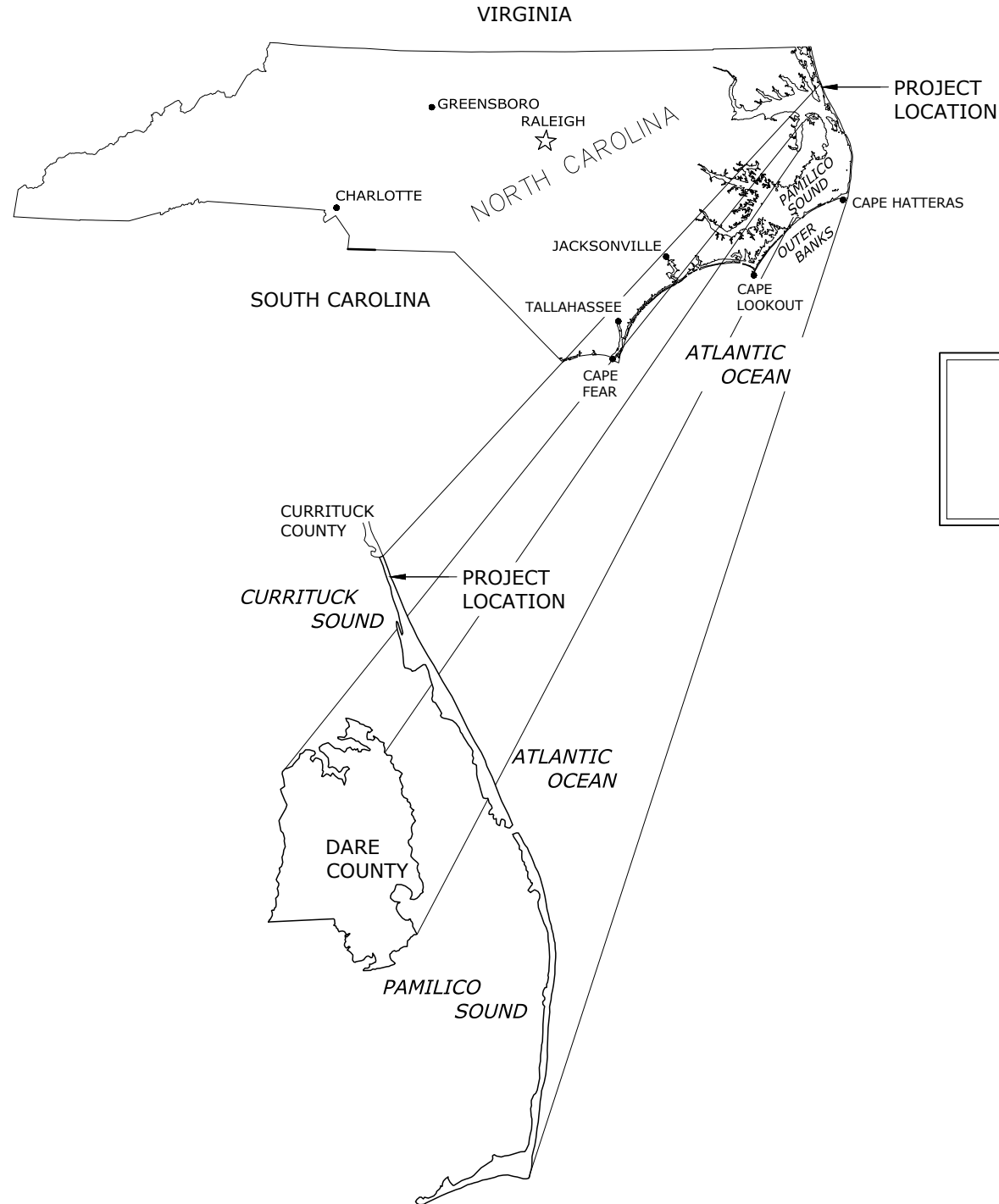
