PROJECT: Sanibel Island Hurricane Ian Emergency Berm/Beach Recovery Project

OWNER: City of Sanibel

CHANGE ORDER NO. 2\_\_\_\_\_

TO: Eastman Aggregate Enterprises, LLC

3705 Bellevue Ave

Lake Worth, FL 33461

You are hereby authorized to make the following additions and/or deductions to your contract amount.

	PREVIOUS	NET CH	ANGE REVIS		SED	CONTRACT	
	CONTRACT AMOUNT	INCREASE	DECREASE	(DEDUCT)	(ADD)	AMOUNT	
TOTAL:	\$10,806,085.00	<u>\$3,048,687.50</u>	\$	\$	\$	\$13,854,772.50	

Description of Change: Add X Deduct

In accordance with authorizations from DEP and USACE and the Plans and Technical Specifications for the "Historic Sanibel Lighthouse Post Hurricane Ian Emergency Protection Project" prepared by Humiston & Moore Engineers (attached), the City is adding to the Scope of Work the placement of approximately 75,000 tons of beach compatible sand above and below mean high water along approximately 2,853 feet of shoreline between DEP reference monument R-171.5 and the existing pier approximately 1000 feet north of FDEP reference monument R-174. Sand will be placed via truck haul, and the beach access and staging area will be located just north of FDEP reference monument R-173 with an additional access on the bay side of the beach. The proposed work will restore the beach profile in the vicinity of the Sanibel Lighthouse to pre-storm conditions. Work will commence on April 18, 2024 and continue thru April 30, 2024; then resume on November 1, 2024 at the conclusion of sea turtle nesting season.

Specified sand will be purchased directly by the City under the City's existing contract with Vulcan Materials; the cost of which is not included in this change order.

By

RECOMMENDED:

APPROVED:	
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OWNER City of Sanibel By Holly Milbrandt Title Project Mgr/Nat Res Dir Date 4/18/24

Title City Manager Date 4/22/2024

ACCEPTED:

CONTRACTOR Eastman BY Bernard Eastman	Aggrageta Enterprises LLC
Title Manying Member	Date 4/19/2024

# PERMIT PLANS HISTORIC SANIBEL LIGHTHOUSE POST HURRICANE IAN EMERGENCY PROTECTION PROJECT



- 2. COORDINATES SHOWN IN FEET BASED ON THE NORTH AMERICAN DATUM OF 1983, WEST ZONE (NAD83).
- 3. ELEVATIONS SHOWN IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). 4. PORTION OF FILL TEMPLATE LOCATED NORTH OF EMERGENCY BERM BASED ON 2009 SANIBEL BEACH
- NOURISHMENT USACOE PERMIT SAJ-2007-05213(IP-LBD) FDEP PERMIT 0281083-001-JC.
- 5. FILL TEMPLATE HAS A SEAWARD SLOPE OF 1V:10H EXTENDING THE MHW NO FURTHER SEAWARD THAN THE MHW LOCATION SURVEYED WITHIN 2 WEEKS PRIOR TO THE IMPACT OF HURRICANE IAN IN SEPTEMBER 2022.
- SAND MEETS 62B-41.007(2)(j), FAC.
  MIXING ZONE WILL COMPLY WITH 62-4.244 FAC.

HUMIS & MOOI	TON HISTORIC SA	NIBEL LIGHTHOUSE ECTION PROJECT -	NCY 5679 STRAND COURT	
ENGIN	EERS FOR: CITY (	DF SANIBEL	FAX: (239) 594-2025	
COASTAL	DATE: 12/18	3/23 FILE: PLAN	SCALE: SHOW	N PHONE: (239) 594–2021
ENGINEERING D	JOB: 27008	DATUM: SHO	WN FIGURE: 1 OF	4 www.humistonandmoore.com







#### **TECHNICAL SPECIFICATIONS**

#### Sanibel Island Post Hurricane Ian Emergency Berm / Beach Recovery Project Addendum 1

#### Historic Sanibel Lighthouse Post Hurricane Ian Emergency Protection Project January 22, 2024 Amended April 19, 2024

#### A. SCOPE OF WORK

**A-1 General Description:** The Work under this Addendum is to provide protection to the Historic Sanibel Lighthouse near the northeast end of Sanibel Island. This Work is presented as an addendum to the Sanibel Island Post Hurricane Ian Emergency Berm / Beach Recovery Project (Project) Technical Specification dated November 10, 2023 which by reference is part of the contract between the City of Sanibel, Florida and Eastman Aggregate Enterprises, LLC. All conditions and requirements of the current project under construction in accordance with the Technical Specifications dated November 10, 2023 will remain in effect except as described within this addendum for construction of the Historic Sanibel Lighthouse Post Hurricane Ian Emergency Protection Project (Lighthouse Protection Project).

