

## MEMORANDUM

Date: May 29, 2013

**TO:** Dave Bullock, Town Manager  
**FROM:** Juan J. Florensa, Public Works Director  
**SUBJECT:** Beach Nourishment Project – Bid 12-009

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The Town received and opened bids on May 16, 2013 for the purpose of selecting a dredge contractor to place sand along two separate sections of the Town's shoreline. The locations are as follows:

- From 6701 to 6401 Gulf of Mexico Drive (Whitney Beach Condominium to just north of Gulfside Road)
- From 2295 to 1701 Gulf of Mexico Drive (South of Islander Condominiums to north of Aquarius Condominiums)

The sole bid received was from Great Lakes Dredge and Dock (GLDD) for \$13,299,525. Our engineer's (Coastal Planning & Engineering, Inc., CPE) estimate for a probable cost for construction was \$9,578,250, a difference of \$3,721,275.

CPE has performed a review of the GLDD bid and has provided an analysis summary of the reasons they believe other capable dredging contractors declined to bid and potential reasons for GLDD high bid. This report is attached.

CPE has also provided the Town with four options moving forward. They are:

1. Award the bid to GLDD for \$13,299,525
2. Reject the bid and place truck hauled sand from an upland source
3. Rebid the project with the additional borrow areas (IX & X)
4. Reject the bid and rebid sometime in 2014

The particular benefits and drawbacks on each option are fully explained in the attached CPE report. CPE recommends that the Town pursue either option 1 or option 2.

**The Public Works Department recommends pursuing Option 4 – Reject GLDD bid and pursue a project in 2014 or later.**

The basis for our recommendation is as follows:

- Bid exceeds the budgeted amount of \$9,500,000 by 40%; partial funding from the North End Structures budget would be needed to complete this project.

- There seems to be some recovery of our beaches and shoreline. Some areas of accretion within the project area have been observed over the last six months, especially the lower dry beach profile.
- The future of the Port Dolphin project looks uncertain. Port Dolphin may never get the permits or actually pursue the installation of the Liquid Natural Gas (LNG) pipeline along the F-2 and B-3 corridor.
- Market conditions in the dredging industry may improve in 2014 and beyond that might be more favorable to the Town beach, with more competition possible.
- Maximum recovery of recently approved FEMA funding (\$8.6 million) would be realized if other sections of the beach (those impacted by Debby but outside the current project areas) are included in future projects. These two sections represent approximately only 10% of the FEMA eligible funding for Debby.
- A US Army Corps permit for the entire beach might be issued soon allowing for more flexibility on beach nourishment locations.

On Friday, May 24, and Tuesday, May 28, Public Works staff inspected the two project areas subject to this bid. Other than at 6633 Gulf of Mexico Drive (Yonkers) and one other property near Gulfside Road where there is no dry beach, it appears at this time there is no immediate danger as these properties are protected by concrete seawalls.

At the south end, the most impacted shoreline within the project limits is Villa Ameer located immediately south of the Islander Club Condominium. This property also has a concrete seawall that has some dry beach seaward of the wall. Further south, Villa di Lancia, En Provence, and Sea Place have generally narrower beaches. However, the amount of remaining sand dune and vegetated beach is wide enough that it provides, in our opinion, protection to dwellings and infrastructure.

The attached aerial photographs were taken Monday, May 27, 2013 and show the current conditions of the beach and shoreline along the project areas subject to this bid.

**Attachments:**

1. Coastal Planning & Engineering, Inc. 5-24-13 Report
2. Current Conditions Pictures

MEMORANDUM

To: Juan Florensa  
Public Works Director  
Town of Longboat Key

Commission No.: 142435

From: Douglas W. Mann, P.E., D.CE. 

Date: May 24, 2013

cc: Thomas J. Campbell, P.E., D.CE.  
Beau C. Suthard, P.G.  
Samantha Danchuk, Ph.D., P.E.