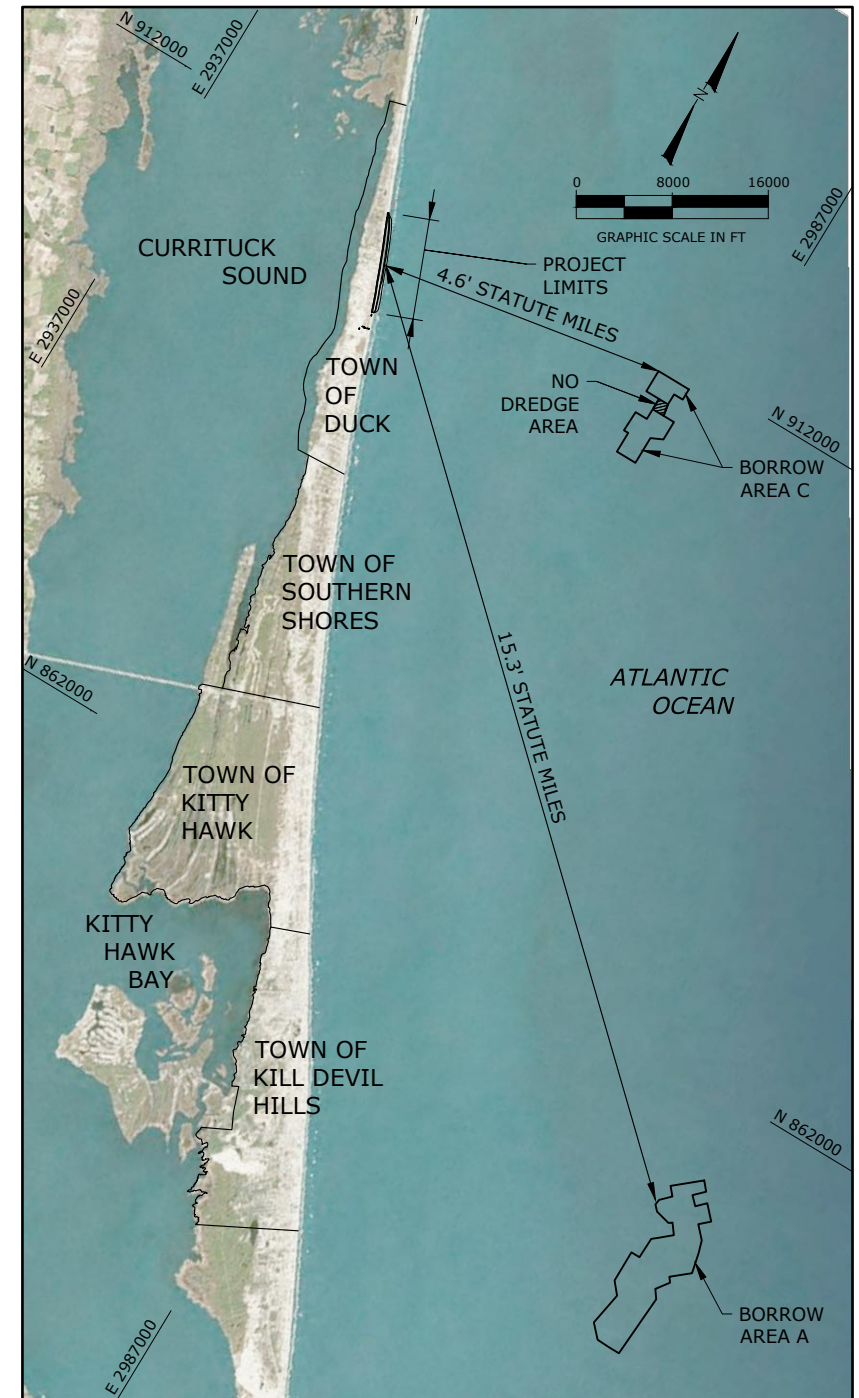


