



CB&I Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
Tel: +1 561 391 8102
Fax: +1 561 391 9116
www.CBI.com

September 4, 2015

Chiu Cheng
Florida Department of Environmental Protection
Beaches, Inlets and Ports
2600 Blairstone Road
Tallahassee, FL 32399-3000

Re: Response to Request for Additional Information No. 1 (RAI No. 1)
Applicants: City of Sarasota and U.S. Army Corps of Engineers,
Project Name: Big Sarasota Pass Dredging, Lido Key Beach Nourishment and Structures
JCP File Number: 0333315-001-JC, Sarasota County

Dear Mr. Cheng:

This letter is in response to the Department's Request for Additional Information (RAI) No. 1 dated April 15, 2015. Please find an electronic copy of the complete RAI response and supporting attachments uploaded to the Department's FTP site. The signed and sealed legal descriptions and sketches are enclosed. Please note that our responses and supporting attachments have been numbered to correspond with the numbers of the FDEP comments.

FDEP Comment No. 5. - Describe in general terms the proposed activity including any phasing.

- *Please describe the order of dredging, including preferential placement of borrow area material on certain portions of the fill template on Lido Key. What volume of material will be removed from each borrow area during the first and subsequent events.*
- *Will these borrow areas (B, C and D) all be used again in future events? If not, which ones will be used in subsequent event(s)?*

Response to FDEP Comment No. 5 Part (i) – The applicants propose to dredge Borrow Areas B and C during the initial nourishment event. Subsequent nourishments will occur on a 5 year interval in order to replace the advanced nourishment volume. With the design in place, the required volume will be less for subsequent nourishments. Borrow areas B and C are anticipated to recharge at a rate such that they can be re-used for subsequent events. If the rate of re-filling does not align with the nourishment cycle, Borrow Area D will be utilized. The New Pass borrow area that is permitted under FDEP Permit No. 0039755-003-JC may be used to supplement future events depending on the timing and availability of sand from this source. For the first event, the volume of material available in borrow areas B and C is approximately 299,000 and 970,000 cubic yards, respectively. The future use of the borrow areas is dependent



on the re-filling rates which will be determined by the annual physical monitoring data and analysis.

- *The project description provided in Item #5 is significantly different from the project description provided in Item 27. The description in Item #5 proposed dredging borrow areas B and C to a maximum depth of -13.5 feet North American Vertical Datum (NAVD) and contour dredging to a depth of -15.5 feet NAVD in borrow area D. The description in Item 27 describes two possible dredging options: option 1 proposes to dredge borrow areas B, C and the overlap of D2 and D3 to a maximum depth of -13.5 ft NAVD. Option 2 proposes to dredge borrow area B to -13.5 ft NAVD and the overlap of D2 and D3 to -15.5 ft NAVD. Please clearly identify which borrow areas will be dredged in this event, and the maximum dredge depth to which the borrow areas will be dredged in order to determine compatibility. Additionally, identify the location of "the overlap of D2 and D3" as these borrow areas are referenced in Item 27, but are not discussed in the project description (#5) or in the permit drawings (#23/24). All proposed activities and templates need to be clearly shown in the permit drawings for approval and authorization under this permit.*

Response to FDEP Comment No. 5 Part (ii) – The project description in Attachment No. 5 and the geotechnical information in Attachment No. 27 has been revised to align with the proposed project. Borrow areas B and C are proposed for the initial dredging. All of the Big Sarasota Pass borrow areas (B, C and D) have a maximum excavation depth of -13.5-ft NAVD plus a 2-ft disturbance depth as shown on the revised permit sketches in Attachment No. 24. Borrow areas C and D intentionally overlap at the seaward end of borrow area C as shown in the Attachment No. 24. The overlap section may be dredged when accessing borrow areas C or D, which is necessary since these borrow areas may not be dredged during the same event.

- *Provide construction and design templates that minimize impacts to marine turtles. The proposed 10:1 fill template will likely result in scarping. We suggest a more natural profile that reduces the potential for scarping as the profile adjusts and reflects more natural beach topography, with a slight slope from the foreshore break to the toe of the dune as well as a dune feature at the back of the berm. Have alternative designs such as permeable adjustable groins been considered for the proposed groin field at the south end of Lido Key?*

Response to FDEP Comment No. 5 Part (iii) – The construction template has been revised to minimize potential impacts to marine turtles based on further discussion with the applicants, FDEP, FWC and FWS during a conference call held on June 4, 2015. The revised template is described as a 'sloped push berm' and is shown on the attached revised sketches (Attachment No. 24). This template features a constant elevation section at the back of the beach at +4.0 ft, NAVD, and a 200-ft sloped berm section from +4.0-ft to +2.0-ft NAVD at a 1V:100H slope. The elevation of the berm crest, +2.0-ft NAVD, was chosen by comparing projects and berm elevations on the west coast of Florida. The template has a 1V:10H foreshore slope, which is



similar to the existing slope at the waterline. The sloped push berm type template has been used in other locations such as Brevard County and has been successful in minimizing scarping. The federal project authorization does not include a dune feature.

The pier-type permeable adjustable groins (PAG's) similar to the structures located on Longboat Key were not specifically considered for the proposed groin field at the south end of Lido Key. However, the proposed rubblemound groin field is semi-permeable and can be adjusted by moving armor stone if deemed necessary. It should be noted that implementation of the technology associated with PAG's was not common at the time of the federal authorization for this project. Regardless, the proposed groin field at the south end of Lido Key is fully supported for the project by engineering and value analyses. It has undergone multiple levels of design, cost analyses and refinement through the Feasibility Report (October 2002 Report with April 2004 Addendum), Value Engineering Report (October 2013), and Analysis of Lido Key Groin Field report (2014). The groins have been optimized from the initial feasibility level design to final design. The lengths were shortened and made more porous by removing the chinking stone. The optimized lengths and porosity are intended to maintain the minimum beach design width (80-ft extension of May 2000 MHW) through the nourishment interval and allow sand to bypass downdrift, which is supported by the modeling described in the 2014 report provided with the original application. Also, in the original design, a third terminal structure was proposed. Through the final design analysis, it was determined that the third structure is not currently necessary due to the optimized function of the groin field, which is intended to allow sand to reach the southern end of the island. Further detailed information on the final groin design was provided in the original application submittal under Attachment No. 38-2 USACE Analysis of Lido Key Groin Field Report.