The Work as part of this addendum consists of furnishing all labor, materials, equipment, and performing all tasks necessary for the construction of the Lighthouse Protection Project in accordance with the November 10, 2023 Technical Specifications as amended herein and the Lighthouse Protection Project Contract Drawings attached as **Appendix 1-A** as part of this addendum. The beach profile throughout the Lighthouse Protection Project varies in beach width up to approximately 115 feet seaward of the emergency berm to restore the beach conditions such that the Mean High Water will align to the location documented in September 2022 prior to the impact of Hurricane Ian. The estimated quantity of sand is approximately 75,000 tons.

**A-2 Project Details:** The following describe the project and identify what changes are added as part of this addendum:

A-2.1 Sand Source: No change.

A-2.2 Beach Access: Lighthouse Beach Parking Lot.

A-2.3 Beach Fill Placement Method: Truck Haul operation, no change.

A-2.4 Truck Staging Area: Sanibel Lighthouse Park.

**A-2.5 Beach Profile:** Refer to Lighthouse Protection Project Contract Drawings attached as **Appendix 1-A** as part of this addendum. The beach profile to be constructed will extend from the landward edge of the emergency berm shown on the reference plans and extend to the seaward limit of the profile.

**Emergency Berm/Dune:** If there has been erosion of any portion of the emergency berm constructed as part of the Project within the limits of this Lighthouse Protection Project, that portion of the profile will be restored at the time of construction.

**Seaward Compensated Slope:** The ENGINEER reserves the right to vary the width and grades of the beach fill as shown on the plans in order to establish a uniform beach for the entire length of the beach disposal at the time of construction. A minimum 5-day notice will be provided to CONTRACTOR if there are changes in the beach profile to be constructed. A compensated seaward slope will be authorized allowing for additional material to be placed seaward of the top of berm to account for profile adjustment to reach the design fill with tolerance below water.

**A-2.6 Beach Fill Location:** Extends seaward of Mean High Water (MHW) and subject to compliance with state and federal permits attached as **Appendix 1-B** as part of this addendum.

## **B. SCHEDULE**

Work will be conducted in two phases. The first Phase will be conducted in April 2024 and be completed by May 1, 2024. That work will place approximately 10,000 tons of compatible sand from Vulcan Mine. All of the first Phase of work on the beach must be completed prior to May 1, 2024. This includes all grading, tilling, dressing of the beach and removal of the beach access protection devices such as mats. Demobilization may continue until May 5, 2024 from the parking lot upland of and off of the sandy beach and dune area. The second phase will resume in November 2024 and that will place the remainder of the 75,000 tons not used in the first phase.

## C. PARK CLOSURE

The City will close off portions of the Lighthouse Beach Park to facilitate construction of the Lighthouse Protection Project. Once a section of beach is deemed accepted and finalized, that portion of the beach may be re-opened to the public providing it can be done so without impacting the remainder of the construction and not endangering park users.

## D. ENDANGERED SPECIES PROTECTION

Regulatory permits provided in Appendix 1-B provide requirements for protection of shorebirds and sea turtles. All work between February 15<sup>th</sup> and August 31<sup>st</sup> require daily clearance for Work by a qualified shorebird monitor. The City will be providing this service through contract with Sanibel Captiva Conservation Foundation (SCCF). Specific permitting requirements impacting the

#### D-1 FDEP Permit No. 0281083-002-JC

## FDEP Condition 6. Wildlife Conditions for All Beach Related Activities a. Beach Maintenance:

The Permittee shall require their contractor and protected species monitors to inspect all work areas that have excavations and temporary alterations of beach topography each day, to determine which areas have deviations (such as depressions, ruts, holes and vehicle tracks) capable of trapping flightless shorebird chicks or marine turtle hatchlings. If so, the deviations outside of the active fill placement area – (see Specific Condition 8) shall be filled or leveled from the natural beach profile prior to 9:00 p.m. each day. The beach surface shall also be inspected subsequent to completion of the project, and all tracks, mounds, ridges or impressions, etc. left by construction equipment on the beach shall be smoothed and leveled.