NORTH DARE COUNTY BEACHES TOWN OF DUCK BEACH NOURISHMENT PROJECT AS-BUILT DRAWINGS DARE COUNTY, NORTH CAROLINA



INDEX TO SHEETS	
1	AS-BUILT COVER SHEET
2	CONTROL DATA
3	AS-BUILT OVERALL PLAN VIEW
4-6	BEACH NOURISHMENT AS-BUILT PLAN VIEWS



LOCATION MAP

REVISIONS			
No.	Date	Description	
1	5/16/17	FILE CONSTRUCTION SHEET UPDATE	AS-BUILT
2	5/7/18		

Designed by: A/MB J/D	Reviewed by: K/W H/N	Submitted by: K/W 7/08/15	Comm. No.: 150440 AS NOTED
Checked by: A/MB		Plot Scale: AS NOTED	

TOWN OF DUCK BEACH NOURISHMENT PROJECT DARE COUNTY, NORTH CAROLINA BEACH NOURISHMENT AS-BUILT COVER SHEET

DRAWING NO.

CS

TOWN OF DUCK PAY PROFILES

STATION	EASTING	NORTHING	AZ	PERPENDICULAR DISTANCE TO NEXT
87+63 (BEGIN TAPER)	2954717.26	910163.01	70.0	105
88+68 (D-10)	2954759.00	910066.70	70.0	32
89+00	2954771.59	910037.25	70.0	100
90+00	2954810.89	909945.29	70.0	100
91+00	2954850.19	909853.34	70.0	100
92+00	2954889.48	909761.39	70.0	63
92+63 (D-10.5)	2954914.24	909703.45	70.0	137
94+00	2954968.08	909577.48	70.0	100
95+00	2955007.38	909485.52	70.0	100
96+00	2955046.68	909393.57	70.0	100
97+00	2955085.98	909301.62	70.0	100
98+00	2955125.28	909209.66	70.0	83
98+83 (D-11)	2955158.00	909133.10	70.0	117
100+00	2955203.31	909025.51	70.0	100
101+00	2955242.13	908933.35	70.0	100
102+00	2955280.94	908841.19	70.0	100
103+00	2955319.76	908749.03	70.0	100
104+00	2955358.57	908656.88	70.0	100
105+00	2955397.39	908564.72	70.0	100
106+00	2955436.21	908472.56	70.0	65
106+65 (D-12)	2955461.50	908412.50	70.0	135
108+00	2955516.00	908289.17	70.0	100
109+00	2955556.42	908197.71	70.0	100
110+00	2955596.84	908106.24	70.0	100
111+00	2955637.27	908014.77	70.0	100
112+00	2955677.69	907923.31	70.0	100
113+00	2955718.11	907831.84	70.0	100
114+00	2955758.53	907740.37	70.0	100
115+00	2955798.95	907648.91	70.0	100
116+00	2955839.37	907557.44	70.0	86
116+86 (D-13)	2955874.30	907478.40	70.0	114
118+00	2955918.25	907373.66	70.0	100
119+00	2955956.94	907281.45	70.0	100
120+00	2955995.64	907189.24	70.0	100
121+00	2956034.33	907097.03	70.0	100
122+00	2956073.02	907004.82	70.0	100
123+00	2956111.72	906912.61	70.0	100
124+00	2956150.41	906820.40	70.0	100
125+00	2956189.10	906728.19	70.0	100
126+00	2956227.80	906635.97	70.0	63
126+63 (D-14)	2956252.00	906578.30	70.0	137
128+00	2956305.02	906451.49	70.0	100
129+00	2956343.60	906359.22	70.0	100
130+00	2956382.17	906266.96	70.0	100
131+00	2956420.74	906174.70	70.0	100
132+00	2956459.32	906082.44	70.0	100
133+00	2956497.89	905990.18	70.0	100
134+00	2956536.47	905897.92	70.0	100
135+00	2956575.04	905805.66	70.0	139
136+39 (D-15)	2956628.50	905677.80	70.0	61
137+00	2956650.56	905620.49	70.0	100
138+00	2956686.48	905527.16	70.0	100
139+00	2956722.40	905433.83	70.0	100
140+00	2956758.32	905340.51	70.0	100
141+00	2956794.25	905247.18	70.0	100
142+00	2956830.17	905153.86	70.0	100
143+00	2956866.09	905060.53	70.0	100
144+00	2956902.01	904967.21	70.0	100
145+00	2956937.93	904873.88	70.0	114
146+14 (D-16)	2956978.80	904767.70	70.0	86
147+00	2957010.32	904687.44	70.0	100
148+00	2957046.88	904594.37	70.0	100