- ***The description states that the project includes an 80-foot wide design beach. Is the intention of the 5-year advance nourishment to build a 200-foot wide design beach (as shown in the permit drawings), which is expected to erode back to 80-feet after 5 years? If this is not the case, the stated width needs to be revised for consistency.***

Response to FDEP Comment No. 5 Part (iv) – The permit drawings show the construction template, which combines the design beach and advance nourishment components. The advance nourishment is expected to erode back to the 80-ft design beach after 5 years. The advanced nourishment width is variable based on erosion rates at different locations along the island.

- ***If the terminal groin is not going to be included in the permit at this time, it should be removed from the project description document and all other applicable attachments (i.e. construction schedule, etc.). See Item #33a for additional information.***

Response to FDEP Comment No. 5 Part (v) – The terminal groin has been removed from this permit application. The project description and all other applicable attachments have been revised and attached. The design documents in Attachment No. 38 still include discussion of the third groin to document the design optimization process.



This information is required pursuant to Rule 62B-41.008(1)(f, l and q), F.A.C.

FDEP Comment No. 6. - Are you requesting any exemptions? If yes, provide an explanation and cite rule number(s).

Does the turbidity monitoring data from the recent 2014/2015 Lido Key Beach Nourishment (Permit No. 0270032-001-JC) support the inclusion of provisions to increase the mixing zone size following a stated number of exceedances in turbidity at the edge of the established mixing zone for a given construction event/specified time period? The mixing zone was reduced from 1,500 meters alongshore and 300 meters offshore, down to 150 meters radius in Permit Modification 0270032-004-JN because turbidity data from the 2009 construction event showed that 150 meters radius was the appropriate mixing zone size for that project. Provisions were included in that modification to allow the mixing zone to be increased during each construction event, from 150 meters alongshore to 500 meters alongshore following two (2) exceedances in the alongshore direction. If an additional two (2) exceedances occurred at the 500-meter distance, the Department would authorize a mixing zone up to 1,000 meters alongshore. Similarly, two (2) exceedances in the offshore direction would increase the mixing zone to 300 meters in the offshore direction. There were concerns from the Permittee about delays and increased costs from construction shut-down due to turbidity exceedances and these provisions were included in that modification, specifically for that project. Furthermore, the 2014/2015 construction event was the first to utilize the reduced mixing zone size and data was not yet available to determine the necessity of increasing the mixing zone. Please note that these provisions are not standard conditions that will automatically be included in the water quality monitoring section of Joint Coastal Permits. The necessity will require justification and be evaluated and determined on a case-by-case basis.

Please provide the turbidity data from the mentioned construction event above from the Lido Key Beach Nourishment (0270032-001-JC) and make note of any exceedances and/or increases to the mixing zone size, as applicable. Any inclusion of the provisions mentioned above will need to be justified for consideration. The data should be organized into Excel.

For further guidance on determining the natural background variability of turbidity within the Outstanding Florida Waters (OFW), please contact Chiu Cheng at chiu.cheng@dep.state.fl.us.

Response to FDEP Comment No. 6 – The turbidity monitoring data from the 2015 Lido Key construction event is provided in Attachment No. 6 to this RAI response. There were no turbidity exceedances, or requests for increases to the mixing zone, which was likely due to the low wave conditions during dredging. Due to the size of the smaller dredging equipment on the 2015 project, the limitations of equipment required calm sea conditions with little to no wave action for the dredge to work safely and effectively. Since wave conditions are a large contributor to turbidity generation, the lack of exceedances is likely due to the low sea conditions



experienced during dredging. Fill placement under higher sea states will likely result in more turbid conditions. The size of the dredge operations for future projects is unknown and it is possible that larger dredges could be used that are able to withstand higher sea states. The applicants have the same concerns about delays and increased costs from construction shut-down due to turbidity exceedances for this project and request that the same provisions from the 2015 project for an expanded mixing zone be included in this permit based on the same justification provided to DEP from the previous project.

FDEP Comment No. 11. – Have you obtained approval from the Department of State, Division of Historical Resources? If yes, provide a copy of the letter of approval.

The Department requested this information on your behalf with the Division of Historical Resources (DHR), and received a response on April 15, 2015 (letter and enclosure attached).

There are 23 anomalies identified in the vicinity of the borrow areas. These anomalies need to be included in the permit drawings (#24). Furthermore, DHR has indicated that the anomalies and targets are potentially significant historic resources, and should all be avoided during construction and designated as no work zones, with the avoidance radii recommended in the Table 5-1 of the enclosure (150 or 170 feet buffer). Prohibited activities over these anomalies would include, but are not limited to, activities such as dredging, pipeline/equipment placement, anchoring or spudding, etc.

This information is required pursuant to Rule 18-21.004(2)(i), F.A.C., and Section 267.061, F.S.

Response to FDEP Comment No. 11 – The 23 anomalies identified in the vicinity of the borrow areas are included on the revised permit drawings (Attachment No. 24). The USACE is conducting further investigation of the anomalies to determine if avoidance and/or buffering is required. The buffers are included on the attached permit drawings, but their necessity will not be confirmed until USACE receives the results of the investigation. The results of the investigation will be provided to FDEP under separate cover once available.

FDEP Comment No. 12. – Has an Erosion Control Line (ECL) been established pursuant to Sections 161.141 - 161.211, F.S.? If yes, please provide evidence that the ECL has been recorded and show the location of the established ECL on all appropriate drawings.

An ECL has not been established along the portions of the beach from R-34.5 to R-35. The template will either need to be modified/reduced in size or an ECL will need to be established along this segment. The southern end of Lido Key, where the third groin would potentially be constructed, also does not already have an ECL (South of R-44.2). If the third groin is proposed at this time, the ECL will also need to be established for this project.



CB&I Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
Tel: +1 561 391 8102
Fax: +1 561 391 9116
www.CBI.com

For additional information on the procedures in establishing an ECL, please contact Guy Weeks at William.Weeks@dep.state.fl.us, or 850-245-7696.

Response to FDEP Comment No. 12 – The northern project limit has been revised to coincide with the established ECL. The north taper begins at R-35 as shown on the revised permit sketches (Attachment No. 24). The third groin is not proposed for this project as described above in the response to comment No. 5.

FDEP Comment No. 13. - A copy of the Division of State Lands title determination. If you do not have title determination, department staff will request that the Division of State Lands conduct a title check.

The Department requested this information on your behalf with the Division of State Lands and received a response on 3/31/2015. The State holds title to land seaward of the existing ECL.

This item is complete.

Response to FDEP Comment No. 13 - Acknowledged.

FDEP Comment No. 15. - A detailed statement describing the existing and proposed upland uses and activities. For projects sponsored by a local government, indicate whether or not the facilities will be open to the general public. Provide a breakdown of any user fees that will be assessed to the general public and indicate whether or not such user fees will generate revenue or will simply cover costs associated with maintaining the facilities.

