

**JOINT**  
**PUBLIC NOTICE**

**CHARLESTON DISTRICT, CORPS OF ENGINEERS**  
**1949 INDUSTRIAL PARK ROAD, ROOM 140**  
**CONWAY, SOUTH CAROLINA 29526**

and

**THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
**Office of Ocean and Coastal Resource Management**  
**1362 McMillan Avenue, Suite 400**  
**North Charleston, South Carolina 29405**

REGULATORY DIVISION

Refer to: P/N SAC-2020-00503 (REVISED)

2 October 2020

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et.seq.), an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

**The Peninsula Property Owners Association**  
**c/o Coastal Science & Engineering Inc.**  
**P.O. Box 8056**  
**Columbia, South Carolina 29202**

for a permit to conduct beach nourishment in the

**ATLANTIC OCEAN**

at a location described as the south end of Litchfield Beach, encompassing 2,700 linear feet(lf) of shoreline located east of Norris Drive, in Pawleys Island, Georgetown County, South Carolina (Latitude: 33.4566°, Longitude: -79.1032°), Magnolia Beach Quad.

In order to give all interested parties an opportunity to express their views

**NOTICE**

is hereby given that written statements regarding the proposed work will be received by the **Corps** and **SCDHEC** until

**30 Days from the Date of this Notice**

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed activity is a beach nourishment project along the south end of Litchfield Beach, SC. (**NOTE:** The proposed project is a second revision of the plans previously advertised on April 14, 2020, and July 2, 2020. Only comments pertaining to this public notice will be considered). In detail, the revised plan (2<sup>nd</sup> revision) consists of the placement of up to 400,000 cubic yards (cy) of beach compatible sand along approximately 2,700 (lf) of shoreline. Work will include placement via dredge of up to 400,000 cubic yards (cy) of sand per event over the beach length extending from Station 40+00 (at the southernmost house) to Station 67+00 at the

northern limit of The Peninsula. Sand will be obtained from an offshore borrow area approximately 2–3 miles from the beach and ~3 miles north of the Inlet Point community. The proposed work will be accomplished by heavy machinery (bulldozers) shaping the fill on the beach. The applicant is requesting a 10-year permit. If a permit is authorized, the applicant intends immediate restoration of the beach. Should future erosion due to a major storm events occur over the life of the permit if issued, the applicant requests to renourish the beach using the same borrow area and fill design as described herein upon approval by permitting agencies. The applicant further requests, if authorized, an open construction window for cutterhead dredge, and a construction window from 1 Nov– 30 June for hopper dredges to maximize flexibility of construction timing.

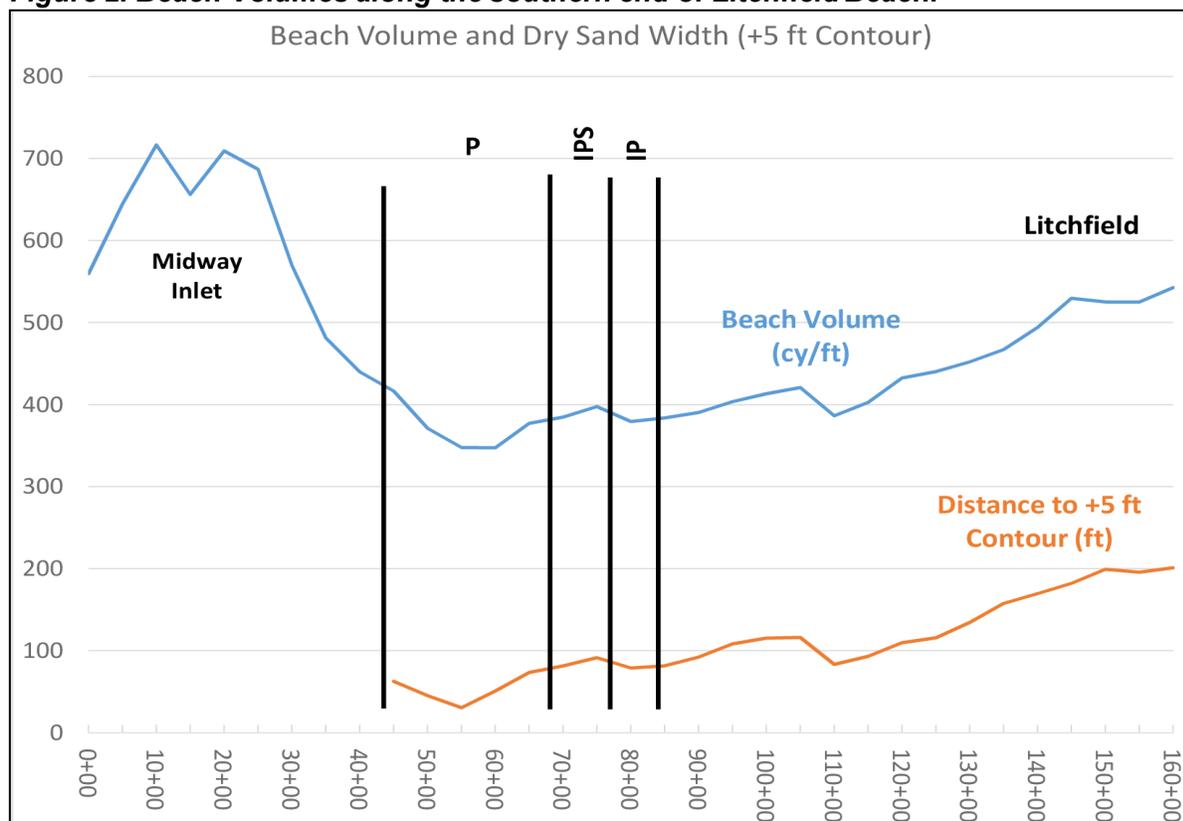
**Specific Project Details Provided by the Applicant:**

***Nourishment Plan***

***Beach Nourishment***

*The nourishment design is based on the present condition of the beach, historical erosion rates, impacts from recent hurricanes, desired levels of storm protection and recreation area, environmental considerations, and available budget. In evaluating the existing sand deficit, the beach volume seaward of the oceanfront structure line was used to compare eroded sections of the beach with an ideal beach profile. The ideal profile contains sufficient volume to hold a primary dune and recreational dry beach, as well as to withstand modest storm events. For Litchfield Beach, healthy sections of the beach meeting these criteria were found to hold a minimum of 500 cubic yards per foot (cy/ft) of sand in the profile. Each section of the beach was compared to this value to determine volume deficits. Advance nourishment was added to account for erosion occurring over the next 10 years (Figure 2).*

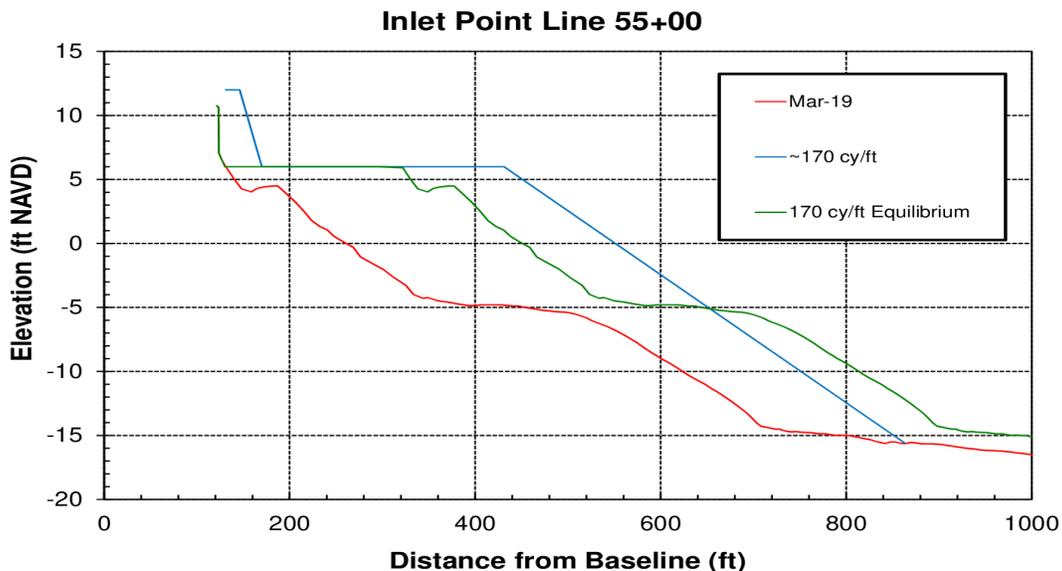
**Figure 2. Beach Volumes along the southern end of Litchfield Beach.**



The nourishment plan includes a dry-sand berm constructed at +6 ft NAVD and a sloped intertidal section constructed at 1 on 25 slope (Figure 3). A dune will be constructed 6-8 ft above the berm height with a crest width no greater than 15 ft and a seaward slope of 1 on 4. Fill density for full sections will range from ~120 cy/ft to ~180 cy/ft with the higher fill volumes being placed in the center of the fill area. The nourishment fill will be distributed as follows:

Station	Fill Density (cy/ft)	Total Quantity (cy)
40+00	0	0
42+00	0	5,000
44+00	50	13,000
46+00	80	20,000
48+00	120	27,000
50+00	150	35,000
52+00	200	44,000
54+00	240	48,000
56+00	240	48,000
58+00	240	46,000
60+00	220	42,000
62+00	200	36,000
64+00	160	26,000
66+00	100	10,000
68+00	0	0
<b>Total</b>	<b>160</b>	<b>400,000</b>

The requested volume is the maximum amount of sand the applicant intends to place on the beach during a nourishment event. If funding is insufficient to accomplish this, the volumes will be scaled back to match the available funds. Any reduction of volume would be applied fairly evenly across the fill unless the fill volume at a location would be lower than practical to place (typically approximately 25–30 cy/ft is the minimum amount of sand dredge operators can place on the beach efficiently).



