



South Siesta Key Beach Repair The Strength of Effective Communication

Ahtna
Marine & Construction Co.



*FSBPA Technical Conference
February 8, 2024*

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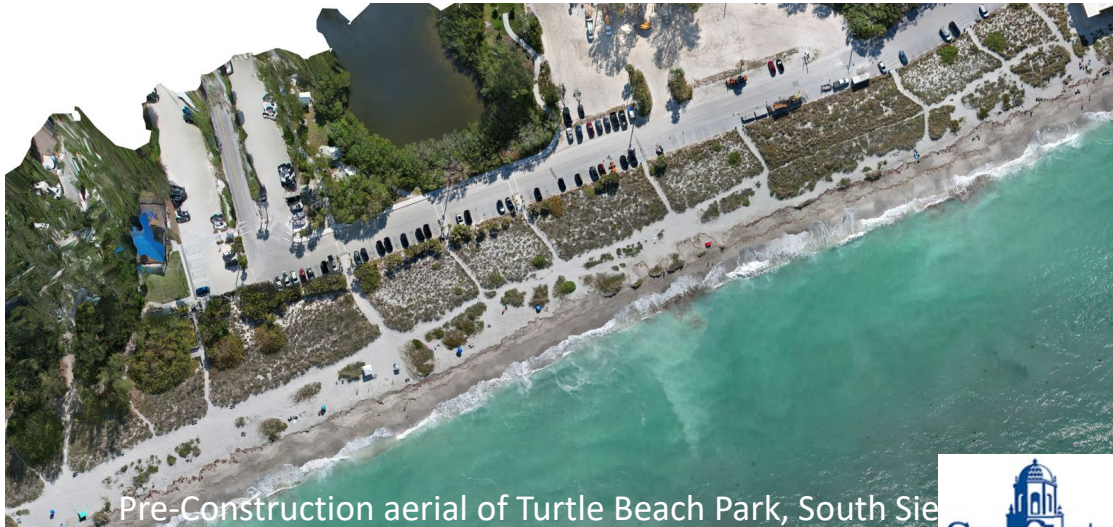
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- I. The Equation
- II. The Problem Statement
- III. Solutions
- IV. Lessons Learned
- V. Final Product



$$1 + 1 = 1$$

Team Vision Goal



Pre-Construction aerial of Turtle Beach Park, South Side

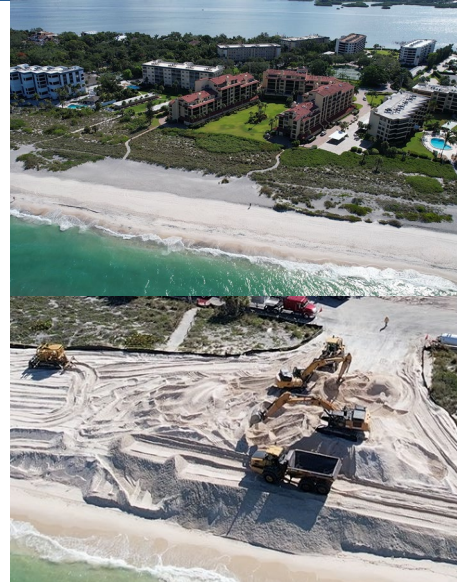
Authorization for the South Siesta Key Beach Repair stemmed from a FEMA & FDEM grant for impacts sustained during H. Hermine (2016).

The project entailed the **last** disaster relief beach repair authorized under the 2016 federal declaration.

Construction started on April 21, 2023 and the federal grant expired on June 30, 2023.

The project volume equaled 92,500 CY from an upland source.

The constraints required 5,348 truck trips within a 60-day window between Davenport FL, and South Siesta Key.

