

Exhibit 1 - Scope of Work
Sector 7 Alternatives Assessment

Introduction: The County's Sector 7 Beach Restoration Project was initially constructed in 2007. The initial Project included placement of about 360,000 cubic yards of sand from the County's offshore borrow area to partially restore over about 2.2 miles of beach. The initial Project area:

- was authorized by permits issued by the Florida Department of Environmental Protection (FDEP) and the U. S. Army Corps of Engineers (USACE), and
- extended from FDEP reference monuments R-97 to R-108.

Since the initial 2007 construction, Sector 7 beaches have eroded and been damaged by numerous hurricanes and storms. Re-nourishment of Sector 7 beaches from R-97 to R-108:

- was authorized by the COUNTY for design, monitoring, permitting, and solicitation of bids;
- however, bids were rejected by the County due to the refusal of multiple property owners – mostly in the northern “feeder beach” portion of the Project Area (North of R-99) and the southern portion of the Project from R-106.5 to R-108 - to provide construction easements required for construction.

This *Scope of Work* is to empirically evaluate the expected performance of alternative fill areas – particularly associated with modification of the northern Project boundary from R-97 to R-99, and the southern Project boundary from R-106.5 to R-108. The following describes the work under this Work Order:

Task 1 – Alternative Assessment: The Consultant will:

- update the Construction Drawings previously prepared for the Sector 7 Beach restoration Project with updated survey data provided by the County;
- prepare Construction Drawings for an alternate Project which will remove the parcels where construction easements have not been signed as identified by the County;
- identify the volume of sand required to construct the previously approved construction template and alternate construction template;
- review monitoring surveys and reports surrounding and subsequent to the 2007 initial construction to identify the performance of the 2007 beach fill;
- review the latest edition of the County's Beach Preservation Plan Update to be provided by the County;
- perform volume change calculations within the Project limits based upon 2019 and 2024 survey data provided by the County;
- based upon the post-construction monitoring data, beach preservation plan, and volume change calculations, characterize performance of two alternative potential future beach fill including:
 - as previously designed and permitted, and
 - as previously designed - excluding beach nourishment between R-97 to R-99, and R-106.5 to R-108.
- using empirical methods, quantify expected Project performance for years after construction as:
 - percent of beach fill remaining;
 - shore-normal width of beach berm from the Mean-High-Water-Line (MHWL) to the seaward toe of the dune or upland structure; and
- summarize results of the above in a Technical Memo to the COUNTY;

- meet with the COUNTY to review a DRAFT Technical Memo and identify any appropriate revisions to the Technical Memo;
- provide a signed original and digital copy of the Technical Memo to the COUNTY.

Task 2 – Meetings: Upon request by the COUNTY, CONSULTANT will participate in meetings – to review and discuss the Alternatives Assessment – with COUNTY staff and concerned stakeholders; Beach & Shore Preservation Advisory Committee; and/or Board of County Commissioners.

Indian River County
Sector 7 Beach and Dune Restoration Project - Alternatives Assessment
 Work Order Number 2018007-5

Notice to Proceed			Estimated Fees and Schedule			Coastal Tech											
Start	Finish	Days	Task Description			QA/QC	EOR	Principal Engineer	Sr. Project Manager	Coastal Eng. II	CAD Operator	Total	Direct Costs		Sub-Task	Task Total	
20-Mar-25	10-Apr-25	21	Task 1 - Alternatives Assessment														\$18,090
			Update Construction Drawings with new survey data			2	2				20	\$2,980					\$2,980
			prepare alternative 1 Construction Drawings			2	2				20	\$2,980					\$2,980
			perform volume calculations for two alternatives			2	2				20	\$2,980					\$2,980
			review monitoring surveys and reports - 2007 beach fill			1	1	5				\$1,065					\$1,065
			perform volume change calculations within Project limits (2019 and 2024)				1	1	1		8	\$1,155					\$1,155
			characterize performance of two alternative potential future beach fill			1	2	6				\$1,380					\$1,380
			quantify performance - % remaining & berm width at each FDEP ref mon			1	2	8		20		\$3,730					\$3,730
			DRAFT Technical Memo			1	2	8				\$1,630					\$1,630
			meet with the COUNTY					1				\$190					\$190
10-Apr-25	8-May-25	28	Task 2 – Meetings														\$3,000
			COUNTY staff and concerned stakeholders;			4						\$1,000					\$1,000
			Beach & Shore Preservation Advisory Committee; and/or			4						\$1,000					\$1,000
			Board of County Commissioners.			4						\$1,000					\$1,000
				Total Hours:		22	15	28	88	153					\$21,090		\$21,090
				Total Cost:		\$5,500	\$2,850	\$3,500	\$9,240	\$21,090	\$0						