**Figure 5. Example fill profile for a nourishment density of 170 cy/ft along with the equilibrium profile for the same added volume. Note this is a hypothetical fill at this station and not the final design fill.**

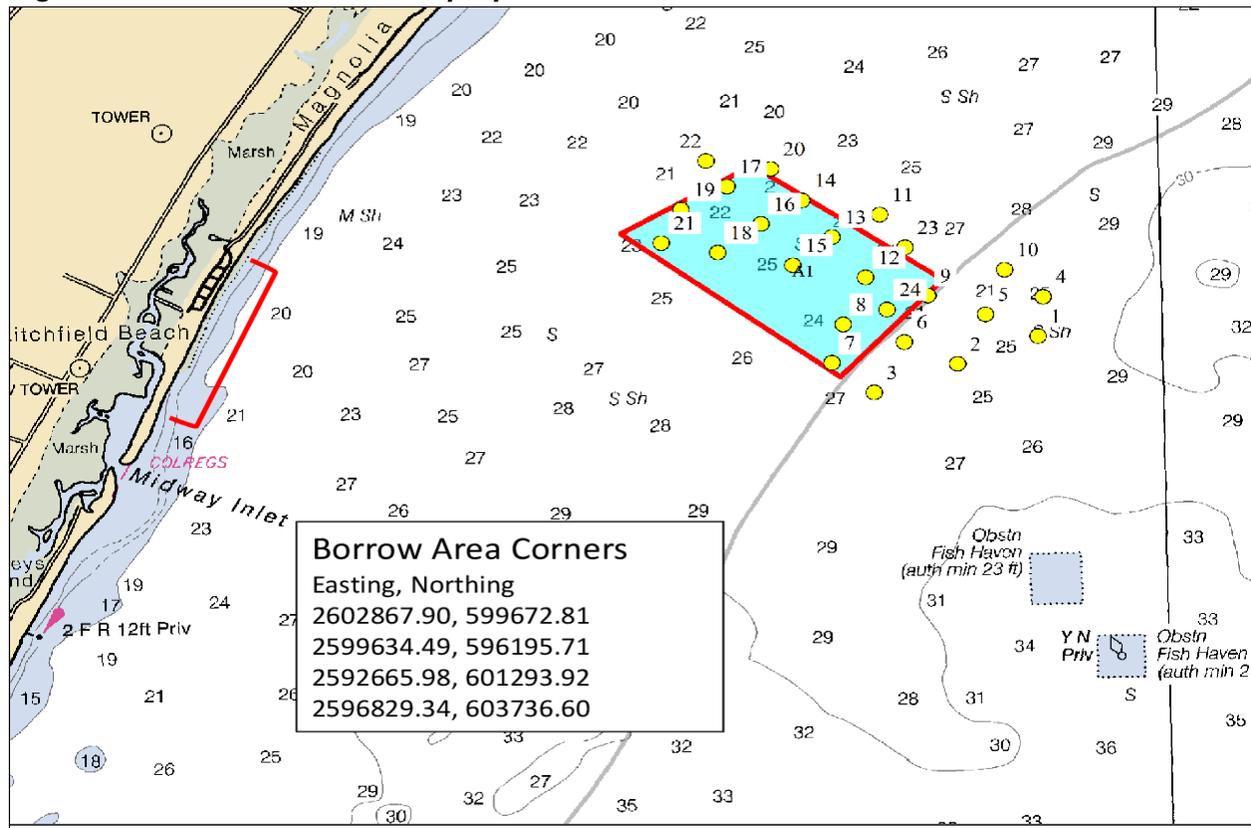
*Nourishment will be accomplished by hydraulic (cutterhead) or hopper dredge and heavy machinery (bulldozers and loaders) shaping the fill on the beach. Temporary training dikes will be used to contain the slurry discharge parallel to the shore. Once the sand has been placed on the beach, bulldozers will shape the fill into the design template from the dune to the mean sea-level (MSL) contour. Sand below the MSL contour will be shaped to a natural profile by waves. Sand fencing and/or native vegetation will be installed in strategic locations along the dune or adjacent to structures following the nourishment.*

### **Borrow Area(s)**

*The applicant is conducting geological and cultural resource investigations to determine a suitable borrow area for the project. Based on existing data from USGS (2002), the applicant is focusing on an approximately 2,000-acre area located ~1.5–3 miles offshore of the beach (figure 4). Within the area, data suggest that sediment thickness exceeds 4–5 ft, and the material is sand. Known areas of hardbottom exist to the north and the south of the search area, and a swale of lower bathymetry and reduced sediment thickness bisects the area. The seafloor elevation within the boundary varies between –24 ft and –35 ft NAVD.*

*Initial sediment borings confirm sufficient beach compatible material exists within the search area. Figure 4 shows the location of the initial borings and the refined borrow area based on the boring results. Borings within the proposed borrow area rang in mean grain size from 0.235mm to 0.321 mm with shell content ranging from 7.8% to 21.3%. The composite grain size for all borings is 0.278 mm with 12% shell. Based on the preliminary borings, the most likely final borrow will fall along the inner portion of the area shown below, encompassing borings 16, 17, 18, 19, and 21. These borings show an average grain size of 0.271 mm and 13% shell content. Of the shell content, the majority of the fragments are smaller than 2mm (sand sized).*

**Figure 4. Location of initial proposed borrow area for the south Litchfield Beach**



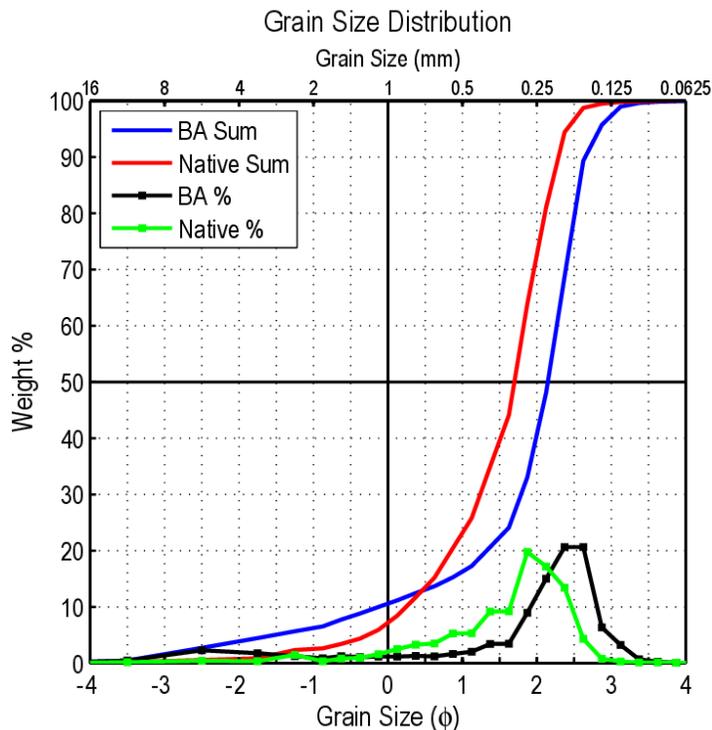
Native beach samples were obtained along the fill area and were analyzed for grain size distribution and shell content. The results are provided in Table 1 and show mean grain sizes span from 0.283 mm and 0.381 mm with a composite value of 0.336 mm. Shell content on the beach ranged from 4.5 to 10.7 % and averaged 7.2 %. Figure 5 shows grain size distribution plots for the native and borrow area sediment. The borrow area sediment measures slightly finer than the native sand; however, it should be noted that the samples along the native beach were obtained from the intertidal beach slope, which typically shows the coarsest sand fraction along a beach profile.

The applicant is obtaining additional borings to further refine the spatial limits of suitable material. Once these samples are obtained and full sediment analysis is complete, the applicant will provide a revised borrow area plan. The applicant will also provide a cultural resource survey of the revised areas to identify any potential areas of cultural significance.

**Table 1. Sediment characteristic of potential borrow area borings shown in Figure 4.**

		Method of Moments						Shell	Gravel (%)	Fines
		Mean	STD	Skew	Kurt	Mean	Std			
Sample	Interval	$\phi$				mm				
<i>Within Proposed Borrow Area</i>										
LB-07	4 ft COMP	2.09	1.05	-2.84	12.75	0.235	0.483	7.9	3.1	0.2
LB-08	4 ft COMP	1.47	1.48	-1.37	3.79	0.362	0.358	13.0	10.9	0.0
LB-09	4 ft COMP	1.80	1.09	-2.08	8.21	0.286	0.469	8.4	4.1	0.1
LB-12	4 ft COMP	2.05	1.17	-2.18	7.66	0.241	0.443	13.9	4.5	0.1
LB-13	4 ft COMP	1.96	1.25	-2.61	9.99	0.257	0.422	8.2	5.2	0.0
LB-14	4 ft COMP	1.74	1.28	-1.81	5.93	0.299	0.413	12.0	5.9	0.0
LB-15	4 ft COMP	1.84	1.36	-1.85	5.92	0.280	0.389	11.2	6.7	0.2
LB-16	4 ft COMP	1.97	1.15	-2.70	10.28	0.255	0.450	11.9	4.7	0.1
LB-17	4 ft COMP	1.74	1.17	-2.35	8.53	0.299	0.446	13.9	5.3	0.0
LB-18	4 ft COMP	1.80	1.49	-1.93	5.89	0.288	0.357	6.2	8.5	0.0
LB-19	4 ft COMP	2.05	1.16	-2.55	9.50	0.242	0.449	14.6	4.6	0.1
LB-21	4 ft COMP	2.05	1.04	-1.82	6.61	0.242	0.485	13.3	2.5	0.7
LB-24	4 ft COMP	1.61	1.41	-1.35	3.89	0.328	0.377	23.8	7.3	0.0
<b>Borrow Area</b>	<b>4 ft COMP</b>	<b>1.86</b>	<b>1.26</b>	<b>-2.05</b>	<b>7.00</b>	<b>0.276</b>	<b>0.417</b>	<b>12.2</b>	<b>5.7</b>	<b>0.1</b>