STATION	EASTING	NORTHING	AZ	PERPENDICULAR DISTANCE TO NEXT
149+00	2957083.44	904501.29	70.0	100
150+00	2957120.00	904408.21	70.0	100
151+00	2957156.56	904315.13	70.0	100
152+00	2957193.12	904222.06	70.0	100
153+00	2957229.68	904128.98	70.0	100
154+00	2957266.24	904035.90	70.0	100
155+00	2957302.80	903942.82	70.0	85
155+85 (D-17)	2957333.80	903863.90	70.0	115
157+00	2957376.02	903756.71	70.0	100
158+00	2957412.67	903663.67	70.0	100
159+00	2957449.32	903570.63	70.0	100
160+00	2957485.97	903477.58	70.0	100
161+00	2957522.62	903384.54	70.0	100
162+00	2957559.27	903291.50	70.0	100
163+00	2957595.92	903198.46	70.0	100
164+00	2957632.57	903105.42	70.0	100
165+00	2957669.22	903012.37	70.0	135
166+35 (D-18)	2957718.80	902886.50	70.0	65
167+00	2957742.03	902826.10	70.0	100
168+00	2957777.94	902732.77	70.0	100
169+00	2957813.84	902639.44	70.0	100
170+00	2957849.75	902546.11	70.0	100
171+00	2957885.65	902452.77	70.0	75
171+75 (END TAPER)	2957912.72	902382.42	70.0	55
172+30 (D-19)	2957932.50	902331.00	70.0	-

VERTICAL CONTROL DATA

ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE APPROXIMATE RELATION BETWEEN NAVD88 AND OTHER DATUMS AT NOAA TIDAL BENCHMARK 8651370 (DUCK, FRF PIER) FOR THE PROJECT ARE AS FOLLOWS:

MEAN HIGHER HIGH WATER	1.50 FEET
MEAN HIGH WATER	1.18 FEET
NAVD88	0.00 FEET
MEAN SEA LEVEL	-0.42 FEET
NGVD29	-0.96 FEET
MEAN LOW WATER	-2.05 FEET
MEAN LOWER LOW WATER	-2.19 FEET

BENCHMARK CONTROL POINTS

ID	EASTING	NORTHING	ELEV.	DESC.
FW0713	2,952,084.11	915,308.87	1.99	DISK
FW0686	2,957,662.02	900,621.51	18.46	DISK
FW0679	2,966,184.93	880,716.27	12.15	NGS STEEL ROD

NOTES:

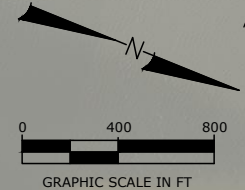
- COORDINATES ARE IN FEET BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83).
- ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- SURVEYS FOR PAYMENT (BEFORE AND AFTER DREDGE) SHALL COMMENCE AT THE COORDINATES SHOWN AND CONTINUE A MINIMUM DISTANCE OF 250 FT. SEAWARD OF THE CONSTRUCTION TOE OF FILL ALONG THE AZIMUTH PROVIDED.
- EACH STATION DESIGNATED AS A PAYMENT PROFILE SHALL BE SURVEYED BY THE CONTRACTOR BEFORE AND AFTER BEACH PLACEMENT FOR THE PURPOSE OF CALCULATING PAYMENT QUANTITIES. NO SUBSTITUTES IN PAY PROFILE STATIONS OR AZIMUTHS SHALL BE CONSIDERED, UNLESS OTHERWISE NOTED, BASELINE DISTANCE REPRESENTS THE STRAIGHT LINE DISTANCE BETWEEN PROFILE STATIONS.

