

**US Army Corps
of Engineers**
Philadelphia District

Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OPR

Public Notice

Public Notice No.
CENAP-OPR-2021-00129-95

Date
March 25, 2021

Application No.
CENAP-OPR-2021-00129-95

File No.

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: Big Thorofare State Channel #162 and a portion of the Tuckerton Federal Navigation Channel; both located in Little Egg Harbor Bay.

LOCATION: Little Egg Harbor Township, Ocean County, New Jersey;
Latitude: 39.565639° N, Longitude: 74.340954° W.

ACTIVITY: The applicant, New Jersey Department of Transportation – Office of Maritime Resources (NJDOT-OMR), has requested Department of the Army (DA) authorization to perform ten (10)-year maintenance dredging of Big Thorofare (State Channel #162) and a portion of the Tuckerton Federal Navigation Channel (FNC), both located in Little Egg Harbor Bay.

All of the work would be accomplished via hydraulic cutterhead dredge. All resultant dredged material, estimated to be approximately 78,010.0-cubic yards of sand and silt, would be transported via floating and submerged pipeline to the Story Island Confined Disposal Facility (CDF) located in Little Egg Harbor Bay, Ocean County, New Jersey. Return water from the Story Island CDF is proposed.

Both Big Thorofare State Channel and the Tuckerton Federal Navigation Channel have 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.

For navigational safety, the hydraulic dredge pipeline will be marked in accordance with U.S. Coast Guard regulations and would be sunken, except where submerged aquatic vegetation (SAV) is encountered where it would be floated.

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, with the initial dredging event proposed to be undertaken during Fall 2021.

Big Thorofare State Channel (#162):

Maintenance dredging of 62,430-cubic yards of shoaled sediments from a 7,040.0-foot long channel to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, is proposed. The channel design width is 100.0-linear feet, with 3:1 side slopes.

Tuckerton Federal Navigation Channel:

Maintenance dredging of 15,580-cubic yards of shoaled sediments from a 5,042.0-foot long portion of the Tuckerton FNC to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, is proposed. The channel design width is 100.0-linear feet, with 3:1 side slopes.

Dredge Material Placement Area:

All resultant dredged material will be hydraulically pumped via pipeline into the Story Island CDF for dewatering and eventual beneficial re-use within the bay system. Story Island is owned and maintained by the State of New Jersey's Division of Fish and Wildlife; and Story Island's CDF is owned and maintained by NJDOT-OMR. In 2019, the Story Island CDF was repaired/rehabilitated by NJDOT-OMR under DA Permit Number NAP-2018-00461-95.

PURPOSE: The stated purpose of this project is to maintain safe navigational depths for transiting vessels; and beneficially reutilizing dredged material within the 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.

In accordance with Section 106 of the National Historic Preservation Act, the USACE Cultural Resource Specialist has evaluated the project and determined that the proposed permit area has been so extensively modified from historical dredging and construction activities that little likelihood exists for the proposed project to impact a historic property. Additionally, based on Tribal review preferences derived through consultation, formal government-to-government consultation is not required due no potential to affect archaeological resources.

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.

Pursuant to Section 7 of the ESA, a preliminary review of this application indicates that the proposed work would not affect land-based species or their critical habitat. Given USACE's no effect determination, as per Section 7 of the ESA, no further consultation with the U.S. Fish & Wildlife Service is required.

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.

Per Federal Regulations 33 CFR 325.1(d)(7), the applicant has stated that compensatory mitigation is not required because the proposed project is expected to result in a net increase in habitat functions and values through beneficial re-utilization of all resultant dredged material within the Delaware Bay system to restore and enhance eroded shoreline habitat.

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.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary 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.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

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 to PhiladelphiaDistrictRegulatory@usace.army.mil, 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 via email at robert.youhas@usace.army.mil, or by phone at 215-656-6729.

A handwritten signature in black ink, appearing to read "Todd A. Schaible". The signature is fluid and cursive, with the first name "Todd" being the most prominent.

Todd A. Schaible
Chief, Regulatory Branch

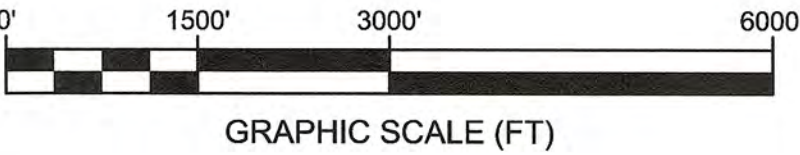


LEGEND

--- NJICWW CENTERLINE
--- MUNICIPAL BOUNDARY
--- HISTORIC BUFFER

2019 SHOALING VOLUMES
TUCKERTON FEDERAL CHANNEL:
GR (-5): 5,530 CY
OD (-6): 10,050 CY
TOTAL: 15,580 CY

2019 SHOALING VOLUMES
BIG THOROFARE:
GR (-5): 38,470 CY
OD (-6): 23,960 CY
TOTAL: 62,430 CY



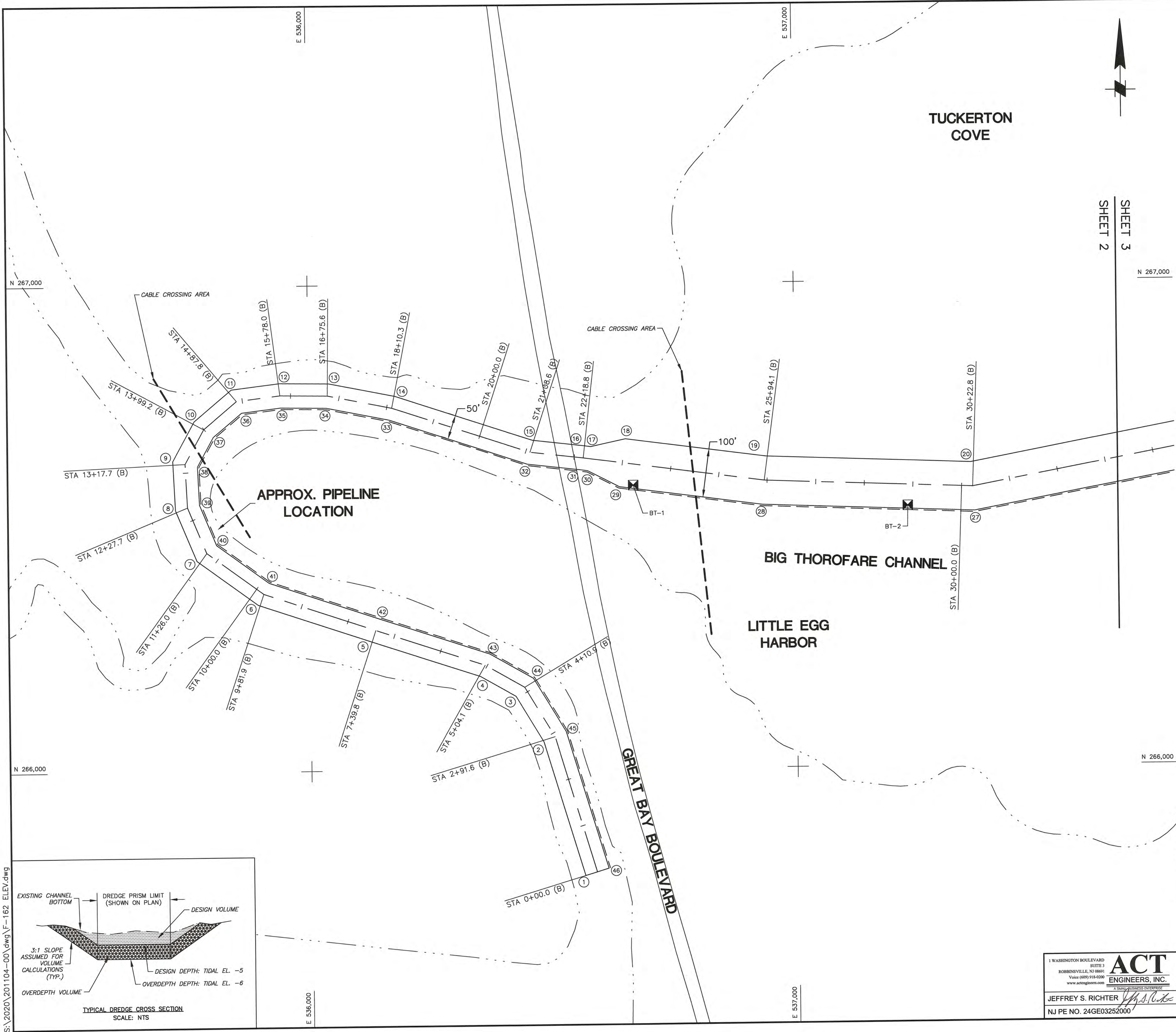
STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: PROJECT OVERVIEW MAP

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS
LITTLE EGG HARBOR TOWNSHIP,
OCEAN COUNTY, NEW JERSEY

DRAWN BY: NJH	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: JR	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	SHEET 1 OF 18
SCALE: AS SHOWN		DWG. NO. PERMIT - 1
DATE: FEBRUARY 2021		

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Voice (909) 918-0200
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ACT
ENGINEERS, INC.
A SMALL BUSINESS ENTERPRISE
JEFFREY S. RICHTER
NJ PE NO. 24GE03252000



PROJECT LOCATION MAP
SCALE: 1" = 4000'

SAMPLE NAME	ASI ID #	% TOC						PPM	% DRY WT.
		GRAVEL	SAND	SILT	CLAY	MOISTURE			
BT-1	20200092	10.0	41.7	29.1	19.2	36.04	25,749	2.57	
BT-2	20200093	2.0	24.5	43.6	29.9	42.88	25,277	2.53	
BT-3	20200094	0.0	23.3	49.0	27.7	40.27	17,600	1.76	
COMPOSITE BT-A	20200166	0.0	23.1	50.7	26.2	40.75	15,782	1.58	
BT-4	20200095	0.9	30.5	52.7	15.9	30.82	9,851	0.99	
BT-5	20200096	0.7	24.2	50.9	24.2	36.16	15,652	1.57	
BT-6	20200097	0.0	27.8	53.8	18.4	33.23	12,529	1.25	
COMPOSITE BT-B	20200167	0.2	25.0	55.6	19.2	34.74	12,218	1.22	

- NOTE:
1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 1.12 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDUTUM DATUM TRANSFORMATION PROGRAM VERSION 4.1.2.
 2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
 3. DATA DISPLAYED IS FROM HYDROGRAPHIC SURVEYS PERFORMED ON APRIL 2, 2019 BY GAHAGAN AND BRYANT ASSOCIATES.

LEGEND

2.28 MHHW
2.02 MHW
1.12 NAVD88
1.00 MTL
0 MLW
-0.11 MLLW

— — — — —	CHANNEL CENTERLINE
— — — — —	CHANNEL LIMITS
- - - - -	APPROXIMATE SHORELINE (MHWL)
- - - - -	APPROXIMATE PIPELINE LOCATION
— — — — —	EXISTING ROAD/PAVEMENT
⊠	SAMPLING LOCATION
0' 100' 200' 400'	GRAPHIC SCALE (FT)