Re: Review of Bids for Town of Longboat Key Bid Number 12-009

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This memo summarizes CPE's review of submissions for Town of Longboat Key Bid Number 12-009 for an interim beach nourishment project. The following comments are provided:

1. Statement of "No Bid" from Manson Construction

- a. Manson Construction submitted a "No Bid" letter which identifies a continuing concern over regulatory enforcement of over-dredging, even though there has been no enforcement action for over-dredging on a beach nourishment project in Florida. To date, CPE is unaware of any fines being levied by any regulatory agency for over-dredging in the State of Florida. When there have been over-dredging issues resulting in non-beach compatible sediment being placed on the beach, the result has been owner or regulatory directives to screen the beach for debris removal, not fines. The question of potential fines was asked during the bid process and appropriately responded to. The perception of regulatory fines being applied is beyond the control of the Town.
- b. Manson Construction's current availability appears to be limited in the short term, with their dredges Bayport and Newport in the Mississippi River thru July, 2013 and the Glenn Edwards in Mobile through July, 2013. While not stated by Manson Construction, CPE also believes that current dredge market conditions, both with the dredgers current workload and a large number of federal and non-federal projects coming to bid this summer, may have negatively impacted their desire to bid on the Town's project.

2. Lack of bids from other qualified marine dredging firms

- a. In addition to the Town's bid, the United States Army Corps of Engineers (USACE) has announced plans to solicit multiple construction bids for beach nourishment projects this summer, including numerous bids for New York and New Jersey (to repair Hurricane Sandy damages), as well as four projects on the west coast of Florida and more than four projects on the east coast of Florida (to repair Hurricane Sandy and Tropical Storm Debby damages). The USACE has publicly stated a desired bidding schedule for all of these projects within the remaining months of 2013. In addition, Collier County is currently soliciting construction bids for a 2013 renourishment project. CPE believes that current dredge market conditions, both with the dredger's current workload and the large number of federal and non-federal projects coming to bid this summer, may have negatively impacted the dredge industry's desire and/or ability to bid on the Town's project.
- b. While Weeks Marine verbally expressed a desire to bid on the project, along with a concern with the difference (both in fill densities and locations) of the two beach fill areas, Weeks Marine does not appear to currently have the capacity to construct the Town's project within the desired timeframe. Both of Weeks Marine's hopper dredges are under contract for a job scheduled to last the next 6 months and their cutterhead and scow equipment is contracted through May 2014.

3. Sole project bid from Great Lakes Dredge and Dock (GLDD)
  - a. The GLDD bid package is complete and responsive.
  - b. The GLDD bid exceeds the Town's budget for the project by 40%.
  - c. GLDD, the largest private dredging contractor in the U.S., has a history of bidding every feasible project. Their bid indicates the project is feasible.
  - d. CPE's review of GLDD's current capacity suggests that GLDD does not have excess capacity to construct this type of project. Under this type of circumstance, GLDD may have provided a high bid considering that if their bid was accepted that the higher profit margin would make constructing the project worthwhile. GLDD is also aware that the capacity of the US dredge fleet is strained and that other firms may not bid on the work. CPE interprets GLDD's bid in that view.
  - e. CPE concludes that the GLDD mobilization cost is very high for the mobilization of one hopper dredge and two submerged lines, a small amount of shore pipe, and "attendant beach and offshore equipment".
  - f. CPE concludes that the GLDD unit price is much higher than the following recent projects of similar distances:
    - i. Sand Key, Pinellas County (2012). Norfolk Dredging Company constructed this project for a unit cost of \$18.23 per cubic yard. The project included greater haul distances between the borrow and fill areas, and multiple handling of the material, using a cutterhead dredge, spider-barge loader, multiple transport scows (with tugs), and a scow offloader.
    - ii. Panama City Beach, Bay County (2011). GLDD constructed this project with an effective unit price of ~\$10.43 per cubic yard. While the borrow area may have been viewed as more "dredger friendly", the haul distance was greater than the Town's project, with distances of up to 20 miles.

4. Summary of Bid Discussion

The sole bidding contractor (GLDD) submitted all required documentation correctly and fully. In addition, the contractor is well qualified and has a lengthy history of successfully constructing similar projects throughout the United States over many years. Based on these facts alone, the bid presented by GLDD is a qualified and responsive bid. The sole area of concern with the bid is that the cost is 40% higher than the Town's budget estimate for the project.

5. Options available to the Town of Longboat Key

Based on the received bid and current dredge market conditions, there are four main options available to the Town for the Town's consideration. Each of these options, including their benefits and drawbacks, is described below.

- a. Option 1: Accept the GLDD bid and construct the Town's Interim Nourishment Project as scheduled this summer.
  - i. This option has the following positive features:
    1. The Town will be able to construct the project as publicly stated, placing sand in the two areas needed, during the summer of 2013.
    2. The Town will be able to utilize/protect limited regional sand resources within Borrow Areas F2 and B3 from loss due to the eventual construction of the Port Dolphin pipeline project.