In Attachment 15, the stated project area is R-3.45 to R-44. Please update with the correct R-monument.

Response to FDEP Comment No. 15 – The project limits are R-35 to R-44 as revised in Attachment No. 5.

FDEP Comment No. 16. - The information in this item is only required if you are applying for a sovereignty submerged lands easement or lease. A list of the names and addresses of owners of all riparian property within 1,000 feet (and within a 500 ft radius) of the proposed sovereignty submerged lands easement or lease site from the latest county tax roll. If the property is under cooperative or condominium ownership, the name and mailing address of the cooperative or condominium association will be adequate. This would not apply to off-shore leases or easements that are not located within 1,000 feet of the shoreline.

Since a public easement will be required for this project, notices must be sent to all affected riparian owners within 500-feet of the proposed public easement through certified mail. The Permit Number (0333315-001-JC) should be clearly indicated on the return receipt cards. The



CB&I Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
Tel: +1 561 391 8102
Fax: +1 561 391 9116
www.CBI.com

attached SLER 0905 Notice of Easement form should be mailed to each addressee. A one-page sketch showing the project and the components of the borrow areas and groins that will require the easement should also be included in the letter. A photocopy of all the return receipt cards should be submitted to the Department.

Your application will remain incomplete pending the receipt of this information.

This information is required pursuant to Rules 62B-41.008(1)(b) and 18-21.005(3), F.A.C.

Response to FDEP Comment No. 16 – The riparian owners notifications have been mailed. A copy of all the return receipt cards is provided in Attachment No. 16.

FDEP Comment No. 17. - A legal property description and acreage of any sovereign submerged land that would be encompassed by the requested lease or easement, plus two (2) prints of a survey prepared, signed and sealed by a person properly licensed by the Florida State Board of Land Surveyors.

A Public Easement is required for the proposed borrow areas and the proposed groin structures. Pursuant to Rule 18-21.009(1)(e), F.A.C., please submit two (2) hard copies of a professional sketch and legal description, that is prepared and signed and sealed by a Florida-licensed surveyor and mapper. In addition, the survey shall include the information listed in the attached easement sketch requirements (SLER 0960).

Response to FDEP Comment No. 17 – Two hardcopies of the signed and sealed easement sketches and legal descriptions for the two groins and three borrow areas are enclosed. Also, a scanned copy of the documents is being provided with the electronic submittal.

FDEP Comment No. 20. - Topographic and bathymetric survey drawings of the proposed project site(s), including profiles and a contour map that reflect conditions within the past six (6) months, in accordance with Rule 62B-41.008(1)(h), F.A.C. Drawings shall meet the State's minimum technical standards and shall be signed and sealed by the professional surveyor, duly registered pursuant to Chapter 472, Florida Statutes, who performed the survey.

This document needs include the signature and seal of a certified professional surveyor. If an electronic signature is not possible, two signed/sealed hardcopies will need to be mailed to the Department.

Your application will remain incomplete pending receipt of this information.

This information is required pursuant to Rule 62B-41.008(1)(h), F.A.C.

Response to FDEP Comment No. 20 – The Big Sarasota Pass survey was completed under the direction of a professional surveyor at the USACE Hydrographic Surveying Branch. The



USACE is a federal agency and does not provide signed and sealed drawings or documents. The Lido Key survey was conducted by CB&I and the survey drawing is signed and sealed. Both drawings were provided with the original application.

FDEP Comment No. 23/24. - Complete sets of construction plans and specification for the proposed activity, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. The plans shall clearly distinguish between existing and proposed structures and grades, and shall include the information contained below. In addition to the full-size drawings requested above, the information required under Paragraphs (20), (22) and (23) shall be provided on 8 1/2-inch by 11-inch paper, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. Each drawing shall include an accurate scale or dimensions, and all information shown on the drawing shall be clearly legible.

For clarification, Items 23a and b are not the same as the final plans and specifications that are submitted along with the Notice to Proceed request and used for construction purposes. The information requested below is required for completeness and should be included in the permit drawings (#24). Items #23 and #24 can be treated as one attachment (#24). Pursuant to Rule 62B-41.007(4), F.A.C., the Applicants shall provide the Department with certification by a professional engineer registered in the State of Florida that the permit drawings submitted as part of the permit application are in compliance with standards established in Chapter 62B-41, F.A.C. If the drawings cannot be electronically signed/sealed, then two (2) hardcopies will need to be mailed to the Department.

General comments on the Permit Drawings:

- *The OFW boundary needs to be marked on all applicable sheets, particularly on sheets 2, 7, 15-19.*
- *The existing groin structure at R-38.4 needs to be shown and labelled on the permit drawings.*
- *Construction staging and access areas need to be indicated on the drawings.*
- *The northern limit (tapering) of the fill template appears to encroach on top of vegetation. Is there any impacts to the vegetation or dune system anticipated for this project (sheet 4)?*
- *If the slope is modified, this will need to be reflected on applicable sheets/cross sections of the permit drawings. For specific comments on the beach berm slope design, please see item #5.*
- *A lateral view of the groin structures should also be provided, in addition to the landward-facing view provided on sheet 31. If the third terminal groin is proposed at*



this time, all of the information will also be required in the permit drawings prior to completeness. If the third groin is not approved at this time, a permit modification will be required to add it at a later time. See item #33a for additional information.

- *Information provided in the application (e.g., permit sketches, aerials, and natural community description) indicates that seagrasses are located within the proposed borrow areas. The construction plans indicate that a buffer will be established around the seagrass resources to avoid impacts, however the permit sketches do not show the proposed buffer that would be established to avoid impacts. A buffer around seagrass resources would need to be substantial in order to prevent impacts due to project-related turbidity and potential sloughing of materials around the seagrass habitat due to dredging of adjacent portions of the borrow areas beyond the buffer. Moreover, the inclusion of a buffer does not provide the Department with reasonable assurance that seagrass impacts would be avoided given the significant volumetric excavation that is proposed which could alter the elevation and mobility of sediments supporting seagrass resources. Please be advised, the Department requests a biological mitigation and monitoring plan to document and offset impacts to seagrass resources.*

Response to FDEP Comment No. 23 General Comments – The comments have been addressed in the revised permit sketches (Attachment No. 24). No impacts to vegetation or the dune system are anticipated for this project at the northern taper. A note has been added to the permit sketches to clarify that the landward limit of beach fill is the +4.0-ft NAVD contour or the seaward limit of vegetation, seawall or structure. Based on the aerial photography shown on the permit sketches, dune vegetation exists in the vicinity of Groin 2, which will have to be removed to install the structure. Please refer to the revised Project Description in Attachment No. 5.