		Method of Moments						Shell	Gravel (%)	Fines
		Mean	STD	Skew	Kurt	Mean	Std			
Sample	Interval	$\phi$				mm				
40+00	Beach COMP	1.39	1.01	-1.00	3.36	0.381	0.498	7.4	4.5	0.0
45+00	Beach COMP	1.70	0.68	-1.21	5.93	0.309	0.623	4.5	0.9	0.0
55+00	Beach COMP	1.82	0.69	-1.66	7.09	0.283	0.620	5.0	0.8	0.0
60+00	Beach COMP	1.49	0.93	-1.11	4.15	0.356	0.525	10.7	2.2	0.0
65+00	Beach COMP	1.46	1.01	-2.26	9.77	0.363	0.495	8.6	3.1	0.0
<b>ALL</b>	<b>Beach COMP</b>	<b>1.57</b>	<b>0.89</b>	<b>-1.62</b>	<b>6.83</b>	<b>0.336</b>	<b>0.539</b>	<b>7.2</b>	<b>2.3</b>	<b>0.0</b>
<b>Borrow Area</b>	<b>4 ft COMP</b>	<b>1.86</b>	<b>1.26</b>	<b>-2.05</b>	<b>7.00</b>	<b>0.276</b>	<b>0.417</b>	<b>12.2</b>	<b>5.7</b>	<b>0.1</b>



Project CSE 2486  
Location Inlet Point SC  
Date September 2020

Borrow Area Mean 0.276 mm  
Borrow Area STD 0.417 mm  
Borrow Area Skew -2.053  
Borrow Area Shell 12.2 %

Native Beach Mean 0.336 mm  
Native Beach STD 0.539 mm  
Native Beach Skew -1.623  
Native Beach Shell 7.2 %

**Measures taken to avoid and minimize impacts to waters of the United States:**

*The applicant desires to construct the project outside of peak tourist and turtle season; however, is requesting an open construction window to maximize flexibility of construction timing. Flexibility will allow for competitive construction costs required due to the relatively small size of the project. The applicant anticipates incurring significant mobilization costs for the project, and may have the opportunity to team with other communities considering beach nourishment in 2021. Previous projects conducted within the sea turtle nesting season have demonstrated that appropriate monitoring and mitigation measures can allow projects to be completed without impacts to turtles (Hunting Island, SC 2006; Isle of Palms, SC - 2008; Nags Head, NC - 2011 and 2019). Construction will take place over an ~20-day to ~30-day period, working 24 hours per day. Turbidity associated with the project will be localized and short-term given the dominance of sand-sized material with <2 percent mud in the deposits. Turbid plumes are expected to dissipate in minutes to hours within ~500 ft of the discharge point based on prior experience.*

*The proposed project will result in excavation and mortality of ~75 acres of surficial benthic organisms in the borrow area. Filling operations will bury ~23 acres of shallow beach and inshore habitat (ocean shoreline), resulting in mortality and displacement of existing benthic populations. Nourishment will provide an additional ~10 acres of dry-sand beach (habitat for turtle nesting, shorebird roosting, and recreational area). A wider dry beach will allow natural expansion of the foredune and its associated vegetation. The recreated wet-sand beach will be similar to or greater in area than the previous wet-sand beach buried by the fill. It is expected that these areas will recolonize naturally and rapidly with a similar suite of species (cf – Jutte et al 2002, CZR 2014).*

*The proposed borrow areas are situated between 2 and 3 miles offshore where natural bottom depths vary from 22 ft to 32 ft (MLLW). The excavations will be of the order 3-7 ft ±1 ft, which is comparable to the natural depth variation in the area. Sediments in the area vary in grain size, shell content, and mud content, but generally consist of fine to medium sand with small shell hash making up less than 15% of the material weight. Some areas show higher concentrations of mud below the suitable sand level. The applicant plans to obtain additional borings to further refine the boundaries of the proposed borrow area(s) and optimize sediment quality for the project. Any adjustments to the borrow areas will not increase the total area requested under this application or expand beyond the footprint defined in this application. The applicant will update bathymetric maps and geotechnical data and provide these data to permitting and resource agencies for final approval.*

*The applicant will monitor the nourishment progress and sediment quality multiple times daily to ensure that suitable material is placed on the beach. Daily sand samples will be obtained and analyzed for grain size, shell content, and mud content. Should pockets of undesirable material be encountered, the dredge will be instructed to adjust the dredging depth or location until suitable material is found.*

*The applicant (through its agent) will provide all contractors associated with construction a copy of the permit and associated drawings. A copy of the permit will be kept at the construction site at all times.*

**Sea Turtles**

*Should portions of the project overlap with turtle nesting season, standard protection and monitoring actions will be completed to minimize impacts to turtles. For any work occurring during sea turtle seas and using hopper dredges, conditions in the 2020 SARBO for hopper dredging will be followed. For any work occurring during nesting season, action items include:*

- *Daily early morning surveys for sea turtles.*
- *Endangered Species monitors at the construction site from sunset to sunrise to monitor for turtles on the beach from 1 May to 31 October*
- *Endangered species monitors aboard any hopper dredge from 1 May to 31 October*
- *Nest relocation by qualified personnel for nests laid in areas where they may be impacted by construction activities.*
- *Equipment storage will be off the beach to the maximum extent practicable and as far landward as possible. Temporary fencing or other measures will be utilized to prevent turtles from being trapped by equipment.*
- *Direct night-time lighting of the beach will be limited to the immediate construction area and shielded according to USFWS recommendations. If any turtles are observed in the construction area, activities will cease until the turtle(s) returns to the water and any nest is marked.*
- *Tilling of the nourished beach and compaction monitoring for three years after nourishment.*
- *Escarpment monitoring and leveling for three years after nourishment.*

### **Sediment Quality**

*The applicant will define permitted borrow areas so as to reduce the amount of gravel and shell material placed on the beach. Specific monitoring will include:*

- 1) *Collection of additional borings in the borrow area; analysis of sediment quality; and preparation of maps of sediment grain size, percent mud, percent gravel, and percent shell material.*
- 2) *Review of borrow area geotechnical data with permitting agency officials and identification of priority subareas for excavation. The applicant (through its agent) will determine a dredging strategy to utilize the borrow areas in an efficient manner while maintaining sediment quality throughout the project.*
- 3) *Pre- and post- construction, native-beach sand samples will be obtained at ~500-ft intervals along the project area. At each location, samples will be taken at the toe of the dune, middle of the dry-sand berm, approximate mean sea level, and shallow subtidal zone (wading depth). Samples will be sieved at 0.25-phi intervals and acid-washed to determine shell content.*
- 4) *The applicant (through its agent) will have qualified personnel under the direction of a registered professional geologist monitoring sediment quality on the beach during construction and correlating it with the borrow area conditions.*
- 5) *During construction, samples of the beach fill will be obtained at 200-ft intervals and compared to the native and borrow area samples. Samples along one shore-perpendicular transect will be combined into one physical composite and sent to the*

*laboratory for grain-size analysis. Samples will be analyzed as soon as possible but will not exceed five (5) days after collection. Sediment test results will be submitted weekly to USACE and SCDHEC-OCRM for review.*

- 6) Additional sampling and frequent observation will be completed during the initial 4–6 hours of pumping when the dredge moves to a new borrow site until the on-site technical representative (OTR) and contractor are satisfied with the quality of sand. The contractor will also have observers monitoring sediment quality 24 hours per day and will immediately report any significant changes in the discharge to the OTR so that decisions to move the dredge can be accomplished in a timely manner.*
- 7) Upon completion of construction, the applicant (through its agent) will resample the project area and obtain representative samples of the beach fill using the same stations as the pre-project samples. Results will be compared with pre-project beach samples and borrow area sediment test results. Data will be submitted to the USACE and OCRM in a comprehensive final report.*
- 8) Relocation of the dredge if unacceptable sediments are encountered. The contractor in consultation with the owner's on-site technical representative will notify the applicant, USACE, and OCRM if significant non-compatible material is encountered in the borrow area. The dredge will be relocated to other subareas within the permitted borrow area if the following conditions are encountered:
  - a. Evidence of high concentrations of mud persisting for more than 30 minutes in the slurry based on visual observation at the discharge pipe and monitoring of specific gravity of the slurry at the dredge.*
  - b. Evidence of high concentrations of nonshell gravel such as chunks of limestone, marl, or similar cemented sediments that persist for more than 30 minutes in the slurry based on visual observation at the discharge pipe and monitoring of specific gravity of the slurry at the dredge.*
  - c. Evidence of high concentrations of coarse shell material exceeding pebble-sized clasts (eg – oyster shells, quahogs, etc) which persist for more than 30 minutes in the slurry based on visual observations at the discharge pipe and monitoring of specific gravity of the slurry at the dredge.**
- 9) Accumulations of mud rollers and coarse gravel material (ie – rock fragments, large shells). Because of the lag time between excavations in the borrow area and pump-out onto the beach, accumulations of mud rollers and coarse gravel material may occur before the dredge can be relocated. If such accumulations exceed the equivalent of one 15-cy dump truck per 100 linear feet of beach, the applicant will arrange to pick up the coarse material using hand labor or a beach-sweeping device as soon as practicable upon completion of the section or upon completion of the project. To the extent practicable, such accumulations will be raked into stockpiles above the high-tide mark and will be removed prior to completion of the project.*
- 10) Beach compaction tilling –The applicant will perform tilling of the fill berm upon project completion as specified in the contract documents. Tilling will be accomplished to a depth of ~36 inches and will span the dry berm. The applicant (through its agent) will perform post-tilling compaction tests at ~500-ft intervals along the project area and will report the results to USACE and SCDHEC-OCRM following standard testing protocols.*

### **Monitoring Plan**

*The applicant will establish and complete the following monitoring plan as part of the proposed project. Some of these action items were mentioned previously but are included here for completeness.*

*Beach Surveys* – *The applicant will conduct topographic and bathymetric beach surveys before and after the project and for 3 years post-project. Surveys will be conducted at profiles presently monitored by the applicant and will encompass the beach between a point landward of the stable dune and extend to depths of –20 ft NAVD, or a distance of 3,000 ft from the shoreline, whichever is closer. Post-construction surveys will compare beach volumes and contour positions to before-and-after project conditions to document beach volume changes and identify any erosion hotspots. Annual reports will be submitted to USACE and SCDHEC-OCRM.*