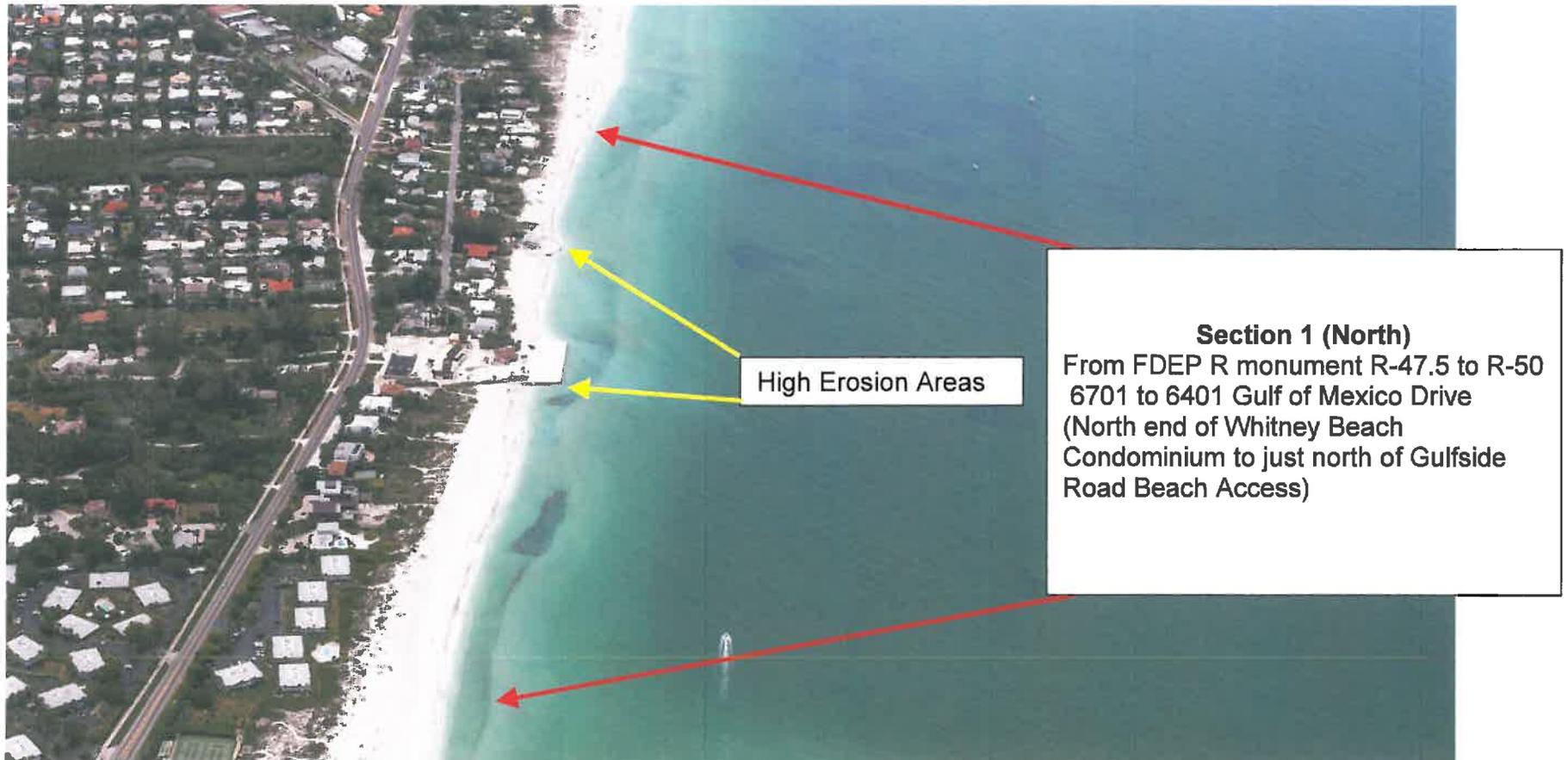
3. Based on GLDD's bid information, GLDD has every intention of constructing the project quickly and well within the Town's desired timeframe.
  4. The Town will maintain their eligibility for up to \$5,000,000 reimbursement from Port Dolphin when/if they construct their pipeline.
- ii. This option has the following negative features:
    1. The GLDD bid exceeds the Town's budget for the project by 40%.
    2. Using existing approved funding would allow the Town to construct the project as bid by GLDD, but would limit the Town's ability to construct some of the proposed erosion control structures on the north end of Longboat Key.
- b. Option 2: Reject the bid and place truck-hauled sand in the areas that the Town has publicly stated would be constructed in 2013. As part of this option, lesser amounts of sand can be considered to reduce the truck-haul need.
- i. This option has the following positive feature:
    1. The Town will be able to construct the project as publicly stated, placing sand in the two areas needed, during the summer of 2013.
  - ii. This option has the following negative features:
    1. Due to the high cost of truck-hauled coarse sand, there is a potential for little to no cost savings over the GLDD bid. A cost comparison analysis should be conducted to fully evaluate this option.
    2. By not using the sand available in Borrow Areas F2 and B3, there is the potential for the loss of regionally-limited offshore beach-compatible sand resources due to the to Port Dolphin project. This would also result in the loss of potential reimbursement of up to \$5,000,000 by Port Dolphin, LLC.
    3. Truck-hauling of up to 295,000 cubic yards over the Town's streets and infrastructure would be inconvenient to Town residents and impactful to Town infrastructure. Negative feedback from adjacent island communities may also be received.
- c. Option 3: Reject the bid, and immediately go out to bid for an interim project with all of the permitted borrow areas open for use:
- i. This option has the following positive features:
    1. The Town will be able to construct the project as publicly stated, placing sand in the two areas needed, during the summer/fall of 2013.
    2. A contractor with a shallow water hopper dredge may bid this project with a lower price, as they can access nearshore Borrow Areas IX and X.
  - ii. This option has the following negative features:
    1. A contractor with a shallow water hopper dredge will likely have project performance issues and will have to continue construction of the project into the Town's residential season (beginning in November).
    2. All other dredge contractors will have to re-handle the material due to the shallow water depths in the vicinity of the nearshore borrow areas. This, together with the fact that dredge market conditions remain unchanged, will likely lead to few bidders and high bids similar to the current bid we have from GLDD. This would likely result in no cost savings over the current GLDD bid.