RANGE OF TIDE (FT)
NOT TO SCALE

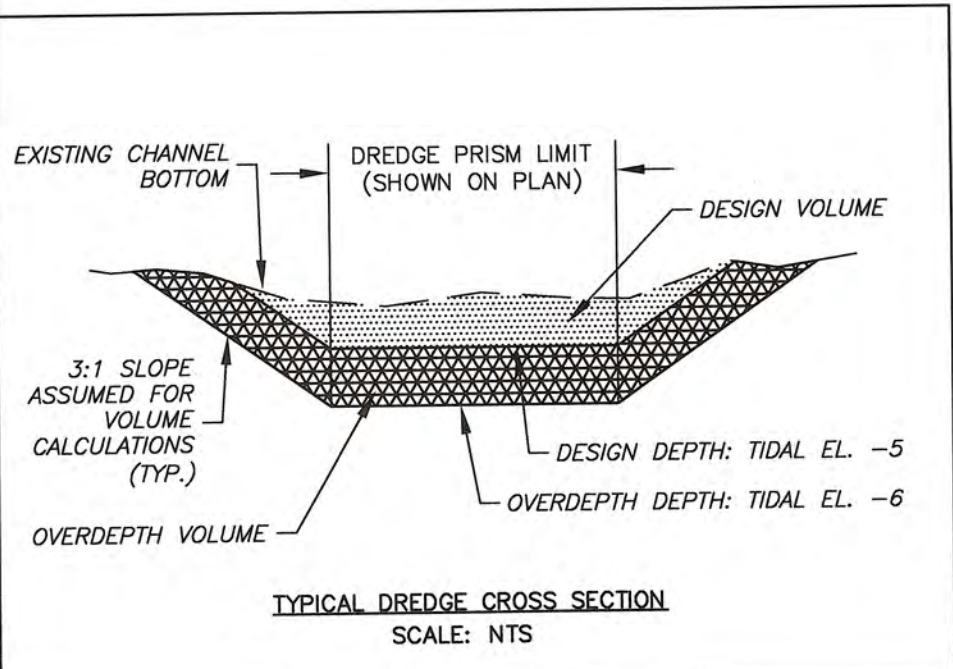
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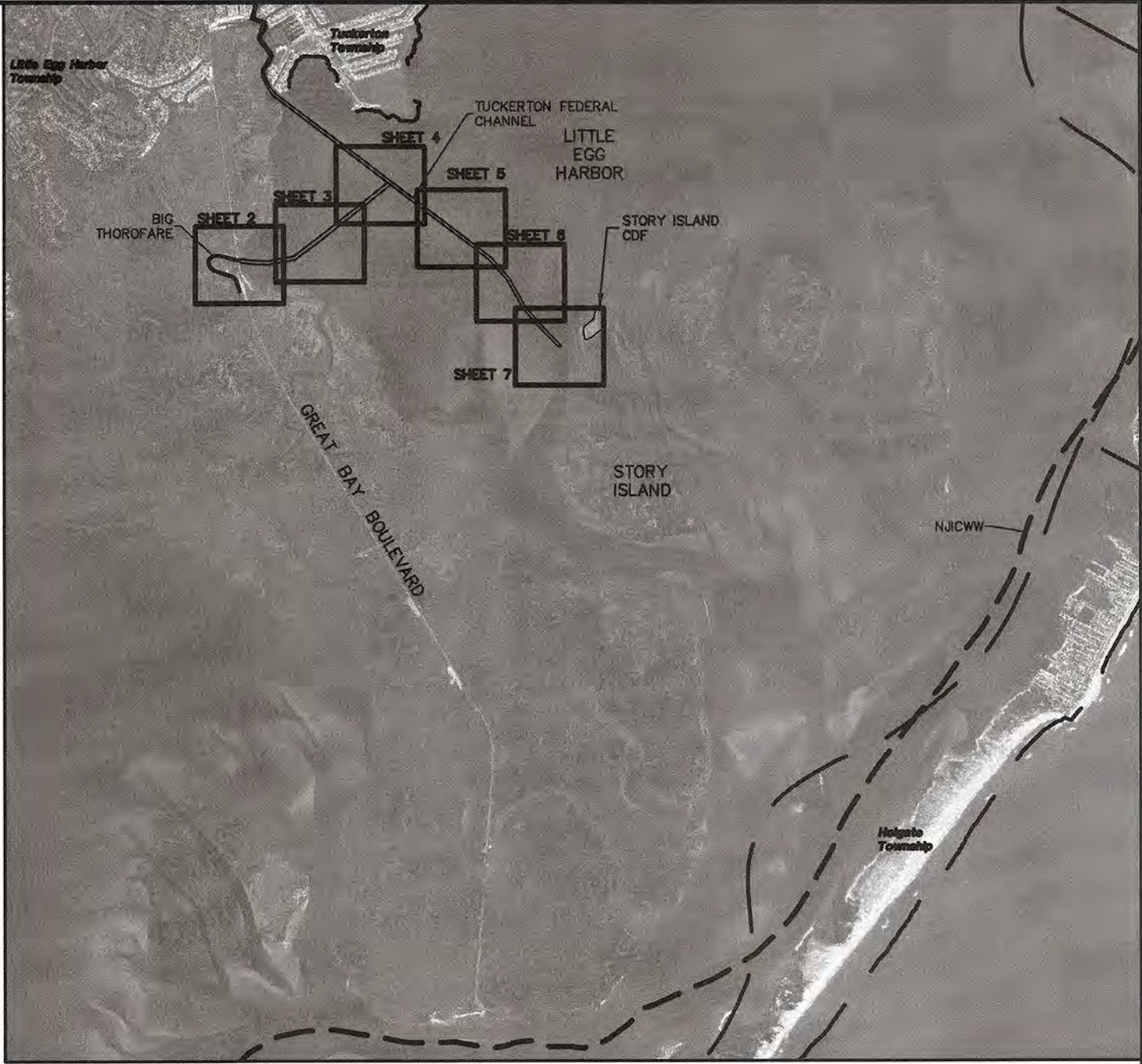
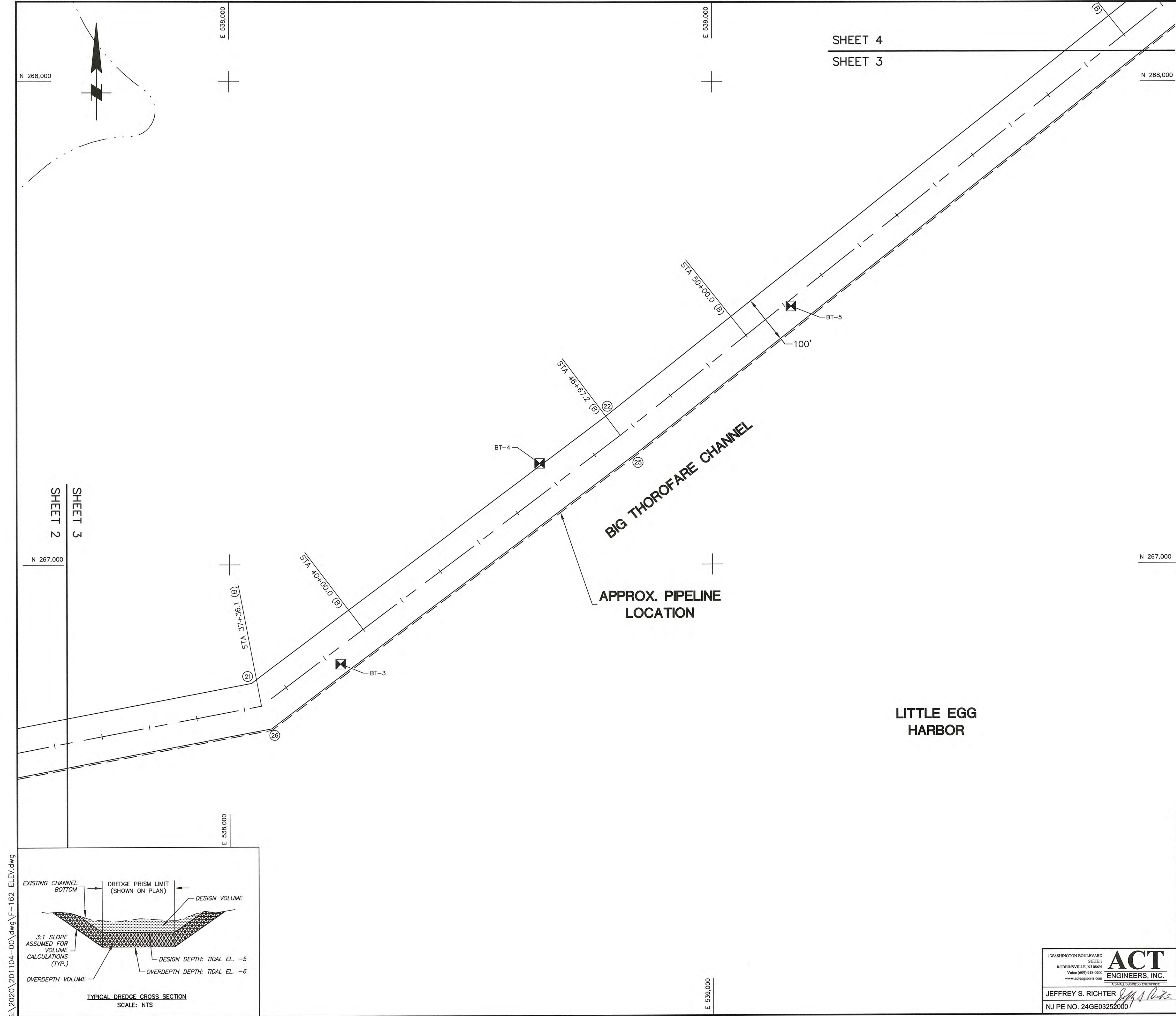
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A CORP. OF NEW JERSEY

JEFFREY S. RICHTER
NJ PE NO. 24GE03252000

REV.	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES	
TITLE: CHANNEL ARRANGEMENT & GEOMETRY PLAN	
PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY	
DRAWN BY: NJH	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
CHECKED BY: JR	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500
SCALE: AS SHOWN	DATE: FEBRUARY 2021
PROJECT NO.	SHEET 2 OF 18
DWG. NO.	PERMIT - 2

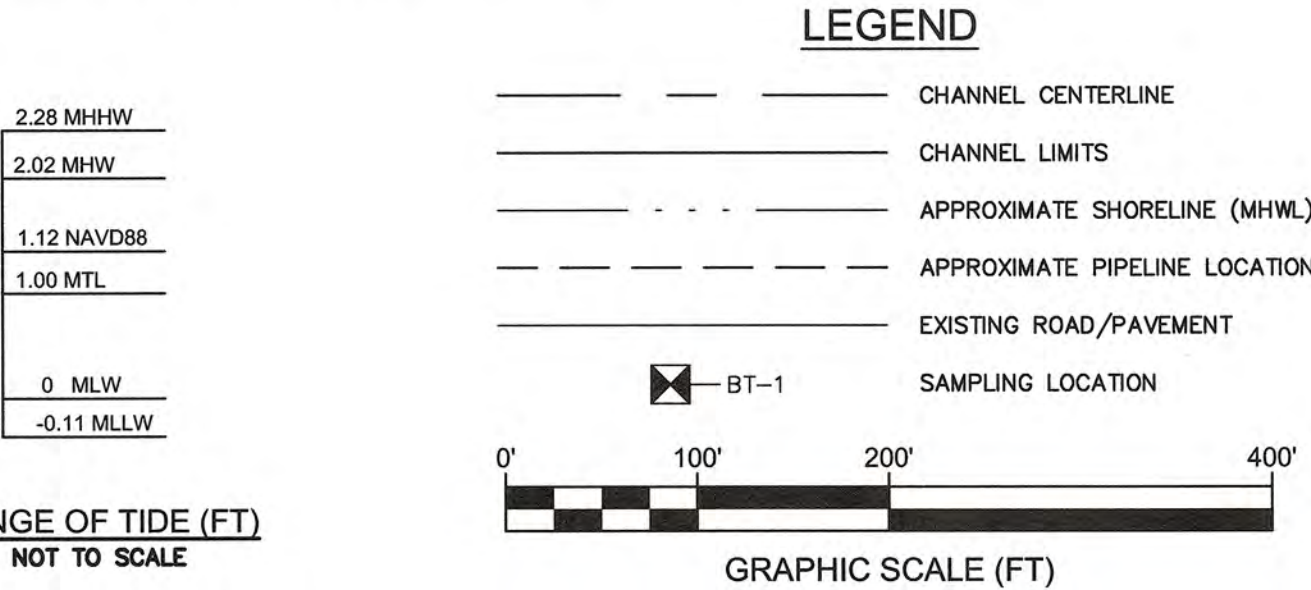




PROJECT LOCATION MAP
SCALE: 1" = 4000'

SAMPLE NAME	ASI ID #	% GRAVEL	% SAND	% SILT	% CLAY	% MOISTURE	TOC	
							PPM	% DRY WT.
BT-1	20200092	10.0	41.7	29.1	19.2	36.04	25,749	2.57
BT-2	20200093	2.0	24.5	43.6	29.9	42.88	25,277	2.53
BT-3	20200094	0.0	23.3	49.0	27.7	40.27	17,600	1.76
COMPOSITE BT-A	20200166	0.0	23.1	50.7	26.2	40.75	15,782	1.58
BT-4	20200095	0.9	30.5	52.7	15.9	30.82	9,851	0.99
BT-5	20200096	0.7	24.2	50.9	24.2	36.16	15,652	1.57
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LITTLE EGG HARBOR TOWNSHIP,
OCEAN COUNTY, NEW JERSEY

DRAWN BY: NJH

CHECKED BY: JR

SCALE: AS SHOWN

DATE: FEBRUARY 2021

WSP USA Inc.

CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

MICHAEL J. MARANO

NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500

PROJECT NO.

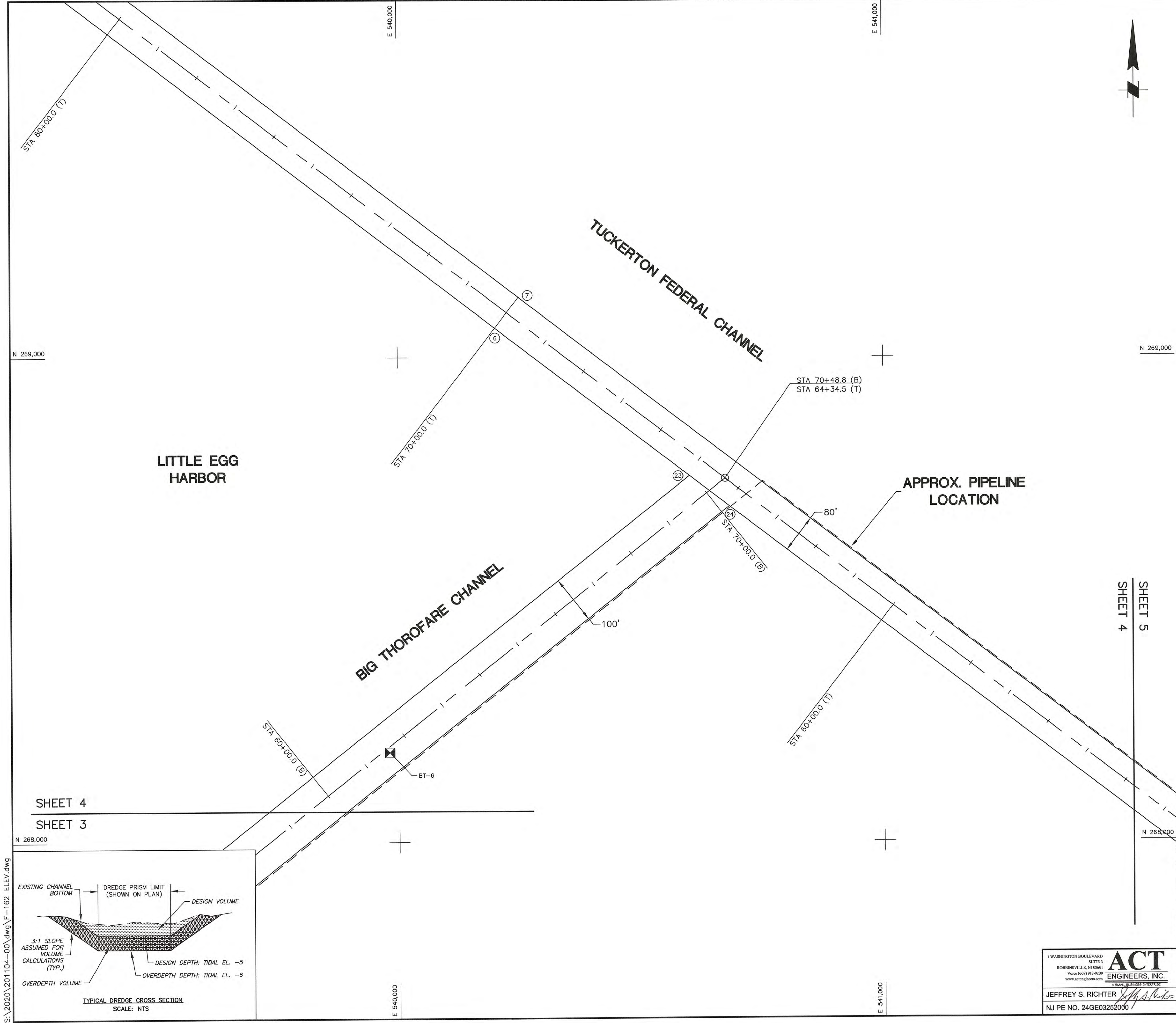
SHEET 3 OF 18

DWG. NO.

PERMIT - 3

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PROJECT LOCATION MAP
SCALE: 1" = 4000'

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LEGEND

— — — — —	CHANNEL CENTERLINE
— — — — —	CHANNEL LIMITS
- - - - -	APPROXIMATE SHORELINE (MHWL)
- - - - -	APPROXIMATE PIPELINE LOCATION
— — — — —	EXISTING ROAD/PAVEMENT
✖	SAMPLING LOCATION

2.28 MHHW
2.02 MHW
1.12 NAVD88
1.00 MTL
0 MLW
-0.11 MLLW

RANGE OF TIDE (FT)
NOT TO SCALE

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

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: CHANNEL ARRANGEMENT & GEOMETRY PLAN

