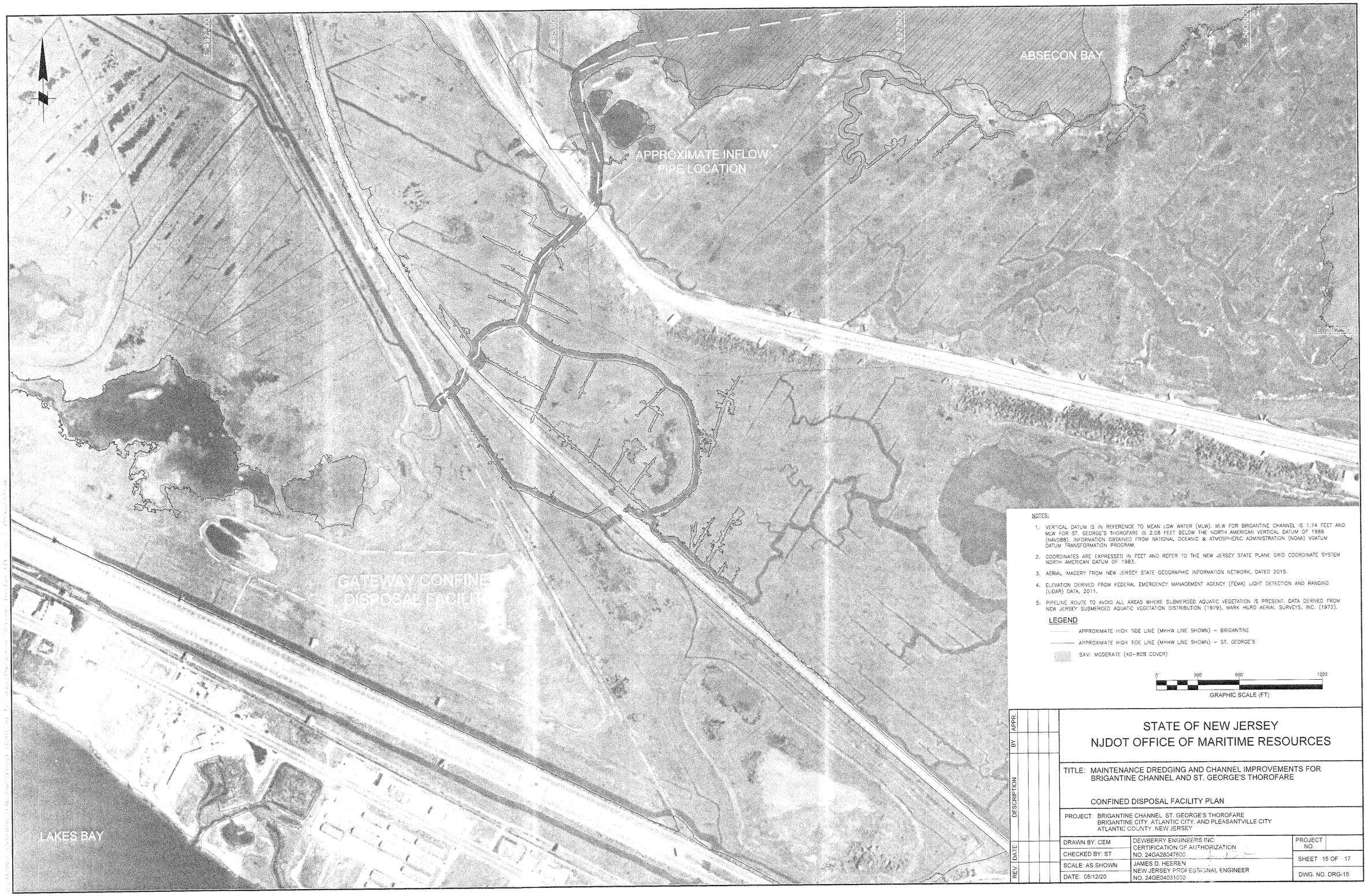
STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

PIPELINE LOCATION ROUTE

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 14 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	
DATE: 05/12/20		DWG. NO. DRG-14



NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW FOR BRIGANTINE CHANNEL IS 1.74 FEET AND MLW FOR ST. GEORGE'S THOROFARE IS 2.08 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983.
3. AERIAL IMAGERY FROM NEW JERSEY STATE GEOGRAPHIC INFORMATION NETWORK, DATED 2015.
4. ELEVATION DERIVED FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) LIGHT DETECTION AND RANGING (LIDAR) DATA, 2011.
5. PIPELINE ROUTE TO AVOID ALL AREAS WHERE SUBMERGED AQUATIC VEGETATION IS PRESENT. DATA DERIVED FROM NEW JERSEY SUBMERGED AQUATIC VEGETATION DISTRIBUTION (1979), MARK HURD AERIAL SURVEYS, INC. (1972).