*Borrow Area Surveys* – *The applicant will conduct pre-project, post-project, and out-year bathymetric surveys of the utilized dredge area. Surveys will encompass the boundaries of the dredge area and will include a minimum 400 ft buffer along the outside of each area. Surveys will be completed using track lines at a spacing not to exceed 100 ft. Out-year surveys will be completed in years 1, 3, and 5 following construction. Data will be used to determine infilling rates and topographical changes to the seafloor. Results will be included in annual monitoring reports in conjunction with the beach surveys.*

*Orthophotography* – *The applicant will obtain pre-project, post-project, and out-year orthophotography of the project area and marsh area surrounding Clubhouse Creek from Midway Inlet to Marsh Hen Dr. Out-year surveys will be completed in years 1, 3, and 5 following construction. Visual changes to the creek and marsh area resulting from shifting shoals or sand overwash will be recorded. Results will be included in annual monitoring reports in conjunction with the beach surveys.*

*Benthic Infauna Monitoring* - *If dredging extends into the spring or summer season (1 April to 30 September), benthic monitoring of the beach and borrow area will be performed by the applicant. Monitoring will include collecting 10 random samples within the impact areas (borrow area and fill area) and 10 samples in surrounding control areas. For the borrow area, samples will be collected immediately before and after dredging, and 1 year and 3 years post dredging (during the same season as the immediate post-dredging survey). For the beach area, samples will be collected immediately before dredging, and then 1 month, 6 months and 1-year post dredging. The 1-year post sample will be collected during the same season as the pre-dredging survey. For the beach samples, the sampling design will follow procedures for recent similar studies in South Carolina with each site sampled over a 100 m area along transects spaced 10 m apart and samples collected at a random location along the transect between the MSL and MLW contours. Sediment samples will also be collected for grain-size analysis and shell content.*

#### *Sediment Monitoring*

*Beach* – *Pre and post nourishment beach sediment samples will be taken at stations spaced ~1,000 ft in the alongshore direction. At each station, samples will be obtained using a push core at the toe of the dune, crest of the berm, mid beach face, and shallow underwater zone. Samples will be dried and tested for grain size distribution and shell content. Results will be included in a comprehensive project report.*

*Borrow Area* – *Pre-project, post-project, and out-year surficial sediment samples will be obtained in the dredge areas to evaluate possible changes to the sediment characteristics over time as new sediment infills the borrow area. Ten sediment samples*

*will be collected at random locations within each borrow area using push cores ~10 cm in diameter and 10 cm deep. Samples will be analyzed for grain size, shell content, and mud content. Results can be used to infer recovery of the borrow area and what type of benthic community is likely present. Summaries of the findings will be submitted in annual reports to USACE and SCDHEC-OCRM.*

*Lighting – The applicant will conduct one lighting survey of the beach in the first May following nourishment following guidelines prepared by USFWS. A summary report of the survey, including the methodology, map of lighting sources, and description of each source) will be submitted to USFWS within three months of the survey. Following the submission of the survey results, the applicant will meet with USFWS to discuss the report.*

**Proposed Mitigation:**

The applicant offered no compensatory mitigation for the proposed impacts.

**Project Purpose:**

The project purpose is storm damage reduction.

**NOTE: This public notice and associated plans are available on the Corps' website at: <http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices> .**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930). This activity may also require evaluation for compliance with the S. C. Construction in Navigable Waters Permit Program. State review, permitting and certification is conducted by the S. C. Department of Health and Environmental Control. The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact ~25 acres of intertidal beaches and ~75 acres of adjacent subtidal ocean bottom utilized by various life stages of species comprising the shrimp, and snapper-grouper management complexes. The District Engineer's initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). The District Engineer's final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to the Section 7 of the Endangered Species Act of 1973 (as amended), the Corps has reviewed the project area, examined all information provided by the applicant, and the District Engineer has determined, based on the most recently available information that the project may affect the Loggerhead sea turtle (*Carretta caretta*); West Indian Manatees

(*Trichechus manatus*); Green sea turtle (*Chelonia mydas*); Leatherback sea turtle (*Dermochelys coriacea*); Kemp ridley turtle (*Lepidochelys kempii*); piping plover (*Charadrius melodus*); Red knots (*Calidris canutus rufa*); and Seabeach amaranth (*Amaranthus pumilus*). A biological assessment (or other similar document) detailing our analysis of the potential effects of the action will be provided to the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with Section 106 of the NHPA, the District Engineer has consulted South Carolina ArchSite (GIS), for the presence or absence of historic properties (as defined in 36 C.F.R. 800.16)(1)(1)), and has initially determined that no historic properties are present; therefore, there will be no effect on historic properties. To ensure that other historic properties that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office and any other interested parties to provide any information they may have with regard to historic properties. This public notice serves as a request for concurrence within 30 days from the SHPO (and/or Tribal Historic Preservation Officer).

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

Any person may request, in writing, 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, with particularity, the reasons for holding a public hearing.

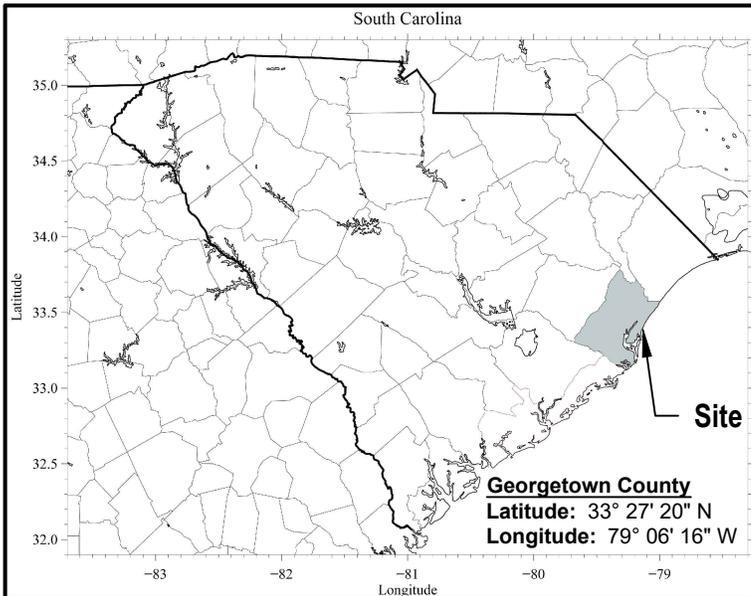
The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps cannot undertake to adjudicate rival claims.

The Corps 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 activity. Any comments received will be considered by the Corps to determine whether to

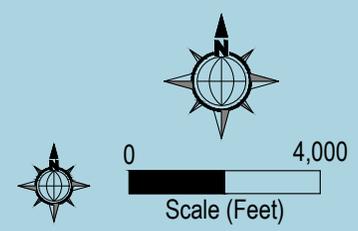
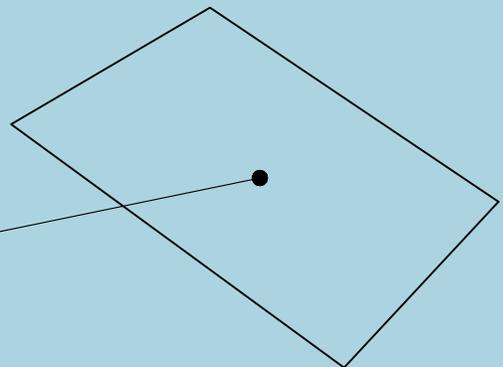
issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of 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 activity. **Please submit comments in writing, identifying the project of interest by public notice number, to the following e-mail address: [SAC.RD.Conway@usace.army.mil](mailto:SAC.RD.Conway@usace.army.mil), or via USPS at the address below:**

**U.S. Army Corps of Engineers  
ATTN: REGULATORY DIVISION  
1949 INDUSTRIAL PARK ROAD, ROOM 140  
CONWAY, SOUTH CAROLINA 29526**

If there are any questions concerning this public notice, please contact Rob Huff, Team Lead, by email at [Robert.C.Huff@usace.army.mil](mailto:Robert.C.Huff@usace.army.mil).



**Directions From I-95:**  
 Take I-95 N to SC-327 S. Take exit 170 from I-95 N (10.0 mi)  
 Take State Rd S-21-24 to US-301 N/US-76 E (8.7 mi)  
 Follow US-76 E and US-501 S to SC-544 E in Red Hill (46.1 mi)  
 Get on SC-31 in Socastee (7.8 mi)  
 Follow SC-31 to SC-707 S. Exit from SC-31 (3.5 mi)  
 Merge onto SC-707 S (7.3 mi)  
 Turn right onto US-17 S/US Highway 17 Bypass S  
 Continue to follow US-17 S10 min (7.7 mi)  
 Follow County Rd S-22-302 to Norris Dr  
 Project extends South onto the Litchfield Spit