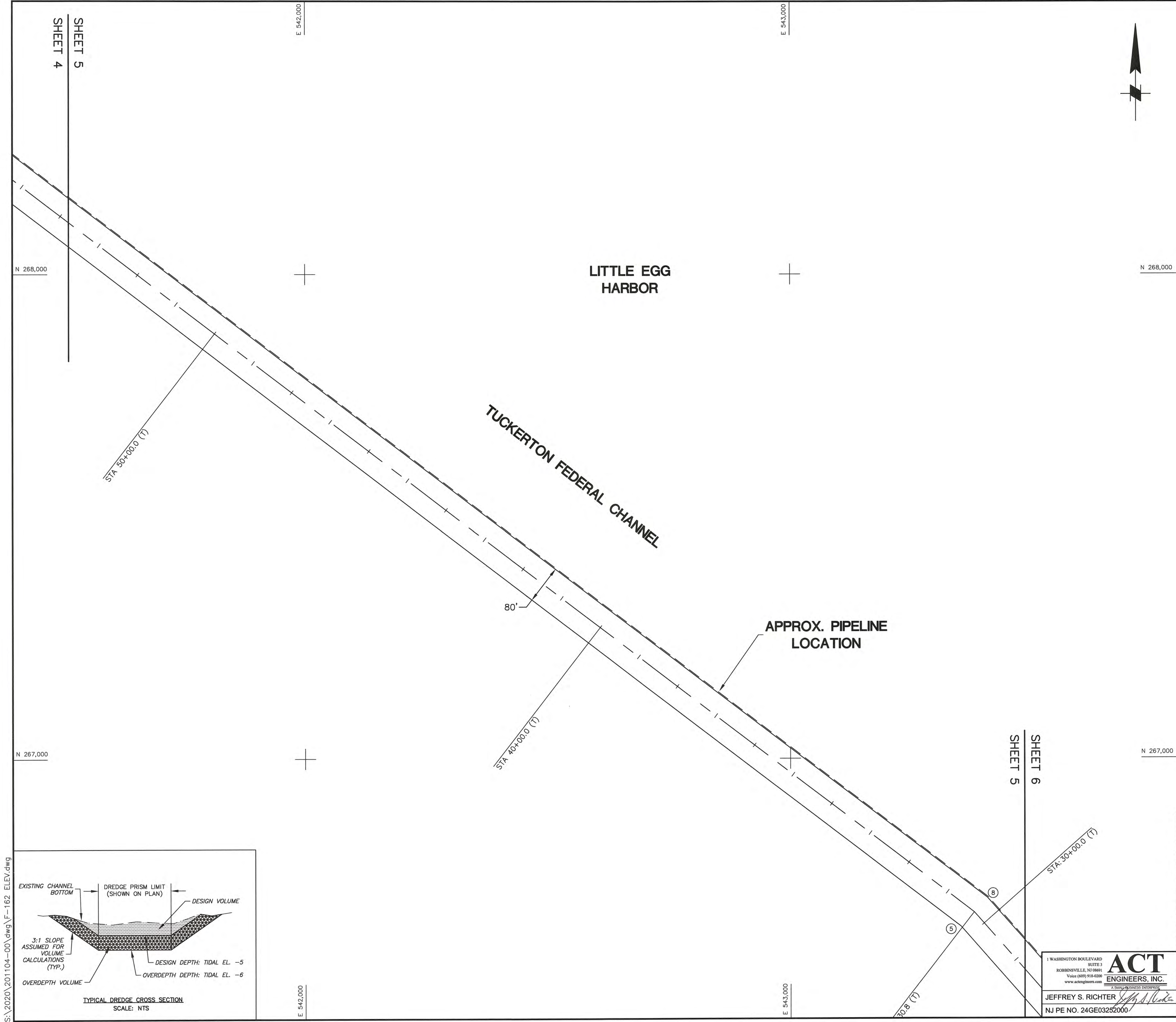
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LITTLE EGG HARBOR TOWNSHIP,
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SCALE: AS SHOWN	MICHAEL J. MARANO	SHEET 4 OF 18
DATE: FEBRUARY 2021	NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 4

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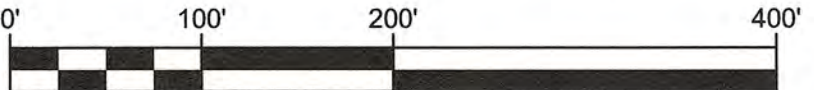
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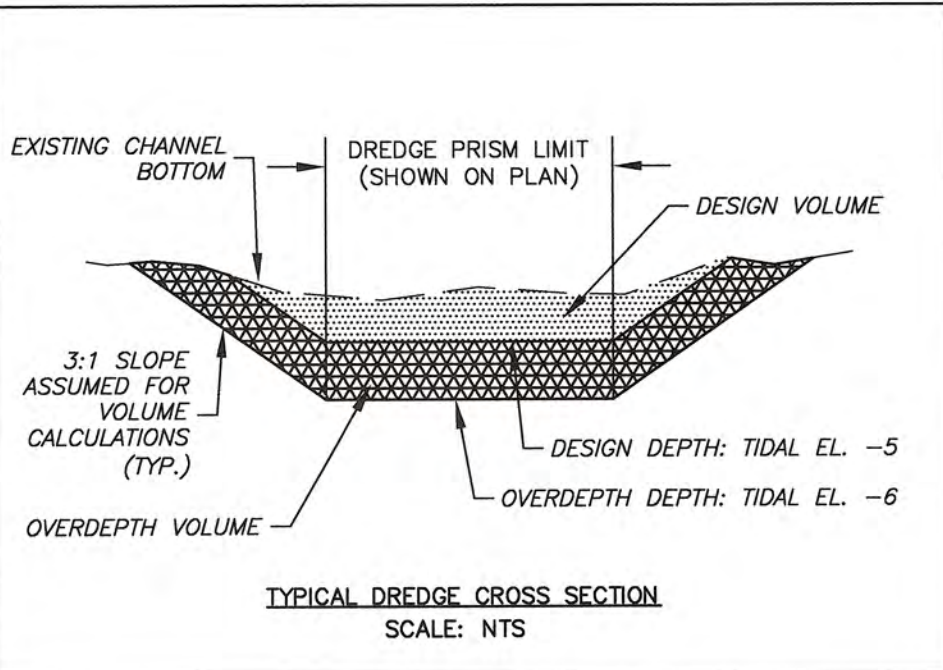
LEGEND

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2.02 MHW	CHANNEL LIMITS
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1.00 MTL	APPROXIMATE PIPELINE LOCATION
0 MLW	EXISTING ROAD/PAVEMENT
-0.11 MLLW	SAMPLING LOCATION

BT-1



RANGE OF TIDE (FT)
NOT TO SCALE

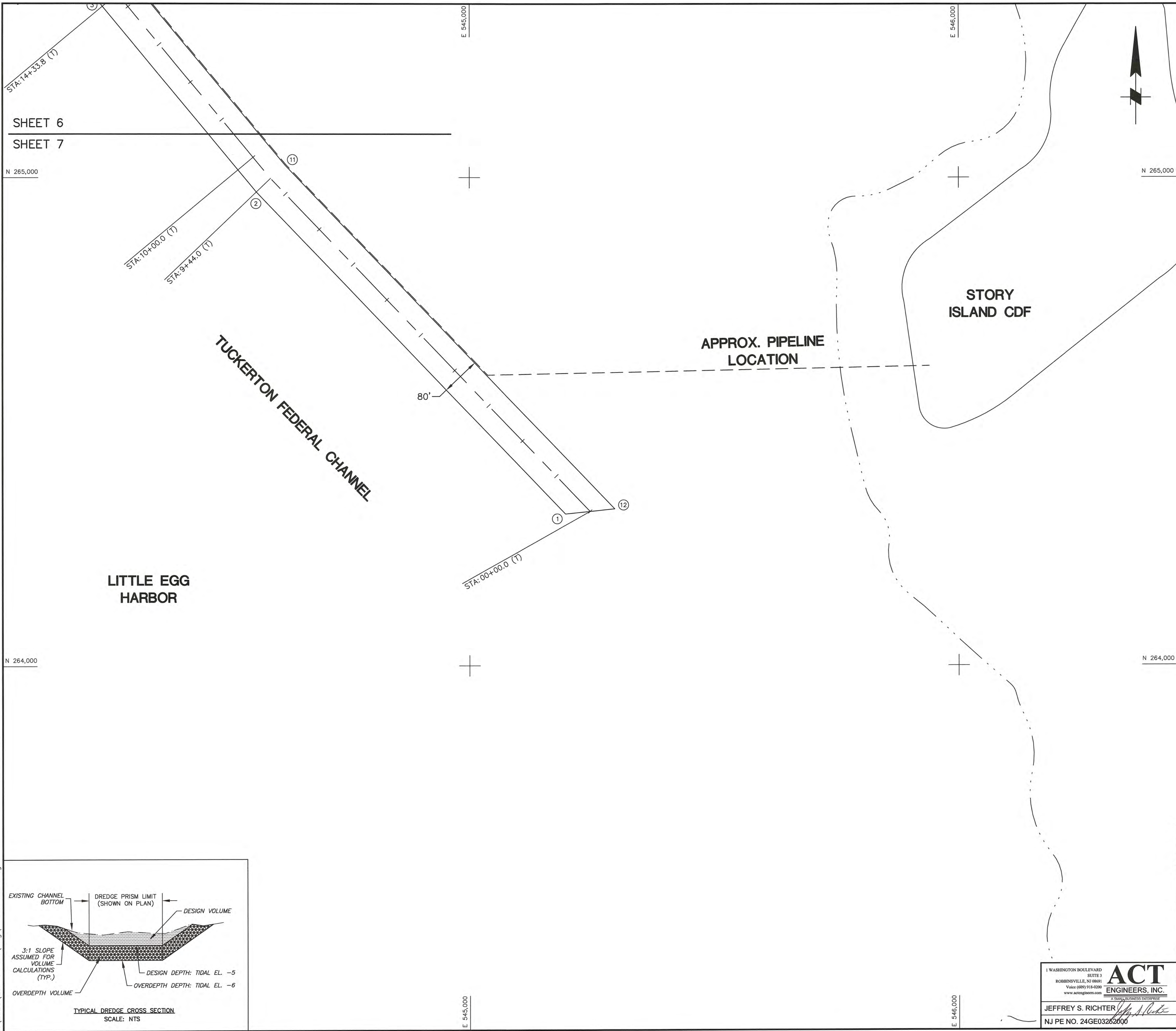
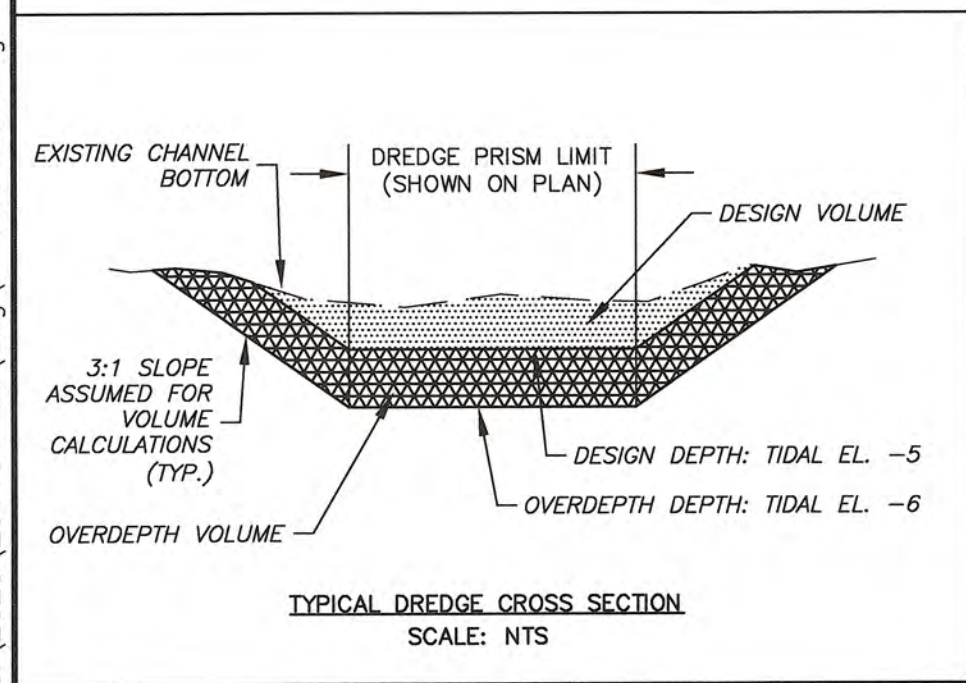


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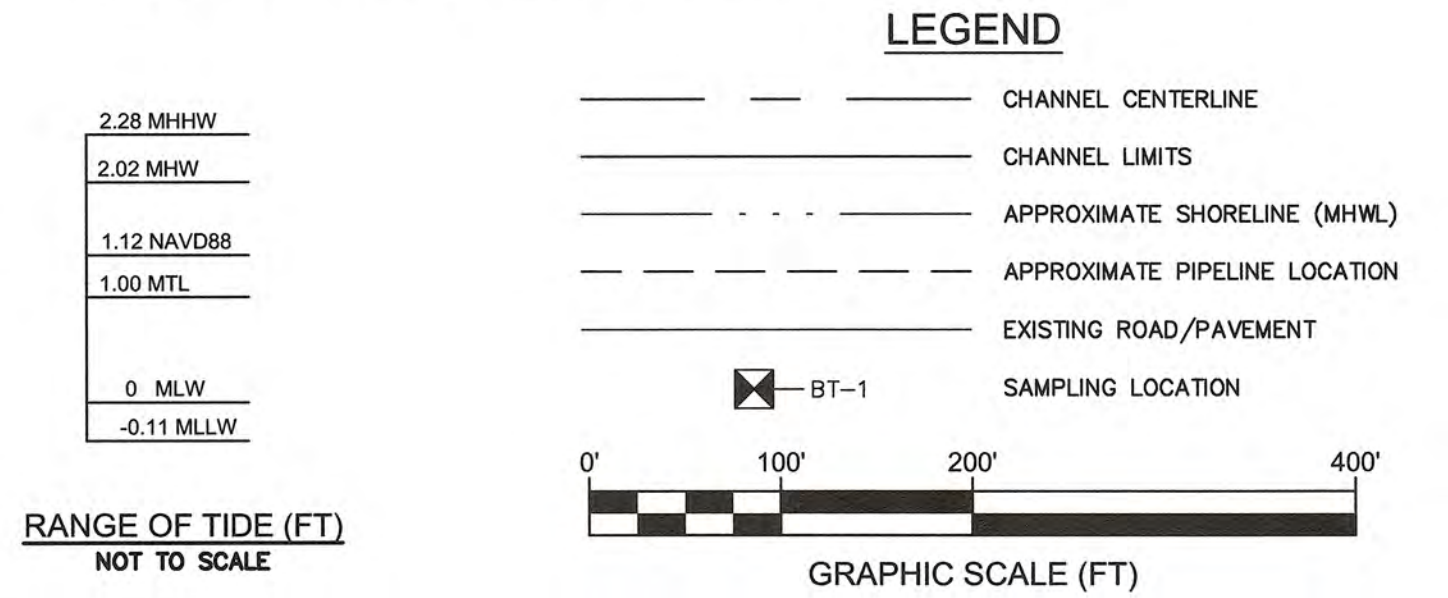
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DRAWN BY: NJH	WSP USA Inc.	PROJECT NO.	
CHECKED BY: JR	CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	SHEET 5 OF 18	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 5	
DATE: FEBRUARY 2021			