A 100-ft buffer has been established around the seagrass mapped in September 2014 to avoid impacts due to project-related turbidity and potential sloughing of materials. Based on the bathymetry, the thickness of the cuts in the vicinity of seagrass is approximately 3-4 feet. Since the cuts are thin, the sloughing of the dredged area will be minor, and is accounted for as part of the 100-ft buffer. Also, we propose that turbidity sampling occur at the edge of the 150-m mixing zone or at the edge of seagrass, whichever is closer, in order to exclude seagrass from the mixing zone. No mitigation is proposed due to establishment of an avoidance buffer and the proposed turbidity sampling methods. A biological monitoring plan, which includes monitoring of buffered seagrass within the borrow areas and seagrass within 300 m beyond the borrow area limits, is being submitted with this RAI response as Attachment No. 37. For additional assurance, the modeling report examined the relative changes in morphology with and without excavation in Big Sarasota Pass. The analysis in the modeling report demonstrates stability of the shoal after dredging. Figures 126 and 127 present the difference in morphology between the project and no action scenarios. The region of the ebb shoal where seagrass exists shows no change in morphology relative to the "No Action" Alternative. Also, the bathymetry and mobility of sediments supporting seagrass resources is subject to change due to natural processes



unrelated to project construction. The presence and absence of seagrass in inlets and shoals can vary regardless of excavation or alteration of surrounding bathymetry.

The permit drawings were prepared by the USACE Engineering Division and are certified with the Design Authentication provided in Attachment No. 24. The USACE is a federal agency and does not provide signed and sealed drawings or documents.

This information is required pursuant to Rules 62B-41.008(1)(k) and 62B-41.007(4), F.A.C.

- a. Plan view of the proposed activity depicting the mean high water line (MHWL), any easement boundary and the erosion control line (if applicable) within the area of influence of the proposed activity. Identify the boundaries of significant geographical features (e.g., channels, shoals) and natural communities (e.g., submerged grass beds, hardbottom or mangroves) within the area of influence of the activity. Include a north arrow and a scale bar on each drawing.***
- ***The drawings indicate that borrow areas C and D overlap. Please clearly identify the boundaries of each borrow area.***
 - ***Please clearly identify the maximum dredge depth for each borrow area, including any overdredge, on the drawings.***

Response to FDEP Comment No. 23a. - Borrow areas C and D are intended to overlap in order to allow access to that area during the use of either of the borrow areas. In the life of this permit, the proposed borrow areas may or may not be dredged at the same time. The maximum excavation depth for all borrow areas is -13.5-ft NAVD with a 2-ft disturbance area to -15.5-ft NAVD.

This information is required pursuant to Rules 62B-41.008(1)(k)(1) and 62B-41.008(1)(q), F.A.C.

- b. A sufficient number of cross-section views of the proposed activity depicting the slopes, the MHWL, any easement boundary and the erosion control line (if applicable) within the area of influence of the proposed activity. Identify the boundaries of significant geographical features and natural communities in the area of influence of the proposed activity. Elevations indicated on the cross-sections shall be referenced to the North American Vertical Datum of 1988 (NAVD 88).***
- ***The identifiers (PL-XX) for the borrow areas do not match the cross-sections for those borrow areas. For example, the plates are labeled as PL-20 A-C, PL-21 D-F and PL-22 G and H. However, the cross sections show plates PL-16 A-C, PL-17 D and E, PL-18 F, PL-19 G and H. Please make sure the plate numbers correspond to the respective sections of each borrow area.***



- *Furthermore, the Key Plan on sheets 23-27 do not show borrow area D, and the PL-numbers are different from the Key Plan shown on sheets 16-19. Please keep the PL-designations consistent for each borrow area/segment throughout the drawings and update the drawings accordingly.*

Response to FDEP Comment No. 23b. - Please see the revised permit sketches attached.

This information is required pursuant to Rule 62B-41.008(1)(k)(2), F.A.C.

- c. Details of construction, including materials and general construction procedures and equipment to be used (e.g., construction access, dredging method, dredged material containment, pipeline location).*
- *Please describe the dredging method that will be used, and fully describe the contoured dredging approach that has been proposed for borrow area D.*
 - *Between Borrow Areas B, C, and D, there is an unknown volume of material available for beach placement. The volume provided from borrow areas B and C should provide approximately 1.285 million cubic yards (mcy), 335,000 cy more material than actually needed for the first nourishment project. Will all 3 borrow areas be used for this first event? What volume of material will be removed from each borrow area? Which sections of the borrow areas will be dredged? How much material is available in borrow area D?*
 - *Please provide a dredging plan for excavation of the borrow area material that provides the most efficient utilization of the entire volume of borrow area sediment over the course of the initial and subsequent beach nourishment projects throughout the lifetime of the 15 year permit. Borrow area sediment management should conserve the beach fill material remaining within the borrow area after completion of each nourishment event, and should be sufficient for at least two nourishment events. The dredging plan should specify the sequence of excavation areas within each borrow area such that the remaining material after each nourishment event will reside within the borrow area cut where it can be efficiently and economically excavated during subsequent events. The conservation of sand resources objective is to excavate all the available beach compatible sediment in such a manner that no significant quantity of material remains where it is not technically or economically feasible to extract during a subsequent event.*

Response to FDEP Comment No. 23c. – A hydraulic cutterhead dredge is likely to be used to excavate the proposed borrow areas. The contour approach for Borrow Area D was assessed in the modeling study (USACE, 2015) and based on an alternative outlined in the 2008 Sarasota County Comprehensive Inlet Management Program Big Pass and New Pass Management



Alternatives. Borrow area D generally follows the -13.5-ft NAVD contour on the Gulf side boundary of the borrow area. The contour dredging approach creates a more favorable response in the morphology by creating natural contours in that ebb shoal location. The model results suggested that by dredging the borrow area deeper than the existing contour, the borrow area will infill rapidly at the corners as the ebb shoal returns to a more natural state with gently sloping contours (USACE, 2015).

Please refer to the response to Comment No. 5 for the dredging events and volume of material in each borrow area. It should be noted that volume losses between the dredged and placed material are typical, therefore the borrow areas are designed to account for losses in order to have sufficient volume to fill the construction template. Also, please see the dredge plan in Attachment No. 23c.

