

PROJECT SPECIAL PROVISIONS**ROADWAY****SCOPE OF WORK:**

Work consists of the placement of approximately 200,000 cubic yards of sand on the beach face at the Pea Island Refuge S-Curves location. Approximately 90,000 cubic yards of material is available in the 10 acre site around the old Coast Guard Station including the material within the right of way of SR 1257 (access road). The remaining material shall come from the 13 acre site behind the groin. The area of the Beach Habitat Restoration begins at the southern tip of the refuge property and continues north for a distance of 1,500 feet, which includes 900 feet of previously installed sandbags adjacent to NC 12. (for informational purposes only, a copy of the typical section used to construct the existing sandbag dune protection can be viewed on the "Project Letting" website) The sand shall be placed on the beach by creating a breach in the existing dune and trucking the material onto the beach face. The sand shall then be pushed to the proposed profile by bulldozers and frontend loaders. The location of the dune breach will be established through coordination with CAMA and the USFWS biologist. A location will be established based on minimal impact to vegetated dunes.

The sand source for the beach habitat restoration is located 12 miles north at the groin location on the Pea Island Refuge and the adjacent state owned property where the Old Coast Guard Station is located. The proposed mining area behind the groin is approximately 13 acres in size. Mining will follow direction of the USFWS refuge staff during excavation. The mining shall not go beyond 6-8 feet below the surface and shall only extend within the area shown on location map provided with approved permits. This area can be accessed through the existing State Road #1257. Beyond the end of SR 1257 are established dunes that lie 700-800 feet from the normal high water line. No re-vegetation of the borrow site will be required. No burning will be allowed.

The adjacent state property is approximately 10 acres in size and will also be used to provide sand for the project. Sand shall be removed from SR 1257 that leads into the state property. Sand removal from the roadway shall not extend beyond the NCDOT right of way. As access is gained to the Old Coast Guard Station property, excavation around the remnant parking areas of the Old Coast Guard Station shall begin. To comply with permit requirements that the sand material be compatible, any woody debris, asphalt or broken pavement shall be removed/screened from the sand prior to its placement at the beach nourishment site. Woody debris, asphalt or broken pavement shall be disposed of off-site in accordance with Section 820 of the Standard Specifications. Once the Old Coast Guard area is complete, then the area behind the groin will be accessed and mining shall begin there. Only material from the two designated sites may be used. No material from the area between the Old Coast Guard station borrow site and the borrow site behind the groin may be used as borrow material.

All disturbed areas of any dunes shall be restored and re-vegetated immediately following project completion. A line item for "Sprigging" has been included in this contract for this purpose. The area for "Sprigging" has been estimated to be approximately 1.75 Acres.

BORROW EXCAVATION (Truck Measurement):

(7-1-95)

SP2 R57

The borrow material used on this project will be measured for payment by truck measurement as provided in Subarticle 230-5 of the *2006 Standard Specifications*.

SAND FENCE

Sand Fence shall be installed per Sand Fence typical section drawings # 1, Sand Fence typical Plan view and Sand Fence typical Cross Section view. The Department of Transportation will stake locations for typical section # 1.

Sand Fence will be paid for by the actual linear foot of fence installed and accepted.

| Pay Item | Pay Unit |
|-----------------|-----------------|
| Sand Fence | LF |

SPRIGGING:

Description

The Contractor shall sprig the designated dunes with Sea Oats (*Uniola paniculata*).

Materials

Seed stock for the sprigs shall be from within 100 miles of the planting site, unless otherwise approved by the Engineer. The seedlings shall be inspected upon delivery. Sprigs shall be inspected for a healthy, white roots and green foliage, prior to installation. Sprigs should be at least 18 inches tall to provide a plant large enough to plant 8 to 10 inches deep. Each root ball should contain at least 2 actual sea oat plants.

Construction Method

The Contractor shall install the sprigs within 4 days of being removed from the production system (Greenhouse, etc). During the planting process, seedlings must be protected from the hot sun and windy conditions associated with the dune environment, to ensure that the root balls will be kept moist and not allowed to dry out.

Sea oats seedlings should be planted 8 to 10 inches deep in moist sand. The hole must be completely back-filled leaving no air spaces around the root ball. One level teaspoon of Osmocote 18-6-12 fertilizer shall be placed **in the hole** at planting. The rate of sprigging shall be one sprig (root ball) on 24" centers and arrange the plants in a staggered pattern from row to row.

Basis of Payment

The quantity of *Sprigging* to be paid for will be the actual acres of sprigs (root balls) placed which have been completed and accepted.

Payment will be made under:

Pay Item
Sprigging

Pay Unit
Acre