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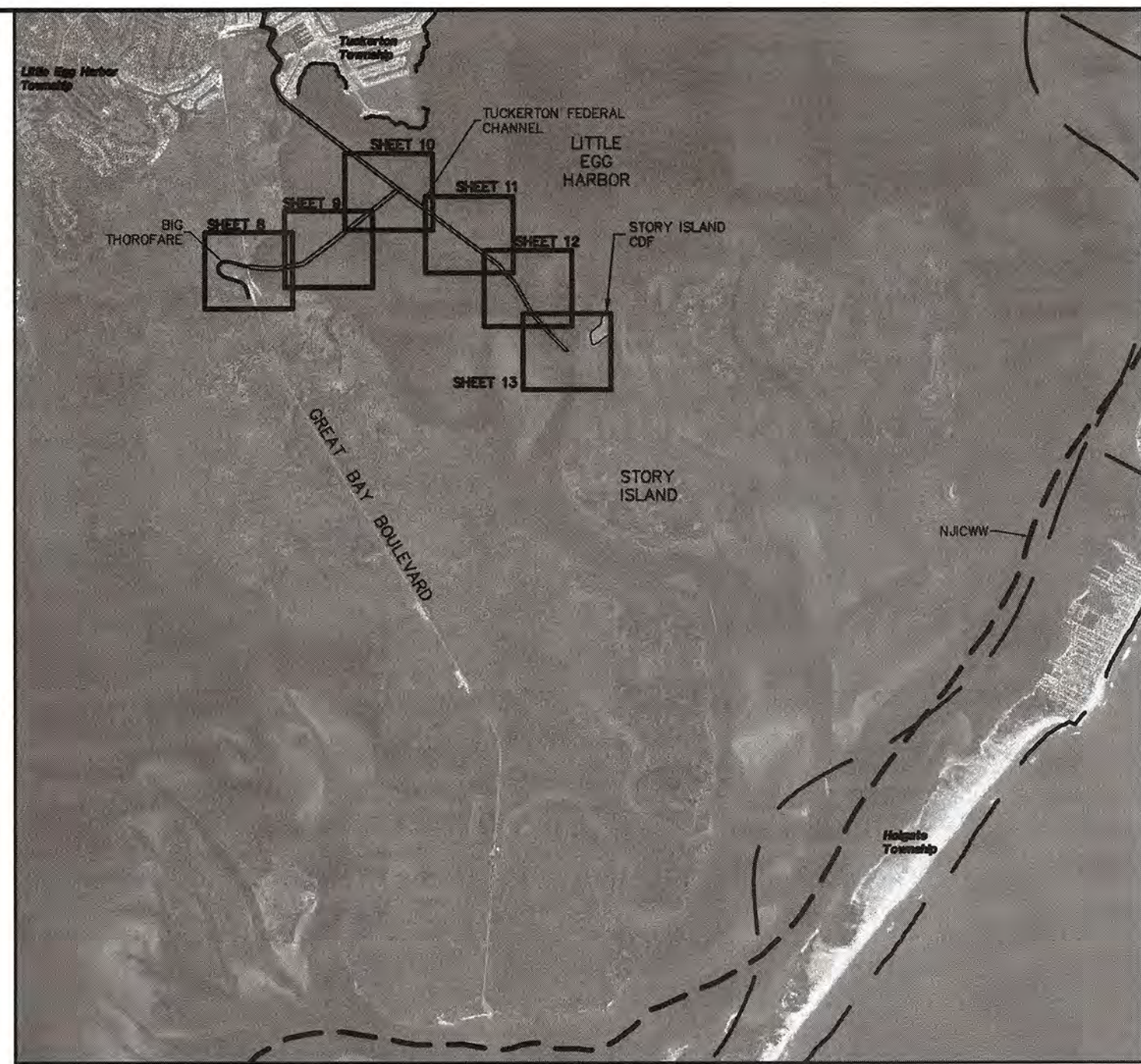
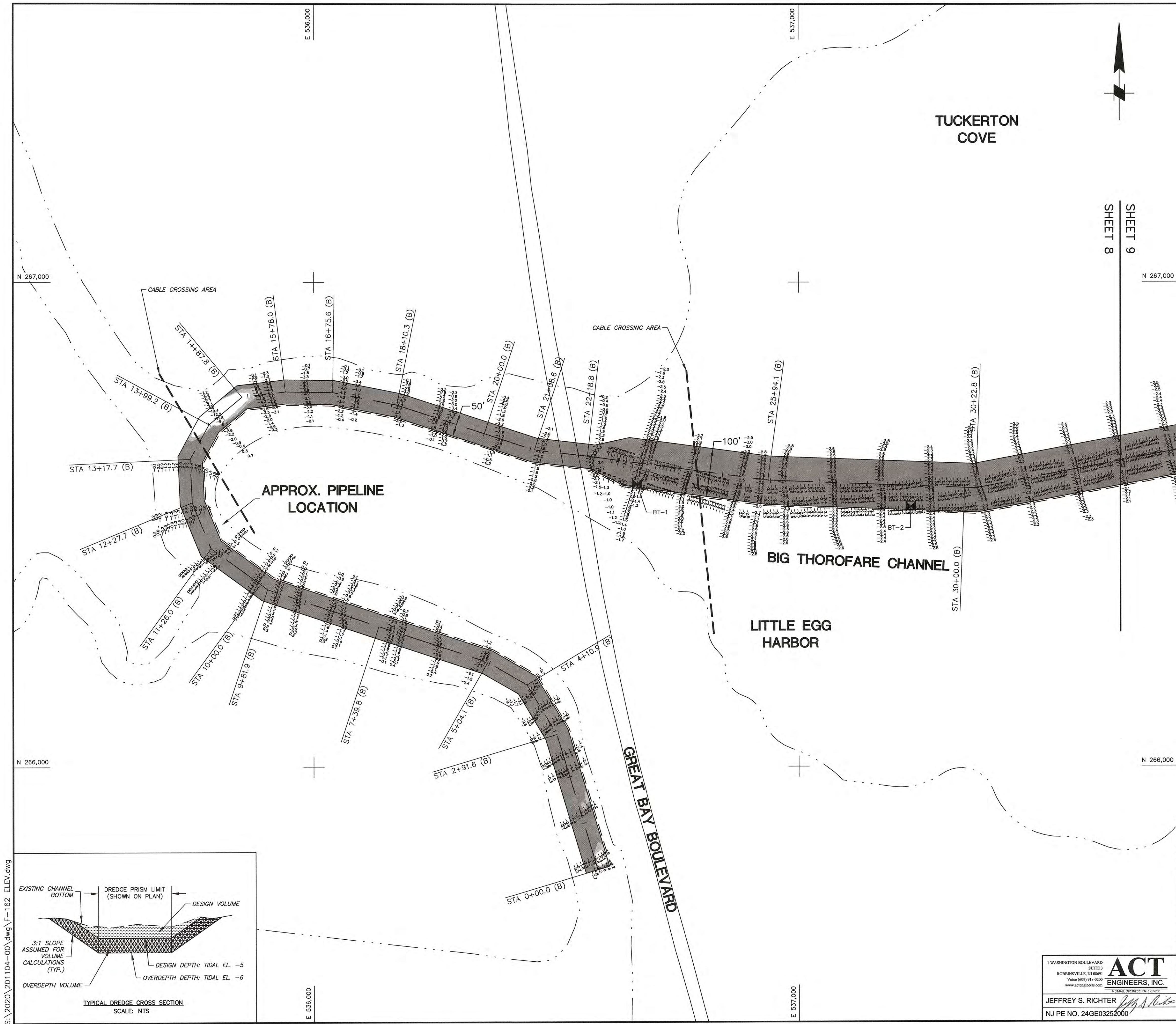
JEFFREY S. RICHTER
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DRAWN BY: NJH	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800 <i>Michael J. Marano</i>
CHECKED BY: JR	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500
DATE: FEBRUARY 2021	NO. 24GE04087500

PROJECT NO.	SHEET 7 OF 18
DWG. NO.	PERMIT - 7

S:\2020\201104-00\dwg\F-162 ELEV.dwg



PROJECT LOCATION MAP

SCALE: 1" = 4000'

SAMPLE NAME	ASI ID #	% GRAVEL	% SAND	% SILT	% CLAY	% MOISTURE	TOC PPM	% DRY WT.
BT-1	20200092	10.0	41.7	29.1	19.2	36.04	25,749	2.57
BT-2	20200093	2.0	24.5	43.6	29.9	42.88	25,277	2.53
BT-3	20200094	0.0	23.3	49.0	27.7	40.27	17,600	1.76
COMPOSITE BT-A	20200166	0.0	23.1	50.7	26.2	40.75	15,782	1.58
BT-4	20200095	0.9	30.5	52.7	15.9	30.82	9,851	0.99
BT-5	20200096	0.7	24.2	50.9	24.2	36.16	15,652	1.57
BT-6	20200097	0.0	27.8	53.8	18.4	33.23	12,529	1.25
COMPOSITE BT-B	20200167	0.2	25.0	55.6	19.2	34.74	12,218	1.22

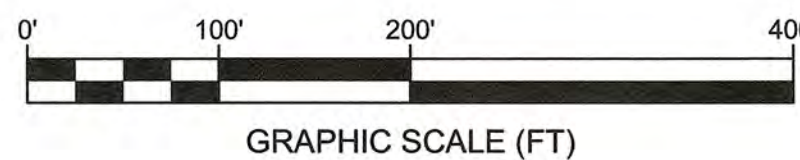
- NOTE:
- VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 1.12 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM VERSION 4.1.2.
 - COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
 - DATA DISPLAYED IS FROM HYDROGRAPHIC SURVEYS PERFORMED ON APRIL 2, 2019 BY GAHAGAN AND BRYANT ASSOCIATES.

BIG THOROFARE 0+00.0 TO 70+48.8	
TEMPLATE (-5 MLW)	38,470
OVERDEPTH (-6 MLW)	23,960
TOTAL (CY)	62,430

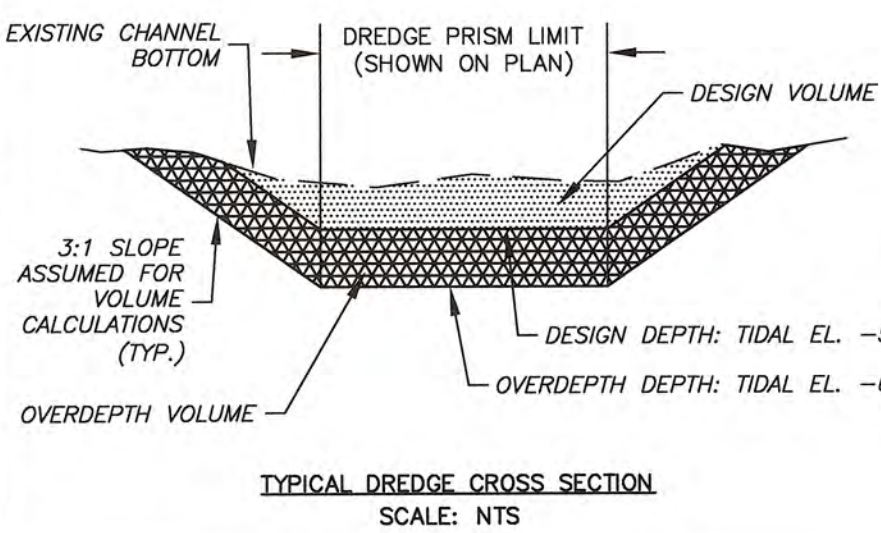
LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHW)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- SAMPLING LOCATION
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. -5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. -5 & -6 MLW)

2.28 MHHW
2.02 MHW
1.12 NAVD88
1.00 MTL
0 MLW
-0.11 MLLW



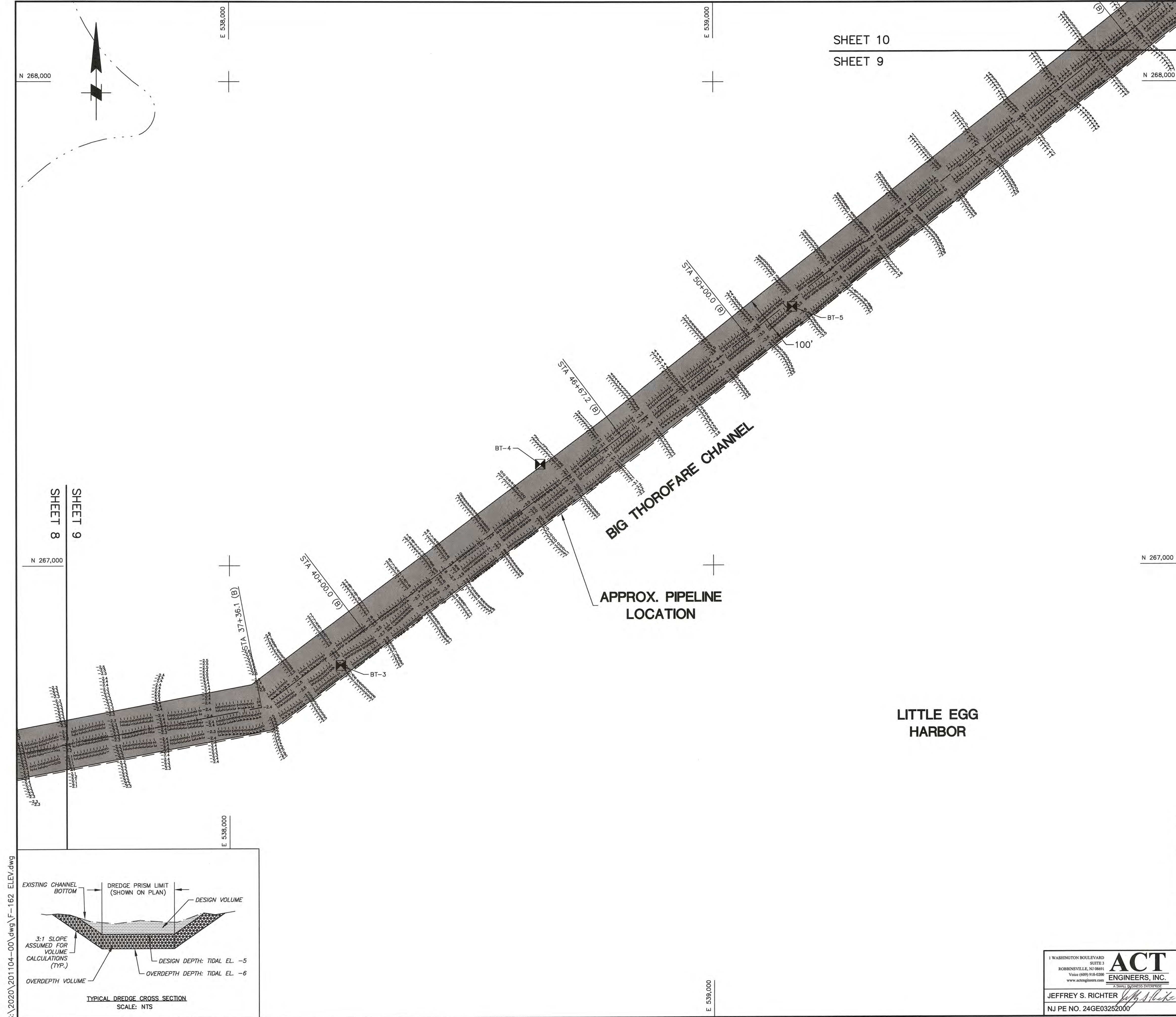
RANGE OF TIDE (FT)
NOT TO SCALE



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JEFFREY S. RICHTER
NJ PE NO. 24GE03252000

REV.	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES	
TITLE: CHANNEL BATHYMETRY PLAN	
PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY	
DRAWN BY: NJH	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
CHECKED BY: JR	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500
DATE: FEBRUARY 2021	PROJECT NO.
	SHEET 8 OF 18
	DWG. NO. PERMIT - 8



PROJECT LOCATION MAP

SCALE: 1" = 4000'

SAMPLE NAME	ASI ID #	% GRAVEL	% SAND	% SILT	% CLAY	% MOISTURE	TOC	
							PPM	% DRY WT.
BT-1	20200092	10.0	41.7	29.1	19.2	36.04	25,749	2.57
BT-2	20200093	2.0	24.5	43.6	29.9	42.88	25,277	2.53
BT-3	20200094	0.0	23.3	49.0	27.7	40.27	17,600	1.76
COMPOSITE BT-A	20200166	0.0	23.1	50.7	26.2	40.75	15,782	1.58
BT-4	20200095	0.9	30.5	52.7	15.9	30.82	9,851	0.99
BT-5	20200096	0.7	24.2	50.9	24.2	36.16	15,652	1.57
BT-6	20200097	0.0	27.8	53.8	18.4	33.23	12,529	1.25
COMPOSITE BT-B	20200167	0.2	25.0	55.6	19.2	34.74	12,218	1.22

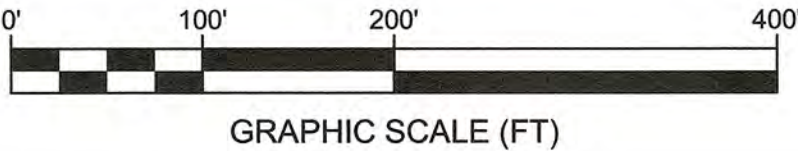
- NOTE:
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 - COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
 - DATA DISPLAYED IS FROM HYDROGRAPHIC SURVEYS PERFORMED ON APRIL 2, 2019 BY GAHAGAN AND BRYANT ASSOCIATES.