**APPLICANT:**  
 The Peninsula BOD  
 PO Box 2308  
 Pawleys Island SC 29585

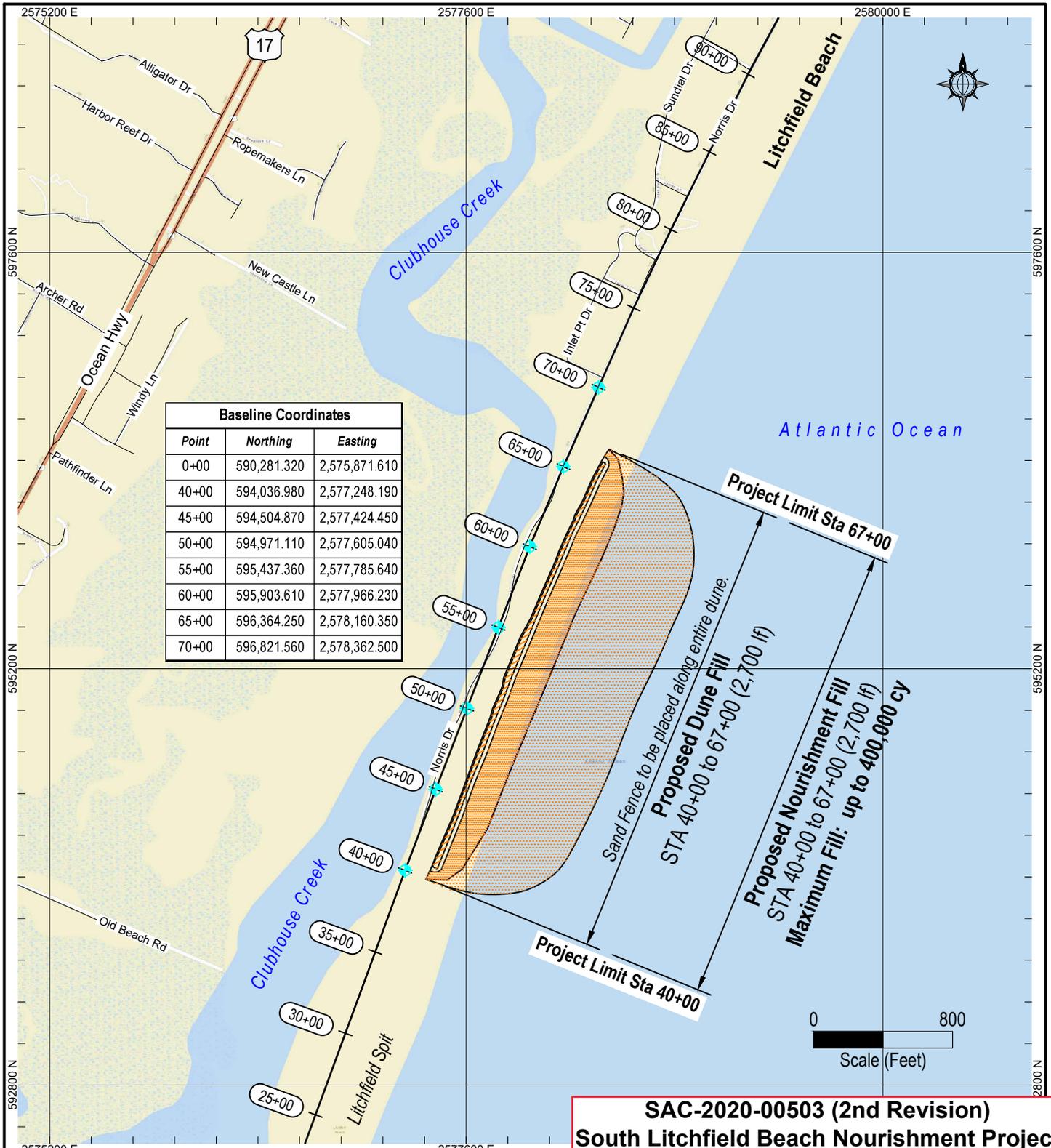
**DRAWING TITLE:**  
 VICINITY MAP

**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**  
**Sheet 1 of 8**  
**Date: September 22, 2020**

**AGENT:**  
 Coastal Science & Engineering, Inc.  
 PO Box 8056  
 Columbia, SC 29202

SCALE: AS SHOWN SHEET #:  
 DATE: 22 Sep 2020  
 TMS#  
 PROJECT #: 2486

**01**



**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**  
**Sheet 2 of 8**  
**Date: September 22, 2020**

**APPLICANT:**  
 The Peninsula BOD  
 PO Box 2308  
 Pawleys Island SC 29585

**DRAWING TITLE:**  
**FILL PLAN MAP**

**AGENT:**  
 Coastal Science & Engineering, Inc.  
 PO Box 8056  
 Columbia, SC 29202

SCALE: AS SHOWN      SHEET #:  
 DATE: 22 SEP 2020      **02**  
 TMS#  
 PROJECT #: 2486

STATE OF AUTHORITY  
 GILIU KACZKO

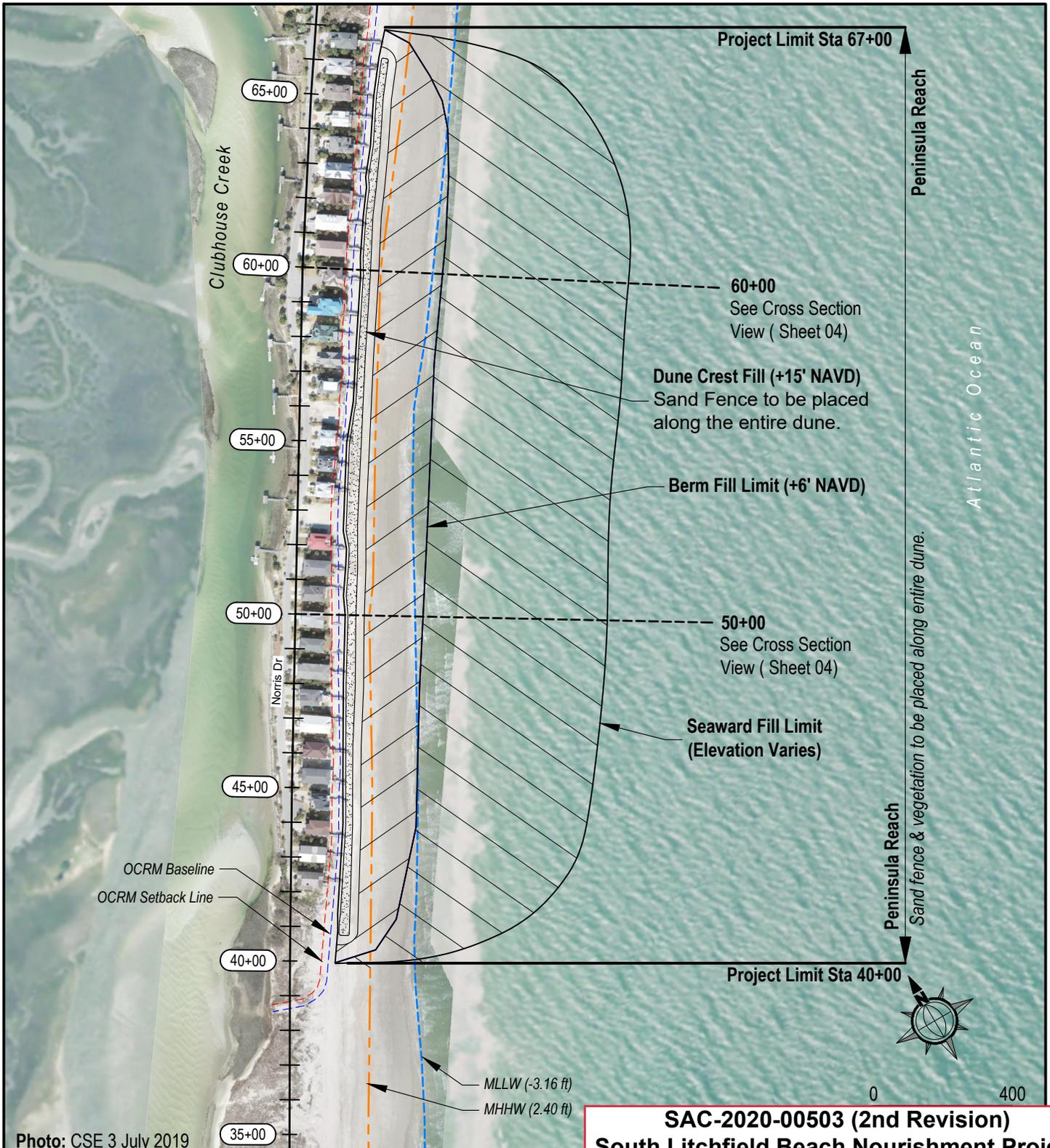


Photo: CSE 3 July 2019

**APPLICANT:**  
 The Peninsula BOD  
 PO Box 2308  
 Pawleys Island SC 29585

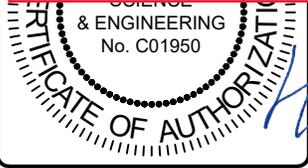
**DRAWING TITLE:**  
**FILL PLAN MAP**  
 STA 40+00 to 67+00  
**Peninsula Reach**

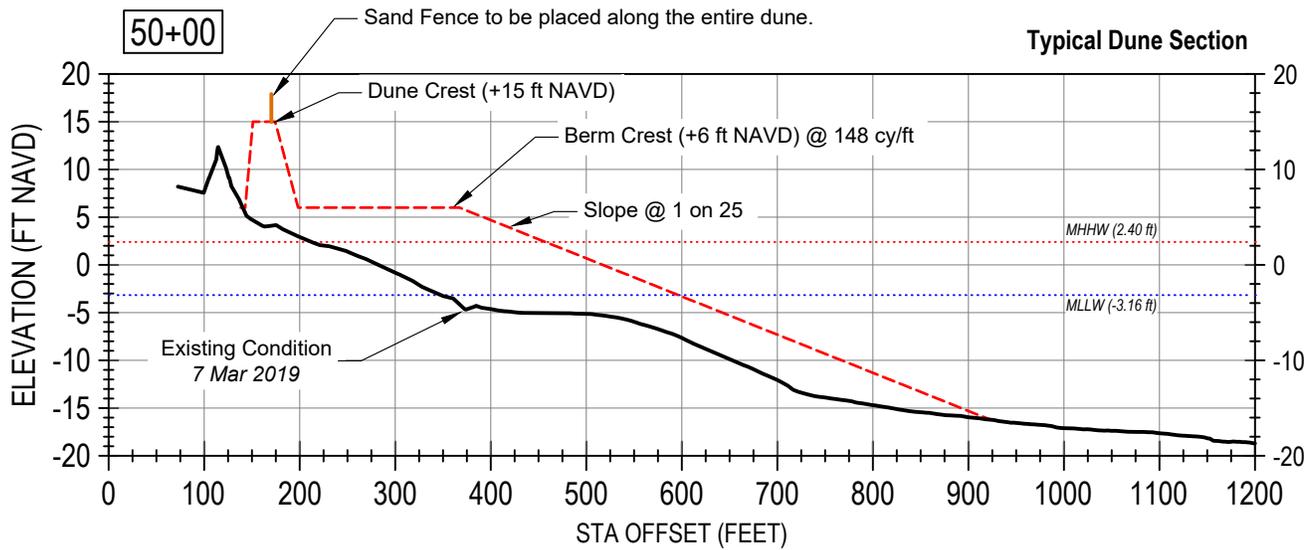
**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**  
**Sheet 3 of 8**  
**Date: September 22, 2020**