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 OF North Carolina, Inc.
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 WILMINGTON, NC 28409
 www.aptim.com
 PH. (910) 791-9494
 FAX (910) 791-4129

Revisions	No.	Date	Description
1. 5/18/17 PRE-CONSTRUCTION SURVEY UPDATE	1	5/18/17	AS-BUILT
2. 5/17/18	2	5/17/18	

TOWN OF DUCK
 BEACH NOURISHMENT PROJECT
 DARE COUNTY, NORTH CAROLINA
 CONTROL DATA

DRAWING NO.
CD-1



LEGEND:

- APRIL 2017 MHW (1.18')
- - - APRIL 2017 MLW (-2.05)
- CONSTRUCTION TEMPLATE
- ADDITIONAL 20% FILL IF ONLY BORROW AREA C IS USED

- NOTES:**
1. DATE OF AERIAL PHOTOGRAPHY: MARCH 09, 2013 GOOGLE MAP.
 2. COORDINATES ARE IN FEET BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83).
 3. ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM, 1988 (NAVD88).
 4. PRE-CONSTRUCTION SURVEY DATA COLLECTED AT APPROXIMATELY 500 FOOT INTERVALS BY GREAT LAKES DREDGE & DOCK, LLC.
 5. TO AVOID IMPACTS TO SHIPWRECK FRAGMENTS, THE SUBMERGED PIPELINE SHALL NOT COME ON-SHORE IN THE VICINITY OF THE SHIPWRECK FRAGMENTS.

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REVISIONS	No.	Date	Description
1	5/16/17	5/16/17	FINAL CONSTRUCTION SHEET UPDATE
2	5/17/18	5/17/18	AS-BUILT

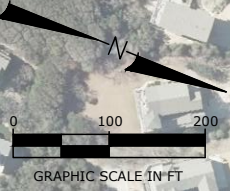
Designed by:	JJD	Checked by:	AMB
Drawn by:	HN	Reviewed by:	KW
Date:	7/08/15	Submitted by:	KW
Plot Scale:	AS NOTED	Comm. No.:	150440

Reference Files:

TOWN OF DUCK
 BEACH NOURISHMENT PROJECT
 DARE COUNTY, NORTH CAROLINA
 BEACH NOURISHMENT AS-BUILT
 OVERALL PLAN VIEW

DRAWING NO.
OV

SHEET 3 OF 6



MATCH LINE PV-2

LEGEND:

	APRIL 2017 MHW (1.18')
	APRIL 2017 MLW (-2.05)
	20 FT. WIDE DUNE CREST
	CONSTRUCTION TEMPLATE
	ADDITIONAL 20% FILL IF ONLY BORROW AREA C IS USED

- NOTES:**
1. DATE OF AERIAL PHOTOGRAPHY: 2016.
 2. COORDINATES ARE IN FEET BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83).
 3. ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM, 1988 (NAVD88).
 4. THE PROPOSED DUNE WILL TIE INTO EXISTING CONDITIONS TO ESTABLISH THE DESIGN CONFIGURATION OF 20' WIDE AT ELEVATION 20.0' NAVD88.
 5. SAND FENCING MAY BE INSTALLED BETWEEN THE CREST OF THE DUNE AND A POINT 10 FT. SEAWARD OF THE TOE OF DUNE.