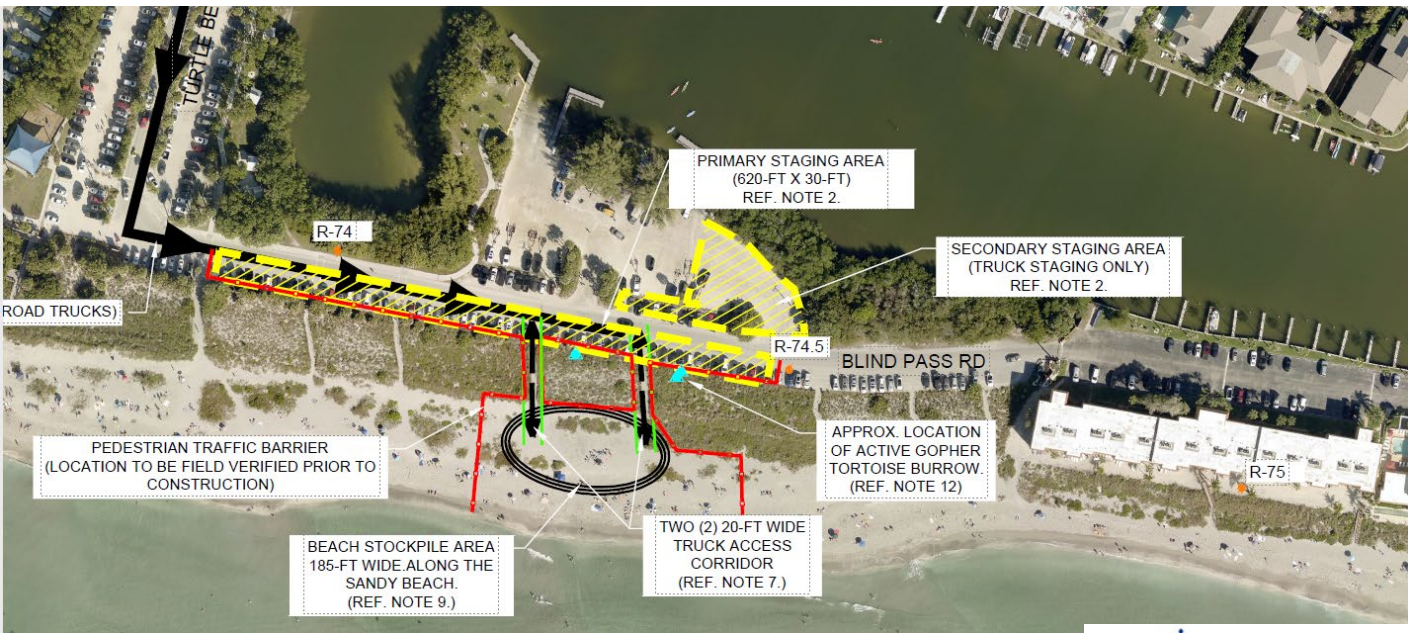


Work at Turtle Beach Park (Contractor's staging and access area) only allowed 12-hours a day, 6 days a week and no holidays.

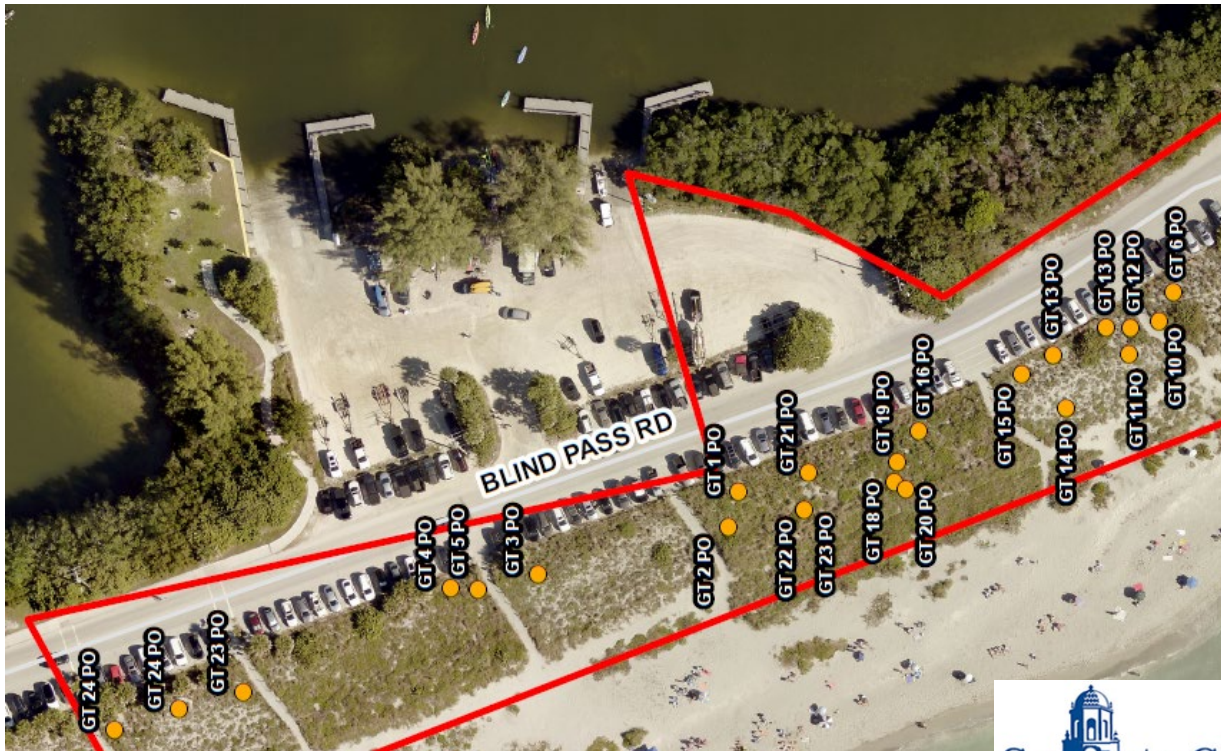
- **5,348 Truck trips over 50 working days = Avg. 107 Trips/Day**
 - **9 deliveries per hour (1 delivery every 7 minutes)**