**AGENT:**  
 Coastal Science & Engineering, Inc.  
 PO Box 8056  
 Columbia, SC 29202

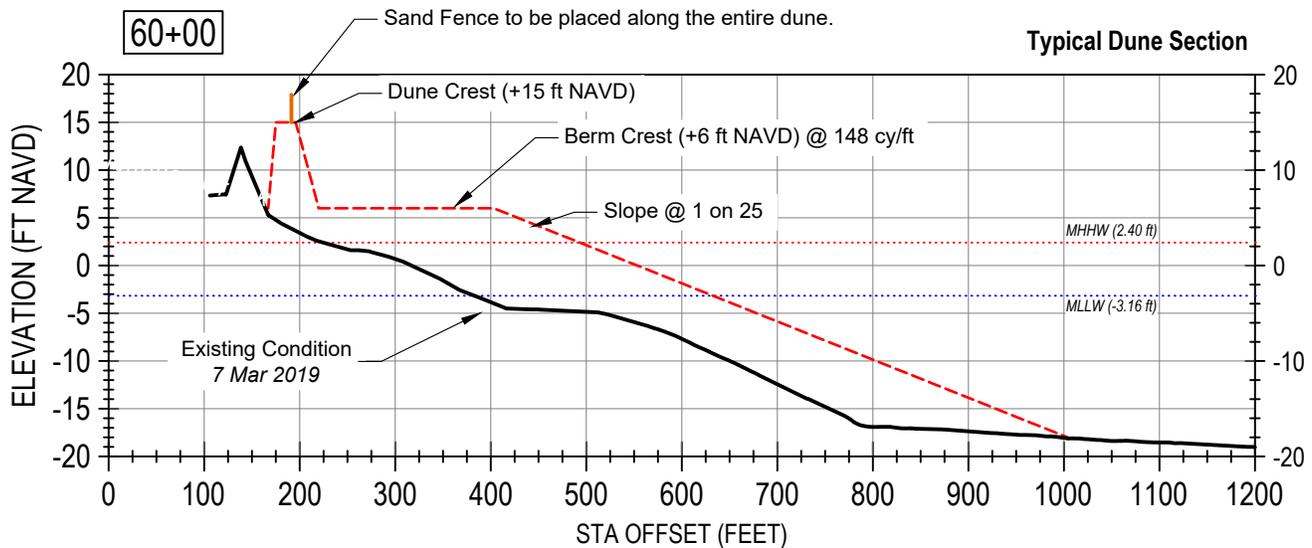
SCALE: AS SHOWN SHEET #:  
 DATE: 22 Sep 2020  
 TMS#  
 PROJECT #: 2486

**03**





\* **Note:** Typical profiles shown are the existing condition as of 7 March 2019. Fill volumes may need to be adjusted dependent upon existing conditions at time of construction.



**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**  
**Sheet 4 of 8**  
**Date: September 22, 2020**

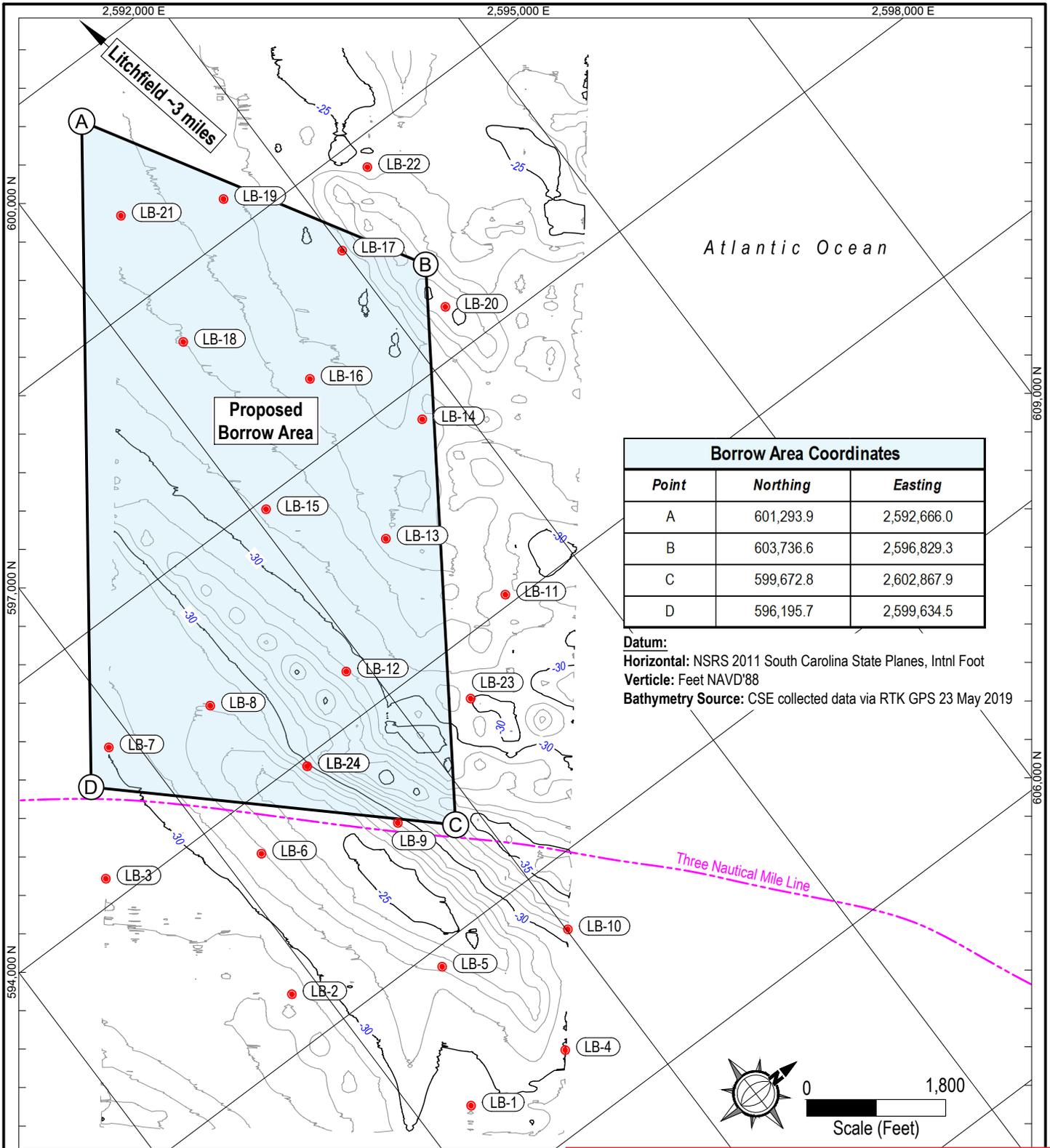
**APPLICANT:**  
 The Peninsula BOD  
 PO Box 2308  
 Pawleys Island SC 29585

**DRAWING TITLE:**  
**CROSS SECTION VIEW**  
 STA 50+00 & STA 60+00

**AGENT:**  
 Coastal Science & Engineering, Inc.  
 PO Box 8056  
 Columbia, SC 29202

SCALE: AS SHOWN    SHEET #:  
 DATE: 22 Sep 2020    **04**  
 TMS#  
 PROJECT #: 2486





Borrow Area Coordinates		
Point	Northing	Easting
A	601,293.9	2,592,666.0
B	603,736.6	2,596,829.3
C	599,672.8	2,602,867.9
D	596,195.7	2,599,634.5

**Datum:**  
**Horizontal:** NSRS 2011 South Carolina State Planes, Intl Foot  
**Vertical:** Feet NAVD'88  
**Bathymetry Source:** CSE collected data via RTK GPS 23 May 2019

**APPLICANT:**  
 The Peninsula BOD  
 PO Box 2308  
 Pawleys Island SC 29585

**DRAWING TITLE:**  
**BORROW AREA**  
 Bathymetry & Boring locations

**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**  
**Sheet 5 of 8**  
**Date: September 22, 2020**

**AGENT:**  
 Coastal Science & Engineering, Inc.  
 PO Box 8056  
 Columbia, SC 29202

SCALE: AS SHOWN    SHEET #:  
 DATE: 22 Sep 2020    **05**  
 TMS#  
 PROJECT #: 2486



		Method of Moments						Shell	Gravel	Fines
		Mean	STD	Skew	Kurt	Mean	Std			
Sample	Interval	$\phi$				mm		%		
<i>Within Proposed Borrow Area</i>										
LB-07	6 ft COMP	2.09	1.02	-2.86	13.02	0.235	0.495	7.8	2.9	0.2
LB-08	6 ft COMP	1.68	1.45	-1.51	4.50	0.313	0.367	12.7	8.8	0.2
LB-09	6 ft COMP	1.85	1.23	-1.99	7.42	0.278	0.427	9.3	5.0	0.3
LB-12	6 ft COMP	2.05	1.17	-2.18	7.66	0.241	0.443	13.9	4.5	0.1
LB-13	6 ft COMP	1.98	1.21	-2.55	9.81	0.253	0.432	9.0	4.8	0.0
LB-14	6 ft COMP	1.64	1.40	-1.62	4.89	0.321	0.379	14.3	7.9	0.1
LB-15	6 ft COMP	1.69	1.44	-1.52	4.59	0.311	0.369	16.8	7.7	0.2
LB-16	6 ft COMP	1.88	1.30	-2.23	7.43	0.272	0.407	15.5	6.3	0.1
LB-17	6 ft COMP	1.79	1.12	-2.41	9.05	0.290	0.459	13.1	4.8	0.0
LB-18	6 ft COMP	1.81	1.45	-1.93	6.00	0.286	0.365	8.2	8.0	0.1
LB-19	6 ft COMP	1.91	1.33	-2.17	7.06	0.266	0.397	17.4	6.6	0.1
LB-21	6 ft COMP	2.05	1.04	-1.82	6.61	0.242	0.485	13.3	2.5	0.7
LB-24	6 ft COMP	1.71	1.37	-1.49	4.40	0.305	0.386	21.3	6.5	0.0
Borrow Area	6 ft COMP	1.85	1.29	-1.98	6.64	0.278	0.416	13.3	5.9	0.2