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REVISIONS		Checked by:	Designed by:
1.	5/16/17	AMB	JD
2.	5/7/18	KW	HN
		Reviewed by:	Date:
		Submitted by:	7/08/15
		Comm. No.:	150440
		Plot Scale:	AS NOTED
No.	Date	Description	

TOWN OF DUCK
 BEACH NOURISHMENT PROJECT
 DARE COUNTY, NORTH CAROLINA
 BEACH NOURISHMENT
 AS-BUILT PLAN VIEW
 DRAWING NO.
PV-1
 SHEET 4 OF 6



LEGEND:

	APRIL 2017 MHW (1.18')
	APRIL 2017 MLW (-2.05)
	20 FT. WIDE DUNE CREST
	CONSTRUCTION TEMPLATE
	ADDITIONAL 20% FILL IF ONLY BORROW AREA C IS USED

- NOTES:**
1. DATE OF AERIAL PHOTOGRAPHY: 2016.
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REVISIONS

No.	Date	Description
1	5/16/17	PRE CONSTRUCTION SHEET UPDATE
2	5/7/18	AS-BUILT

Reference Files:

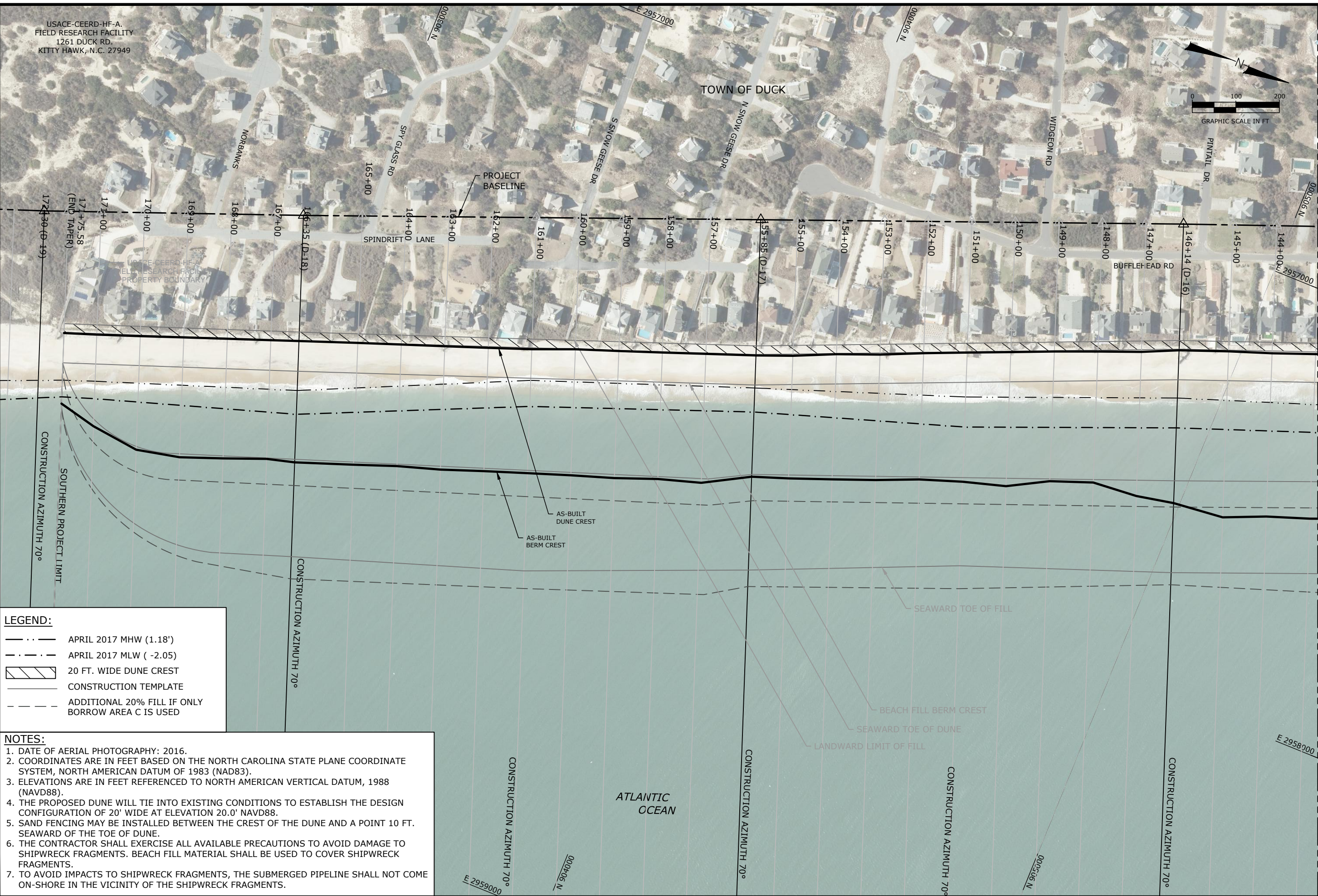
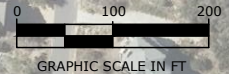
Designed by:	JD	Checked by:	AMB
Drawn by:	HN	Reviewed by:	KW
Date:	7/08/15	Submitted by:	KW
Plot Scale:	AS NOTED	Comm. No.:	150440