#### b. Equipment Storage and Placement

During April, staging areas and temporary storage for construction equipment shall be located off the beach to the maximum extent practicable. Nighttime storage of construction equipment that is not in use shall be located off the beach. If staging and storage areas off the beach are not possible, then additional marine turtle and shorebird protective measures shall be implemented. Such protective measures shall be determined in coordination with the Department and the FWC prior to beginning of construction.

**c Beach Driving.** All vehicles operated on the beach shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/). Specifically, the vehicle shall be operated at speeds less than 6 mph and run at or below the high-tide line. All personnel associated with the project shall be instructed about the potential presence of protected species, and the need to avoid injury and disturbance to these species. *Note: when flightless chicks are present within or adjacent to travel corridors, construction-related vehicles shall not be driven through the corridor unless a Bird Monitor is present pursuant to Specific Condition 16.* 

#### **DEP Condition 7. Marine Turtle Protection Conditions**

a. A daily marine turtle nest survey of the nesting beach in the vicinity of the project (including areas of beach access) shall be conducted starting April 15 and continue until October 31.

b. During April, nests deposited within the construction area shall be marked and left in place unless other factors threaten the success of the nest. Such nests will be marked and the actual location of the clutch determined.

c. A circle with a radius of ten (10) feet, centered at the clutch, shall be marked by stake and survey tape or string. No construction activities shall enter this circle and no adjacent construction shall be allowed which might directly or indirectly disturb the area within the staked circle.

d. Daily nesting surveys shall be conducted beginning ½ hour prior to sunrise, and no construction activity may commence until completion of the marine turtle survey each day and a notice has been received from the Marine Turtle Permit Holder that the morning survey has been completed and all nests marked.

## **DEP Condition 8. Fill Restrictions**

During April, the contractor shall not advance the beach fill more than 500 feet along the shoreline between dusk and the following day, until the daily nesting survey is completed, and the beach has been cleared for fill advancement.

#### DEP Condition 10. Tilling, Compaction and Escarpment Remediation Requirements. b. Tilling Requirements

i Tilling will be performed regardless of post-construction compaction levels. The area shall be tilled to a depth of 24 inches. Tilling shall be in accordance with the following protocol:

ii All tilling activity shall be completed prior to the marine turtle nesting season unless allowed by FWC and FDEP. If the project is completed during the marine turtle nesting season, tilling shall not be performed in areas where nests have been relocated to or left in place.

iii A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling. Each pass of the tilling equipment shall be overlapped to allow thorough and even tilling.

iv Tilling shall occur landward of the wrack line and shall avoid all naturally vegetated areas that are at least 3 square feet in size, as well as any planted areas that have been authorized by the Department. A 3-foot-wide No-Tilling buffer shall be maintained around vegetated areas. The slope between the mean high water line and the mean low water line shall be maintained to approximate natural slopes.

## c. Escarpment remediation

i Prior to marine turtle nesting season, escarpments that interfere with marine turtle nesting or that exceed 18 inches in height for a distance of at least 100 feet shall be leveled to the natural beach contour or the beach profile shall be reconfigured to minimize scarp formation.

Note for Shorebird Protection: If compaction sampling, tilling or escarpment removal occurs during shorebird breeding season, the Shorebird Conditions (including surveys)

included in this authorization shall be followed. No heavy equipment shall operate, and no compaction sampling or tilling shall occur within 300 feet of any shorebird nest. If flightless shorebird chicks are present within the work zone or equipment travel corridor, a Bird Monitor shall be present during the operation to ensure that no heavy equipment operates within 300 feet of the flightless young or within a site-specific corridor established per Specific Condition 16. It is the responsibility of the Permittee to ensure that their contractors avoid tilling, scarp removal or dune vegetation planting in areas where nesting birds are present.

#### DEP Condition 16. Shorebird Buffer Zones and Travel Corridors.

The Permittee shall require the Bird Monitor(s) and Contractor(s) to meet the following:

The Bird Monitor(s) shall establish a disturbance-free buffer zone around any location within the project area where the Bird Monitor has observed shorebirds engaged in breeding behavior, including territory defense. A 300-foot buffer shall be established around each nest or around the perimeter of each colonial nesting area. A 300-foot buffer shall also be placed around the perimeter of areas where shorebirds are seen digging nest scrapes or defending nest territories. All construction activities, movement of vehicles, stockpiling of equipment, and pedestrian traffic are prohibited in the buffer zone. **Smaller, site-specific buffers may be established if approved in writing by the FWC Regional Biologist.** Travel corridors shall be designated and marked outside the buffer areas for pedestrian, equipment, or vehicular traffic.