3. Regulatory approval would be needed to use the nearshore borrow areas as a fill source for Section 2. The fine grain size of the nearshore borrow areas could potentially result in impacts to nearshore hardbottom, necessitating coordination with the permitting agencies. A substantive delay in implementation should be expected in obtaining regulatory approval.
  4. By not using the sand available in Borrow Areas F2 and B3, there is the potential for the loss of regionally-limited offshore beach-compatible sand resources due to the to Port Dolphin project. This would also result in the loss of potential reimbursement of up to \$5,000,000 by Port Dolphin, LLC.
- d. Option 4: Reject the bid, and rebid a larger project at a later date when the Town has received the USACE permit modification for island-wide placement and at such a time that the dredge industry market conditions may have improved.
- i. This option has the following positive feature:
    1. The Town builds a larger project that addresses areas of erosion over and above the two areas targeted for the Interim Nourishment Project.
    2. Market conditions may improve within the next 12 – 24 months, resulting in the potential for a new, lower mobilization and per unit cost bid than the current GLDD bid.
  - ii. This option has the following negative features:
    1. Erosion along the Town's beachfront shoreline will continue.
    2. The Town does not add sand in 2013 to the two eroded areas where they have publicly stated that they were going to place sand.
    3. Market conditions may not improve within the next 12 – 24 months, resulting in either a lengthy delay to construction, or the potential for a similar bid without any cost savings.
    4. By not using the sand available in Borrow Areas F2 and B3, there is the potential for the loss of regionally-limited offshore beach-compatible sand resources due to the to Port Dolphin project. This would also result in the loss of potential reimbursement of up to \$5,000,000 by Port Dolphin, LLC.

Based on the above discussion, CPE recommends that the Town pursue either Option 1 or Option 2, as these options best meet the stated goals of the Town, and the Town's comprehensive beach management plan.