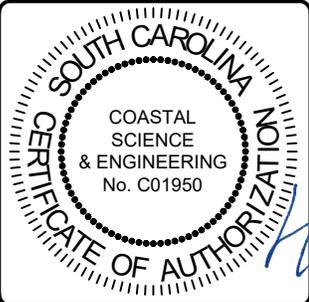
**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**  
**Sheet 6 of 8**  
**Date: September 22, 2020**

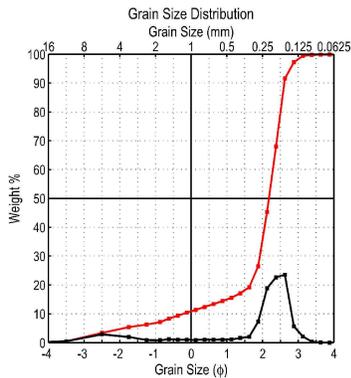
**APPLICANT:**  
 The Peninsula BOD  
 PO Box 2308  
 Pawleys Island SC 29585

**DRAWING TITLE:**  
**GEOTECHNICAL DATA**  
**SAMPLE STATISTICS**

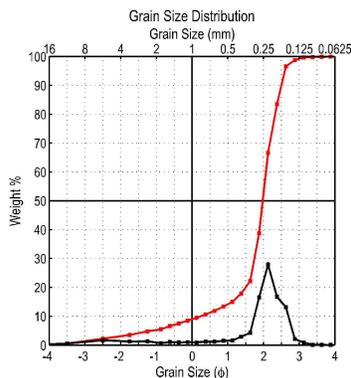
**AGENT:**  
 Coastal Science & Engineering, Inc.  
 PO Box 8056  
 Columbia, SC 29202

SCALE: AS SHOWN	SHEET #:
DATE: 22 Sep 2020	<b>06</b>
TMS#	
PROJECT #: 2486	





**Project** 2486  
**Location** Inlet Point SC  
**Date** Feb 05 2020  
**Boring** LB-16  
**Sample** 6 ft COMP  
**Mean** 0.272 mm  
**STD** 0.407 mm  
**Skewness** -2.233  
**USCS** Wentworth  
 SP Medium Sand  
 Fine Sand Poorly Sorted  
 Poorly Graded Strongly Coarse Skewed  
 Very Leptokurtic  
 Total weight (gram) 116.73  
 % finer than 0.0625 mm (dry) 0.12  
 % coarser than 2.00 mm (dry) 6.30  
 CaCO<sub>3</sub> 15.5



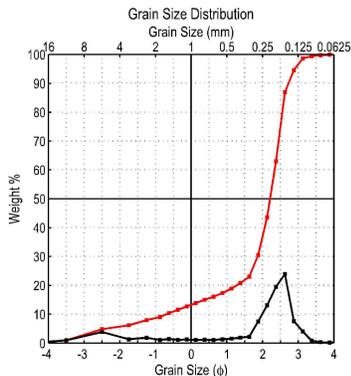
**Project** 2486  
**Location** Inlet Point SC  
**Date** Feb 05 2020  
**Boring** LB-17  
**Sample** 6 ft COMP  
**Mean** 0.290 mm  
**STD** 0.459 mm  
**Skewness** -2.413  
**USCS** Wentworth  
 SP Medium Sand  
 Fine Sand Poorly Sorted  
 Poorly Graded Strongly Coarse Skewed  
 Very Leptokurtic  
 Total weight (gram) 116.16  
 % finer than 0.0625 mm (dry) 0.04  
 % coarser than 2.00 mm (dry) 4.79  
 CaCO<sub>3</sub> 13.1

Class Limits	Mid Point (φ)	Weight (gram)	Weight %	Cumm. Wt %	Percentiles	Moment Measures	(phi)	(mm)
-4	-4.5	0.00	0.00	0.00	1	Mean	1.879	0.272
-3	-3.5	0.59	0.51	0.51	5	Standard Deviation	1.297	0.407
-2	-2.5	3.40	2.91	3.42	16	Skewness	-2.233	
-1.5	-1.75	2.27	1.95	5.37	25	Kurtosis	7.432	
-1	-1.25	1.09	0.93	6.30	50	Dispersion		
-0.75	-0.875	0.99	0.85	7.14	75	Standard Deviation		
-0.5	-0.625	1.42	1.22	8.36	84	Deviation from Normal		
-0.25	-0.375	1.17	1.00	9.36	95			
0	-0.125	1.20	1.03	10.39	99			
0.25	0.125	1.10	0.94	11.33	99			
0.5	0.375	1.21	1.03	12.36				
0.75	0.625	1.19	1.02	13.38				
1	0.875	1.23	1.05	14.44				
1.25	1.125	1.31	1.12	15.56				
1.5	1.375	1.86	1.59	17.15				
1.75	1.625	2.38	2.04	19.19				
2	1.875	8.50	7.29	26.47				
2.25	2.125	22.62	19.87	45.34				
2.5	2.375	26.47	22.86	68.02				
2.75	2.625	27.48	23.54	91.56				
3	2.875	6.61	5.67	97.22				
3.25	3.125	2.55	2.16	99.41				
3.5	3.375	0.42	0.36	99.77				
3.75	3.625	0.09	0.08	99.84				
4	3.875	0.04	0.03	99.88				
>4.0	4.25	0.15	0.12	100.00				

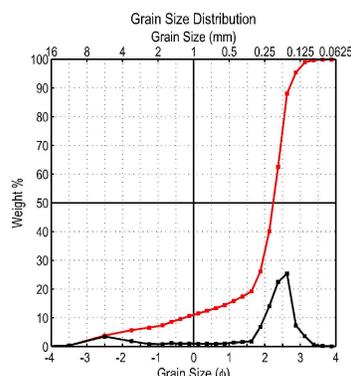
Graphic Phi Parameters	Inman	Folk & Ward
Mean	1.870	1.972
Standard Deviation	0.675	1.044
Skewness (1)	-0.452	-0.597
Skewness (2)	-2.567	
Kurtosis	2.456	3.059

Class Limits	Mid Point (φ)	Weight (gram)	Weight %	Cumm. Wt %	Percentiles	Moment Measures	(phi)	(mm)
-4	-4.5	0.00	0.00	0.00	1	Mean	1.787	0.290
-3	-3.5	0.62	0.54	0.54	5	Standard Deviation	1.123	0.459
-2	-2.5	1.99	1.69	2.22	16	Skewness	-2.413	
-1.5	-1.75	1.45	1.25	3.48	25	Kurtosis	9.053	
-1	-1.25	1.53	1.32	4.79	50	Dispersion		
-0.75	-0.875	0.79	0.68	5.47	75	Standard Deviation		
-0.5	-0.625	1.29	1.11	6.58	84	Deviation from Normal		
-0.25	-0.375	1.11	0.96	7.53	95			
0	-0.125	1.15	0.99	8.52	99			
0.25	0.125	1.08	0.93	9.45				
0.5	0.375	1.40	1.20	10.66				
0.75	0.625	1.40	1.21	11.86				
1	0.875	1.75	1.51	13.37				
1.25	1.125	1.89	1.63	15.00				
1.5	1.375	2.41	2.03	17.03				
1.75	1.625	4.97	4.28	22.21				
2	1.875	19.22	16.55	38.75				
2.25	2.125	32.42	27.91	66.66				
2.5	2.375	19.49	16.78	83.44				
2.75	2.625	15.28	13.15	96.59				
3	2.875	2.47	2.12	98.72				
3.25	3.125	1.09	0.94	99.66				
3.5	3.375	0.16	0.13	99.79				
3.75	3.625	0.14	0.12	99.91				
4	3.875	0.06	0.05	99.96				
>4.0	4.25	0.04	0.04	100.00				

Graphic Phi Parameters	Inman	Folk & Ward
Mean	1.797	1.857
Standard Deviation	0.587	0.859
Skewness (1)	-0.302	-0.485
Skewness (2)	-2.119	
Kurtosis	2.174	2.613



**Project** 2486  
**Location** Inlet Point SC  
**Date** Feb 05 2020  
**Boring** LB-18  
**Sample** 6 ft COMP  
**Mean** 0.286 mm  
**STD** 0.365 mm  
**Skewness** -1.934  
**USCS** Wentworth  
 SP Medium Sand  
 Fine Sand Poorly Sorted  
 Poorly Graded Strongly Coarse Skewed  
 Leptokurtic  
 Total weight (gram) 116.58  
 % finer than 0.0625 mm (dry) 0.06  
 % coarser than 2.00 mm (dry) 7.98  
 CaCO<sub>3</sub> 8.2



**Project** 2486  
**Location** Inlet Point SC  
**Date** Feb 05 2020  
**Boring** LB-19  
**Sample** 6 ft COMP  
**Mean** 0.266 mm  
**STD** 0.397 mm  
**Skewness** -2.169  
**USCS** Wentworth  
 SP Medium Sand  
 Fine Sand Poorly Sorted  
 Poorly Graded Strongly Coarse Skewed  
 Leptokurtic  
 Total weight (gram) 116.92  
 % finer than 0.0625 mm (dry) 0.12  
 % coarser than 2.00 mm (dry) 6.57  
 CaCO<sub>3</sub> 17.4

Class Limits	Mid Point (φ)	Weight (gram)	Weight %	Cumm. Wt %	Percentiles	Moment Measures	(phi)	(mm)
-4	-4.5	0.00	0.00	0.00	1	Mean	1.807	0.286
-3	-3.5	1.12	0.96	0.96	5	Standard Deviation	1.453	0.365
-2	-2.5	4.50	3.86	4.82	16	Skewness	-1.934	
-1.5	-1.75	1.55	1.33	6.15	25	Kurtosis	6.002	
-1	-1.25	2.13	1.83	7.98	50	Dispersion		
-0.75	-0.875	1.27	1.05	9.03	75	Standard Deviation		
-0.5	-0.625	1.60	1.37	10.40	84	Deviation from Normal		
-0.25	-0.375	1.31	1.12	11.52	94			
0	-0.125	1.42	1.22	12.74	95			
0.25	0.125	1.27	1.09	13.83	95			
0.5	0.375	1.40	1.20	15.03	99			
0.75	0.625	1.20	1.03	16.06				
1	0.875	1.53	1.31	17.37				
1.25	1.125	1.79	1.53	18.91				
1.5	1.375	2.20	1.89	20.79				
1.75	1.625	2.55	2.19	22.98				
2	1.875	8.74	7.50	30.48				
2.25	2.125	15.25	13.08	43.57				
2.5	2.375	22.89	19.44	63.00				
2.75	2.625	27.87	23.91	86.91				
3	2.875	8.89	7.62	94.53				
3.25	3.125	4.73	4.05	98.59				
3.5	3.375	0.89	0.76	99.43				
3.75	3.625	0.36	0.31	99.74				
4	3.875	0.23	0.20	99.94				
>4.0	4.25	0.06	0.06	100.00				