The access area impeded the only paved roadway to a residential neighborhood.



Vehicle Access to the Beach restricted by environmental habitats and existing beach conditions.



State & Federal permit conditions conflicted with on another.

2015 SPBO:

If tilling is needed, the area shall be tilled to a **depth of 36 inches**. Each pass of the tilling equipment shall be overlapped to allow more thorough and even tilling. All tilling activity shall be completed at least once prior to the nesting season. An electronic copy of the results of the compaction monitoring shall be submitted electronically to seaturtle@fws.gov prior to any tilling actions being taken or if a request not to till is made based on compaction results.

DEP Permit 0240984-004-JN

24. **Tilling Requirements.** If tilling is required as specified above, the area shall be tilled to a **depth of 24 inches**. All tilling activity shall be completed prior to the marine turtle nesting season.

Grant Funding Relied on Full Compliance with ESA Requirements

Turtle Beach Park traffic rerouted through a boat ramp parking lot to minimize traffic delays.



Gopher tortoise nest locations allowed for a 40-ft wide access for truck deliveries. This allowed truck deliveries to unload in triplicate.



Tilling Depth: Contractor was able to adjust the tilling depth by use of their own equipment. Multiple passes were needed to obtain the 36-inch depth. However, AMCC reached a 36-inch depth for most of the project area.

Coordination with DEP, FWS, USACE, and FWC verified a tilling depth of 24-inches was acceptable for South Siesta Key for all sections where 36-inches could not be achieved.



Due to the daily volume needed to meet the project schedule, minor equipment failures could create a substantial obstacle to overcome.

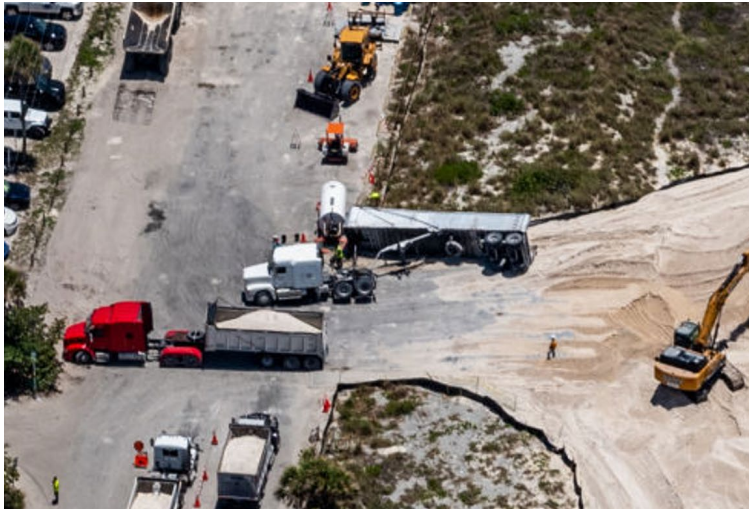


Daily communications became imperative between the full project team, including the upland mines, and trucking companies.



Due to the haul distance and project location, diverting truck traffic was imperative as soon as a production problem was identified.

Sometimes it helps to just have a little luck!



Aerial provided by Humiston & Moore



Mark Smith, Sarasota County Commissioner District 2, Siesta Sand (May 31, 2023)

“I’d like to give a shoutout to the staff and to the company with the Turtle Beach renourishment – I have numerous spies in the area that are watching everything, and they report back to me that it’s going smooth and they are very pleased with the progress.

“Good work to all those involved.”





Thank You!

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Special thanks to Mote Marine Laboratory & Sarasota Audubon Society for conducting the daily marine turtle and shorebird nesting surveys.