BIG THOROFARE 0+00.0 TO 70+48.8	
TEMPLATE (-5 MLW)	38,470
OVERDEPTH (-6 MLW)	23,960
TOTAL (CY)	62,430

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- SAMPLING LOCATION
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. -5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. -5 & -6 MLW)

2.28 MHHW
2.02 MHW
1.12 NAVD88
1.00 MTL
0 MLW
-0.11 MLLW



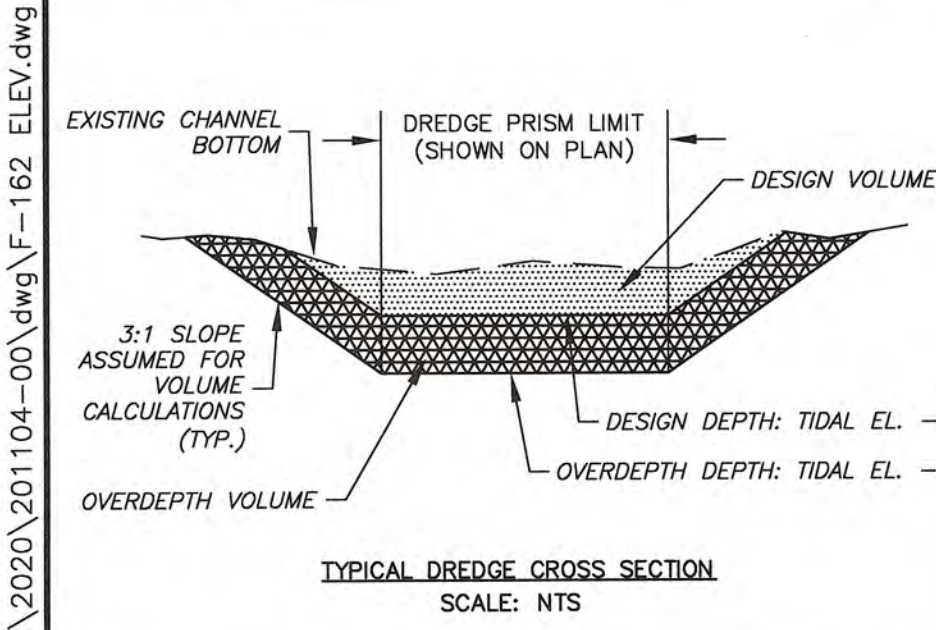
RANGE OF TIDE (FT)
NOT TO SCALE

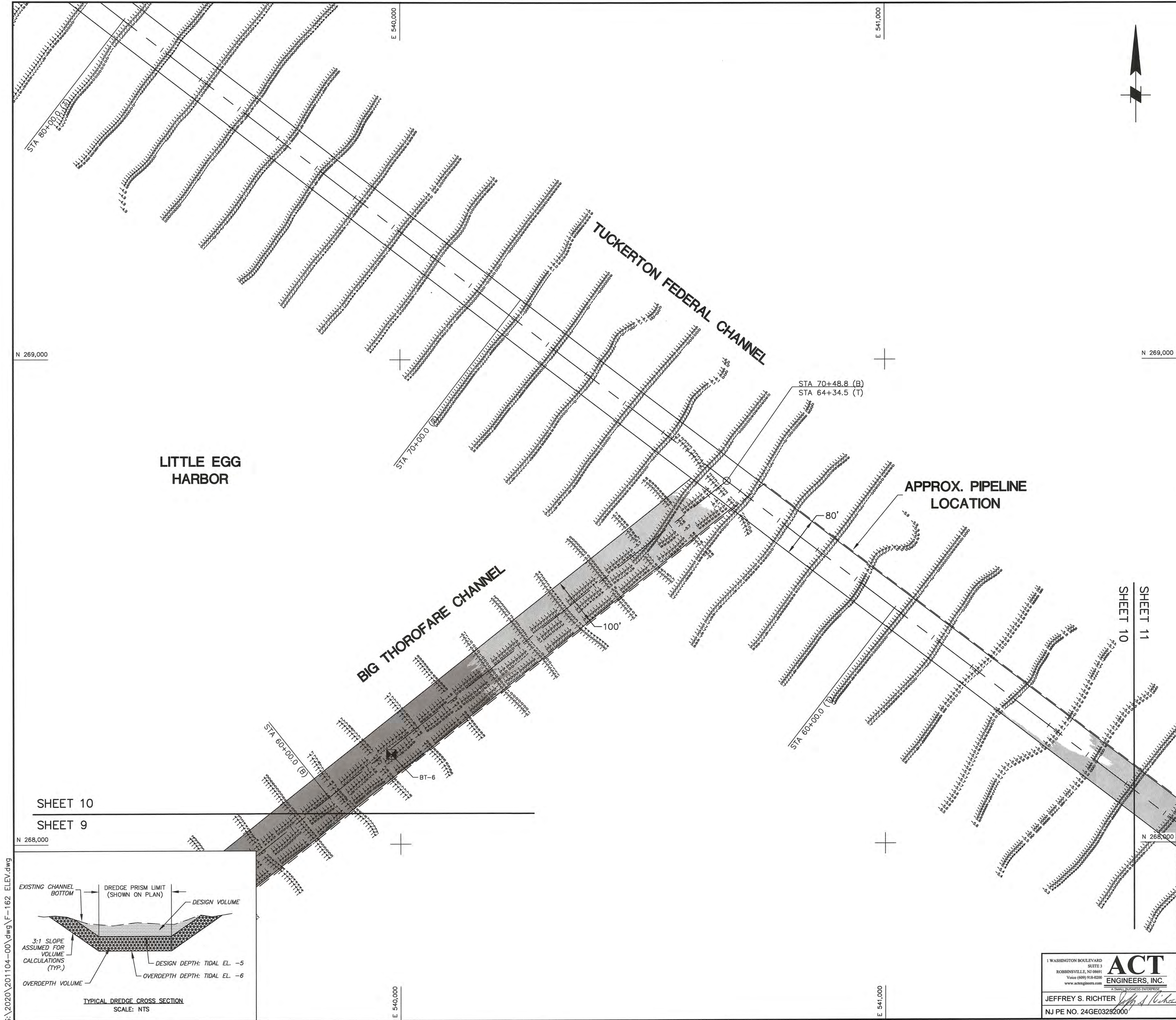
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Voice (609) 918-0280
www.actengineers.com

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JEFFREY S. RICHTER
NJ PE NO. 24GE03252000

BY	APPR.				
DESCRIPTION					
REV.	DATE				
STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES					
TITLE: CHANNEL BATHYMETRY PLAN					
PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY					
DRAWN BY: NJH		WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800		PROJECT NO.	
CHECKED BY: JR		MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500		SHEET 9 OF 18	
SCALE: AS SHOWN		DATE: FEBRUARY 2021		DWG. NO. PERMIT - 9	





PROJECT LOCATION MAP

2.28 MHHW
2.02 MHW
1.12 NAVD88
1.00 MTL
0 MLW
-0.11 MLLW

SAMPLE NAME	ASI ID #	% GRAVEL	% SAND	% SILT	% CLAY	% MOISTURE	TOC	
							PPM	% DRY WT.
BT-1	20200092	10.0	41.7	29.1	19.2	36.04	25,749	2.57
BT-2	20200093	2.0	24.5	43.6	29.9	42.88	25,277	2.53
BT-3	20200094	0.0	23.3	49.0	27.7	40.27	17,600	1.76
COMPOSITE BT-A	20200166	0.0	23.1	50.7	26.2	40.75	15,782	1.58
BT-4	20200095	0.9	30.5	52.7	15.9	30.82	9,851	0.99
BT-5	20200096	0.7	24.2	50.9	24.2	36.16	15,652	1.57
BT-6	20200097	0.0	27.8	53.8	18.4	33.23	12,529	1.25
COMPOSITE BT-B	20200167	0.2	25.0	55.6	19.2	34.74	12,218	1.22

RANGE OF TIDE (FT)
NOT TO SCALE

NOTE:

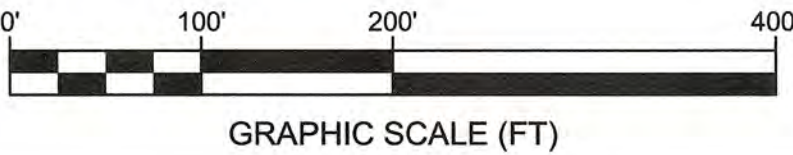
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- DATA DISPLAYED IS FROM HYDROGRAPHIC SURVEYS PERFORMED ON APRIL 2, 2019 AND NOVEMBER 22, 2019 BY GAHAGAN AND BRYANT ASSOCIATES.

BIG THOROFARE 0+00.0 TO 70+48.8	
TEMPLATE (-5 MLW)	38,470
OVERDEPTH (-6 MLW)	23,960
TOTAL (CY)	62,430

TUCKERTON FEDERAL CHANNEL 0+00.0 TO 70+00.0	
TEMPLATE (-5 MLW)	5,530
OVERDEPTH (-6 MLW)	10,050
TOTAL (CY)	15,580

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- SAMPLING LOCATION
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. -5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. -5 & -6 MLW)



STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

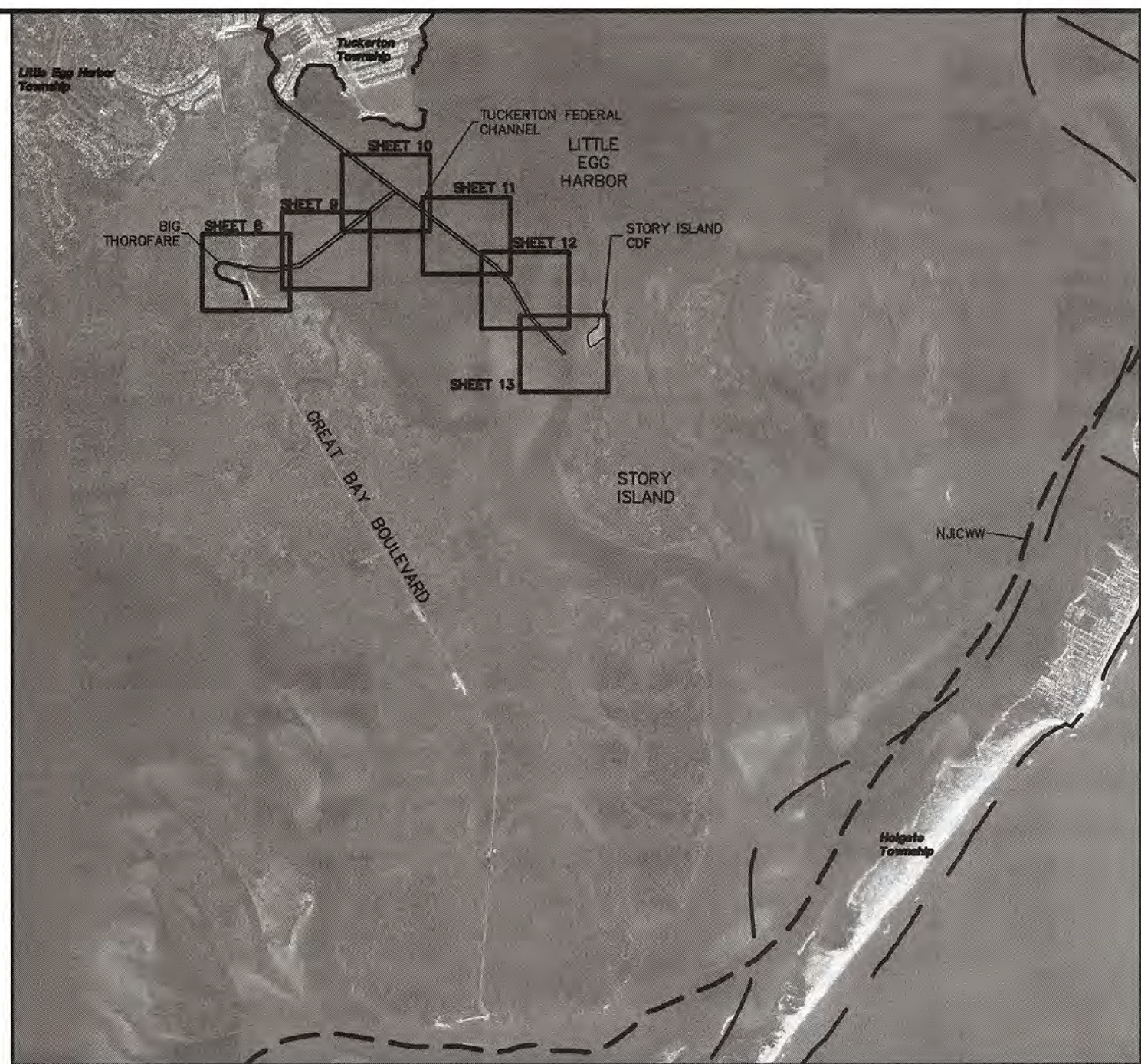
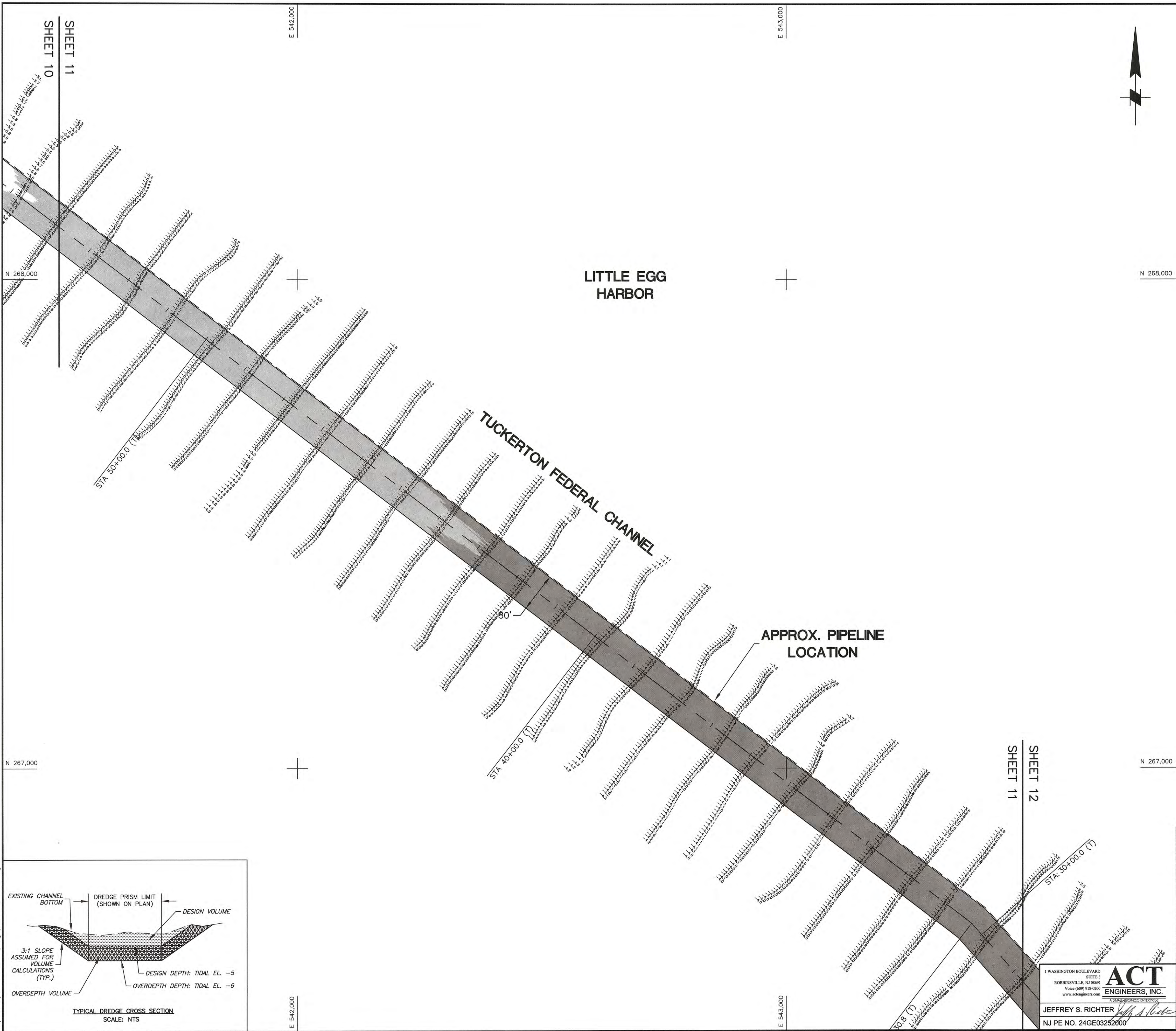
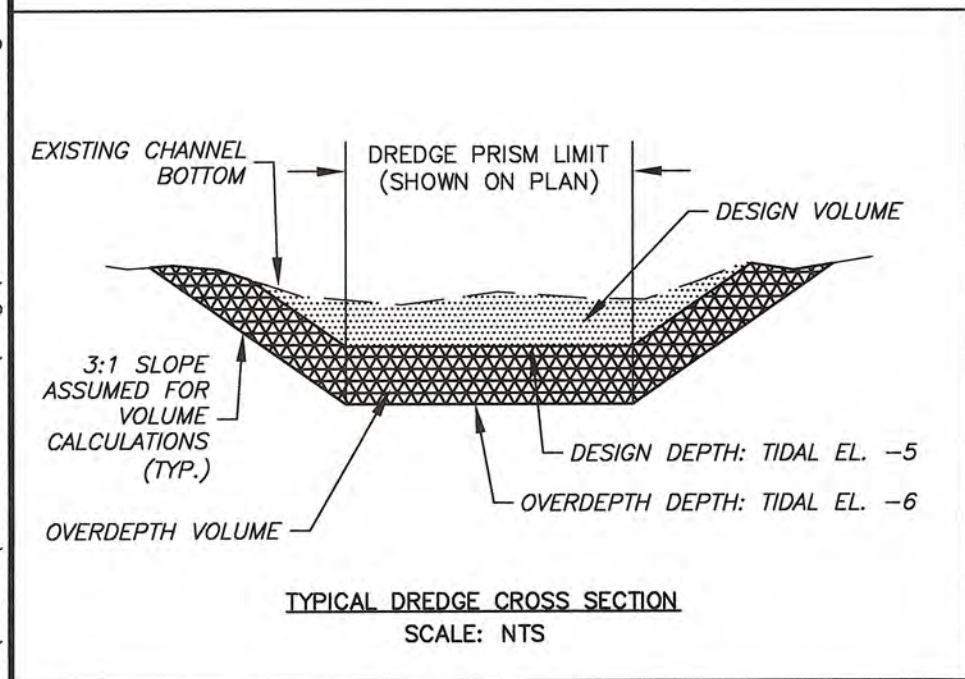
TITLE: CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS
LITTLE EGG HARBOR TOWNSHIP,
OCEAN COUNTY, NEW JERSEY