TOWN OF DUCK
 BEACH NOURISHMENT PROJECT
 DARE COUNTY, NORTH CAROLINA
 BEACH NOURISHMENT
 AS-BUILT PLAN VIEW

DRAWING NO.
PV-2
 SHEET 5 OF 6

USACE-CEERD-HF-A.
FIELD RESEARCH FACILITY
1261 DUCK RD.
KITTY HAWK, N.C. 27949

TOWN OF DUCK



LEGEND:

	APRIL 2017 MHW (1.18')
	APRIL 2017 MLW (-2.05)
	20 FT. WIDE DUNE CREST
	CONSTRUCTION TEMPLATE
	ADDITIONAL 20% FILL IF ONLY BORROW AREA C IS USED

- NOTES:**
- DATE OF AERIAL PHOTOGRAPHY: 2016.
 - COORDINATES ARE IN FEET BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83).
 - ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM, 1988 (NAVD88).
 - THE PROPOSED DUNE WILL TIE INTO EXISTING CONDITIONS TO ESTABLISH THE DESIGN CONFIGURATION OF 20' WIDE AT ELEVATION 20.0' NAVD88.
 - SAND FENCING MAY BE INSTALLED BETWEEN THE CREST OF THE DUNE AND A POINT 10 FT. SEAWARD OF THE TOE OF DUNE.
 - THE CONTRACTOR SHALL EXERCISE ALL AVAILABLE PRECAUTIONS TO AVOID DAMAGE TO SHIPWRECK FRAGMENTS. BEACH FILL MATERIAL SHALL BE USED TO COVER SHIPWRECK FRAGMENTS.
 - TO AVOID IMPACTS TO SHIPWRECK FRAGMENTS, THE SUBMERGED PIPELINE SHALL NOT COME ON-SHORE IN THE VICINITY OF THE SHIPWRECK FRAGMENTS.

MATCH LINE PV-2

REVISIONS	
No.	Description
1	5/16/17 PRE CONSTRUCTION SHEET UPDATE
2	5/7/18 AS-BUILT

Designed by:	AMB
Drawn by:	HN
Date:	7/08/15
Plot Scale:	AS NOTED
Checked by:	KW
Reviewed by:	KW
Submitted by:	KW
Comm. No.:	150440

Reference Files:	
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TOWN OF DUCK
BEACH NOURISHMENT PROJECT
DARE COUNTY, NORTH CAROLINA
BEACH NOURISHMENT
AS-BUILT PLAN VIEW

DRAWING NO.

PV-3

SHEET 6 OF 6

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P:\North Carolina\DADE COUNTY\PROJECTS\6252898241_Dare County\Construction_Schedule\Project\Comp\Info_Report\CA\6252898241.DWG, CS, P, Dwg - May 04, 2018 @ 8:12am - gary.krymowak