#### E. WATER QUALITY PROTECTION

#### **Project Turbidity Monitoring Requirements**

- a. CONTRACTOR shall be responsible for a third party to monitor turbidity around the beach fill placement area in water in compliance with regulatory permit conditions. CONTRACTOR shall transport ENGINEER or CITY to sampling locations to observe sampling procedure upon request. Should turbidity levels exceed state water quality standards of 29 NTU's over background, CONTRACTOR shall take whatever measures necessary and practical to control turbidity and bring turbidity levels down to within the state water quality standards.
- b. The turbidity monitoring data shall be recorded on forms required by FDEP. Monitoring reports shall also include the following information for each sample that is taken:
- (1) Time of day and date samples were taken.
- (2) Water temperature (°F).
- (3) Depth of water body.
- (4) Depth of sample.
- (5) Antecedent weather conditions.
- (6) Tidal stage and direction of flow.
- (7) Wind direction and velocity.
- (8) GPS location of sample.

- (9) Test results and calibration records.
- (10) A map, overlaid on an aerial photograph, indicating the sampling locations, discharge locations, and direction of flow. A sample map shall be reviewed and approved by the Department prior to construction.
- (11) A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter, accuracy of the data and precision of the GPS measurements.
- c. All data in original form shall be forwarded by the CONTRACTOR to the ENGINEER by 2:00 pm the following day with the CONTRACTOR's daily Quality Control Report. The CONTRACTOR shall submit weekly summaries of all monitoring reports to:

JCP Compliance Officer Florida DEP Division of Water Resources Management 2600 Blair Stone Road Tallahassee, FL 32399 Phone: 850-245-7591 Jcpcompliance@dep.state.fl.us Copies to be provided to CITY and ENGINEER.

- d. Physical Turbidity Monitoring Protocol to be applied when visual monitoring is not accepted by FDEP:
  - i. <u>Units</u>: Nephelometric Turbidity Units (NTUs)
  - ii. <u>Frequency</u>: 2 times daily, at least 6 hours apart, and at any other time that there is a likelihood of an exceedance of the turbidity standard, during all sand placement operations, while the highest project-related turbidity levels cross the edge of the mixing zone.

The compliance samples and the corresponding background samples shall be collected at approximately the same time, i.e., one shall immediately follow the other.

- iii. Location: Background: Sampling shall occur at surface (approximately one foot below the surface); at mid-depth (for sites with depths greater than 6 feet); and 2 meters above the bottom (for sites with depths greater than 25 feet), clearly outside the influence of any artificially generated turbidity plume or the influence of an outgoing inlet plume.
- iv. <u>Beach Site</u>: Samples shall be collected at least 500 meters up- current from the point where the beach sand is being graded into the Gulf of Mexico, and from any portion of the beach that has already been filled during the current construction event, at the same distance offshore as the associated compliance sample.

Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone polygon, which measures 150 meters offshore

and 1000 meters alongshore from the point where the sand is being graded into the Gulf of Mexico. *Note: If the plume flows parallel to the shoreline, the densest portion of the plume may be close to shore, in shallow water. In that case, it may be necessary to access the sampling location from the shore, in water that is too shallow for a boat.* 

- v. <u>Intermediate Monitoring</u> (required when using a mixing zone that exceeds 150 meters in size): Samples shall be collected at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above bottom. at points approximately 250 meters, 500 meters and 750 meters downcurrent from the discharge location (if those points are located inside the mixing zone), within the densest portion of any visible turbidity plume. These measurements will be used to calibrate the size of the mixing zone for future events.
- vi. <u>Calibration and Verification</u>: The instruments used to measure turbidity shall be fully calibrated with primary standards within one month of the commencement of the project, and at least once a month throughout the project. Calibration shall be verified each morning prior to use, after each time the instrument is turned on, and after field sampling using two secondary turbidity "standards" that bracket the anticipated turbidity samples. If the post-sampling calibration verification value deviates more than 8% from the previous calibration value, results shall be reported as estimated and a description of the problem shall be included in the field notes.