DRAWN BY: NJH	WSP USA Inc.	PROJECT NO.
CHECKED BY: JR	CERTIFICATION OF AUTHORIZATION NO.	SHEET 10 OF 18
SCALE: AS SHOWN	24GA28029800	DWG. NO. PERMIT - 10
DATE: FEBRUARY 2021	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	

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JEFFREY S. RICHTER
NJ PE NO. 24GE03282000

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PROJECT LOCATION MAP
SCALE: 1" = 4000'

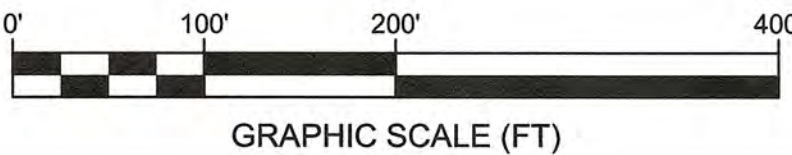
- NOTE:
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 2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
 3. DATA DISPLAYED IS FROM HYDROGRAPHIC SURVEYS PERFORMED ON NOVEMBER 22, 2019 BY GAHAGAN AND BRYANT ASSOCIATES.

TUCKERTON FEDERAL CHANNEL 0+00.0 TO 70+00.0	
TEMPLATE (-5 MLW)	5,530
OVERDEPTH (-6 MLW)	10,050
TOTAL (CY)	15,580

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- SAMPLING LOCATION
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. -5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. -5 & -6 MLW)

2.28 MHHW
2.02 MHW
1.12 NAVD88
1.00 MTL
0 MLW
-0.11 MLLW



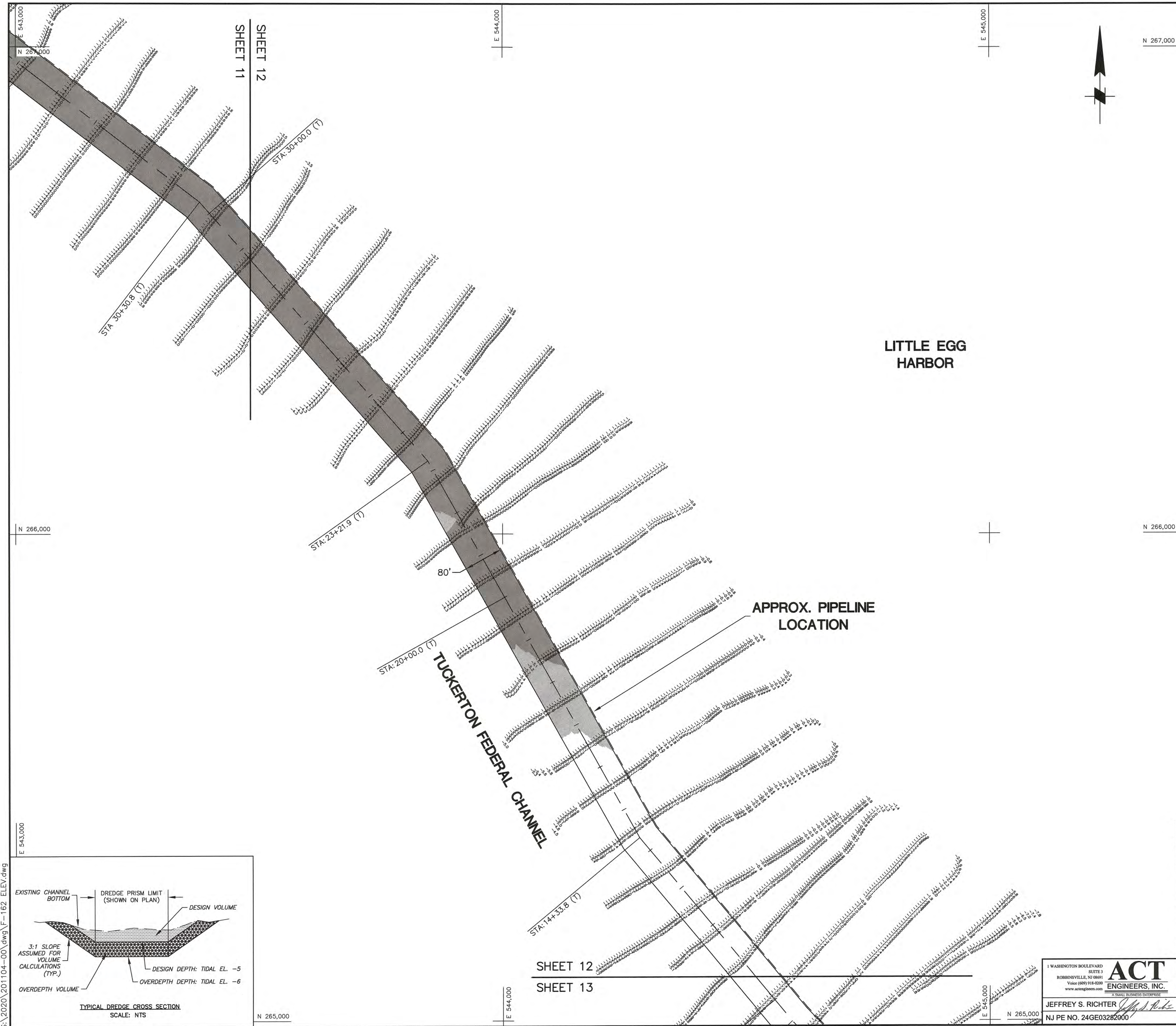
RANGE OF TIDE (FT)
NOT TO SCALE

STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES	
TITLE: CHANNEL BATHYMETRY PLAN	
PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY	
DRAWN BY: NJH	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
CHECKED BY: JR	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500
DATE: FEBRUARY 2021	
PROJECT NO.	SHEET 11 OF 18
DWG. NO. PERMIT - 11	

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NJ PE NO. 24GE03252000



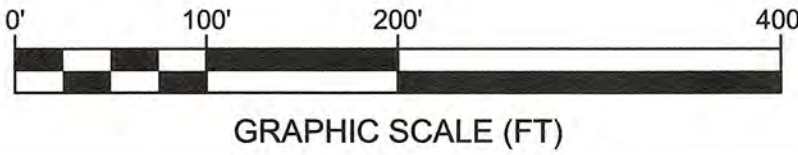
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 2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
 3. DATA DISPLAYED IS FROM HYDROGRAPHIC SURVEYS PERFORMED ON MARCH 18 AND NOVEMBER 22, 2019 BY GAHAGAN AND BRYANT ASSOCIATES.

TUCKERTON FEDERAL CHANNEL 0+00.0 TO 70+00.0	
TEMPLATE (-5 MLW)	5,530
OVERDEPTH (-6 MLW)	10,050
TOTAL (CY)	15,580

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- SAMPLING LOCATION
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. -5 MLW)
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2.28 MHHW
2.02 MHW
1.12 NAVD88
1.00 MTL
0 MLW
-0.11 MLLW



RANGE OF TIDE (FT)
NOT TO SCALE

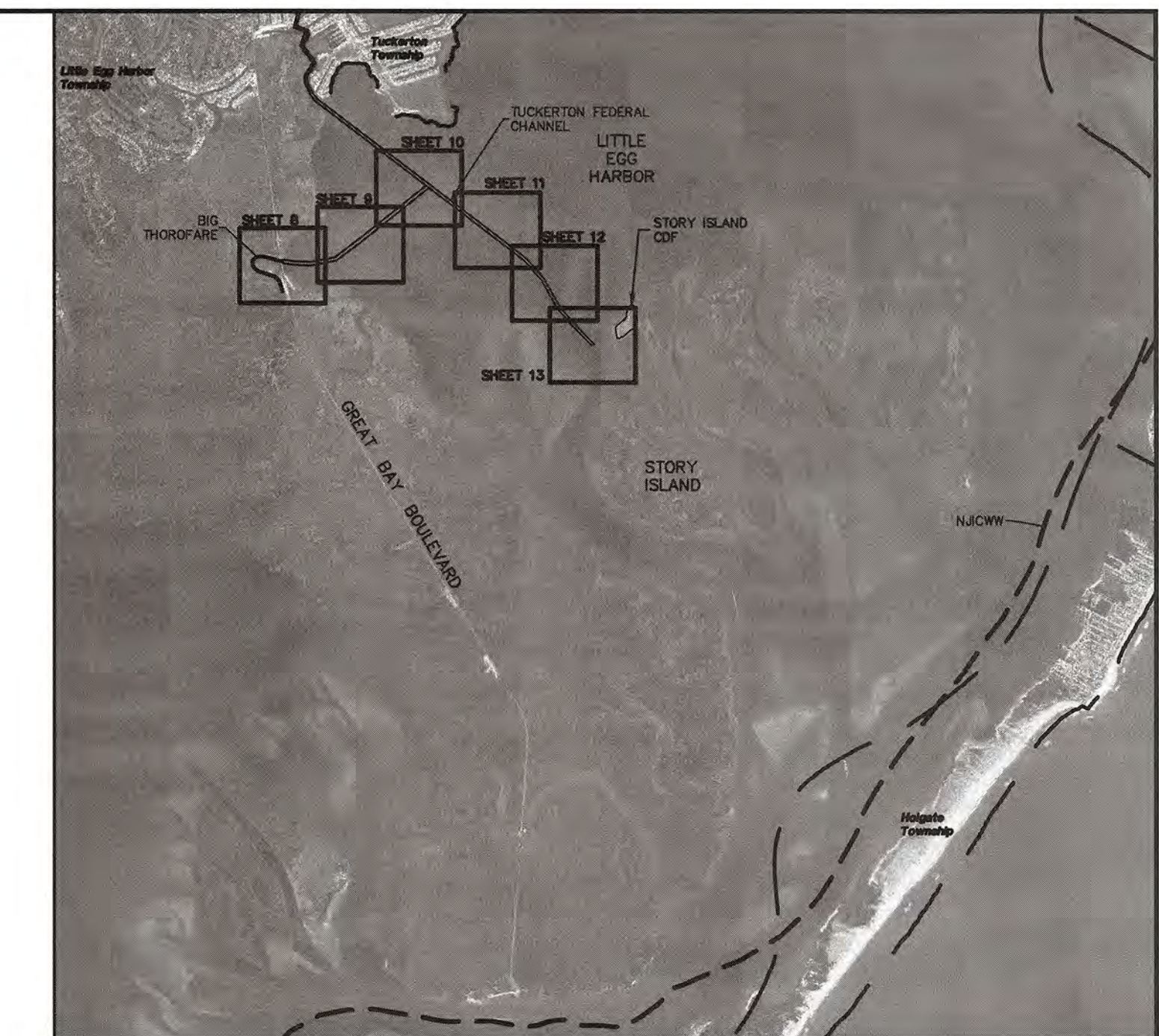
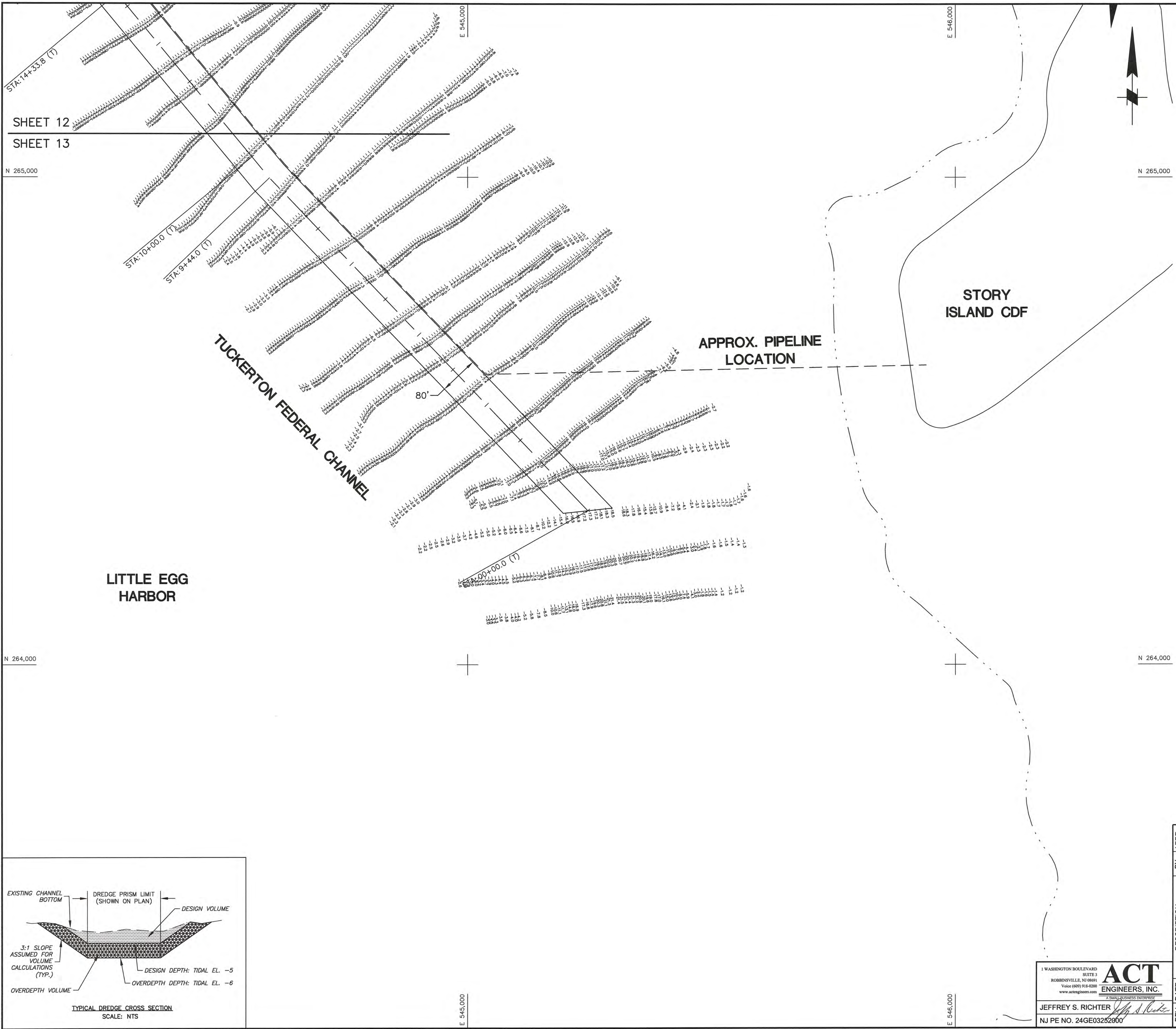
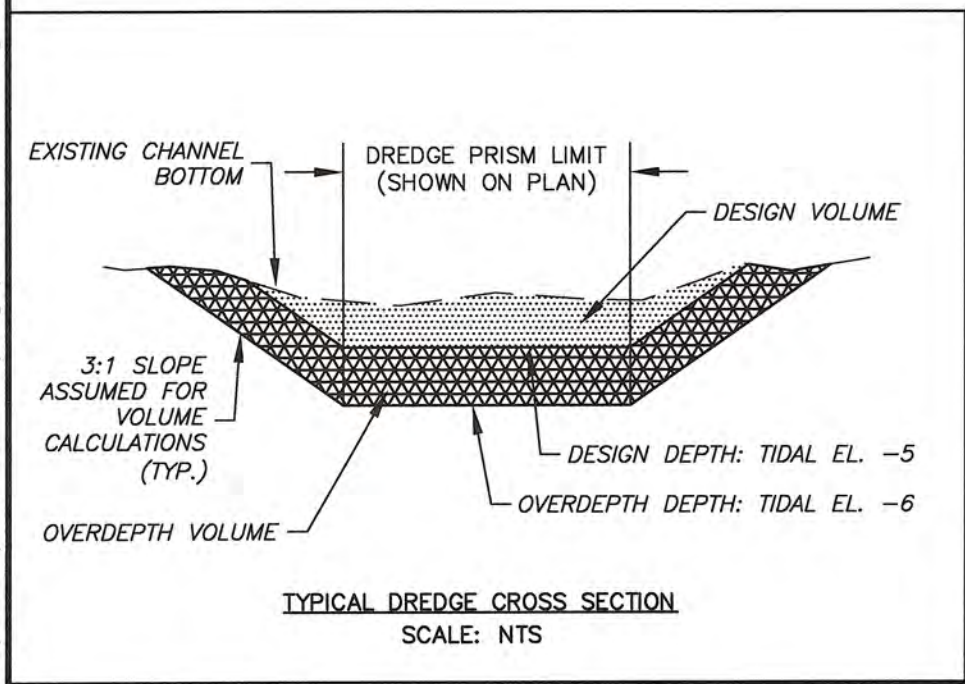
STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES	
TITLE: CHANNEL BATHYMETRY PLAN	
PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY	
DRAWN BY: NJH	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
CHECKED BY: JR	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500
SCALE: AS SHOWN	DATE: FEBRUARY 2021
DATE: FEBRUARY 2021	PROJECT NO. SHEET 12 OF 18 DWG. NO. PERMIT - 12