FDEP Comment No. 27. - Permit applications for excavation or fill activities shall include the following detailed information concerning the material to be excavated and the existing or native material at the beach fill site:

- *Attachment 27 states that the nourishment will occur from R-35 to R-44 (1.56 miles of shoreline), which is inconsistent to the 1.6 miles (R-34.5 to R-44) stated in all other attachments. Please correct the inconsistency.*
- a. Site plans showing the location of all core borings and the boundaries of the area to be excavated.
- *Please justify the configuration of cut depths within borrow areas B, C and D, and clearly identify the location of the overlap of borrow area D2 and D3, as it is not shown or labelled on the permit drawings.*
- *Clearly identify the boundaries of borrow areas C and D, as they appear to overlap and have different dredge depths of -13.5 ft NAVD and -15.5 ft NAVD (with contour dredging), respectively. Borrow areas should not overlap, nor should there be multiple proposed cut depths for a given borrow area.*
- *The department requests that the marine contractor's final dredge plans be provided prior to construction.*
- *There are more core logs provided than cores shown on the map. Please submit a map showing all cores that have been collected for this project so the data can be spatially and correctly assessed.*

Response to FDEP Comment No. 27a – The updated compatibility analysis dated August 2015 is provided in Attachment No. 27. The updated borrow area description is provided in Attachment No. 5. Please refer to Attachment No. 23c Construction Details for further



information on the dredge plan. The contractor's specific dredge plan is typically discussed as part of the agency required pre-construction meeting. All core logs for the cores shown on the map are provided in Attachment No. 27.

- b. Core boring logs of all cores taken throughout the area to be excavated and surrounding area. Logs should extend at least two feet below the proposed bottom elevation. The depth of each visible horizon in the log should be reported relative to NAVD (88) and the material in each stratum classified according to grain size.

- *Several cores had a recovery of 80% or less (14 of the 28 cores). Please provide an explanation for these cores having recovery of 80% or less, as they were ultimately used in the design and characterization of the borrow areas and material. Be sure to include any possible complications or error.*
- *As there was 80% recovery or less in 14 of the cores, was any seismic data collected to determine the subsurface stratigraphy? If so, provide those data, and a summary of the results of those data.*
- *In order to better understand the material between each of the vibracores, please provide reasonable assurance that non-compatible material will not be encountered by providing a fence diagram of the cross sections along the borrow areas.*

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(a), F.A.C.

Response to FDEP Comment No. 27b – Vibracores were collected using a plastic tube with a sediment catcher on the bottom end. The tube is vibrated into the subsurface and after the final penetration depth is reached the vibracore tube is pulled up into the barge. Very fine material has the tendency to leak out of the bottom through the sediment catcher when pulled up through the water column. The industry standard procedure currently has no method to avoid that. However, since material is lost through the bottom, the upper portion adequately characterizes the material within the borrow area design template. No seismic data was collected. Fence diagrams are included in the compatibility analysis in Attachment No. 27.

- d. Carbonate content and percent organics by dry weight from representative stratum in each core. Chemical analyses shall be required if there is reason to suspect that the sediments are contaminated.
- *The Department acknowledges that a geotechnical study is underway, and this item would be provided at a later date. Please provide these data once the analysis is complete.*
 - *Please describe the nature of the carbonate material (i.e. is it shell fragments, shell hash, sand-sized material, silt-sized material?).*



Your application will remain incomplete pending receipt of this information.

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(a), F.A.C.

Response to FDEP Comment No. 27d – The nature of the carbonate is sand-sized shell as indicated in the description of the individual samples on the grain size analysis graphs (included in the compatibility analysis).

- e. Representative physical samples and particle size, color and carbonate content of the existing or native material at the beach fill site.
- ***The existing beach data provided was reported in 2008 (Finkl et al., 2008). Since the publication of the report, two nourishment projects have occurred on Lido Key in accordance with JCP Permit # 0270032-001-JC. Please provide updated existing beach data, including mean grain size, sorting, percent silt, percent shell and moist Munsell color.***

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(a), F.A.C.

Response to FDEP Comment No. 27e – Please see the updated compatibility analysis in Attachment No. 27.

- f. A sediment QA/QC plan that will ensure that the sediment to be used for beach restoration or nourishment will meet the standards set forth in paragraph 62B-41.007(2)(j), F.A.C.
- ***Silt content may contribute to financial costs and turbidity issues. Please provide a justification for the compliance values provided in Table 1 of the QA/QC plan, as they are not in agreement with the data submitted for this project. The requested percent silt and shell compliance values are 5% each; however when comparing to the two dredge options proposed, the percent silt and shell in the borrow area are less than 2% and less than 1%, respectively. Additionally, the existing beach (from Finkl et al, 2008) indicate percent silt and shell values of less than 1% each. Finally, the Munsell color of the borrow area material is, on average, 5Y 8/1, with only 2 occurrences of a value of 6.***
- ***The permit number should be included on the QA/QC plan.***
- ***Coordination should be made with the Department's coastal geologist, Dr. Jennifer Coor at Jennifer.Coor@dep.state.fl.us, to discuss the proposed track changes to the QA/QC plan. In particular, the requested track change to strike the certification of sediment analyses and volume calculations by a registered PG or PE in the state of***



CB&I Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
Tel: +1 561 391 8102
Fax: +1 561 391 9116
www.CBI.com

Florida is not consistent with Statute and Rule. This is required pursuant to Rule 62B-41, F.A.C and Chapters 471 and 472, F.S.

- ***Please update the FDEP contact information to reflect the accurate address of JCP compliance:***

***JCP Compliance Officer
Department of Environmental Protection
Division of Water Resource Management
Bob Martinez Building, MS 3566
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Phone: 850-245-7591
Email: JCPCompliance@dep.state.fl.us***

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(b), F.A.C.

Response to FDEP Comment No. 27f – The revised Sediment QA/QC Plan is provided in Attachment No. 27f. The 5% percent silt and shell compliance values included in Table 1 of the Sediment QA/QC plan are maximum values in accordance with DEP’s “Sand Rule” guidelines (Chapter 62B-41.007(2)j). The Lido Key QA/QC Plan follows the USACE template, which does not include site specific values. A few vibracores contain discrete layers with up to and higher than 5%, so the potential exists for a section of constructed beach to approach the 5% shell content parameter. However, the composite values for each vibracore are within the sand rule guidelines and the compatibility analysis shows that the material from the beach and the borrow area are very similar and compatible. The Munsell Color Value was changed to a 7 or higher.

The USACE is a federal agency and does not provide signed and sealed drawings or documents. If the testing is performed by the USACE, the sediment samples will be tested at a USACE verified laboratory and testing will be under the supervision of a P.E. or P.G. If the testing is not being performed by the USACE, the sediment testing results will be certified by a P.E or P.G. from the testing laboratory.

ROSSI

Submit all geotechnical information in electronic file format suitable for input to the Department’s Regional Offshore Sand Source Inventory (ROSSI) database.