Analysis of turbidity samples shall be performed in compliance with DEP-SOP-001/01 FT 1600 Field Measurement of Turbidity: http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/ft1600.pdf

If monitoring reveals turbidity levels at the **compliance** sites that are greater than 29 NTUs above the corresponding background turbidity levels, construction activities shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the Department via email at JCPCompliance@dep.state.fl.us and include in the subject line, "TURBIDITY EXCEEDANCE", and the Project Name and Permit Number. Also notify the Department's South District office via email at <u>SouthDistrict@dep.state.fl.us</u>.

vii. <u>Turbidity Reports</u>. The following turbidity monitoring will be required only when visual monitoring is not allowed by the FDEP. All turbidity monitoring data shall be submitted within one week of analysis. The data shall be presented in tabular format, indicating the measured turbidity levels at the compliance sites for each depth, the corresponding background levels at each depth and the number of NTUs over background at each depth. Any exceedances of the turbidity standard (29 NTUs above background levels shall be highlighted in the table. In addition to the raw and processed data, the reports shall also contain the following information:

- a. Time of day samples were taken;
- b. Dates of sampling and analysis;
- c. GPS location of sample
- d. Depth of water body;
- e. Depth of each sample;
- f. Antecedent weather conditions, including wind direction and velocity;
- g. Tidal stage and direction of flow;
- h. Water temperature;
- i. A map indicating the sampling locations, dredging and discharge locations, areas already filled during the current nourishment event and direction of flow;
- j. A statement describing the methods used in collection, handling, storage and analysis of the samples;
- k. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter and accuracy of the data;
- 1. When samples cannot be collected, include an explanation in the report. If unable to collect samples due to severe weather conditions, include a copy of a current report from a reliable, independent source, such as an online weather service.

Monitoring reports shall be submitted by email to the JCP Compliance Officer. In the subject line of the reports, include the Project Name, Permit Number and the dates of the monitoring interval. Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the Department, on the cover page to the submittal and at the top of each page, please state: "This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0281083-002-JC, for the Sanibel Lighthouse – JCP Emergency Final Order

The monitoring requirements for the type of activity and location of the sampling site must be reflected on the monitoring report forms.

#### F. PAY QUANTITY

**<u>F-1 Truck Tickets</u>**: Pay quantity will be reviewed by ENGINEER and will be based on truck tickets which are reconciled by CONTRACTOR with the mine providing the sand source. No Change.

**<u>F-2 Surveys</u>**: CONTRACTOR to provide surveys with pay request at stations spaced no more than 100 feet apart as specified by ENGINEER indicating a minimum of 95% of the template being filled within the plus of minus 3-inch tolerance. Pay surveys to be signed by registered professional surveyor and mapper in the state of Florida and to include x,y,z data at station and available data in between.



#### 3705 BELLEVUE AVE, LAKE WORTH, FL 33461 PHONE: 561-969-7147 FAX: 561-434-3477

#### 2/25/2024, revised 4/19/24 5:07pm

City of Sanibel Attn: Holly Milbrandt **PROJECT NAME:** Historic Sanibel Lighthouse Post Hurricane Ian Emergency Protection Project - Beach

## **PROPOSAL**

	Description	<u>EST QTY</u>	<u>UNITS</u>	UNIT S	5	TOTAL
1a	Construction Beach Access & Restoration - Phase 2, November 2024	1	Job	\$ 197,500.00	\$	197,500.00
1b	Construction Beach Access & Restoration - Phase 1, April 2024	1	Job	\$ 98,750.00	\$	98,750.00
2	Management of Traffic (MOT)	1	Job	\$ 2,500.00	\$	2,500.00
3	Sand Fill in-place per design from Vulcan Mine (Does not include cost of sand)	75,000	Tons	\$ 35.07	\$	2,630,250.00
5	Surveying	1	Job	\$ 107,500.00	\$	107,500.00
6	Turbidity Monitoring not included. (may add later if required)	-	Job	\$-	\$	
7	Tilling 24 inches	1	LS	\$ 12,187.50	\$	12,187.50
				Total	\$	3,048,687.50

#### Note: This proposal only applies if substantial completion date is after Feb 1, 2025.

Note: Based on information provided in Draft Technical Specifications dated 1/22/2024, and plans dated 12/18/2023.

Note: Based on closing Lighhouse Park for construction and using northeast road for truck staging.

#### **ALTERNATES & EXCLUSIONS**

- a Pricing valid for 90 Days.
- b Payment schedule to be Net 30 Days.
- c All permits and tests to be provided by owner if required.
- f Proposal quantities are estimated. Billing will be based on actual quantities.

- h Price based on information obtained by:
- i Eastman Aggregate Enterprises, LLC is not responsible for any unforseen circumstances or availability of materials or equipment.
- $j \quad \mbox{ Price quoted above is contingent upon the availability of material and/or equipment.}$