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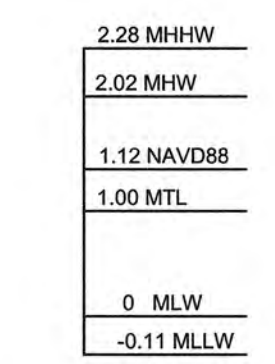
JEFFREY S. RICHTER
NJ PE NO. 24GE03282000

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- NOTE:
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TUCKERTON FEDERAL CHANNEL 0+00.0 TO 70+00.0	
TEMPLATE (-5 MLW)	5,530
OVERDEPTH (-6 MLW)	10,050
TOTAL (CY)	15,580



LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- SAMPLING LOCATION
- BT-1
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. -5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. -5 & -6 MLW)

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

RANGE OF TIDE (FT)
NOT TO SCALE

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A SMALL BUSINESS ENTERPRISE

JEFFREY S. RICHTER
NJ PE NO. 24GE03252900

BY	APPR.	STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES	
DESCRIPTION		TITLE: CHANNEL BATHYMETRY PLAN	
DATE		PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY	
REV.		DRAWN BY: NJH CHECKED BY: JR SCALE: AS SHOWN DATE: FEBRUARY 2021	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800 MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500
		PROJECT NO.	SHEET 13 OF 18
		DWG. NO. PERMIT - 13	

S:\2020\201104-00\dwg\F-162 ELEV.dwg

BIG THOROFARE CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00	265787.488	536584.846
2+91.6	266066.739	536500.756
4+10.9	266168.934	536439.366
5+04.1	266215.218	536358.471
7+39.8	266289.014	536134.552
9+81.9	266365.924	535905.015
11+26.0	266450.850	535788.610
12+27.7	266544.892	535749.879
13+17.7	266634.821	535745.738
13+99.2	266706.383	535784.594
14+87.8	266763.358	535852.557
15+78.0	266774.537	535942.064
16+75.6	266773.183	536039.623
18+10.3	266747.056	536171.781
21+08.6	266653.776	536455.135
22+18.8	266641.004	536564.528
25+94.1	266590.626	536936.500
30+22.8	266574.098	537364.827
37+36.1	266706.893	538065.712
46+67.2	267266.917	538809.564
70+48.8	268748.802	540673.954

BIG THOROFARE CHANNEL COORDINATES		
POINT	NORTHING	EASTING
1	265780.280	536560.908
2	266056.542	536477.717
3	266150.472	536421.292
4	266192.265	536348.248
5	266265.289	536126.668
6	266343.448	535893.405
7	266434.810	535768.179
8	266539.395	535725.106
9	266640.629	535720.444
10	266722.489	535764.891
11	266787.252	535842.145
12	266799.559	535940.681
13	266798.149	536042.242
14	266771.291	536178.101
15	266678.314	536460.549
16	266665.808	536567.655
17	266664.142	536579.956
18	266679.650	536651.732
19	266640.496	536940.830
20	266624.279	537361.090
21	266753.849	538044.951
22	267306.467	538778.967
23	268754.446	540600.698
24	268691.827	540682.629
25	267227.367	538840.162
26	266659.937	538086.473
27	266523.916	537368.564
28	266540.756	536932.171
29	266580.554	536638.312
30	266614.595	536573.245
31	266616.199	536561.400
32	266629.238	536449.722
33	266722.822	536165.460
34	266748.217	536037.004
35	266749.515	535943.446
36	266739.464	535862.970
37	266690.278	535804.297
38	266629.013	535771.032
39	266550.389	535774.652
40	266466.891	535809.041
41	266388.400	535916.626
42	266312.738	536142.436
43	266238.171	536368.694
44	266187.396	536457.439
45	266076.937	536523.794
46	265794.697	536608.784

BIG THOROFARE CHANNEL SAMPLE LOCATION COORDINATES		
BORING	NORTHING	EASTING
BT-1	266583.500	536666.800
BT-2	266536.000	537231.100
BT-3	266793.400	538229.600
BT-4	267209.100	538642.300
BT-5	267534.300	539163.300
BT-6	268184.900	539981.000

TUCKERTON FEDERAL CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.0	264316.344	545246.492
9+44.0	264998.340	544593.783
14+33.8	265375.025	544280.668
23+21.9	266149.770	543846.664
30+30.8	266681.921	543378.277
64+34.5	268748.802	540673.954
70+00.0	269092.190	540224.663

TUCKERTON FEDERAL CHANNEL COORDINATES		
POINT	NORTHING	EASTING
1	264311.134	545196.110
2	264971.694	544563.917
3	265352.276	544247.563
4	266126.523	543813.838
5	266652.534	543350.855
6	269060.410	540200.373
7	269123.971	540248.952
8	266711.308	543405.698
9	266173.017	543879.490
10	265397.774	544313.773
11	265024.985	544623.649
12	246321.553	545296.873

NOTE:

1. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).

1 WASHINGTON BOULEVARD
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ENGINEERS, INC.

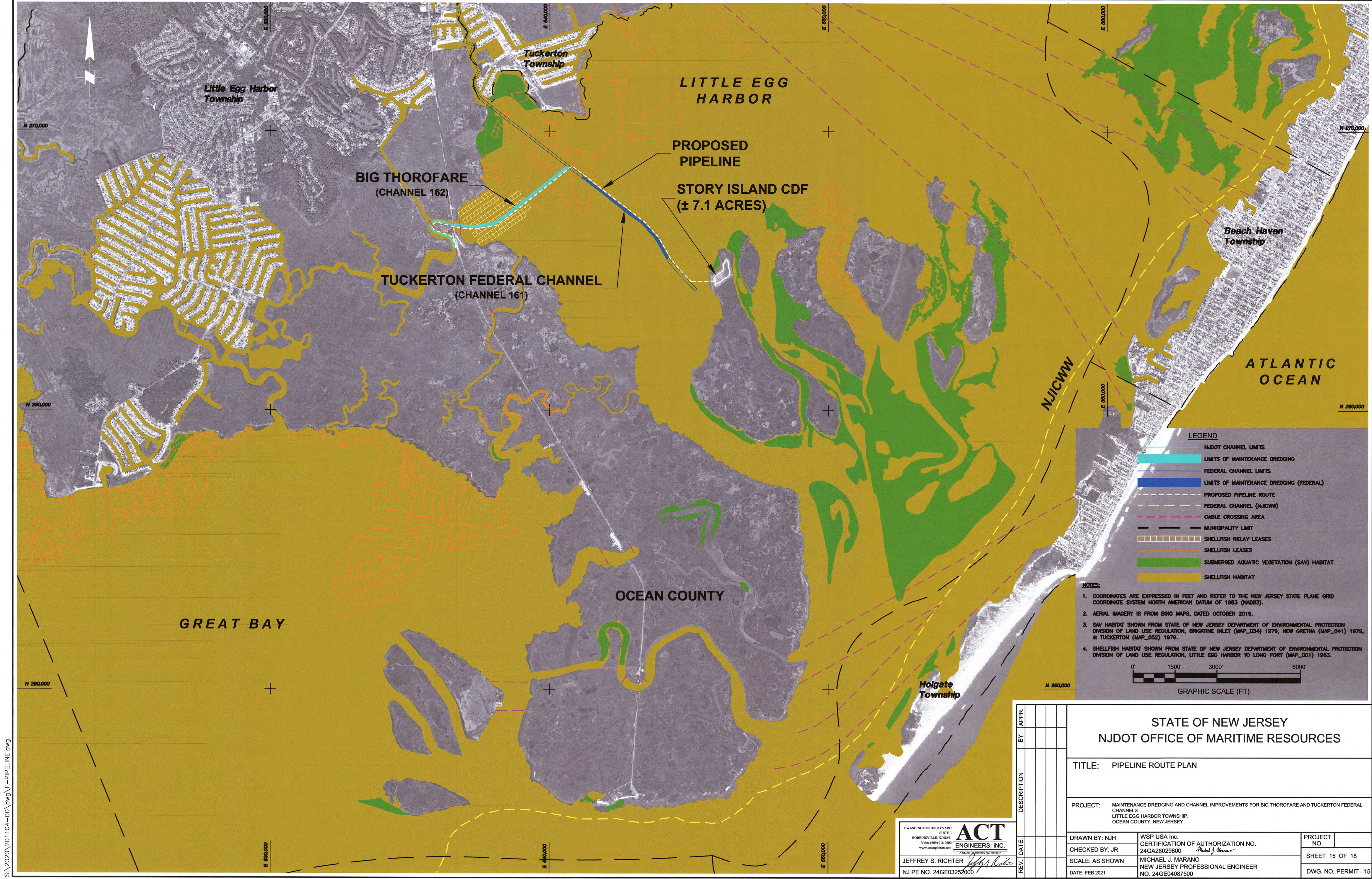
A TRULY NEW JERSEY COMPANY

JEFFREY S. RICHTER

NJ PE NO. 24GE03252000

REV.	DATE	DESCRIPTION	BY	APPR.	STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES			
					TITLE: COORDINATE TABLES			
					PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY			
					DRAWN BY: NJH		WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	
CHECKED BY: JR		MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER		SHEET 14 OF 18				
SCALE: AS SHOWN		NO. 24GE04087500		DWG. NO. PERMIT - 14				
DATE: FEBRUARY 2021								

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LEGEND

- NJDOT CHANNEL LIMITS
- LIMITS OF MAINTENANCE DREDGING
- FEDERAL CHANNEL LIMITS
- LIMITS OF MAINTENANCE DREDGING (FEDERAL)
- PROPOSED PIPELINE ROUTE
- FEDERAL CHANNEL (NJICWW)
- CABLE CROSSING AREA
- MUNICIPALITY LIMIT
- SHELLFISH RELAY LEASES
- SHELLFISH LEASES
- SUBMERGED AQUATIC VEGETATION (SAV) HABITAT
- SHELLFISH HABITAT

NOTES:

- COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
- AERIAL IMAGERY IS FROM BING MAPS, DATED OCTOBER 2019.
- SAV HABITAT SHOWN FROM STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF LAND USE REGULATION, BRIGATINE INLET (MAP_034) 1979, NEW GREYNA (MAP_041) 1979, & TUCKERTON (MAP_052) 1979.
- SHELLFISH HABITAT SHOWN FROM STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF LAND USE REGULATION, LITTLE EGG HARBOR TO LONG PORT (MAP_001) 1983.