- ***Please submit all geotechnical information in electronic file format suitable for input to the Department’s Regional Offshore Sand Source Inventory (ROSSI) database. The data may be submitted in Excel, Access, and/or gINT® files. The MS Access Front End Loader and gINT® files are available on the ROSSI website <http://ross.urs-tally.com/Downloads.aspx>.***



- *Please submit electronic spatial data of borrow area boundaries, core boring locations, and seismic track lines with time stamps and shot points, and .pdf files of seismic images with time stamp annotations. Spatial data are to be submitted in a georeferenced format, which may be the following: MicroStation (.dgn), AutoCAD (.dwg, .dxf), GIS (.shp, coverages, geodatabase, kmz, etc.).*

Response to FDEP Comment No. 27 ROSSI – The data was provided on August 28, 2015 and September 4, 2015 via email to Jenn Coor at the Department.

FDEP Comment No. 28. – Using an established natural community classification system, describe each natural community within the area of influence of the proposed activity and include:

- a. Acreage.
- b. Identification of the flora and fauna to the lowest taxon practicable.
- c. Characterization of dominant and important flora and fauna and estimates of percent biotic cover.
- d. Sampling locations, date of sampling or measurements and methods used for sampling.

Impacts to seagrass resources are expected due to the significant volumetric excavation that is proposed. Therefore, the Department requests additional information on the current status of resources within the influence of the proposed project; this information is required for the Department to evaluate project-related impacts to resources and to use the Uniform Mitigation Assessment Method (UMAM), in accordance with Chapter 62-645, F.A.C., to calculate the amount of mitigation that will be required to offset project-related impacts. Accordingly, the Department requests additional information on natural communities within the influence of the proposed project pursuant to Rules 62B-41.008(1)(q), and 18-21.004(2)(i) F.A.C.

What is the total acreage of seagrass in the project area, and what acreage of seagrass resources is present within each of the proposed borrow areas? What acreage of seagrass resources is located within the proposed mixing zone? Please provide additional information on the historical distribution (acreage estimates and maps) of seagrass within the project area. What is the maximum extent of seagrasses documented in the project area? What is the total acreage of the project area that has ever supported seagrass (present and historical coverage)?

Response to FDEP Comment No. 28 Part (i) – The permit sketches have been revised to include the 100-ft buffers around the seagrasses located in and near the borrow areas. With the inclusion of these buffers, no impacts to seagrass resources are anticipated. Please refer to Attachment No. 28 for additional information regarding seagrass and other natural communities located within the project vicinity, including the acreages of seagrasses located within each of the proposed borrow areas and the proposed mixing zone.

The Department requests additional information regarding the field methods that were used to evaluate seagrass within the project area. Attachment 28-1 contains a figure showing the



locations where divers verified towed-video survey data to determine the distribution and abundance (e.g., acreage and cover) of seagrass and hardbottom resources within the project area. The location of diver surveys in Figure 1 appears to conflict with other information provided in the field observation report. Specifically, the position of seagrass verification dives in Figure 1 does not correspond to the location of seagrass patches depicted in Figures 2a and 2b. Moreover, figures 6 and 7 show in-situ photographs of seagrasses patches that were not shown as having been diver-verified in Figure 1. Please provide a revised map showing all locations that were diver-verified. Please also provide information on the survey methods used to estimate the percent cover of seagrass within each patch. Was percent cover of seagrasses in the project area evaluated using standard Braun-Blanquet cover-abundance methods? How many quadrats were surveyed per patch?

Response to FDEP Comment No. 28 Part (ii) – The observation report provided as Attachment No. 28-1 with the JCP application included two figures intended to represent two different phases of the investigation. Figure 1 summarizes the planned survey area and methodology. It shows the entire investigation area, including the planned investigation sites that were determined based on previous resource investigations, sidescan survey data and review of aerials. Figure 1 also shows the lines that were surveyed (using towed video or towboard) to investigate these individual sites and to assess the entire survey area. Locations where seagrass was observed during the first phase of the survey (through towed video or towboard methods) were then diver-verified in the second phase of the survey. Figures 2a and 2b summarize the results of the diver-verification investigations, indicating in red the locations where seagrass was observed. These areas were recorded as a delineated edge (in areas where the seagrass extended beyond the investigation area), a mapped patch (when the patch fell entirely within the investigation area), or with a single coordinate on a small patch. These diver-verified patches shown on Figure 2 correspond to the descriptions and photos provided within the text. Seagrass was not observed at every planned seagrass investigation site shown on Figure 1; therefore, some of the planned survey sites shown in Figure 1 differ from the location of observed seagrass patches shown in Figure 2. Also, some areas of seagrass were observed during the towed video surveys that were not planned seagrass investigation sites, which also resulted in some differences between Figures 1 and 2. Figures 6 and 7 are examples of seagrass areas (Patches 9-14) that were located based on the towed video survey, and so these patches did not correlate with the planned investigation sites shown on Figure 1.

Percent cover on seagrass patches was estimated using the Braun-Blanquet cover abundance scale. One to three 0.5 m² quadrats were surveyed per patch (copies of field datasheets and a summary of the survey sites are provided under Attachment No. 28 in the folder entitled “Additional Data”).

Thank you for providing a tabular summary of the seagrass observations (Table 1, attachment 28-1); the Department also requests that you provide the mean and standard deviation of seagrass cover (total and by species) for each of the seagrass patches in-which visual estimates of seagrass percent cover were taken within quadrats. The Department would appreciate



access to any additional field data, photos and video that document the current condition of resources within the project area.

Response to FDEP Comment No. 28 Part (iii) – The Braun-Blanquet cover abundance scale was used *in situ* to document seagrass cover; therefore, only a category representing a range of percent cover was recorded. The scale is used to categorize seagrass percent cover and does not call for a specific percent cover estimate, as done in the BEAMR methodology, for example. By using the Braun-Blanquet method, only categorical data was recorded; therefore, means and standard deviations are not able to be calculated. Based on guidance received during a May 26, 2015 call with FDEP staff (pers. comm., J. Peterson, 2015), we have included a summary of quadrat data instead of the mean and standard deviation under Attachment No. 28 in the folder entitled “Additional Data”. Additional field data from the September 2014 survey, including copies of data sheets, a summary of the field investigations, photos collected at seagrass sites, and towed video files collected during the survey, are also provided in this folder.

In addition to seagrasses within the proposed borrow areas, hardbottom resources were also documented within the project area. Are hardbottom resources in the project area natural or was this material placed during a previous project, e.g., rip rap for shoreline stabilization?