**Current Condition of North Section of Beach for Bid # 12-009**

**Aerial Photos taken May 27, 2013**



**Current Condition of North Section  
of Beach for Bid # 12-009**

**Ground Photos taken May 28, 2013**  
Looking south from 6633 Block GMD



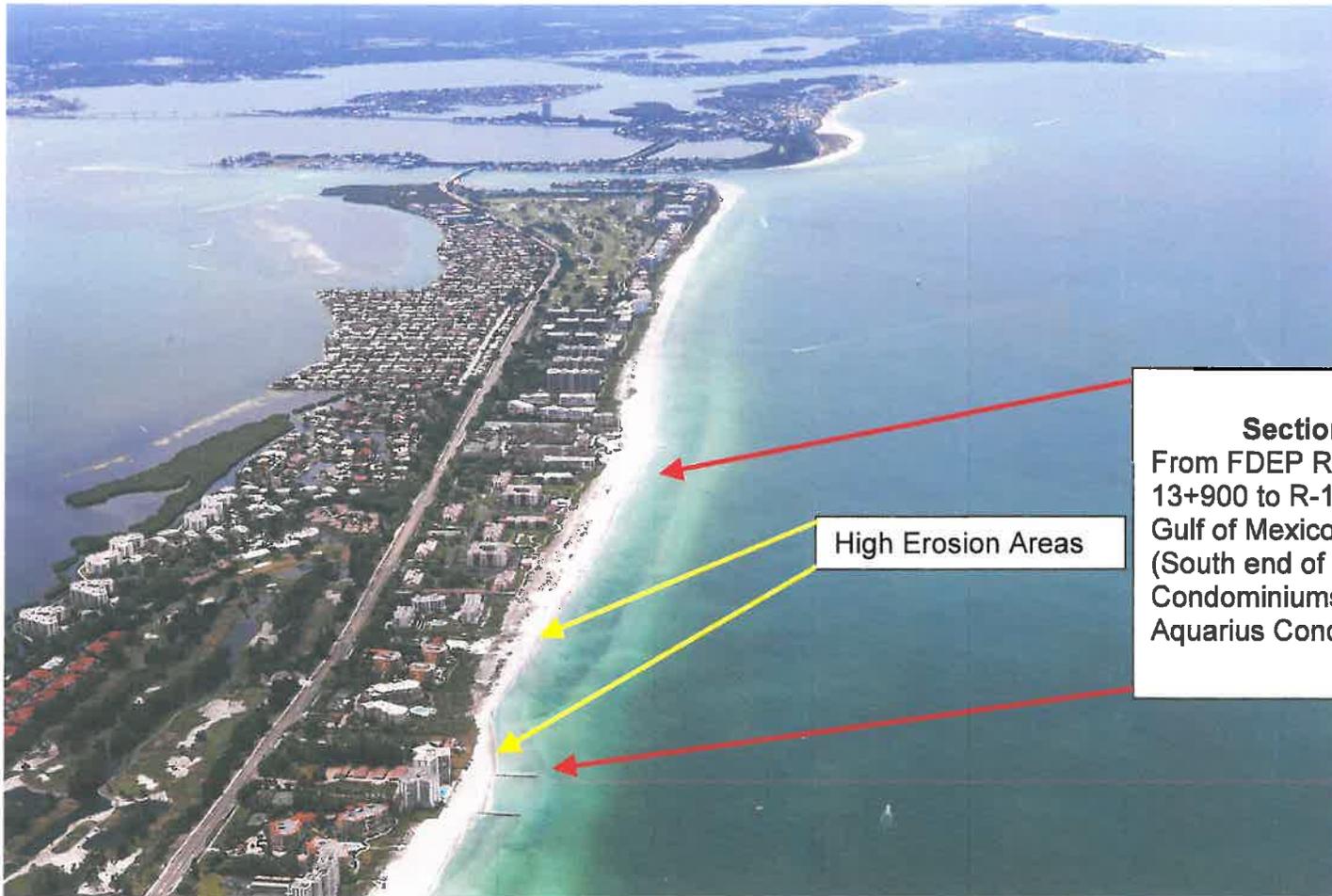
**Current Condition of North Section  
of Beach for Bid # 12-009**

**Ground Photos taken May 28, 2013**  
Looking north from 6633 Block GMD



**Current Condition of South Section of Beach for Bid # 12-009**

**Aerial Photos taken May 27, 2013**



**Section 2 (South)**  
From FDEP R monument R-13+900 to R-17, 2295 to 1701  
Gulf of Mexico Drive  
(South end of Islander Condominiums to north of Aquarius Condominiums)

High Erosion Areas

**Current Condition of South Section  
of Beach for Bid # 12-009**

**Ground Photos taken May 28, 2013**  
Looking south from Islander Club



**Current Condition of South Section  
of Beach for Bid # 12-009**

**Ground Photos taken May 28, 2013**  
Looking north to Islander Club

**Current Condition of South Section  
of Beach for Bid # 12-009**

**Ground Photos taken May 28, 2013**  
Looking south from 2100 Block GMD



**Current Condition of South Section  
of Beach for Bid # 12-009**

**Ground Photos taken May 28, 2013**  
Looking north from 2100 Block GMD



**Current Condition of South Section  
of Beach for Bid # 12-009**

**Photos taken from Islander Club  
Roof looking south**



**End of Agenda Item**