LEGEND

APPROXIMATE HIGH TIDE LINE (MHHW LINE SHOWN) – BRIGANTINE

APPROXIMATE HIGH TIDE LINE (MHHW LINE SHOWN) – ST. GEORGE'S

SAV: MODERATE (40–80% COVER)

0' 300' 600' 1200'

GRAPHIC SCALE (FT)

REV	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CONFINED DISPOSAL FACILITY PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 15 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-15
DATE: 05/12/20		

N 205,000

N 202,500

E 515,000

E 517,500

E 520,000

BEACH FILL PLACEMENT AREA

BRIGANTINE CHANNEL

NJDEPWW-PL-019

ST. GEORGE's THOROFARE

NJDEPWW-Z19-019

CITY OF BRIGANTINE

APPROXIMATE PIPELINE LOCATION

BEACH FILL PLACEMENT AREA

LAGOON BOULEVARD

HARBOR BEACH BOULEVARD

OCEAN DRIVE WEST

SANDY LANE

Image(s) ©2020 , Maxar Tec

0' 300' 600' 1200'

GRAPHIC SCALE (FT)

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW DATUMS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE ARE 1.92 FEET AND 2.22 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), RESPECTIVELY. INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983.
3. AERIAL IMAGERY FROM ESRI WORLD IMAGERY ONLINE.
4. ELEVATION DERIVED FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) LIGHT DETECTION AND RANGING (LIDAR) DATA, 2011.
5. PIPELINE ROUTE TO AVOID ALL AREAS WHERE SUBMERGED AQUATIC VEGETATION IS PRESENT. DATA DERIVED FROM NEW JERSEY SUBMERGED AQUATIC VEGETATION DISTRIBUTION (1979), MARK HURD AERIAL SURVEYS, INC. (1972).

LEGEND

- CHANNEL LIMITS
- SAV: MODERATE (40–80% COVER)
- SAV: SPARSE (10–40% COVER)
- HISTORIC RESOURCE AND BUFFER
- APPROXIMATE HIGH TIDE LINE (MHHW LINE SHOWN) – BRIGANTINE
- APPROXIMATE HIGH TIDE LINE (MHHW LINE SHOWN) – ST. GEORGE'S

REV	DATE	DESCRIPTION	BY	APPR

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

BEACH FILL PLACEMENT AREA PLAN

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047800	PROJECT NO.
CHECKED BY: ST		SHEET 16 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-16
DATE: 05/12/20		

BRIGANTINE CHANNEL COORDINATES		
Point	Northing	Easting
170_1	202244.0	514415.2
170_2	202703.9	514654.4
170_3	203207.1	514840.7
170_4	203550.7	515088.9
170_5	203769.0	515346.9
170_6	203784.2	515615.7
170_7	203617.4	515806.4
170_8	203454.9	515872.8
170_9	203327.3	515940.5
170_10	203214.8	516103.8
170_11	203214.8	516322.2
170_12	203281.0	516566.5
170_13	203474.1	517001.0
170_14	203853.1	517796.7
170_15	203999.6	517920.2
170_16	204251.0	517992.9
170_17	204562.2	517995.9
170_18	204658.1	517969.5
170_19	204721.2	517866.6
170_20	204881.2	517663.4
170_21	205084.3	517534.2
170_22	205188.6	517471.7
170_23	205356.3	517379.5
170_24	205619.8	517216.6
170_25	205715.9	517184.5
170_26	205845.8	517119.6
170_27	206175.8	517168.5
170_28	206666.9	517357.4
170_29	207091.0	517627.3
170_30	207176.6	517820.0
170_31	207154.1	518022.6
170_32	206898.0	518200.0
170_33	206158.9	518902.1
170_34	205691.7	519275.9
170_35	205358.9	519469.1
170_36	205078.6	519814.2
170_37	204883.4	520385.5
170_38	204821.2	520903.3
170_39	204806.5	521324.8
170_40	204917.0	522798.1
170_41	205003.9	523128.2
170_42	205270.7	523323.9
170_43	206234.9	524325.2
170_44	207045.9	525062.5
170_45	207388.3	525309.7
170_46	207485.0	525541.9
170_47	207632.0	525799.1
170_48	207981.9	526462.1
170_49	208189.0	526725.7
170_50	208262.6	527001.5
170_51	208430.9	527186.7
170_52	208839.1	527328.7
170_53	209182.4	527364.8
170_54	209515.2	527364.8
170_55	209710.6	527222.6
170_56	209989.2	527111.2
170_57	210249.6	526937.6
170_58	210320.3	526760.7
170_59	210897.1	525997.9
170_60	211222.7	525503.9
170_61	211319.2	525357.9
170_62	211470.0	525161.3
170_63	211706.9	524935.9