Please provide additional information regarding natural hardbottom resources in the project area, including the acreage of hardbottom that is within the influence of the project (including the proposed mixing zone).

Response to FDEP Comment No. 28 Part (iv) – Rubble/rock was observed along the base of the seawall at the north end of Siesta Key. This appeared to be artificial material from previous projects that has been colonized by opportunistic benthic species, such as sponges (e.g. *Cliona celata*, *Pione lampa*), macroalgae (e.g., *Caulerpa* sp.), and octocorals (e.g. *Leptogorgia virgulata*). This material was located approximately 360 m (1180 ft) from the edge of Borrow Area C, outside the dredge mixing zone, and no hardbottom or rubble/rock was observed within the fill placement area or its associated mixing zone.

FDEP Comment No. 31. – A current Biological Opinion from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, when the Florida Wildlife Conservation Commission has determined that the proposed project will result in a take of marine turtles, which could not be authorized without an incidental take determination under federal law.

Please provide an updated Incidental Take and Biological Opinions from both the U.S. Fish & Wildlife Service and the National Marine Fisheries Service. The incidental take authorization should assess take due to construction of the groin as well as potential impacts to nesting and nearshore foraging sea turtles. This Opinion should include potential impacts to nearshore hard bottom habitats as well as impacts due to fill placement.



This authorization is not a completeness item, but will be required prior to issuance of a Notice to Proceed. Any necessary changes to the relevant specific conditions following the issuance of the final order would require a permit modification.

This information is required pursuant to Sections 379.2431 (1), 379.2431(1) and 373.414(1)(a)2., F.S., and Rules 18-21.004(2)(i), 62B-41.002(19)(d) and 62B-41.005(18), F.A.C.

Response to FDEP Comment No. 31 – Acknowledged. Copies of the Biological Opinions and consultation letters will be provided to FDEP.

FDEP Comment No. 33. –Analysis of the expected effect of the proposed activity on the coastal system including but not limited to:

- a. Analysis of the expected physical effect of the proposed activity on the existing coastal conditions and natural shore and inlet processes. The analysis should include a quantitative description of the existing coastal system, the performance objectives of the proposed activity, the design parameters and assumptions, relevant computations, validation of the results and the data used in the analysis.

The application indicates that the option of constructing a third, terminal groin will be based on the performance of the project as determined by the physical monitoring results. Please provide a quantitative description of the coastal conditions of Lido Key and performance of the project that would demonstrate the need for construction of the third, terminal groin. This information is required pursuant to Rule 62B-41.008(1)(f), F.A.C.

Based on current coastal conditions, USACE 2015 provides analysis of the expected physical effect of dredging the Big Sarasota Pass ebb shoal for initial construction of the Federal project. The application requested a permit for periodic dredging of the Big Sarasota Pass ebb shoal as a renewable sediment resource for beach nourishment. Please provide a quantitative description of the coastal conditions of Big Sarasota Pass and the adjacent beaches of Lido Key and Siesta Key, and performance of the project, that would indicate no adverse impacts to the coastal system and renewal of the sediment resource. Explain how the analysis in USACE 2015 is applicable to periodic dredging under these coastal conditions. This information is required pursuant to Rule 62B-41.008(1)(f), F.A.C.

Please provide a physical monitoring plan as required by Rule 62B-41.005(16), F.A.C. The monitoring plan should be sufficient for both the Permittees and Department to regularly observe and assess, with quantitative measurements, the performance of the project, the project's effects on the inlet tidal shoals and adjacent beaches and, in particular, to determine the appropriate location and volume of future dredging for



periodic maintenance of the project. The inlet monitoring plan should consolidate data collection, analysis and reporting of the physical monitoring of the New Pass dredging and beach placement of dredged material on Lido Key. As guidance for obtaining Department approval, the monitoring plan shall generally contain beach-offshore surveys of Lido Key, and the area of Siesta Key within the influence of the inlet; bathymetric surveys of New Pass and Big Sarasota Pass, including the navigation channel and entire shoal complex; an engineering report that shall summarize and discuss the data, the performance of the project, identify and analyze erosion and accretion patterns within the monitored area, and be the basis for determining the location and volume of future dredging material.

Response to FDEP Comment No. 33a – The terminal groin has been removed from this permit application. Please refer to the response to Comment No. 5.

The quantitative description of the coastal conditions of Big Sarasota Pass and the adjacent beaches of Lido Key and Siesta Key, and performance of the project that indicates no adverse impacts to the coastal system and renewal of the sediment resource is provided in the modeling study report (USACE, 2015) in Attachment No. 38-2. Please see Chapter 2 “Quantitative Analysis of Existing Data”, specifically the sediment budget that describes the state of present conditions of Big Sarasota Pass and the adjacent beaches of Lido Key and Siesta Key. For the analysis in the modeling report that is applicable to periodic dredging under these coastal conditions, please see Chapter 10 “Updated Sediment Budgets – Future Alternatives”, specifically the “Future With – Project D3*-C-B” sediment budget for the future expected condition of Big Sarasota Pass and the adjacent beaches of Lido Key and Siesta Key. Note that the borrow area D in the application is referred to as D3* in the modeling report.

The quantitative description of the performance of the project that indicates no adverse impacts to the coastal system is (1) no significant change to the sediment budget for adjacent beaches notwithstanding the project site itself and (2) refilling at the borrow sites in the ebb shoal such that sediment is available in borrow sites B, C and D during each 5 year re-nourishment interval.

The physical monitoring plan is provided in Attachment No. 33a. If New Pass is utilized as a borrow source in future nourishments, monitoring of the borrow source will follow the Physical Monitoring Plan for the associated permit (No. 0039755-003-JC).

- b. Analysis of the compatibility of the fill material with respect to the native sediment at the placement site. The analysis should include all relevant computations, the overfill ratios, and superimposed graphs of the cumulative grain-size distribution and the frequency distribution of the fill material over the data for the existing or native sediment at the placement site. Provide computations of borrow area volume and composite fill material characteristics (mean grain size and sorting, percent carbonate content) in an electronic spreadsheet.



- *The Department acknowledges that a final analysis of the compatibility of the fill material with respect to the native sediment at the disposal site will be provided upon completion of the geotechnical (sand source) investigation. Please update the compatibility analysis based on the data from the response to item #27e.*
- *Provide composite graphs of the grain-size distribution of the fill material and the existing or native sediment at the disposal site.*
- *Provide a cumulative frequency plot containing the dredge material and native beach composite for comparison.*
- *Please provide computations of borrow area volume and composite fill material characteristics (mean grain size and sorting, percent carbonate content) in an electronic spreadsheet.*

This information is required pursuant to Section 373.414(1), F.S., and Rule 62B-41.008(f), F.A.C.