0' 1500' 3000' 6000'

GRAPHIC SCALE (FT)

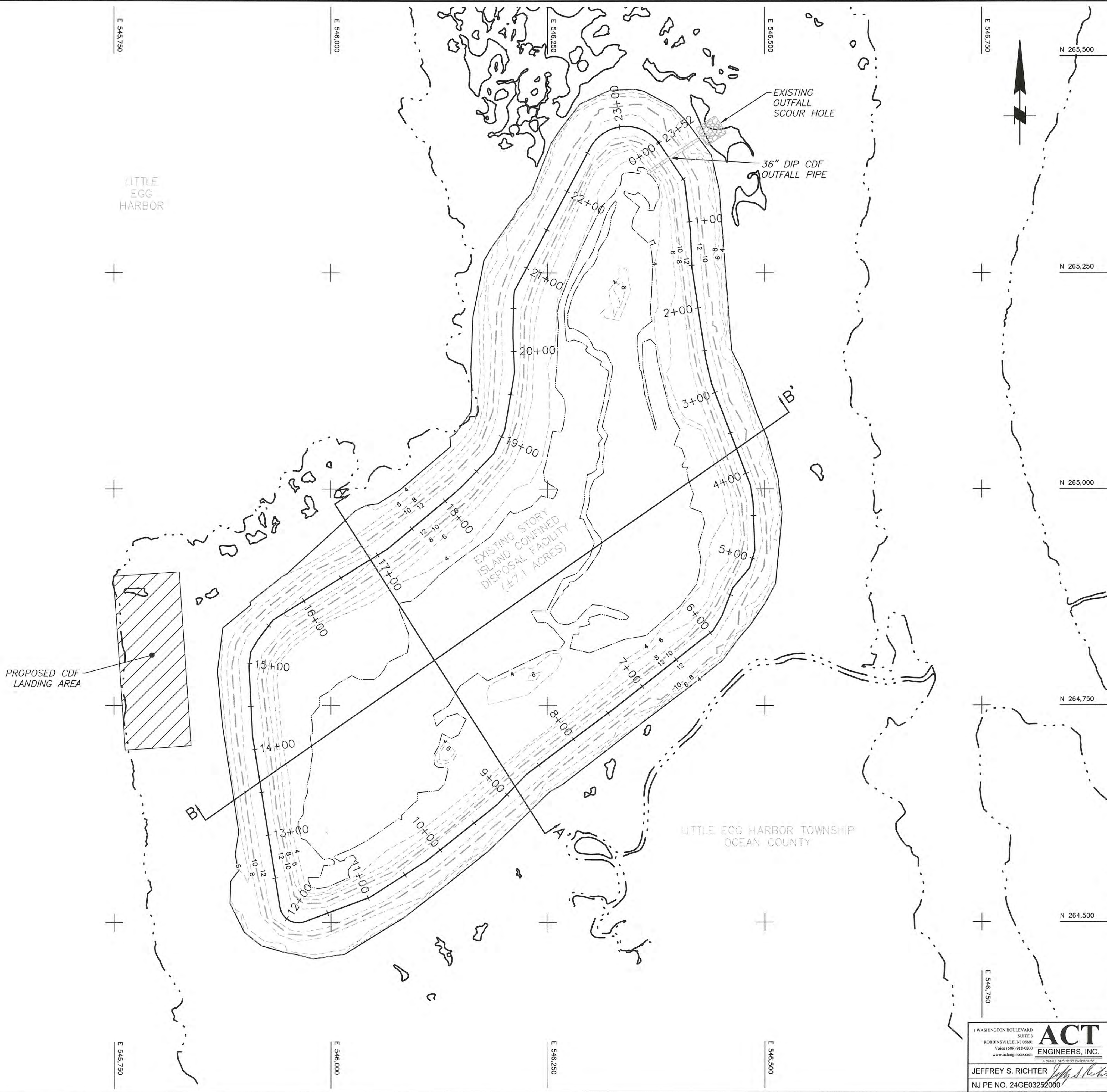
1 WASHINGTON BOULEVARD
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www.actengineers.com

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ENGINEERS, INC.
A SMALL BUSINESS ENTERPRISE

JEFFREY S. RICHTER
NJ PE NO. 24GE03252000

REV.	DATE	DESCRIPTION	BY	APPR.	STATE OF NEW JERSEY	
					NJDOT OFFICE OF MARITIME RESOURCES	
					TITLE: PIPELINE ROUTE PLAN	
					PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL CHANNELS LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY	
DRAWN BY: NJH		WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800		PROJECT NO.		
CHECKED BY: JR		MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500		SHEET 15 OF 18		
SCALE: AS SHOWN				DWG. NO. PERMIT - 15		
DATE: FEB 2021						

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STAGE STORAGE TABLE		
ELEV. (FT)	INCREMENTAL VOLUME (CY)	CUMULATIVE VOLUME (CY)
2 TO SURVEY (ELEV 3±)	4,215	4,215
SURVEY (ELEV 3±) TO 4	6,067	10,282
4 TO 6	12,755	23,037
6 TO 8	14,582	37,620
8 TO 10	15,824	53,444
10 TO 11	8,332	61,776

- NOTES:
- VERTICAL DATUM IS IN REFERENCE TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). NAVD88 IS 1.12 FEET ABOVE MEAN LOW WATER (MLW). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM VERSION 4.1.2.
 - COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
 - EXISTING TOPOGRAPHIC CONTOURS (NAVD88) SHOWN FROM FLIGHT PHOTOGRAPHY AND FIELD SURVEY COLLECTED ON OCTOBER 19, 2020; BY WSP USA, INC.
 - EXISTING SHORELINE & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.

1.16 MHHW

0.90 MHW

0 NAVD88

-0.12 MTL

-1.12 MLW

-1.23 MLLW

EXISTING 2' CONTOURS

EXISTING 10' CONTOURS

EXISTING SHORELINE

EXISTING EDGE OF STANDING WATER

MUNICIPALITY LIMIT

EXISTING CDF LANDING AREA

EXISTING CDF RIPRAP OUTFALL PROTECTION

RANGE OF TIDE (FT)
NOT TO SCALE

0'60'120'240'

GRAPHIC SCALE (FT)

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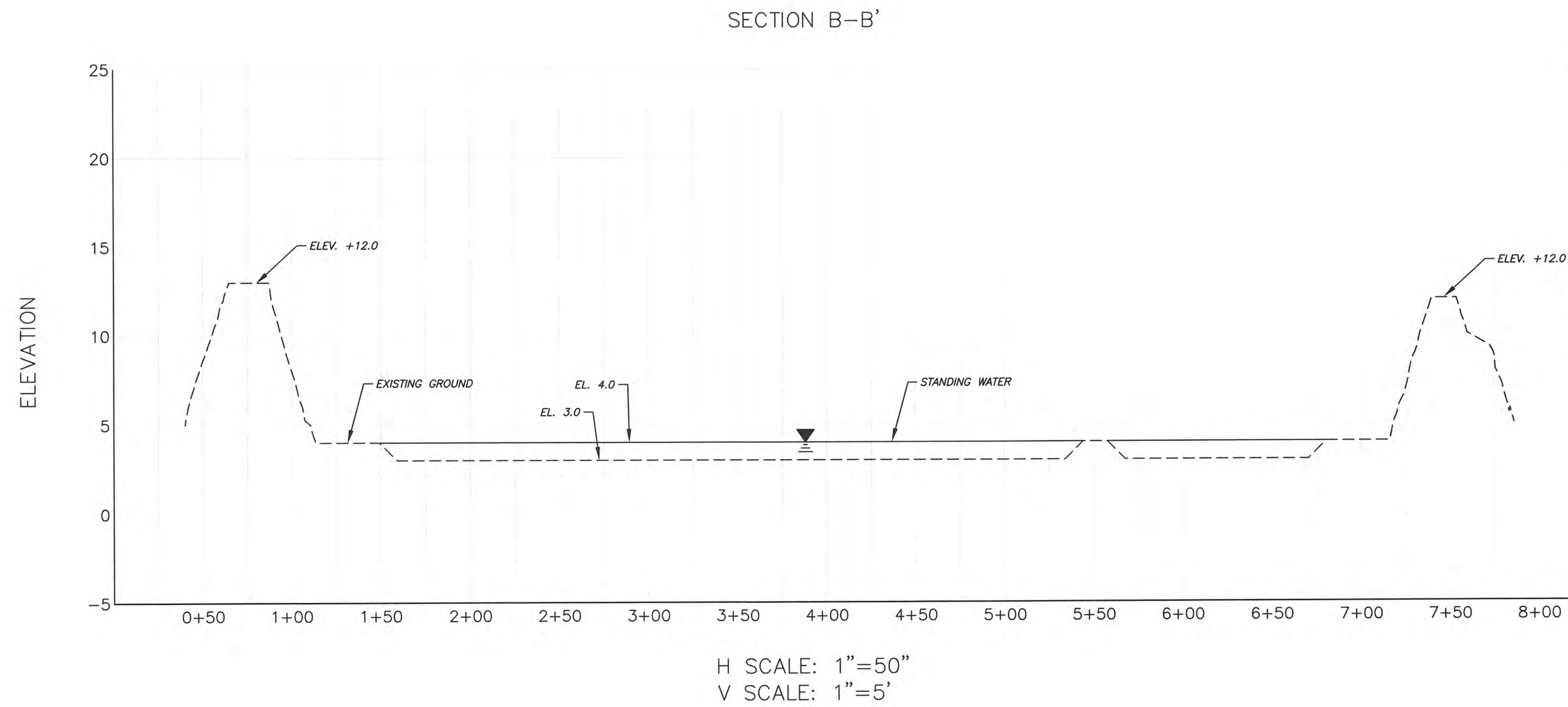
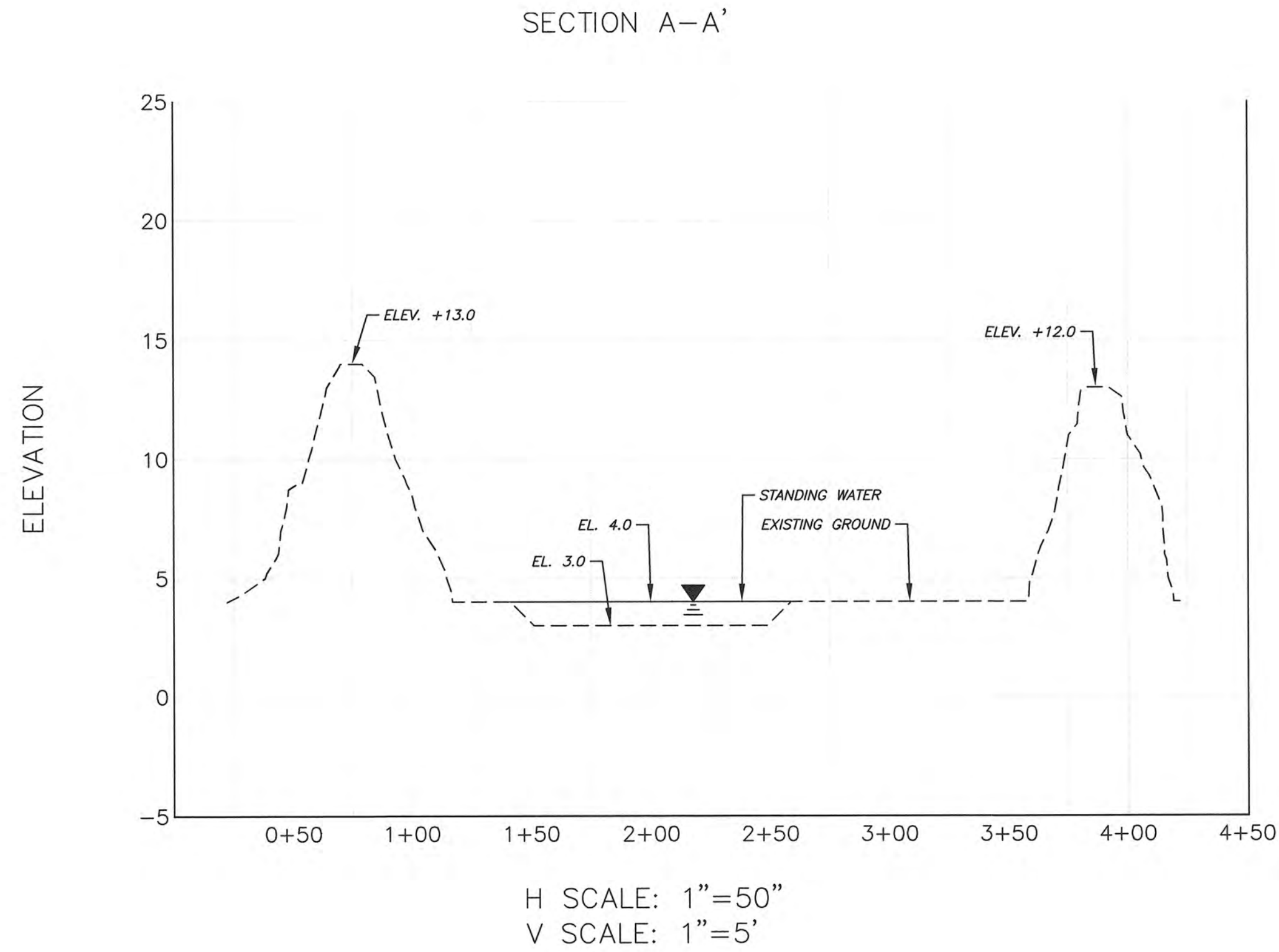
ENGINEERS, INC.

A SMALL BUSINESS ENTERPRISE

JEFFREY S. RICHTER
NJ PE NO. 24GE03292000

REV.	DATE	DESCRIPTION	BY	APPR.
STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES				
PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY				
DRAWN BY: NJH		WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800		PROJECT NO.
CHECKED BY: JR		MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500		SHEET 16 OF 18
DATE: FEBRUARY 2021				DWG. NO. PERMIT - 16

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LEGEND
--- EXISTING GROUND

- NOTES:
- VERTICAL DATUM IS IN REFERENCE TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). NAVD88 IS 1.12 FEET ABOVE MEAN LOW WATER (MLW). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) DATUM DATUM TRANSFORMATION PROGRAM VERSION 4.1.2.
 - EXISTING TOPOGRAPHIC CONTOURS (NAVD88) SHOWN FROM FLIGHT PHOTOGRAPHY AND FIELD SURVEY COLLECTED ON OCTOBER 19, 2020; BY WSP USA, INC.

1.16 MHHW
0.90 MHW
0 NAVD88
-0.12 MTL
-1.12 MLW
-1.23 MLLW

RANGE OF TIDE (FT)
NOT TO SCALE

1 WASHINGTON BOULEVARD ROBINNSVILLE, NJ 08061 Voice (609) 918-0200 www.actengineers.com	ACT ENGINEERS, INC. <small>A TRULY PROFESSIONAL ENTERPRISE</small>
JEFFREY S. RICHTER	<i>Jeffrey S. Richter</i>
NJ PE NO. 24GE03252000	

REV.	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY NJDOT OFFICE OF MARITIME RESOURCES	
TITLE: STORY ISLAND CDF EXISTING TYPICAL SECTIONS	
PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR BIG THOROFARE AND TUCKERTON FEDERAL LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NEW JERSEY	
DRAWN BY: NJH	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800 <i>Michael J. Marano</i>
CHECKED BY: JR	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500
SCALE: AS SHOWN	
DATE: FEBRUARY 2021	
PROJECT NO.	SHEET 17 OF 18
DWG. NO. PERMIT - 17	

1. SECURELY FASTEN GEOTEXTILE TO WIRE FABRIC BY USE OF WIRE TIES OR HOG RINGS, THEN SANDWICH BETWEEN A 1" X 3" X 3' BATTEN AND THE POSTS PLACING SCREWS AT 6 INCH INTERVALS STARTING 3 INCHES FROM TOP.
2. BURY 4" X 4" FENCE POST 2'-0" BELOW GROUND.
3. BURY BOTTOM 1 FOOT OF GEOTEXTILE AS PER SILT FENCE AND TAMP IN PLACE.
4. SECURELY FASTEN ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE TO A COMMON POST BY WRAPPING EACH END OF THE GEOTEXTILE AROUND BATTEN TWICE AND ATTACHING THE BATTEN TO POST WITH SCREWS AT 6 INCH INTERVALS STARTING 3 INCHES FROM THE TOP. SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.
5. BURY 6" OF WIRE FABRIC IN TIDAL AREAS.