BRIGANTINE CHANNEL COORDINATES		
Point	Northing	Easting
170_64	211819.0	524869.1
170_65	212012.5	524751.0
170_66	212205.3	524691.2
170_67	212337.8	524652.6
170_68	212444.9	524610.4
170_69	212653.3	524644.6
170_70	212799.5	524701.6
170_71	213097.8	524914.3
170_72	213312.4	525109.4
170_73	213557.6	525750.8
170_74	213707.8	526201.2
170_75	213763.2	526736.7
170_76	213981.7	527301.3
170_77	214369.0	528020.6
170_78	214555.8	528375.5
170_79	214740.9	528893.7
170_80	214905.9	529205.5
170_81	214987.8	529365.6
170_82	215075.9	529532.0
170_83	215165.5	529706.1
170_84	215248.7	529881.4
170_85	215279.9	529992.3
170_86	215183.6	530019.4
170_87	215154.7	529916.6
170_88	215075.8	529750.4
170_89	214987.3	529578.3
170_90	214899.1	529411.8
170_91	214817.2	529251.6
170_92	214649.1	528934.1
170_93	214464.0	528415.8
170_94	214280.7	528067.6
170_95	213890.7	527343.2
170_96	213665.1	526760.3
170_97	213609.4	526222.4
170_98	213463.4	525784.5
170_99	213227.5	525167.4
170_100	213034.9	524992.3
170_101	212751.5	524790.3
170_102	212626.7	524741.6
170_103	212455.9	524713.6
170_104	212370.2	524747.3
170_105	212234.1	524787.0
170_106	212054.0	524842.8
170_107	211870.7	524954.7
170_108	211767.7	525016.1
170_109	211544.6	525228.3
170_110	211400.7	525415.9
170_111	211306.2	525559.0
170_112	210978.8	526055.6
170_113	210408.2	526810.3
170_114	210330.9	527003.6
170_115	210036.0	527200.2
170_116	209759.4	527310.8
170_117	209547.7	527464.8
170_118	209177.1	527464.8
170_119	208817.2	527426.9
170_120	208374.0	527272.8
170_121	208172.2	527050.8
170_122	208097.7	526771.3
170_123	207897.7	526516.8
170_124	207544.3	525847.2
170_125	207395.1	525586.2
170_126	207306.8	525374.2

BRIGANTINE CHANNEL COORDINATES		
Point	Northing	Easting
170_127	206982.8	525140.3
170_128	206165.2	524396.9
170_129	205204.6	523399.4
170_130	204916.2	523187.9
170_131	204818.0	522814.7
170_132	204706.4	521326.8
170_133	204721.4	520895.6
170_134	204785.4	520363.0
170_135	204989.6	519765.2
170_136	205292.9	519391.8
170_137	205635.0	519193.1
170_138	206093.1	518826.6
170_139	206834.7	518122.1
170_140	207059.8	517966.3
170_141	207074.3	517835.9
170_142	207011.8	517695.4
170_143	206621.6	517447.1
170_144	206150.3	517265.8
170_145	205862.3	517223.2
170_146	205754.3	517277.2
170_147	205662.5	517307.8
170_148	205406.7	517465.9
170_149	205238.4	517558.5
170_150	205136.9	517619.3
170_151	204949.2	517738.6
170_152	204803.4	517923.9
170_153	204722.7	518055.4
170_154	204575.2	518096.0
170_155	204236.4	518092.8
170_156	203951.4	518010.3
170_157	203772.1	517859.2
170_158	203383.2	517042.8
170_159	203186.5	516600.1
170_160	203114.8	516335.5
170_161	203114.8	516072.7
170_162	203258.8	515863.6
170_163	203412.4	515782.1
170_164	203557.7	515722.8
170_165	203682.0	515580.6
170_166	203671.1	515385.9
170_167	203482.3	515162.8
170_168	203159.6	514929.8
170_169	202663.3	514746.0
170_170	202197.9	514503.9