Response to FDEP Comment No. 33b – Attachment No. 27 contains the updated compatibility analysis. Also, the composite graphs, cumulative frequency plot, and an electronic spreadsheet of the borrow area volume computations and composite fill characteristics is provided in Attachment No. 27.

- d. Analysis of how water quality and natural communities would be affected by the proposed project. Provide graphic representation (depiction) of the area of direct and secondary influence of the proposed activity and delineate the natural communities within that area. All required surveys shall be representative of conditions existing at the time of submittal. Surveys of submerged aquatic vegetation (SAV) shall be conducted in the field during the growing season for a given climatic region such that they capture the full areal extent and biomass of the SAV community. Species composition and spatial distribution shall also be addressed by the survey. Estimate the affected acreage of each impacted community.

Note: If a mixing zone is proposed, provide a narrative description and graphic representation of the mixing zone. Identify any areas within the proposed mixing zone that contain significant submerged resources. Explain why the size of the proposed mixing zone is the minimum necessary to meet water quality standards and provide justification for that size.

The Department requests a comprehensive analysis of all potential effects the proposed project may have on natural communities pursuant to Rules 62B-41.008(1)(q) and 18-21.004(2)(i) F.A.C. Please provide information (including graphical representation) on the area(s) within the direct and secondary influence of the project. Specifically, the



Department requests that you provide the acreage of each seagrass patch / hardbottom area within each of the proposed borrow areas and within the proposed mixing zone. Additionally, describe any potential secondary impacts to resources (e.g., temporary degradation or loss of function) that may result from "temporary elevated turbidity during dredging" per attachment 28. Given the dynamic nature of seagrass resources, please consider the potential future distribution of resources outside of the dredge footprint that may be influenced by subsequent maintenance dredging events.

Response to FDEP Comment No. 33d – Please refer to Attachment No. 28, which includes the acreage of seagrass within the project area and a figure showing the location of seagrass resources. No hardbottom is located within the proposed fill placement area, borrow areas, or mixing zones. In general, dredging projects could result in direct and secondary impacts to seagrass, including but not limited to removal, damage by placement of pipeline/equipment, anchoring and spudding, increased turbidity, sedimentation and sloughing-related impacts. However, this project will avoid impacts as described in response to comment No. 23 through the establishment of buffers and the proposed water quality monitoring plan. Pre- and post-construction seagrass biological monitoring is required as described in the draft biological monitoring plan provided in Attachment No. 37.

FDEP Comment No. 34. – Describe the location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all other measures used to minimize adverse effects to water quality.

Please see the response under item #6 for additional information.

The sampling frequency will be three (3) times per day, at least four (4) hours apart. The intermediate monitoring (if required) will occur over the same frequency.

Part of the project falls within the OFW. If the Applicants intend to utilize the provisions from Rule 62-4.242(2)(b)2., F.A.C., to determine the background variability of turbidity in OFW, this will need to be done prior to the completeness of this application. Otherwise, turbidity levels will not be authorized to exceed zero (0) NTUs at the edge of the established mixing zone within the OFW.

This information is required pursuant to Section 373.414(1), F.S., and Rule 62B-41.008(f), F.A.C.

Response to FDEP Comment No. 34 – The Water Quality Monitoring Plan has been updated with the sampling frequency above. Note that the plan does not allow the mixing zone to extend into the seagrass beds. The plan requires sampling to occur downcurrent of the turbidity source at the edge of the mixing zone or at the edge of the seagrass, whichever is closer.



The applicants request that the background variability of turbidity in the OFW be established at 12.6 NTUs using the value for the Longboat Key and Lido Key Beach Nourishment, FDEP Permit No. 0039755-003-JC. New Pass and Big Sarasota Pass inlets are hydraulically connected and border Lido Key on either side; therefore, the background variability in water quality can be assumed to be comparable. Given that a sampling effort at this proximity has already been conducted and reviewed and accepted by the FDEP for the existing permit, we request that this data be used.

FDEP Comment No. 37. – A narrative description of any proposed mitigation plans, pursuant to Rule 62-345, F.A.C., including purpose, a comparison between the functions of the impact site to the mitigation site, maintenance, monitoring, estimated cost, construction sequence and techniques. For proposed artificial reefs, indicate the water depth, depth of sand overlying bedrock, proposed relief and materials (type, size and shape).

The Department requests a biological mitigation and monitoring plan. Department staff in the Beaches, Mining and ERP Support program would be glad to assist the applicant in the preparation of this plan. Please contact Jennifer Peterson at Jennifer.M.Petesron@dep.state.fl.us with any questions regarding compensatory mitigation and monitoring for impacts to resources.

A mitigation plan to offset impacts to seagrass resources within the proposed borrow areas is requested by the Department.

Please provide a biological monitoring plan that provides reasonable assurance that the current condition of all natural communities that may be impacted by the project will be thoroughly characterized prior-to and following construction, and that any potential impacts to resources will be documented pursuant to Rule 62B-41.005(16), F.A.C. Please note, the Department typically requires monitoring of all resources located within (at least) 1000 feet of borrow areas. Given the dynamic nature of seagrass resources, the monitoring plan should consider the potential future distribution of resources outside of the dredge footprint that may be influenced by turbidity, sedimentation and sloughing associated with subsequent maintenance dredging events.

Response to FDEP Comment No. 37 – A draft seagrass biological monitoring plan is provided as Attachment No. 37. No impacts to seagrass are proposed at this time; therefore, no compensatory mitigation is required.

FDEP Additional Comments – Please publish the enclosed Notice of Application. Pursuant to Section 403.815, F.S. and Rule 62-110.106, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Application. This notice shall be published one time only within 14 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011



CB&I Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
Tel: +1 561 391 8102
Fax: +1 561 391 9116
www.CBI.com

and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department within seven (7) days of publication.

Response to FDEP Additional Comments – The Notice of Application was published April 29, 2015 and affidavit provided to the DEP May 1, 2015. The affidavit is also attached to this RAI response.

If you should have any questions, please contact me or Michelle Pfeiffer.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom P.", with a stylized flourish at the end.

Thomas P. Pierro, P.E., D.CE.
Director
CB&I Coastal Planning & Engineering, Inc.

cc: Alex Davisshaw, City of Sarasota
Milan Mora, USACE
Paul Karch, USACE
Jim Lagrone, USACE
Kelly Legault, USACE
Aubree Hershorin, USACE
Barbara Nist, USACE
Erica Summa, USACE
Michelle Pfeiffer, P.E., CB&I
Lauren Floyd, CB&I
Erica Carr-Betts, CB&I

Enclosure