Graphic Phi Parameters	Inman	Folk & Ward
Mean	1.602	1.805
Standard Deviation	0.992	1.300
Skewness (1)	-0.612	-0.675
Skewness (2)	-1.972	
Kurtosis	1.673	2.684

Class Limits	Mid Point (φ)	Weight (gram)	Weight %	Cumm. Wt %	Percentiles	Moment Measures	(phi)	(mm)
-4	-4.5	0.00	0.00	0.00	1	Mean	1.912	0.266
-3	-3.5	0.41	0.35	0.35	5	Standard Deviation	1.334	0.397
-2	-2.5	4.07	3.48	3.83	16	Skewness	-2.169	
-1.5	-1.75	2.16	1.85	5.68	25	Kurtosis	7.060	
-1	-1.25	1.04	0.89	6.57	50	Dispersion		
-0.75	-0.875	0.96	0.82	7.39	75	Standard Deviation		
-0.5	-0.625	1.44	1.23	8.62	84	Deviation from Normal		
-0.25	-0.375	1.12	0.96	9.58	94			
0	-0.125	1.22	1.04	10.62	95			
0.25	0.125	1.06	0.90	11.52	99			
0.5	0.375	1.12	0.96	12.48				
0.75	0.625	1.06	0.90	13.38				
1	0.875	1.22	1.05	14.43				
1.25	1.125	1.65	1.41	15.84				
1.5	1.375	1.89	1.62	17.45				
1.75	1.625	2.11	1.81	19.26				
2	1.875	7.99	6.83	26.09				
2.25	2.125	16.38	14.01	40.10				
2.5	2.375	25.28	22.49	62.59				
2.75	2.625	25.72	25.42	88.00				
3	2.875	8.61	7.36	95.36				
3.25	3.125	4.17	3.56	98.93				
3.5	3.375	0.83	0.71	99.64				
3.75	3.625	0.24	0.20	99.84				
4	3.875	0.05	0.04	99.88				
>4.0	4.25	0.14	0.12	100.00				

Graphic Phi Parameters	Inman	Folk & Ward
Mean	1.867	1.990
Standard Deviation	0.718	1.100
Skewness (1)	-0.512	-0.627
Skewness (2)	-2.530	
Kurtosis	2.408	3.037

**APPLICANT:**  
 The Peninsula BOD  
 PO Box 2308  
 Pawleys Island SC 29585

**DRAWING TITLE:**  
 GEOTECHNICAL DATA  
 GRAIN SIZE DISTRIBUTION

**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**

**AGENT:**  
 Coastal Science & Engineering, Inc.  
 PO Box 8056  
 Columbia, SC 29202

**SCALE:** AS SHOWN  
**DATE:** 22 Sep 2020  
**TMS#**  
**PROJECT #:** 2486

**SHEET #:**  
**07**

**Sheet 7 of 8**  
**Date: September 22, 2020**

DATE OF AUTHORIZATION  
 G. LIU KACZKO

CORE LOG				Coastal Science & Engineering		Sheet 1 of 1	
PROJECT: 2486 - Inlet Point Nourishment		COORDINATES:		HOLE NUMBER: <b>LB-18</b>			
LOCALITY: Litchfield Beach, OFFSHORE		Northing: 601644.000 Easting: 2597113.000 Grid Datum: NAD '83		HOLE NUMBER: <b>LB-18</b>			
DATE: 2020-Feb-05	BORE ANGLE: 90.00°	TOP ELEVATION: -26.40 ft. NAVD '88	DEVIATION: Coastal Science & Engineering				
BURDEN THICKNESS: 6.9 ft.	BOTTOM ELEVATION: -33.30 ft. NAVD '88	BARREL SIZE/TYPE: 3 in. Aluminum					
CORE RECOVERY: 6.9 ft. (100.0%)	WATER DEPTH: (operational note only)	GEOLOGIST: TWK - SC #564					
Depth	Labeling	Classification Of Materials (Description)	Sample #	Remarks			
1		0.0 to 4.4 ft: Fine Sand / Medium Sand mix - medium dark tan grey with slightly more shell hash towards bottom					
2		-- 1.8 ft: Shell Fragment - hash lens					
3							
4		4.4 to 5.6 ft: Fine Sand with Crushed Shell - medium tan dark grey with mud and silt					
5		-- 5.4 ft: Shell Fragment - clam (3cm)					
6		5.6 to 6.5 ft: Mud - dark grey and shelly					
7		6.5 to 6.9 ft: Clay - medium tan grey					
8							
9							
10							

CORE LOG				Coastal Science & Engineering		Sheet 1 of 1	
PROJECT: 2486 - Inlet Point Nourishment		COORDINATES:		HOLE NUMBER: <b>LB-17</b>			
LOCALITY: Litchfield Beach, OFFSHORE		Northing: 602379.000 Easting: 2596035.000 Grid Datum: NAD '83		HOLE NUMBER: <b>LB-17</b>			
DATE: 2020-Feb-05	BORE ANGLE: 90.00°	TOP ELEVATION: -25.56 ft. NAVD '88	DEVIATION: Coastal Science & Engineering				
BURDEN THICKNESS: 6.4 ft.	BOTTOM ELEVATION: -31.96 ft. NAVD '88	BARREL SIZE/TYPE: 3 in. Aluminum					
CORE RECOVERY: 6.4 ft. (100.0%)	WATER DEPTH: (operational note only)	GEOLOGIST: TWK - SC #564					
Depth	Labeling	Classification Of Materials (Description)	Sample #	Remarks			
1		0.0 to 3.3 ft: Fine Sand / Medium Sand mix - fining downward and silty at base with more shell from 0.9-1.6					
2							
3							
4		3.3 to 4.7 ft: Very Fine Sand - with silt and minor shell					
5		4.7 to 5.8 ft: Fine Sand - shelly with muddy silt					
6		5.8 to 6.4 ft: Clay - medium tan grey					
7							
8							
9							
10							

CORE LOG				Coastal Science & Engineering		Sheet 1 of 1	
PROJECT: 2486 - Inlet Point Nourishment		COORDINATES:		HOLE NUMBER: <b>LB-18</b>			
LOCALITY: Litchfield Beach, OFFSHORE		Northing: 600623.000 Easting: 2595742.000 Grid Datum: NAD '83		HOLE NUMBER: <b>LB-18</b>			
DATE: 2020-Feb-05	BORE ANGLE: 90.00°	TOP ELEVATION: -27.91 ft. NAVD '88	DEVIATION: Coastal Science & Engineering				
BURDEN THICKNESS: 6.7 ft.	BOTTOM ELEVATION: -34.61 ft. NAVD '88	BARREL SIZE/TYPE: 3 in. Aluminum					
CORE RECOVERY: 6.7 ft. (100.0%)	WATER DEPTH: (operational note only)	GEOLOGIST: TWK - SC #564					
Depth	Labeling	Classification Of Materials (Description)	Sample #	Remarks			
1		0.0 to 2.7 ft: Fine Sand / Medium Sand mix - dark tan grey					
2							
3		2.7 to 3.7 ft: Fine Sand with Crushed Shell - medium dark tan grey and silty					
4		3.7 to 4.6 ft: Very Fine Sand - dark tan grey and silty					
5		4.6 to 5.7 ft: Very Fine Sand - medium tan grey and shelly with silt					
6		5.7 to 6.7 ft: Clay - dark grey with very fine sand and shell					
7							
8							
9							
10							

CORE LOG				Coastal Science & Engineering		Sheet 1 of 1	
PROJECT: 2486 - Inlet Point Nourishment		COORDINATES:		HOLE NUMBER: <b>LB-19</b>			
LOCALITY: Litchfield Beach, OFFSHORE		Northing: 602154.000 Easting: 2594577.000 Grid Datum: NAD '83		HOLE NUMBER: <b>LB-19</b>			
DATE: 2020-Feb-05	BORE ANGLE: 90.00°	TOP ELEVATION: -26.28 ft. NAVD '88	DEVIATION: Coastal Science & Engineering				
BURDEN THICKNESS: 5.8 ft.	BOTTOM ELEVATION: -32.08 ft. NAVD '88	BARREL SIZE/TYPE: 3 in. Aluminum					
CORE RECOVERY: 5.8 ft. (100.0%)	WATER DEPTH: (operational note only)	GEOLOGIST: TWK - SC #564					
Depth	Labeling	Classification Of Materials (Description)	Sample #	Remarks			
1		0.0 to 3.4 ft: Fine Sand / Medium Sand mix - medium dark tan grey with minor shell hash					
2		-- 1.6 ft: Medium Scallop - 2cm					
3							
4		3.4 to 4.8 ft: Crushed Shell - with fine sand and silt					
5		4.8 to 5.8 ft: Mud - dark grey and shelly					
6							
7							
8							
9							
10							

APPLICANT:  
The Peninsula BOD  
PO Box 2308  
Pawleys Island SC 29585

DRAWING TITLE:  
GEOTECHNICAL DATA  
CORE LOGS

**SAC-2020-00503 (2nd Revision)**  
**South Litchfield Beach Nourishment Project**  
**Georgetown County, South Carolina**  
**Sheet 8 of 8**  
**Date: September 22, 2020**

AGENT:  
Coastal Science & Engineering, Inc.  
PO Box 8056  
Columbia, SC 29202

SCALE: AS SHOWN  
DATE: 22 Sep 2020  
TMS#  
PROJECT #: 2486

**08**

STATE OF AUTHORITY

G. LIU KACZKOW