ST. GEORGE'S THOROFARE COORDINATES		
Point	Northing	Easting
171_1	200535.1	515613.1
171_2	200723.3	515819.6
171_3	200818.4	515935.5
171_4	200936.0	516160.2
171_5	201081.1	516388.3
171_6	201177.8	516618.5
171_7	201218.3	516780.5
171_8	201241.3	516929.0
171_9	201253.2	517018.9
171_10	201289.4	517071.1
171_11	201445.1	517226.8
171_12	201605.3	517280.3
171_13	201879.1	517377.6
171_14	202007.3	517449.0
171_15	202152.9	517524.1
171_16	202407.7	517662.0
171_17	202708.1	517883.4
171_18	203011.8	518110.0
171_19	203284.2	518317.0
171_20	203443.3	518606.7
171_21	203620.9	518937.7
171_22	203700.1	519095.1
171_23	203788.3	519243.0
171_24	203845.0	519433.2
171_25	203844.0	519639.1
171_26	203860.1	520043.4
171_27	203873.5	520405.1
171_28	203773.6	520408.8
171_29	203760.2	520047.3
171_30	203744.0	519640.9
171_31	203744.9	519447.6
171_32	203696.0	519283.5
171_33	203612.3	519143.2
171_34	203532.2	518983.8
171_35	203355.4	518654.4
171_36	203206.7	518383.8
171_37	202951.6	518189.9
171_38	202648.6	517963.7
171_39	202354.0	517746.6
171_40	202106.2	517612.5
171_41	201960.1	517537.2
171_42	201837.7	517469.0
171_43	201572.8	517374.8
171_44	201391.1	517314.2
171_45	201212.3	517135.5
171_46	201157.3	517055.9
171_47	201142.3	516943.2
171_48	201120.2	516800.4
171_49	201082.7	516650.2
171_50	200992.1	516434.8
171_51	200849.3	516210.3
171_52	200734.6	515991.0
171_53	200647.6	515885.0
171_54	200461.2	515680.5

BRIGANTINE CHANNEL CENTERLINE COORDINATES		
Station	Northing	Easting
0+00	202221.0	514459.6
5+22	202683.6	514700.2
10+54	203183.3	514885.2
14+65	203516.5	515125.8
17+80	203720.1	515366.4
20+13	203733.1	515598.1
22+34	203587.6	515764.6
23+99	203433.6	515827.5
25+59	203293.0	515902.0
27+85	203164.8	516088.2
30+26	203164.8	516328.8
32+89	203233.8	516583.3
37+69	203428.7	517021.9
46+62	203812.6	517827.9
48+75	203975.5	517965.3
51+54	204243.7	518042.9
54+79	204568.7	518045.9
56+06	204690.4	518012.4
57+43	204762.3	517895.3
59+90	204915.2	517701.0
62+22	205110.6	517576.7
63+42	205213.5	517515.1
65+34	205381.5	517422.7
68+39	205641.1	517262.2
69+38	205735.1	517230.9
70+71	205854.1	517171.4
73+83	206163.1	517217.2
78+99	206644.2	517402.3
83+81	207051.4	517661.4
85+64	207125.4	517827.9
87+31	207106.9	517994.5
90+24	206866.3	518161.1
100+45	206126.0	518864.3
106+38	205663.3	519234.5
110+28	205325.9	519430.5
114+91	205034.1	519789.7
121+08	204834.4	520374.3
126+37	204771.3	520899.4
130+64	204756.5	521325.8
145+49	204867.5	522806.4
149+12	204960.1	523158.1
152+57	205237.7	523361.7
166+44	206200.1	524361.1
177+45	207014.4	525101.4
181+55	207347.5	525342.0
183+96	207440.1	525564.1
186+95	207588.1	525823.2
194+48	207939.8	526489.4
197+77	208143.4	526748.5
200+65	208217.4	527026.1
203+40	208402.5	527229.7
207+91	208828.1	527377.8
211+44	209179.8	527414.8
214+96	209531.4	527414.8
217+47	209735.0	527266.7
220+46	210012.6	527155.7
223+80	210290.2	526970.6
225+79	210364.3	526785.5
235+31	210938.0	526026.7
241+24	211264.4	525531.4
242+97	211360.0	525386.9
245+39	211507.3	525194.8
248+57	211737.3	524976.0

BRIGANTINE CHANNEL CENTERLINE COORDINATES		
Station	Northing	Easting
249+82	211844.9	524911.9
252+03	212030.9	524798.3
253+98	212219.7	524739.1
255+38	212354.0	524699.9
256+41	212450.4	524662.0
258+34	212640.0	524693.1
259+79	212775.5	524745.9
263+36	213066.3	524953.3
266+11	213269.9	525138.4
272+85	213510.5	525767.6
277+53	213658.6	526211.8
282+93	213714.1	526748.5
289+08	213936.2	527322.3
297+28	214324.9	528044.1
301+25	214509.9	528395.7
306+75	214695.0	528913.9
310+31	214861.6	529228.5
312+11	214943.5	529388.7
313+99	215031.6	529555.1
315+94	215120.7	529728.2
317+83	215201.7	529899.0
318+94	215231.7	530005.8

ST. GEORGE'S THOROFARE CENTERLINE COORDINATES		
Station	Northing	Easting
0+00	200498.2	515646.8
2+78	200685.4	515852.3
4+22	200776.5	515963.3
6+72	200892.7	516185.2
9+40	201036.6	516411.5
11+82	201130.2	516634.4
13+43	201169.3	516790.5
14+90	201191.8	516936.1
15+92	201205.2	517037.4
16+73	201250.8	517103.3
19+09	201418.1	517270.5
20+89	201589.1	517327.5
23+75	201858.4	517423.3
25+19	201983.7	517493.1
26+83	202129.6	517568.3
29+68	202380.9	517704.3
33+38	202678.3	517923.5
37+17	202981.7	518150.0
40+48	203245.5	518350.4
43+67	203399.4	518630.5
47+42	203576.6	518960.7
49+20	203656.2	519119.1
50+87	203742.1	519263.2
52+72	203794.9	519440.4
54+72	203794.0	519640.0
58+77	203810.1	520045.4
62+39	203823.6	520406.9

DREDGE VOLUMES BASED ON NOV. 2019 SURVEY DATA

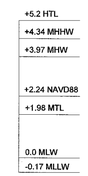
BRIGANTINE CHANNEL	
DEPTH	STA. 0+00 TO 318+94
TEMPLATE (-5 MLW)	25,897 CY
OVERDEPTH (-6 MLW)	12,868 CY
TOTAL VOLUME	38,765 CY

DREDGE VOLUMES BASED ON NOV. 2019 SURVEY DATA

ST. GEORGE'S THOROFARE	
DEPTH	STA. 0+00 TO 62+39
TEMPLATE (-10 MLW)	35,607 CY
OVERDEPTH (-11 MLW)	16,586 CY
TOTAL VOLUME	52,193 CY

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW DATUMS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE ARE 1.92 FEET AND 2.22 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), RESPECTIVELY. INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983.
3. EXISTING SHORELINE & DOCK LOCATIONS BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. BATHYMETRIC DATA IS EXPRESSED IN FEET BELOW MLW & WAS COLLECTED ON NOVEMBER 9, 2019 FOR BRIGANTINE CHANNEL & ST. GEORGE'S THOROFARE BY GAHAGAN & BRYANT ASSOCIATES, INC.
5. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEY CONDUCTED ON THE ABOVE DATES AND CAN BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
6. AERIAL IMAGERY FROM NEW JERSEY STATE GEOGRAPHIC INFORMATION NETWORK, DATED 2015.
7. CONTRACTOR TO EXERCISE EXTREME CAUTION WHILE WORKING ADJACENT TO EXISTING BULKHEADS AND OTHER STRUCTURES TO AVOID ANY DAMAGE. WHERE NAVIGATIONAL TEMPLATE SIDE SLOPES INTERSECT EXISTING STRUCTURES, SIDE SLOPES SHALL BE ADJUSTED ACCORDINGLY TO AVOID IMPACTS, TO BE APPROVED BY THE RESIDENT ENGINEER.



RANGE OF TIDE
NOT TO SCALE

LEGEND

- EXISTING SHORELINE
- EXISTING ROAD/PAVEMENT
- CHANNEL CENTERLINE
- CHANNEL LIMITS

0' 100' 200' 400'

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BRIGANTINE CHANNEL AND ST. GEORGE'S THOROFARE

CHANNEL ARRANGEMENT LAYOUT

PROJECT: BRIGANTINE CHANNEL, ST. GEORGE'S THOROFARE
BRIGANTINE CITY, ATLANTIC CITY, AND PLEASANTVILLE CITY
ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: ST		SHEET 17 OF 17
SCALE: AS SHOWN	JAMES D. HEEREN, NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. DRG-17
DATE: 05/12/20		

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